**As filed with the Securities and Exchange Commission on December 14, 2017**

**Registration No. 333-221746**

**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**Washington, D.C. 20549**

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**Amendment No. 3**
**to**
**FORM S-1**
**REGISTRATION STATEMENT**
**UNDER THE SECURITIES ACT OF 1933**

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# AKERS BIOSCIENCES, INC.

(Exact Name of Registrant as Specified in its Charter)

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| New Jersey | 2835 | 22-2983783 |
|---|---|---|
| (State or other jurisdiction of incorporation or organization) | (Primary Standard Industrial Classification Code Number) | (I.R.S. Employer Identification No.) |

**201 Grove Road**
**Thorofare, New Jersey USA 08086**
**(856) 848-8698**

(Address, including Zip Code, and Telephone Number,
including Area Code, of Registrant's Principal Executive Offices)

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**John J. Gormally**
**Chief Executive Officer**
**Akers Biosciences, Inc.**
**201 Grove Road**
**Thorofare, New Jersey USA 08086**
**(856) 848-8698**

(Name, Address, including Zip Code, and Telephone Number,
including Area Code, of Agent for Service)

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**Copy to:**

| | |
|---|---|
| **Joseph M. Lucosky, Esq.**<br>**Lucosky Brookman LLP**<br>**101 Wood Avenue South**<br>**Woodbridge, NJ 08830**<br>**(732) 395-4400** | **Anthony J. Marsico, Esq.**<br>**Mintz, Levin, Cohn, Ferris,**<br>**Glovsky and Popeo, P.C.**<br>**666 Third Avenue**<br>**New York, NY 10017**<br>**(212) 935-3000** |

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

| | |
|---|---|
| Large Accelerated Filer ☐ | Accelerated Filer ☐ |
| Non-Accelerated Filer ☐ | Smaller Reporting Company ☒ |
| | Emerging growth company ☒ |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☐

**CALCULATION OF REGISTRATION FEE**

| Title of Each Class of Securities to be Registered | Proposed Maximum Aggregate Offering Price[1] | Amount of Registration Fee |
|---|---|---|
| Class A Units Consisting of: | $ 3,450,000 | $ 429.53 |
| (i) Common Stock, no par value per share[2] | | |
| (ii) Warrants to purchase Common Stock[3] | | |
| Class B Units Consisting of: | | |
| (i) Series B Convertible Preferred Stock, no par value per share | $ 3,450,000 | $ 429.53 |
| (ii) Warrants to Purchase Common Stock[3] | | |
| (iii) Common Stock issuable upon conversion of the Series B Convertible Preferred Stock, no par value per share[2][4] | | |
| Common Stock issuable upon the exercise of the Warrants to purchase Common Stock[2] | $ 8,625,000 | $ 1,073.81 |
| Underwriter's Warrants to Purchase Common Stock[2] | | |
| Common Stock Underlying Underwriter's Warrants[3][5] | $ 375,000 | $ 46.69 |
| Total | $ 15,900,000 | $ 1,979.55[6] |

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act"). Includes shares and warrants to be sold upon exercise of the underwriter's option to purchase additional shares and warrants. See "Underwriting."

(2) Pursuant to Rule 416 under the Securities Act, the shares of common stock registered hereby also include an indeterminate number of additional shares of common stock as may from time to time become issuable by reason of stock splits, stock dividends, recapitalizations or other similar transactions.

(3) In accordance with Rule 457(g) under the Securities Act, because the shares of common stock underlying the warrants are registered hereby, no separate registration fee is required with respect to the warrants.

(4) No separate fee is required pursuant to Rule 457(i) under the Securities Act.

(5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The underwriter's warrants are exercisable at a per share exercise price equal to 125% of the public offering price per share of common stock. The proposed maximum aggregate offering price of the underwriter's warrants is $375,000, which is equal to 125% of $300,000 (5% of $6,000,000).

(6) Previously paid.

**Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with section 8(A) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the commission, acting pursuant to said section 8(A), may determine.**

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

**PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED DECEMBER 14, 2017**

# 7,692,308 Class A Units Consisting of Common Stock and Warrants and 3,000 Class B Units Consisting of Series B Convertible Preferred Stock and Warrants (and 7,692,308 shares of common stock underlying shares of Series B Convertible Preferred Stock and 7,692,308 shares of common stock underlying Warrants)


We are offering an aggregate of 7,692,308 Class A Units consisting of one share of our common stock and one warrant to purchase one share of our common stock, at an exercise price equal to 125% of the public offering price of the Class A Units per share of common stock, which warrants will be exercisable upon issuance and will expire five years from date of issuance. The shares of common stock and warrants that are part of a Class A Unit are immediately separable and will be issued separately in this offering.

We are also offering to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing Class A Units, to purchase Class B Units. Each Class B Unit will consist of one share of our newly designated Series B Convertible Preferred Stock, or the Series B Preferred, with a stated value of $1,000 and convertible into shares of our common stock at the public offering price of the Class A Units, together with the equivalent number of warrants as would have been issued to such purchaser of Class B Units if they had purchased Class A Units based on the public offering price. The Series B Preferred do not generally have any voting rights unless and until converted into shares of common stock. The shares of Series B Preferred and warrants that are part of a Class B Unit are immediately separable and will be issued separately in this offering.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series B Preferred shares convert their shares to common stock.

Our common stock is currently listed on The Nasdaq Capital Market ("NASDAQ") under the symbol "AKER". On December 12, 2017, the last reported sale price for our common stock on NASDAQ was $0.39 per share. Our common stock is also currently traded on the AIM market of the London Stock Exchange, or AIM, under the symbol "AKR.L". Shares traded under the "AKR.L" symbol are deemed to be unrestricted by the AIM market. At present, there is a very limited market for our common stock in the AIM market. We intend to continue trading on AIM upon completion of this offering. The public offering price per Class A Unit will be determined between us and the underwriter based on the closing price of our common stock on the pricing date and market conditions at the time of pricing, and may be at a discount to the current market price.

Assuming an offering price of $0.39 per Class A unit, the Series B Preferred included in the Class B Units will be convertible into an aggregate total of 7,692,308 shares of Common Stock and the Warrants included in the Class B Units will be exercisable for an aggregate total of 7,692,308 shares of Common Stock.

There is no established public trading market for the warrants or the Series B Preferred and we do not expect an active trading market to develop. We do not intend to list the warrants or the Series B Preferred on any securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Series B Preferred will be limited.

We are an "emerging growth company" as the term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for future filings.

**Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 10 of this prospectus for a discussion that should be considered in connection with an investment in our common stock.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if the prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

| | Per Class A Unit | Per Class B Unit | Total |
|---|---|---|---|
| Public offering price | $ | $ | $ |
| Underwriting discounts and commissions[(1)] | $ | $ | $ |
| Proceeds to us, before expenses | $ | $ | $ |

(1) The underwriter will receive compensation in addition to the discounts and commissions. See "Underwriting" for a full description of compensation payable to the underwriter.

We have granted a 45-day option to the underwriter to purchase a maximum of 2,307,692 additional shares of common stock (15% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series B Preferred included as part of the Class B Units sold in this offering) and warrants to purchase a maximum of 2,307,692 shares of common stock (15% of the warrants included as part of the Units sold in this offering), solely to cover over-allotments, if any.

The underwriter expects to deliver the securities against payment therefor on or about , 2017.

# Joseph Gunnar & Co.

The date of this prospectus is , 2017.

akers bio

Akers Bio develops, manufactures, and supplies rapid, point-of-care screening and testing products designed to bring health-related information directly to the patient or clinician in a time- and cost-efficient manner. Akers believes it has advanced the science of diagnostics through the development of several proprietary platform technologies that provide product development flexibility.

| Technology Platform | Description | Product Example |
|---|---|---|
| **MPC™** - Micro Particle Catalyzed Biosensor | *Permits the rapid determination of biomarkers in breath condensate* |   |
| **PIFA®** - Particle ImmunoFiltration Assay | *Selective filtration of microparticles in response to antibody / antigen binding* |   |
| **seraSTAT®** | *Rapid production of Serum from Whole Blood in minutes through the use of membrane technology* |   |
| **REA™** - Rapid Enzymatic Assay | *Detection of blood and urine metabolites through enzymatic chemistries in quantitative or semi-quantitative formats* |   |

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**You should rely only on information contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We have not, and the underwriter has not, authorized anyone to provide you with additional information or information different from that contained in this prospectus or in any free writing prospectus. Neither the delivery of this prospectus nor the sale of our securities means that the information contained in this prospectus or any free writing prospectus is correct after the date of this prospectus or such free writing prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful or in any state or other jurisdiction where the offer is not permitted.**

**No person is authorized in connection with this prospectus to give any information or to make any representations about us, the securities offered hereby or any matter discussed in this prospectus, other than the information and representations contained in this prospectus. If any other information or representation is given or made, such information or representation may not be relied upon as having been authorized by us.**

Neither we nor the underwriter have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You are required to inform yourself about, and to observe any restrictions relating to, this offering and the distribution of this prospectus.

This prospectus may include market and industry data that has been obtained from third party sources, including industry publications, as well as industry data prepared by our management on the basis of its knowledge of and experience in the industries in which we operate (including our management's estimates and assumptions relating to such industries based on that knowledge). Internally prepared and third party market forecasts, in particular, are estimates only and may be inaccurate, especially over long periods of time. References in this prospectus to any publications, reports, surveys or articles prepared by third parties should not be construed as depicting the complete findings of the entire publication, report, survey or article. The information in any such publication, report, survey or article is not incorporated by reference in this prospectus.

## PROSPECTUS SUMMARY

*This summary highlights selected information appearing elsewhere in this prospectus. While this summary highlights what we consider to be important information about us, you should carefully read this entire prospectus before investing in our common stock, especially the risks and other information we discuss under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operation" and our consolidated financial statements and related notes beginning on page F-1. Our fiscal year end is December 31 and our fiscal years ended December 31, 2015, 2016, and 2017 are sometimes referred to herein as fiscal years 2015, 2016 and 2017, respectively. Some of the statements made in this prospectus discuss future events and developments, including our future strategy and our ability to generate revenue, income and cash flow. These forward-looking statements involve risks and uncertainties which could cause actual results to differ materially from those contemplated in these forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements". Unless the context provides otherwise, all references herein to "Akers", "ABI", "Akers Bio", the "Company", "we", "our" and "us" refer to Akers Biosciences, Inc. "£" refers to the British Pound.*

*This prospectus assumes the over-allotment option of the underwriter has not been exercised, unless otherwise indicated.*

### Overview

Akers Bio develops, manufactures, and supplies rapid, point-of-care screening and testing products designed to bring health-related information directly to the patient or clinician in a time- and cost-efficient manner. Akers believes it has advanced the science of diagnostics through the development of several proprietary platform technologies that provide product development flexibility.

All of Akers' rapid, single-use tests are performed *in vitro* (outside the body) and are designed to enhance patient well-being and reduce total outcome costs of healthcare. The Company's current product offerings and pipeline products focus on delivering diagnostic assistance in a wide variety of healthcare fields/specialties, including cardiology/emergency medicine, metabolism/nutrition, diabetes, respiratory diseases and infectious diseases detection, as well as for on and off-the-job alcohol safety initiatives.

Akers believes that low-cost, unit-use testing not only saves time and money, but also allows for more frequent, near-patient testing which may save lives. We believe that Akers' FDA-cleared rapid diagnostic tests help facilitate targeted diagnoses and real-time treatment. We also believe that Akers' rapid diagnostic tests surpass most other current diagnostic products with their flexibility, speed, ease-of-use, readability, low cost and accuracy. In minutes, detection of disease states and medical conditions can be performed from single-patient specimens, without sacrificing accuracy.

We believe the use of rapid tests, which can be performed at the point-of-care when and where the patient is being consulted, can allow for immediate diagnostic decisions and subsequent treatment regimens and is an important development in the practice of medicine. Point-of-care testing addresses today's challenges in the healthcare industry, such as:

- cost pressures/efficiency of healthcare delivery;
- need for fast, easy to use, accurate at-home tests for individuals to monitor their personal health and wellness;
- need for affordable mass screening tests for key infectious diseases, cardiac conditions, and metabolic markers; and
- public health needs in developing countries lacking basic health infrastructure.

Recently, the Company has developed tests for non-medical use within the health and wellness industry. These tests will monitor general markers of health and wellness as they relate to diet, nutrition and exercise programs.

### Strategy

Akers' strategy is to target carefully chosen, high margin market segments within the diagnostics industry where (i) existing tests do not meet clinical requirements, or (ii) where an emerging, unfulfilled need has been identified. The

Company seeks to develop tests for applications based on their ability to compliment a particular treatment, lifestyle or testing regimen that requires a time and cost-efficient diagnostic alternative or solution. Akers utilizes its existing platform technologies to internally develop its new products as the Company's proprietary methods.

Akers has established and will continue to pursue distribution relationships with high volume, medical and health & wellness product marketers to maximize its revenue potential, and to be a worldwide competitor in specialized markets within the diagnostics industry.

Akers has developed and continues to develop key strategic relationships with established companies with well-trained technical sales forces and strong distribution networks in the following key market segments:

- Clinical Laboratories;
- Physicians' Office and Urgent Care Clinics;
- Retail;
- Nutraceutical Suppliers; and
- Health and Fitness.

The Company plans to target other markets, such as aid organizations seeking rapid infectious disease tests. Additionally, we plan to target biotechnology companies or pharmaceutical manufacturers that may require companion tests to promote patient compliance with a medication regimen or facilitate initial screenings to qualify patients for a particular therapy.

**Product Portfolio**

Akers is positioned as a provider of rapid diagnostic solutions that encompass the totality of the point-of-care testing process, from sample preparation to immediate test result. In addition, we believe we are a pioneer in disposable breath condensate technology, a testing format that has significant potential given the variety of wellness-and disease-predicting biomarkers present in an exhaled breath sample.

At present, Akers' commercialized and emerging product portfolio incorporates four of the Company's six proprietary platform testing technologies: PIFA®, MPC Biosensor, REA and Rapid Blood Cell Separation Technology. Directly below, is a discussion of the products within our current and emerging portfolio that will be segmented by platform.

Akers designed its products based on single-use assay platforms with straightforward test procedures that can be completed in minutes. In the U.S. some of the Company's clinical laboratory products and those with medical intended uses generally require "prescription use" Federal Drug Administration ("FDA") 510(k) clearance prior to product marketing given that they will be ordered or used by medical practitioners in the course of his or her professional practice. Despite this categorization, Akers' professional use products are still designed for ease of use, can be utilized near or at the point-of-care, and do not require the use of expensive equipment or a highly trained or specialized staff. As a result, an individual's current health status can rapidly be incorporated into diagnostic and treatment decisions, improving the overall efficiency of the healthcare experience for the patient, and ultimately the payor. In addition, in the developing world, the portability and ease-of-use of such point-of-care tests can serve to drastically improve the level of disease screening and subsequent patient care. We believe the benefits of our technology platforms are therefore well-suited to the diagnostic demands of countries in the developing world that seek to deliver modern medical diagnosis with limited medical infrastructure. In addition, some of our products have received FDA 510(k) clearance for over-the-counter ("OTC") use. Other self-tests deliver personal health information of a non-medical nature, on-demand, and are not FDA regulated; these products are still manufactured in compliance with its ISO 13485 quality management system ("QMS-Compliant"). Akers believes that all its technology platforms and products address the needs of the evolving healthcare delivery system that is moving patient care closer to or in the home.

The following table sets forth our marketed and current pipeline products, identifies the appropriate "prescription use" or "OTC" designation and whether the required clearance has been obtained or is still needed prior to product marketing.

Our marketed and emerging products include:

| Product | Platform | Marketed/Pipeline | Not FDA-regulated; QMS-Compliant Only | FDA Clearance Required *Prescription Use/OTC* | FDA Clearance Status Obtained/Needed | Description |
|---|---|---|---|---|---|---|
| BreathScan™ | MPC | Marketed | | OTC | Obtained | Disposable breath alcohol detector |
| BreathScan® PRO | MPC | Marketed | | OTC | Obtained | Quantitative breath alcohol detection system |
| Breath Diabetic Ketoacidosis® | MPC | Pipeline | | Prescription Use | Needed | Disposable breath ketone device for diabetic monitoring |
| METRON® | MPC | Marketed | | Health and wellness | n/a | Disposable breath ketone device to monitor ketosis |
| Breath PulmoHealth "Check"® | MPC | Pipeline | | Prescription Use | Needed | A suite of breath tests for biomarkers indicating asthma, chronic obstructive pulmonary disease (COPD), and lung cancer |
| BreathScan Lync | MPC | Marketed | | Health and wellness | n/a | Non-invasive, quantitative measurement of biological markers for health and wellness |

| Product | Platform | Market/Pipeline | Not FDA-regulated; QMS-Compliant Only | FDA Clearance Required *Prescription Use/OTC* | FDA Clearance Status Obtained/Needed | Description |
|---|---|---|---|---|---|---|
| PIFA® Heparin/PF4 & PIFA PLUSS® PF4 | PIFA | Marketed | | Prescription Use | Obtained | Rapid tests for Heparin/PF4 antibodies to detect an allergy to the widely used blood thinner, Heparin |
| PIFA PLUSS® Chlamydia | PIFA | Pipeline | | Prescription Use | Needed | Rapid tests for the most prevalent sexually transmitted disease |
| seraSTAT® | seraStat | Marketed | | Prescription Use | Obtained | Rapid Blood Cell Separator, marketed under the brand name seraSTAT®, further accelerates the rate at which a test result is obtained as the often-required sample preparation step is abbreviated drastically. |
| Tri-Cholesterol "Check"® | REA | Marketed | | OTC | Obtained | Rapid test for Total and high density lipoprotein cholesterol and estimates low density lipo protein |
| *BreathScan OxiCHek* | MPC | Marketed | | Health and wellness | n/a | Breath test for oxidative stress using the Lync reader and digital app |

| | | | | | |
|---|---|---|---|---|---|
| BreathScan KetoChek | MPC | Pipeline | Health and wellness | n/a | Breath test for ketosis using the Lync reader and digital app |

**How We Generate Revenue**

The majority of our revenue comes from selling rapid, screening and testing products, largely through our distribution networks. Some of our assays are used in the clinical laboratory to ultimately help healthcare professionals to diagnose a medical condition or complication that may require treatment. Other products can be sold over-the-counter, to the general public, to help assess an individual's status as it relates to his/her blood alcohol or cholesterol level, to help monitor his/her progress on a specific wellness regimen, and/or to screen for a biomarker that may be indicative of an individual's general level of health. Some of our revenue is associated with licensing payments that may relate to exclusive access to specific markets.

**Our Current Target Markets**

Regarding the Company's test for the heparin drug allergy, the testing market largely resides within the clinical hospital laboratories of medical facilities. In the U.S., the Company accesses decision makers within these institutions through profiling by its highly trained technical sales team and collaborative prospecting with distributor sales representatives. Internationally, Akers provides comprehensive training to its distributor partners which will enable them to implement the same selling and technical training strategies.

The markets for alcohol breathalyzers are reached through a network of large and small distributors. These markets include industrial safety, education, law enforcement, social responsibility and retail.

The health and wellness markets include MLM nutraceutical companies, fitness centers and diet and weight loss centers.

**Our Risks and Challenges**

An investment in our securities involves a high degree of risk including risks related to the following:

- ***We have a history of operating losses and we cannot guarantee that we can ever achieve sustained profitability.***
- ***Due to our dependence on a limited number of customers, we are subject to a concentration of credit risk.***
- ***Because we may not be able to obtain necessary regulatory clearances or approvals for some of our products, we may not generate revenue in the amounts we expect, or in the amounts necessary to continue our business.***
- ***The commercial success of our products will depend upon the degree of market acceptance by physicians, hospitals, third-party payors, and others in the medical community.***
- ***We are subject to inspection and market surveillance by the FDA to determine compliance with regulatory requirements. If the FDA finds that we have failed to comply, the agency can institute a wide variety of enforcement actions which may materially affect our business operations.***
- ***We rely on key executive officers, and their knowledge of our business and technical expertise would be difficult to replace.***

**Recent Developments**

*Warrant Exercise Agreements*

On October 12, 2017 (the "Closing Date"), the Company entered into Warrant Exercise Agreements (the "Exercise Agreements") with holders (the "Exercising Holders") of its outstanding warrants to purchase up to 724,200 shares of common stock of the Company issued in March 2017 (collectively, the "Original Warrants") whereby the exercising holders and the Company agreed that the holders would, subject to beneficial ownership limitations on exercise contained in the Original Warrants, exercise all of the Original Warrants. The Company received aggregate gross proceeds before expenses of approximately $724,200 and issued an aggregate of 724,200 shares of Common Stock (the "Exercise Shares") from the exercise of all of the Original Warrants by the exercising holders. In order to induce

the Exercising Holders to exercise the Original Warrants, the Company agreed to reduce the exercise price on such warrants from $1.96 to $1.00 per share.

The Original Warrants and Exercised Shares were registered pursuant to the Company's Registration Statement on Form S-3 (File No. 333-217390), filed with the U.S. Securities and Exchange Commission (the "SEC") under the Securities Act, including Amendment No. 1, thereto, which became effective on June 30, 2017.

In connection with the exercise of the Original Warrants, the Company issued an additional warrant to each Exercising Holder for the number of shares of Common Stock equal to one hundred percent of the number of exercised shares purchased by such Exercising Holder (the "Warrant Shares"), with an exercise price of $1.26 per share (each, an "Additional Warrant", and collectively, the "Additional Warrants"). The Additional Warrants are substantially identical to the Original Warrants, except that the exercise price of the Additional Warrant is $1.26 and such warrant is not exercisable for six months after issuance.

**Company Information**

The Company was incorporated under the laws of the State of New Jersey on March 9, 1989 under the name A.R.C. Enterprises, Inc. The Company changed its name to Akers Research Corporation on September 28, 1990. On February 24, 1996 the Company changed its name from Akers Research Corporation to Akers Laboratories, Inc. On March 26, 2002 the Company changed its name to Akers Biosciences, Inc. The Company was co-founded by the current Executive Chairman of the Board of Directors (the "Board"), Raymond F. Akers, Jr., PhD.

On May 22, 2002, the Company was first admitted and commenced trading of its shares on the Alternative Investment Market of the London Stock Exchange ("AIM") and currently trades under the symbols "AKR.L". Our executive offices are located at 201 Grove Road Thorofare, New Jersey USA 08086, and our telephone number is (856) 848-8698. Our website address is *www.akersbio.com*. Information contained in our website does not form part of the prospectus and is intended for informational purposes only.

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- being permitted to provide only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure obligations regarding executive compensation arrangements;
- not being required to hold a non-binding advisory vote on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We have elected to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) of the JOBS Act. This election allows us to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. As a result of this election, our financial statements may not be comparable to companies that comply with public company effective dates.

We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year (a) following the fifth anniversary of the date we completed our initial public offering, which was January 23, 2014, (b) in which we have total annual gross revenue of at least $1.07 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeded $700.0 million as of the prior June 30th, or (ii) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

We refer to the Jumpstart Our Business Startups Act of 2012 in this prospectus as the "JOBS Act," and references in this prospectus to "emerging growth company" have the meaning associated with that term as used in the JOBS Act.

Notwithstanding the above, we are also currently a "smaller reporting company" meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have a public float of less than $75 million and annual revenues of less than $50 million during the most recently completed fiscal year. In the event that we are still considered a smaller reporting company at such time as we cease to be an emerging growth company, the disclosure we will be required to provide in our filings with the SEC will increase, but will still be less than it would be if we were not considered either an emerging growth company or a smaller reporting company. Specifically, similar to emerging growth companies, smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), requiring that independent registered public accounting firms provide an attestation report on the effectiveness of their internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in their annual reports.

**THE OFFERING**

| | |
|---|---|
| **Class A Units offered:** | 7,692,308 Class A Units with each Class A Unit consisting of one share of our common stock and a warrant to purchase one share of our common stock at an exercise price equal to 125% of the public offering price of the Class A Units per share of common stock. The Class A Units will not be certificated and the shares of common stock and warrants that are part of such units will be immediately separable and will be issued separately in this offering. |
| **Offering Price per Class A Unit** | $[ ] combined price for each Class A Unit. |
| **Class B Units offered:** | 3,000 Class B Units are also being offered to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering. Each Class B Unit will consist of one share of our Series B Preferred, with a stated value of $1,000 and convertible into shares of our common stock, at the public offering price of the Class A Units, together with the equivalent number of warrants as would have been issued to such purchaser if they had purchased Class A units based on the public offering price. The Series B Preferred generally do not have any voting rights but are convertible into shares of common stock. The Class B Units will not be certificated and the shares of Series B Preferred and warrants that are part of such units are immediately separable and will be issued separately in this offering. |
| **Offering Price per Class B Unit** | $1,000 combined price for each Class B Unit. |
| **Warrants** | Each warrant included in the Units will have an exercise price equal to 125% of the public offering price of the Class A Units per share of common stock, will be exercisable upon issuance, and will expire five years from the date of issuance. |
| **Series B Convertible Preferred Stock:** | The Series B Preferred will be convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder, at the public offering price of the Class A Units. See "Description of Securities — Preferred Stock — Series B Convertible Preferred Stock" for a discussion of the terms of the B Preferred. |
| **Over-allotment option:** | We have granted a 45-day option to the underwriter to purchase a maximum of 2,307,692 additional shares of common stock (15% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series B Preferred included as part of the Class B Units sold in this offering) and warrants to purchase a maximum of 2,307,692 shares of common stock (15% of the warrants included as part of the Units sold in this offering), solely to cover over-allotments, if any. |
| **Common stock outstanding after this offering:** | 17,612,860 shares. If the underwriter's over-allotment option is exercised in full, the total number of shares of our common stock outstanding immediately following the option exercise will be 19,920,552 shares. Excludes shares of common stock that may be issued upon exercise of the warrants. |
| **Series B Convertible Preferred Stock Outstanding after this offering:** | 3,000 Series B Preferred shares. |
| **Use of Proceeds:** | We estimate that the net proceeds from our sale of shares of our common stock in this offering will be approximately $5.4 million, or approximately $6.2 million if the underwriter's over-allotment option is exercised in full, at an assumed public offering price of $0.39 per Class A Unit and $1,000 per Class B Unit, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. |

| | |
|---|---|
| | We expect to use the net proceeds of this offering for general corporate purposes, including working capital, product development, marketing activities, expanding our internal sales organization and further developing sales channels and other capital expenditures. |
| **Risk Factors:** | See the section entitled "Risk Factors" beginning on page 10 for a discussion of factors to consider carefully before deciding whether to purchase shares of our common stock. |
| **NASDAQ Capital Market Symbol:** | AKER. There is no established public trading market for the Warrants or Series B Preferred, and we do not expect an active trading market to develop. We do not intend to list the warrants or the Series B Preferred on any securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Series B Preferred will be limited. |
| **AIM Symbol** | AKR.L |
| **Lock-up:** | We have agreed with the underwriter not to offer for sale, issue or sell, or register for offer or sale, any of our common stock or securities convertible into our common stock for a period of 180 days after the date of this prospectus, subject to certain exceptions. In addition, our directors and officers agreed with the underwriter not to offer for sale, issue, sell, contract to sell, pledge or otherwise dispose of any of our common stock or securities convertible into common stock for a period of 180 days after the date of this prospectus. See "Underwriting" section on page 92. |

The number of shares of common stock to be issued and outstanding after this offering is based on 9,920,552 shares of common stock issued and outstanding as of December 12, 2017, and excludes:

- 1,054,893 shares reserved for future issuances under our 2017 Equity Incentive Plan (the "2017 Plan"). All future grants will be made pursuant to the 2017 Plan at the market price per share on the date of issuance;
- 255,000 shares reserved for outstanding stock options issued under our 2013 Stock Incentive Plan (the "2013 Plan") as amended; and
- 1,490,570 shares issuable upon exercise of outstanding warrants weighted average exercise price of $1.39 per share.
- 7,692,308 shares of our common stock issuable upon exercise of the warrants to be issued in this offering;
- 7,692,308 shares of our common stock issuable upon conversion of the Series B Preferred to be issued in this offering; and
- 769,231 shares of our common stock issuable by the Company upon exercise of the underwriter's warrants (5% of the shares of common stock sold in this offering, including shares issuable upon conversion of the Series B Preferred Stock but excluding any securities sold upon exercise of the underwriter's over-allotment option or shares issuable upon exercise of the warrants).
- The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series B Preferred shares convert their shares to common stock.
- To the extent we sell any Class B Units in this offering, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series B Preferred issued as part of the Class B Units.

Except as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, assumes no exercise by the underwriter of their over-allotment option.

## SUMMARY FINANCIAL DATA

The following tables set forth a summary of our historical financial data as of, and for the period ended on, the dates indicated. We have derived the statement of operations data for the years ended December 31, 2016 and 2015 from our audited financial statements included elsewhere in this prospectus. The statement of operations data for the nine months ended September 30, 2017 and 2016 and the balance sheet data as of September 30, 2017 have been derived from our unaudited financial statements appearing elsewhere in this prospectus. This unaudited interim financial information has been prepared on the same basis as our audited financial statements and, in our opinion, reflects all adjustments, consisting only of normal and recurring adjustments, that we consider necessary for a fair presentation of our financial position as of September 30, 2017 and operating results for the periods ended September 30, 2017 and 2016. You should read this data together with our financial statements and related notes appearing elsewhere in this prospectus and the sections in this prospectus entitled "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The historical results are not necessarily indicative of the results to be expected for any future periods and the results from the nine months ended September 30, 2017 should not be considered indicative of results expected for the fiscal year 2017.

***Summary of Statement of Operations Data***

| | Nine Months Ended September 30, | | Fiscal Year Ended December 31, | |
|---|---|---|---|---|
| | **2017** | **2016** | **2016** | **2015** |
| Total revenue | $ 2,540,942 | $ 2,307,708 | $ 2,960,912 | $ 2,115,050 |
| Cost of sales | $ 846,487 | $ 713,576 | $ 1,083,087 | $ 950,792 |
| Gross profit | $ 1,694,455 | $ 1,594,132 | $ 1,877,825 | $ 1,164,258 |
| Net loss | $ (3,193,571) | $ (2,207,707) | $ (3,303,538) | $ (9,311,913) |
| Basic and diluted net loss per share | $ (0.39) | $ (.41) | $ (.61) | $ (1.81) |
| Weighted average basic and diluted shares outstanding | 8,268,851 | 5,428,859 | 5,430,205 | 5,140,920 |

***Summary of Balance Sheet Information***

The following table presents consolidated balance sheet data as of September 30, 2017 on:

- an actual basis;
- a pro forma basis, giving effect to (i) the Exercise Agreements; and (ii) the issuance of stock grants to officers and key employees; and
- a pro forma, as adjusted basis, giving effect to (i) the sale by us of 7,692,308 Class A Units, at the assumed public offering price of $0.39 per Class A Unit and 3,000 Class B Units, at the public offering price of $1,000 per Class B Unit, after deducting underwriting discounts and commissions and estimated offering expenses.

The pro forma as adjusted information set forth below is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

| | As of September 30, 2017 | | |
|---|---|---|---|
| | **Actual** | **Pro Forma** | **As Adjusted** |
| Current assets | $ 3,983,292 | $ 4,664,040 | $ 10,064,040 |
| Total asset | $ 5,528,333 | $ 6,209,081 | $ 11,609,081 |
| Long-term Liabilities | $ — | $ — | $ — |
| Total liabilities | $ 1,581,792 | $ 1,581,792 | $ 1,581,792 |
| Total stockholders' equity | $ 3,946,541 | $ 4,627,289 | $ 10,027,289 |

## RISK FACTORS

*Our business faces many risks and an investment in our common stock involves significant risks. Prospective investors are strongly encouraged to consider carefully the risks described below, as well as other information contained herein before investing. Investors are further advised that the risks described below may not be the only risks we face. Additional risks that we do not yet know of, or that we currently think are immaterial, may also negatively impact our business operations or financial results. If any of the events or circumstances described in this section occurs, our business, financial condition or results of operations could suffer. Prospective investors in our common stock should consider the following risks before deciding whether to purchase shares of our common stock.*

**Risks Related to the Company and Our Business**

***We have a history of operating losses and we cannot guarantee that we can ever achieve sustained profitability.***

We have recorded a net loss attributable to common stockholders in most reporting periods since our inception. Our net loss for the nine month periods ended September 30, 2017 and September 30, 2016 were $3,193,571 and $2,207,707, respectively. Our net loss for the years ended December 31, 2016 and December 31, 2015 were $3,303,538 and $9,311,913, respectively. Our accumulated deficit at September 30, 2017 was $100,673,108. Our accumulated deficit at December 31, 2016 was $97,479,537. Losses are expected to continue for the foreseeable future. The Company expects to continue to have development costs as it develops its next generation of products. We may never achieve profitable operations or positive cash flow.

***Our operating expenses will increase as we make further expenditures to enhance and expand our operations in order to support additional growth in our business and public company reporting and compliance obligations.***

Historically, we limited our investment in infrastructure; however, we expect our infrastructure investments to increase substantially to support our anticipated growth and as a result of our becoming a public reporting company in the United States. We intend to make additional investments in automated manufacturing systems and personnel in order to expand our operations to support anticipated growth in our business. In addition, to be competitive and take advantage of market opportunities, we may need to make changes to our sales model in the future. These changes may result in higher selling, general and administrative expenses as a percentage of our revenue. We also expect to incur ongoing operating costs of being a public reporting company. As a result of these factors, we expect our operating expenses to increase.

***Due to our dependence on a limited number of customers and the loss of any such customer would have a material adverse effect on our operating results and prospects.***

As of September 30, 2017, we had two principal U.S. customers; Cardinal Health, Inc. (“Cardinal Health”) and Fisher Healthcare (“Fisher”) each has the non-exclusive right to distribute PIFA Heparin/PF4 Rapid Assays within the U.S. NovoTek Pharmaceuticals Ltd (“NovoTek”) has exclusive distribution rights to PIFA Heparin/PF4 Rapid Assays in the Peoples Republic of China.

For the nine months ended September 30, 2017, Cardinal Health, Fisher and NovoTek accounted for approximately 67% of the Company’s product revenue. For the year ended December 31, 2016, Cardinal Health, Fisher and NovoTek accounted for approximately 75% of the Company’s product revenue.

Because of our dependence on a limited number of key customers, the loss of a major customer (or loss of a key program with a major customer), or any significant reduction in orders by a major customer or termination of the any of their distribution agreements would materially affect our business, our results of operations and our financial condition. We expect that sales to relatively few customers will continue to account for a significant percentage of our net sales for the foreseeable future, however there can be no assurance that any of these customers or any of our other customers will continue to utilize our products or our services at current levels.

***Due to our dependence on a limited number of customers, we are subject to a concentration of credit risk.***

As of December 31, 2016, three customers accounted for 30% of our trade receivables as compared to the nine months ended September 30, 2017 where 59% of trade receivables are attributed to these customers. In the case of insolvency by one of our significant customers, a trade receivable with respect to that customer might not be collectible, might

not be fully collectible, or might be collectible over longer than normal terms, each of which could adversely affect our financial position.

***The Company's business would suffer if the Company were unable to acquire adequate sources of supply.***

We use a diverse and broad range of raw materials in the manufacturing of our products. We purchase all of our raw materials and select items, such as packaging, from external suppliers. In addition, we purchase some supplies from single sources for reasons of proprietary know-how, quality assurance, sole source availability, or due to regulatory qualification requirements and disruption of these sources could have, at a minimum, a temporary adverse effect on shipments and the financial results of the Company. We work closely with our suppliers to ensure continuity of supply while maintaining high quality and reliability. To date, we have not experienced any significant difficulty locating and obtaining the materials necessary to fulfill our production requirements. For the nine months ended September 30, 2017, one supplier accounted for 11% of the Company's purchases. One supplier accounted for 27% of the Company's total purchases during the year ended December 31, 2016. Any prolonged inability to obtain certain materials or components could have an adverse effect on the Company's financial condition or results of operations and could result in damage to its relationships with its customers and, accordingly, adversely affect the Company's business.

***We may require additional capital in the future to develop new products and otherwise support our operations. If we do not obtain any such additional financing, if required, our business prospects, financial condition and results of operations will be adversely affected.***

We intend to invest significantly in our business; therefore, we expect cash flows from operations to be inadequate to cover our anticipated expenses. We believe we have sufficient capital to satisfy our needs for at least the next twelve months. We may need to obtain significant additional financing, both in the short and long-term, to make planned capital expenditures, to cover operating expenses, upgrades to our manufacturing operations, our ongoing product development and to fund to potential acquisitions, if any. We may not be able to secure adequate additional financing when needed on acceptable terms, or at all. To execute our business strategy, we may issue additional equity securities in public or private offerings. If we cannot secure sufficient additional funding we may be forced to forego strategic opportunities and/or delay, scale back or eliminate future product development which would harm our business and our ability to generate positive cash flow in the future.

***Because we may not be able to obtain necessary regulatory clearances or approvals for some of our products, we may not generate revenue in the amounts we expect, or in the amounts necessary to continue our business.***

All of our proposed and existing products are subject to regulation in the U.S. by the U.S. Food and Drug Administration and/or other domestic and international governmental, public health agencies, regulatory bodies or non-governmental organizations. In particular, we are subject to strict governmental controls on the development, manufacture, labeling, distribution and marketing of our products. The process of obtaining required approvals or clearances varies according to the nature of and uses for, a specific product. These processes can involve lengthy and detailed laboratory testing, human clinical trials, sampling activities, and other costly, time-consuming procedures. The submission of an application to a regulatory authority does not guarantee that the authority will grant an approval or clearance for product. Each authority may impose its own requirements and can delay or refuse to grant approval or clearance, even though a product has been approved in another country.

The time taken to obtain approval or clearance varies depending on the nature of the application and may result in the passage of a significant period of time from the date of submission of the application. Delays in the approval or clearance processes increase the risk that we will not succeed in introducing or selling the subject products, and we may be required to abandon a proposed product after devoting substantial time and resources to its development.

Changes in domestic and foreign government regulations could increase our costs and could require us to undergo additional trials or procedures, or could make it impractical or impossible for us to market our products for certain uses, in certain markets, or at all.

Changes in government regulations may adversely affect our financial condition and results of operations because we may have to incur additional expenses if we are required to change or implement new testing, manufacturing and control procedures. If we are required to devote resources to develop such new procedures, we may not have sufficient resources to devote to research and development, marketing, or other activities that are critical to our business.

***We are subject to regulations of various government agencies and if we are unable to comply with such regulations it would materially affect our business.***

We can manufacture and sell our products only if we comply with certain regulations of government agencies. As a U.S. manufacturer, we must operate our production facility in accordance with the requirements established by the FDA under the Federal Food, Drug, and Cosmetic Act (FD&C Act). As such, we have implemented a quality system that is intended to comply with applicable regulations. Our manufacturing plant is subject to periodic inspections by the FDA, and at last inspection, the facility was found to be in substantial compliance with current good manufacturing practice (cGMP) requirements. Although the Company is dedicated to remaining in compliance with such practices, the cGMP requirements could change and negatively impact our ability to manufacture our products without modifications to our operating procedures or changes to our equipment or human resource allocations which may materially affect our business.

***The commercial success of our products will depend upon the degree of market acceptance by physicians, hospitals, third-party payors, and others in the medical community.***

Ultimately, none of our current products or products in development, even if they receive approval, may ever gain market acceptance by physicians, hospitals, third-party payors or others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and we may not become profitable. The degree of market acceptance of our products, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages over alternative treatments;
- the ability to offer our products for sale at competitive prices;
- the willingness of the target population to accept and adopt our products;
- the strength of marketing and distribution support and the timing of market introduction of competitive products; and
- publicity concerning our products or competing products and treatments.

Even if a potential product displays a favorable profile, market acceptance of the product will not be known until after it is launched. Our efforts to educate the medical community and third-party payors on the benefits of our products may require significant resources and may never be successful. Such efforts to educate the marketplace may require more resources than are required by conventional technologies marketed by our competitors.

***If we fail to obtain regulatory approval in foreign jurisdictions, then we cannot market our products in those jurisdictions.***

We plan to market some of our products in foreign jurisdictions, initially in China and the European Union (“EU”). Many foreign countries in which we market or may market our products have regulatory bodies and restrictions similar to those of the FDA. International sales are subject to foreign government regulation, the requirements of which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval and the requirements may differ. Companies are now required to obtain a CE Mark, which shows conformance with the requirements of applicable European Conformity directives, prior to the sale of some medical devices within the European Union. Some of our current products that require CE Markings have them and it is anticipated that additional and future products may require them as well. We may be required to conduct additional testing or to provide additional information, resulting in additional expenses, to obtain necessary approvals. If we fail to obtain approval in such foreign jurisdictions, we would not be able to sell our products in such jurisdictions, thereby reducing the potential revenue from the sale of our products.

***We may be unable to market our products outside the United States if our products cannot meet certain requirements of the Federal Food, Drug and Cosmetic Act requirements for exporting medical devices.***

Any medical device that is legally marketed in the U.S. may be exported anywhere in the world without prior FDA notification or approval. Medical devices that are not FDA-cleared for marketing legally in the U.S. may be exported

under section 801(e)(1) of the FD&C Act, provided that they are intended for export only, they are class I or class II devices, and they are:

- In accordance with the specifications of the foreign purchaser;
- Not in conflict with the laws of the country to which they are intended for export;
- Labeled on the outside of the shipping package that they are intended for export; and
- Not sold or distributed in the U.S.

We cannot guarantee that certain current and future products will meet all of the aforementioned specifications for export which could adversely impact our ability to market our products outside the U.S.

***We may be unable to market our products outside the United States if our products cannot meet regulatory requirements of certain countries.***

In the European Union, a product that meets the definition of an In Vitro Diagnostic Medical Device ("IVD") in accordance with the European Directive (98/79/EC) must receive a regulatory approval known as a CE mark. The letters "CE" are the abbreviation of the French phrase "Conforme Européene," which means "European conformity." As such, export of these products to the European Union, and possibly other jurisdictions, without the CE mark is not possible. Although obtaining a CE Mark is often a self-certification process, preparation and submission of the technical file to an Authorized Representative in the EU, and their verification of a company's compliance with the Directive, can be a lengthy process. Some of the Company's current and future products may fall within the IVD categorization. As of the date of this filing, the Company has received CE marks for eight of its commercialized products and product components: PIFA Heparin/PF4 Rapid Assay; Heparin/PF4 Serum Panels; Tri-Cholesterol "Check" and BreathScan PRO Detectors, Analyzer Field Kit, Starter Kit and Blow Bags. An earlier version of the Breath KetoChek also bears a CE-Mark.

Further, some foreign countries, such as Canada and India, require that a medical device company's manufacturing facility be certified for compliance with the ISO 13485, an international standard for quality systems management. The International Organization for Standardization ("ISO") is the world's largest developer of standards with 148 member countries. The Company's quality management system received a certification of compliance with the ISO 13485:2003 requirements on February 4, 2015. The failure by the Company to maintain this certification may limit Akers' ability to obtain foreign regulatory approval on a timely basis, if at all and to do so may cause Akers to incur additional costs or prevent Akers from marketing its products in foreign countries, which may have a material adverse effect on its business and results of operations.

***Our products may not be able to compete with new diagnostic products or existing products developed by well-established competitors, which would negatively affect our business.***

According to "*In Vitro Diagnostic Tests Come out of the Lab and Into the Home"*, an article published by MDDI online in March 2013, the diagnostic industry is focused on the testing of biological specimens in a laboratory or at the point-of-care and is highly competitive and rapidly changing. Several companies produce diagnostic tests that compete directly with our testing product line, including but not limited to, Abbott, ACON Laboratories, Inc., Alere, Diagnostica Stago, SA, Immucor, Inc., OraSure Technologies, Inc., and Quidel Corporation. Many of these competitors have substantially greater financial, technical, marketing and other resources than we do and enjoy other competitive advantages, including, greater name recognition; established relationships with health care professionals, companies and consumers; additional lines of products and the ability to offer rebates or higher discounts and incentives. As new products enter the market, our products may become obsolete or a competitor's products may be more effective or more effectively marketed and sold than ours. Although we have no specific knowledge of any competitor's product that will render our products obsolete, if we fail to maintain and enhance our competitive position or fail to introduce new products and product features, our customers may decide to use products developed by our competitors, which could result in a loss of revenue and cash flow.

In addition, the point-of-care diagnostics industry is undergoing rapid technological changes, with frequent introductions of new technology-driven products and services, some of which focus on automated systems to provide rapid results. As new technologies become introduced into the point-of-care diagnostic testing market, we may be required to commit considerable additional efforts, time and resources to enhance our current product portfolio or develop new

products. We may not have the available time and resources to accomplish this and many of our competitors have substantially greater financial and other resources to invest in technological improvements. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers, especially if rapid, manual testing products become secondary, in large markets, to automated point-of-care systems. If these potential developments come to fruition our operating results could be materially harmed.

***Clinical trials that may be required to support regulatory submissions in the United States and in international markets are expensive. We cannot assure that we will be able to complete any required clinical trial programs successfully within any specific time period, and if such clinical trials take longer to complete than we project, our ability to execute our current business strategy will be adversely affected.***

Conducting clinical trials is a lengthy, time-consuming and expensive process. Before obtaining regulatory approvals for the commercial sale of any products, we must demonstrate through clinical trials the safety and effectiveness of our products. We have incurred, and we will continue to incur, substantial expense for, and devote a significant amount of time to, product development, pilot trial testing, clinical trials and regulated, compliant manufacturing processes. Research and development expenses for the nine months ended September 30, 2017 totaled $952,724, which was a 2% increase as compared to $932,858 for the nine months ended September 30, 2016. The estimated research and development expense for the year ending December 31, 2017 is $1,250,000.

Even if completed, we do not know if these trials will produce statistically significant or clinically meaningful results sufficient to support an application for marketing approval. Whether or not and how quickly we complete clinical trials is dependent in part upon the rate at which we are able to advance the rate of patient enrollment, and the rate to collect, clean, lock and analyze the clinical trial database.

Patient enrollment in trials is a function of many factors. These include the design of the protocol; the size of the patient population; the proximity of patients to and availability of clinical sites; the eligibility criteria for the study; the perceived risks and benefits of the product candidate under study; the medical investigators' efforts to facilitate timely enrollment in clinical trials; the patient referral practices of local physicians; the existence of competitive clinical trials; and whether other investigational, existing or new products are available or approved for the indication. If we experience delays in patient enrollment and/or completion of our clinical trial programs, we may incur additional costs and delays in our development programs, and may not be able to complete our clinical trials on a cost-effective or timely basis. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all. If we fail to enroll and maintain the number of patients for which the clinical trial was designed, the statistical power of that clinical trial may be reduced, which would make it harder to demonstrate that the product candidate being tested in such clinical trial is safe and effective. Further, if we or any third party have difficulty enrolling a sufficient number of patients in a timely or cost-effective manner to conduct clinical trials as planned, or if enrolled patients do not complete the trial as planned, we or a third party may need to delay or terminate ongoing clinical trials, which could negatively affect our business.

***The results of our clinical trials may not support either further clinical development or the commercialization of our product candidates.***

Even if our clinical trials are completed as planned, their results may not support either the further clinical development or the commercialization of our product candidates. The FDA or government authorities may not agree with our conclusions regarding the results of our clinical trials. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and the results from any later clinical trials may not replicate the results of prior clinical trials and pre-clinical testing. The clinical trial process may fail to demonstrate that our product candidates are safe and effective for indicated uses. This failure would cause us to abandon a product candidate and may delay development of other product candidates. Any delay in, or termination of, our clinical trials will delay the filing of our 510(k)'s and, ultimately, our ability to commercialize our product candidates and generate product revenue. Each medical device marketed in the U.S. must receive a 510(k) clearance from the FDA. A 510(k) is a premarket submission made to FDA to demonstrate that the device to be marketed is at least as safe and effective, that is, substantially equivalent ("SE"), to a legally marketed device. Companies must compare their device to one or more similar legally marketed devices, commonly known as "predicates", and make and support their substantial equivalency claims. The submitting company may not proceed with product marketing until it receives an order from the FDA declaring a device substantially equivalent. The substantially equivalent determination is usually made within 90 days, based on the information submitted by the applicant.

In addition, we or the FDA may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in the conduct of these trials. A number of companies in the biotechnology industry have suffered significant setbacks in advanced clinical trials despite promising results in earlier trials. In the end, we may be unable to develop marketable products.

***Modifications to our devices may require additional FDA approval which could force us to cease marketing and/or recall the modified device until we obtain new approvals.***

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require a Premarket approval ("PMA"). PMA is the FDA process of scientific and regulatory review to evaluate the safety and effectiveness of Class III medical devices. Class III devices are those that support or sustain human life, are of substantial importance in preventing impairment of human health, or which present a potential, unreasonable risk of illness or injury. Currently the Company does not market devices within this Class III category nor does it intend to in the foreseeable future. However, the FDA requires each manufacturer to make this determination in the first instance, but the FDA can review any decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance, the agency may retroactively require the manufacturer to seek 510(k) clearance or PMA approval. The FDA also can require the manufacturer to cease marketing and/or recall the modified devices until 510(k) clearance or PMA approval is obtained. We have modified one of our prescription use, 510(k)-cleared devices, specifically the PIFA Heparin/PF4 Rapid Assay to include our seraSTAT Separator. However, we determined that, in our view, based on FDA guidance as to when to submit a 510(k) notification for changes to a cleared device, new 510(k) clearances or PMA approvals are not required. We cannot assure you that the FDA would agree with any of our decisions not to seek 510(k) clearance or PMA approval. If the FDA requires us to seek 510(k) clearance or PMA approval for any modification, we also may be required to cease marketing and/or recall the modified device until we obtain a new 510(k) clearance or PMA approval.

***We are subject to inspection and market surveillance by the FDA to determine compliance with regulatory requirements. If the FDA finds that we have failed to comply, the agency can institute a wide variety of enforcement actions which may materially affect our business operations.***

We are subject to inspection and market surveillance by the FDA to determine compliance with regulatory requirements. If the FDA finds that we have failed to comply, the agency can institute a wide variety of enforcement actions, ranging from a public warning letter to more severe sanctions such as:

- fines, injunctions and civil penalties;
- recall, detention or seizure of our products;
- the issuance of public notices or warnings;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our requests for 510(k) clearance of new products;
- withdrawing 510(k) clearance already granted; and
- criminal prosecution.

The FDA also has the authority to request repair, replacement or refund of the cost of any medical device manufactured or distributed by us. Our failure to comply with applicable requirements could lead to an enforcement action that may have an adverse effect on our financial condition and results of operations.

***We may not have sufficient resources to effectively introduce and market our products, which could materially harm our operating results.***

Achieving market acceptance for our existing products such as our direct-to-consumer offerings (disposable breathalyzers) and clinical laboratory testing solutions (Particle Immuno Filtration Assay ("PIFA") based heparin-induced thrombocytopenia and infectious disease rapid tests) and introducing new products (breath condensate detectors for the health & wellness categories) require substantial marketing efforts and will require our sales account executives, contract partners, outside sales agents and distributors to make significant expenditures of time and money. In some instances we will be significantly or totally reliant on the marketing efforts and expenditures of our contract partners,

outside sales agents and distributors. The Company has aligned its sales resources with the regional sales segmentation of our clinical products distributors. Although this has positively impacted sales, the large account executive territories may prove to be inefficient as we commercialize products and may hinder our revenue growth.

Because we currently have very limited marketing resources and sales capabilities, commercialization of our products, some of which require regulatory clearance prior to market entrance, we must either expand our own marketing and sales capabilities or consider collaborating with additional third parties to perform these functions. We may, in some instances, rely significantly on sales, marketing and distribution arrangements with collaborative partners and other third parties. In these instances, our future revenue will be materially dependent upon the success of the efforts of these third parties.

Should we determine that expanding our own marketing and sales capabilities is required, we may not be able to attract and retain qualified personnel to serve in our sales and marketing organization, to develop an effective distribution network or to otherwise effectively support our commercialization activities. The cost of establishing and maintaining a more comprehensive sales and marketing organization may exceed its cost effectiveness. If we fail to further develop our sales and marketing capabilities, if sales efforts are not effective or if costs of increasing sales and marketing capabilities exceed their cost effectiveness, our business, results of operations and financial condition would be materially adversely affected.

***We may not have the resources to conduct clinical protocols sufficient to yield data suitable for publication in peer-reviewed journals and our inability to do so in the future could have an adverse effect on marketing our products effectively.***

In order for our products targeted for use by hospital laboratory professionals and healthcare providers to be widely adopted, clinical protocols that are designed to yield data suitable for publication in peer-reviewed journals should be carried out. These studies are often time-consuming, labor-intensive and expensive to execute. The Company has not had the resources to effectively implement such clinical programs within its clinical development activities and may not be able to do so in the future. In addition, if a protocol is initiated, the results of which may ultimately not support the anticipated positioning and benefit proposition for the product. Either of these scenarios could hinder our ability to market our products and revenue may decline.

***Our future performance will depend largely on the success of products we have not developed yet.***

Technology is an important component of our business and growth strategy, and our success depends to a significant extent on the development, implementation and acceptance of new products. Commitments to develop new products must be made well in advance of any resulting sales, and technologies and standards may change during development, potentially rendering our products outdated or uncompetitive before their introduction. Our ability to develop products to meet evolving industry requirements and at prices acceptable to our customers will be dependent on a number of factors including, funding availability to complete development efforts, our ability to test and refine products, successfully conduct clinical trials and seek to obtain required FDA clearance or foreign approval/certification for products that require such regulatory authorizations. Physician patients and third party payors and the medical community may be slow to adopt any of our products. Moreover, there can be no assurance that the products that we are developing will receive FDA clearance, work effectively in the marketplace or gain market acceptance. We may expend considerable funds and other resources on the development of next-generation products without any guarantee that these products will be successful.

If we are not successful in bringing new products to market, whether because we fail to address marketplace demand, fail to develop viable technologies or otherwise, our revenue may decline and our results of operations could be seriously harmed.

***If we fail to establish, maintain and expand relationships with distributors, sales of our products would decline.***

The Company does not control the efforts of its distributors and its distributors are not prohibited from selling competing products. Our ability to sell our products depends largely on the Company's relationships with such distributors. Accordingly, we are subject to the risk that they may not commit the financial and other resources to market and sell our products to our level of expectation, they may experience financial hardship or they may otherwise terminate our relationship on short notice. In the U.S. clinical laboratory marketplace, many of our existing and potential customers purchase our products through our two national distributors, Cardinal Health and Fisher Health. Our sales account executives work in tandem with the distributor's sales representatives to gain access to decision makers within the

majority of U.S. medical facilities. In addition, the Company relies on its distribution network to negotiate pricing arrangements and contracts with Group Purchasing Organizations and their affiliated hospitals and other members. For the years ended December 31, 2016 and 2015, 87% and 78%, respectively of total product revenue from the sale of the Company's Heparin/PF4 Assay products was generated through our U.S. distributors' purchases, with Cardinal Health and Fisher accounting for 63% and 65% of such sales for each year ended December 31, 2016 and 2015. In the future, if we are unable to maintain existing relationships and/or grow to be recognized as a prominent medical device supplier within these organizations, and/or develop new relationships with additional U.S. and international distributors, our competitive position would likely suffer and our business would be harmed.

We have just begun to develop formal business relationships with foreign distributors for all of our in-line products. We will therefore be dependent upon the financial health of these organizations to further grow our business internationally. If a distributor were to go out of business, it would take substantial time, cost and resources to find a suitable replacement and the product registrations and certifications held by such distributor may not be returned to us or to a subsequent distributor in a timely manner or at all. Any failure to produce foreign sales may negatively affect our profitability in the short and long-term. Since some of our products have CE-Marks and/or are earmarked for sale in Europe where healthcare regulation and reimbursement for medical devices vary significantly from country to country, this changing environment could adversely affect our ability to sell our products in some European countries. In addition, the Company is working with its joint venture partner in mainland China to register several of its products for eventual sale. Since additional clinical studies must be performed by our joint venture partner within Chinese healthcare facilities as part of their regulatory submission, there is no guarantee that the results of their protocol will support the successful registration of the products and permit sales activity. Failure to gain product registration in China will hinder the Company's ability to increase its revenue.

***Our business is vulnerable to the availability of raw materials, our ability to forecast customer demand and our ability to manage production capacity.***

Our ability to meet customer demand depends, in part, on our production capacity and on obtaining supplies, a number of which can only be obtained from a single supplier or a limited number of suppliers. A reduction or disruption in our production capacity or our supplies could delay products and fulfillment of orders and otherwise negatively impact our business.

We must accurately predict both the demand for our products and the lead times required to obtain the necessary components and materials. If we overestimate demand, we may experience underutilized capacity and excess inventory levels. If we underestimate demand, we may miss delivery deadlines and sales opportunities and incur additional costs for labor overtime, equipment overuse and logistical complexities. Additionally, our production capacity could be affected by manufacturing problems. Difficulties in the production process could reduce yields or interrupt production, and, as a result, we may not be able to deliver products on time or in a cost-effective, competitive manner. Our failure to adequately manage our capacity could have a material adverse effect on our business, financial condition and results of operations.

Our ability to meet customer demand also depends on our ability to obtain timely and adequate delivery of materials, parts and components from our suppliers. We generally do not maintain contracts with any of our key suppliers. From time to time, suppliers may extend lead times, limit the amounts supplied to us or increase prices due to capacity constraints or other factors. Supply disruptions may also occur due to shortages in critical materials. In addition, a number of our raw materials are obtained from a single supplier. Many of our suppliers must undertake a time-consuming qualification process before we can incorporate their raw materials into our production process. If we are unable to obtain materials from a qualified supplier, it can take up to a year to qualify a new supplier, assuming an alternative source of supply is available. A reduction or interruption in supplies or a significant increase in the price of one or more supplies could have a material adverse effect on our business, financial condition and results of operations.

***Our manufacturing facility is vulnerable to natural disasters and other unexpected losses, and we may not have adequate insurance to cover such losses.***

We have one manufacturing facility, located in Thorofare, New Jersey, for production of all of our finished goods production. Our facility is susceptible to damage from fire, floods, loss of power or water supply, telecommunications failures and similar events. Since some of our raw materials and finished goods are temperature-sensitive and our facility currently does not have a back-up generator, a moderate-to-severe disruption in power may render various levels of our inventories unusable or unsalable, resulting in a sufficient write off of inventory and may immediately impact our ability to generate revenue.

Any natural disaster could significantly disrupt our operations. In the event that our facility was affected by a natural or man-made disaster, we would be forced to rely on third-party manufacturers. Our insurance for damage to our property and the disruption of our business from casualties may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all. If we are forced to seek alternative facilities, we may incur additional transition costs and we may experience a disruption in the supply of our products until the new facility is available and operating. In addition, much of the machinery we use in our production process is custom-made. If such machinery is damaged, we may experience a long lead-time before this unique machinery is replaced or rebuilt and we are able to resume production.

Our manufacturing and distribution operations are highly dependent on our information technology systems and we do not currently have a redundant data center. In the event of a failure of our primary data center, our manufacturing and distribution operations will be disrupted which will adversely affect our business.

In addition, any disruption, delay, transition or expansion of our manufacturing operations could impair our ability to meet the demand of our customers and our customers may cancel orders or purchase products from our competitors, which could adversely affect our business, financial condition and results of operations.

***Some of our finished goods, including our PIFA products and control materials related to PIFA Heparin/PF4 assays, are temperature-sensitive.***

Proper packaging and time in transit are critical to the stability of some of our clinical laboratory products when they are en route to our distributors or end users. If certain specialized packaging materials cannot be obtained, and/or if our contracted common carriers, or those of our distributors, cannot meet product-specific delivery requirements, our products may not perform as intended and may lead to requests for product replacement. If such issues become widespread it could hurt our reputation and we could potentially lose customers which would adversely affect our business.

Also, given the issue of temperature sensitivity, time in transit may limit our ability to service potential markets outside of the U.S. for those products, especially those with geographies that do not allow for shipment and customs clearance within four business days. This could adversely affect our potential to generate revenue for some products on an international level.

***We are subject to environmental, health and safety laws, which could increase our costs and restrict our operations in the future.***

Our operations are subject to environmental, health and safety laws and regulations in each of the jurisdictions in which we operate. These laws and regulations concern, among other things, the generation, handling, transportation and disposal of hazardous substances or wastes, the clean-up of hazardous substance releases, and the emission or discharge of materials into the air or water. Although we currently incur limited expenditures in connection with these environmental health and safety laws and regulations, if we fail to comply with the requirements of such laws and regulations or if such laws changes significantly in the future, we could incur substantial additional costs to alter our manufacturing processes and/or adjust our supply chain management. Such changes could also result in significant inventory obsolescence. Compliance with environmental, health and safety requirements could also restrict our ability to expand our facilities in the future.

***Our business is vulnerable to inflation.***

We are limited in our ability to raise prices for some products, particularly in the clinical laboratory marketplace where cost-containment pressures are significant. As a result, increases in our raw materials, production and transportation costs may have a material adverse impact on our results of operations.

***Demands of third-party payors, cost reduction pressures among our customers and restrictive reimbursement practices may adversely affect our revenue.***

Our ability to negotiate favorable contracts with non-governmental payors, including managed-care plans or Group Purchasing Organizations (“GPOs”), even if facilitated by our distributors, may significantly affect revenue and operating results. Our customers continue to face cost reduction pressures that may cause them to curtail their use of, or reimbursement for some of our products, to negotiate reduced fees or other concessions or to delay payment. Furthermore, the increasing leverage of organized buying groups among non-governmental payors may reduce market

prices for our products and services, thereby reducing our profitability. Reductions in price increases or the amounts received from current customers or lower pricing for our products to new customers could have a material adverse effect on the financial position, cash flows and results of operations.

***Failure to obtain medical reimbursement for our products under development, as well as a changing regulatory and reimbursement environment, may impact our business.***

The U.S. healthcare regulatory environment may change in a way that restricts our ability to market our products due to medical coverage or reimbursement limits. Sales of our diagnostic tests will depend in part on the extent to which the costs of such tests are covered by health maintenance, managed care, and similar healthcare management organizations, or reimbursed by government health payor administration authorities, private health coverage insurers and other third-party payors. These healthcare payors are increasingly challenging the prices charged for medical products and services. The containment of healthcare costs has become a priority of federal and state governments. Accordingly, our potential products may not be considered to be cost effective, and reimbursement may not be available or sufficient to allow us to sell our products on a competitive basis. Legislation and regulations affecting reimbursement for our products may change at any time and in ways that are difficult to predict and these changes may be adverse to us.

CMS, the federal agency responsible for administering the Medicare program, along with its contractors establishes coverage and reimbursement policies for the Medicare program. In addition, private payors often follow the coverage and reimbursement policies of Medicare. We cannot assure you that government or private third-party payors will cover and reimburse the procedures using our products in whole or in part in the future or that payment rates will be adequate.

For some of our products, our success in non-U.S. markets may depend upon the availability of coverage and reimbursement from the third-party payors through which health care providers are paid in those markets. Health care payment systems in non-U.S. markets vary significantly by country, and include single-payor, government managed systems as well as systems in which private payors and government-managed systems exist, side-by-side. For some of our products, our ability to achieve market acceptance or significant sales volume in international markets may be dependent on the availability of reimbursement for our products under health care payment systems in such markets. There can be no assurance that reimbursement for our products, will be obtained or that such reimbursement will be adequate.

***Health care legislation, including the Patient Protection and Affordable Care Act and the Health Insurance Portability and Accountability Act of 1996, may have a material adverse effect on us.***

The Patient Protection and Affordable Care Act ("PPACA") substantially changes the way healthcare is financed by government and private insurers, encourages improvements in healthcare quality, and impacts the medical device industry. The PPACA includes an excise tax on entities that manufacture or import medical devices offered for sale in the United States; a new Patient-Centered Outcomes Research Institute to conduct comparative effectiveness research; and payment system reforms.

The PPACA also imposes new reporting and disclosure requirements on device and drug manufacturers for any payment or transfer of value made or distributed to physicians or teaching hospitals. Under these provisions, known as the Physician Payment Sunshine Act, affected device and drug manufacturers need to begin data collection on August 1, 2013, with the first reports due in 2014. These provisions require, among other things, extensive tracking and maintenance of databases regarding the disclosure of relationships and payments to physicians and teaching hospitals. In addition, certain states have passed or are considering legislation restricting our interactions with health care providers and/or requiring disclosure of many payments to them. Failure to comply with these tracking and reporting laws could subject us to significant civil monetary penalties.

The Health Insurance Portability and Accountability Act of 1996 ("HIPAA") created new federal statutes to prevent healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payors. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from government sponsored programs such as the Medicare and Medicaid programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. A violation of this statute is a felony and may

result in fines or imprisonment or exclusion from government sponsored programs. HIPAA also established uniform standards governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of individually identifiable health information maintained or transmitted by healthcare providers, health plans and healthcare clearinghouses.

Both federal and state government agencies are continuing heightened and coordinated civil and criminal enforcement efforts. As part of announced enforcement agency work plans, the federal government will continue to scrutinize, among other things, the billing practices of hospitals and other providers of healthcare services. The federal government also has increased funding to fight healthcare fraud, and it is coordinating its enforcement efforts among various agencies, such as the U.S. Department of Justice, the Office of Inspector General and state Medicaid fraud control units. We believe that the healthcare industry will continue to be subject to increased government scrutiny and investigations.

***We may fail to recruit and retain qualified personnel.***

We expect to rapidly expand our operations and grow our sales, development and administrative operations. This expansion is expected to place a significant strain on our management and will require hiring a significant number of qualified personnel. Accordingly, recruiting and retaining such personnel in the future will be critical to our success. There is intense competition from other companies for qualified personnel in the areas of our activities, particularly sales, marketing and research & development. If we fail to identify, attract, retain and motivate these highly skilled personnel, we may be unable to continue our marketing and development activities, and this could have a material adverse effect on the Company's business, financial condition, results of operations and future prospects.

***We may face risks in connection with potential acquisitions.***

We may look to acquire businesses that complement or expand our operations as part of our business strategy going forward. We may not be able to successfully identify attractive acquisition candidates or negotiate favorable terms in the future. Furthermore, our ability to effectively integrate any future acquisitions will depend on, among other things, the adequacy of our implementation plans, the ability of our management to oversee and operate effectively the combined operations and our ability to achieve desired operational efficiencies. If we are unable to successfully integrate the operations of any businesses that we may acquire in the future, our business, financial position, results of operations or cash flows could be adversely affected.

***We rely on key executive officers, and their knowledge of our business and technical expertise would be difficult to replace.***

We are dependent on the management team of Akers Bio to execute against its business plan. Failure could result in delays in product development, loss of customers and sales and diversion of management resources, which could adversely affect our operating results.

***We may need to obtain additional licenses to patents or other proprietary rights from other parties.***

To facilitate development and commercialization of a proprietary technology base, we may need to obtain additional licenses to patents or other proprietary rights from other parties. Obtaining and maintaining these licenses, which may not be available, may require the payment of up-front fees and royalties. In addition, if we are unable to obtain these types of licenses, our product development and commercialization efforts may be delayed or precluded.

***We may not be able to protect or enforce our intellectual property rights, which could impair our competitive position.***

Our success depends significantly on our ability to protect our rights to the patents, trademarks, trade secrets, copyrights and all other intellectual property rights used in our products. Protecting our intellectual property rights is costly and time consuming. We rely primarily on patent protection and trade secrets, as well as a combination of copyright and trademark laws and nondisclosure and confidentiality agreements to protect our technology and intellectual property rights. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or maintain any competitive advantage. Despite our intellectual property rights practices, it may be possible for a third party to copy or otherwise obtain and use our technology without authorization, develop similar technology independently or design around our patents.

We cannot be assured that any of our pending patent applications will result in the issuance of a patent to us. The U.S. Patent and Trademark Office, or USPTO, may deny or require significant narrowing of claims in our pending patent applications, and patents issued as a result of the pending patent applications, if any, may not provide us with significant commercial protection or be issued in a form that is advantageous to us. We could also incur substantial costs in proceedings before the USPTO. Our issued and licensed patents and those that may be issued or licensed in the future may expire or may be challenged, invalidated or circumvented, which could limit our ability to stop competitors from marketing related technologies. Upon expiration of our issued or licensed patents, we may lose some of our rights to exclude others from making, using, selling or importing products using the technology based on the expired patents. There is no assurance that competitors will not be able to design around our patents. We also rely on unpatented proprietary technology. We cannot assure you that we can meaningfully protect all our rights in our unpatented proprietary technology or that others will not independently develop substantially equivalent proprietary products or processes or otherwise gain access to our unpatented proprietary technology. Further, we may not be able to obtain patent protection or secure other intellectual property rights in all the countries in which we operate, and under the laws of such countries, patents and other intellectual property rights may be unavailable or limited in scope. If any of our patents fail to protect our technology, it would make it easier for our competitors to offer similar products. Our trade secrets may be vulnerable to disclosure or misappropriation by employees, contractors and other persons. Any inability on our part to adequately protect our intellectual property may have a material adverse effect on our business, financial condition and results of operations.

***Expenses incurred with respect to monitoring, protecting, and defending our intellectual property rights could adversely affect our business.***

Competitors and others may infringe on our intellectual property rights, or may allege that we have infringed on theirs. Monitoring infringement and misappropriation of intellectual property can be difficult and expensive, and we may not be able to detect infringement or misappropriation of our proprietary rights.

***We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use of, our technology.***

Some or all of our patent applications may not result in the issue of patents, or the claims of any issued patents may not afford meaningful protection for our technologies or products. In addition, patents issued to us or our licensors, if any, may be challenged and subsequently narrowed, invalidated, found unenforceable or circumvented. Patent litigation is widespread in the biotechnology industry and could harm our business. Litigation might be necessary to protect our patent position. Patentability, invalidity, freedom-to-operate or other opinions may be required to determine the scope and validity of third-party proprietary rights. If we choose to go to court to stop a third party from using the inventions protected by our patent, that third party would have the right to ask the court to rule that such patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and we may not have the required resources to pursue such litigation or to protect our patent rights. In addition, there is a risk that the court will decide that our patents are not valid or that we cannot stop the other party from using their inventions. There is also the risk that, even if the validity of these patents is upheld, the court will find that the third party's activities do not infringe our rights in these patents.

Furthermore, a third party may claim that we are infringing the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and technical personnel. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In addition, there is a risk that a court will order us to pay the other party's treble damages or attorneys' fees for having violated the other party's patents. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the claims of the relevant patent and/or that the third party patent claims are invalid, and we may not be able to do this. Proving invalidity in the United Sates, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

In addition, changes in either patent laws or in interpretations of patent laws in the United States and other countries may materially diminish the value of our intellectual property or narrow the scope of our patent protection. In September 2011, the U.S. Congress passed the Leahy-Smith America Invents Act ("AIA") which became effective in March 2013. The AIA reforms United States patent law in part by changing the standard for patent approval for certain patents from a "first to invent" standard to a "first to file" standard and developing a post-grant review system. It is too early to determine what the effect or impact the AIA will have on the operation of our business and the protection and enforcement of our intellectual property. However, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition. Because some patent applications in the United States may be maintained in secrecy until the patents are issued, patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing, and publications in the scientific literature often lag behind actual discoveries. We cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications or that we were the first to invent the technology (pre-AIA) or first to file (post-AIA). Our competitors may have filed, and may in the future file, patent applications covering technology similar or the same as ours. Any such patent application may have priority over our patent application and could further require us to obtain rights to such technologies in order to carry on our business. If another party has filed a U.S. patent application on inventions similar or the same as ours, we may have to participate in an interference or other proceeding in the U.S. Patent and Trademark Office, or the USPTO, or a court to determine priority of invention in the United States, for pre-AIA applications and patents. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our U.S. patent position with respect to such inventions. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources.

***Our failure to secure trademark registrations could adversely affect our ability to market our product candidates and our business.***

Our trademark applications in the United States and any other jurisdictions where we may file may not be allowed registration, and we may not be able to maintain or enforce our registered trademarks. During trademark registration proceedings, we may receive rejections. Although we are given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in corresponding foreign agencies, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our applications and/or registrations, and our applications and/or registrations may not survive such proceedings. Failure to secure such trademark registrations in the United States and in foreign jurisdictions could adversely affect our ability to market our product candidates and our business.

***We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.***

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although the Company has no knowledge of any claims against us, we may be subject to claims that these employees or the Company have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. To date, none of our employees have been subject to such claims.

***We may not be able to adequately protect our intellectual property outside of the United States.***

The laws in some foreign jurisdictions may not provide protection for our trade secrets and other intellectual property. If our trade secrets or other intellectual property are misappropriated in foreign jurisdictions, we may be without adequate remedies to address these issues. Additionally, we also rely on confidentiality and assignment of invention agreements to protect our intellectual property. These agreements may provide for contractual remedies in the event of misappropriation. We do not know to what extent, if any, these agreements and any remedies for their breach, will be enforced by a foreign or domestic court. In the event our intellectual property is misappropriated or infringed upon and an adequate remedy is not available, our future prospects will likely diminish.

Additionally, prosecuting and maintaining intellectual property, particularly patent rights, are very costly endeavors. We do not know whether legal and government fees will increase substantially and therefore are unable to predict whether cost may factor into our intellectual property strategy.

***If we deliver products with defects, we may be subject to product recalls or negative publicity, our credibility may be harmed, market acceptance of our products may decrease and we may be exposed to liability.***

The manufacturing and marketing of professional and consumer diagnostics involve an inherent risk of product liability claims. For example, a defect in one of our diagnostic products could lead to a false positive or false negative result, affecting the eventual diagnosis. Our product development and production are extremely complex and could expose our products to defects. Manufacturing and design defects could lead to recalls, either voluntary or required by the FDA or other government authorities, and could result in the removal of a product from the market. Defects in our products could also harm our reputation, lead to product liability claims, claims that inaccurate test results lead to death or injury, negative publicity and decrease sales of our products. We have obtained $10,000,000 of product liability insurance and we have never received a product liability claim, and have generally not seen product liability claims for screening tests that are accompanied by appropriate disclaimers. However, in the event there is a claim, this insurance may not fully cover our potential liabilities. In addition, as we attempt to bring new products to market, we may need to increase our product liability coverage which would be a significant additional expense that we may not be able to afford. If we are unable to obtain sufficient insurance coverage at an acceptable cost to protect us, we may be forced to abandon efforts to commercialize our products or those of our strategic partners, which would reduce our revenue.

***If our estimates relating to our critical accounting policies are based on assumptions or judgments that change or prove to be incorrect, our operating results could fall below expectations of financial analysts and investors, resulting in a decline in our stock price.***

The preparation of financial statements in conformity with U.S. GAAP requires our management to make estimates, assumptions and judgments that affect the amounts reported in the financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of financial analysts and investors, resulting in a decline in our stock price. Significant assumptions and estimates used in preparing our financial statements include those related to revenue recognition, inventory, product warranties, allowances for doubtful accounts, stock-based compensation expense and income taxes.

***As an emerging growth company within the meaning of the Securities Act, we will utilize certain modified disclosure requirements, and we cannot be certain if these reduced requirements will make our common stock less attractive to investors.***

We are an emerging growth company within the meaning of the rules under the Securities Act. We have utilized, and we plan in future filings with the SEC to continue to utilize, the modified disclosure requirements available to emerging growth companies, including reduced disclosure about our executive compensation and omission of compensation discussion and analysis, and an exemption from the requirement of holding a nonbinding advisory vote on executive compensation. In addition, we will not be subject to certain requirements of Section 404 of the Sarbanes-Oxley Act, including the additional testing of our internal control over financial reporting as may occur when outside auditors attest as to our internal control over financial reporting, and we have elected to delay adoption of new or revised accounting standards applicable to public companies. As a result, our stockholders may not have access to certain information they may deem important.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act which allows us to delay the adoption of compliance with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to utilize this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards as they become applicable to public companies. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until the earliest of (i) December 31, 2019 (the end of the fiscal year in which the fifth anniversary of our initial public offering in the U.S. occurred), (ii) the last day of the first fiscal year in

which our annual gross revenue exceed $1.07 billion, (iii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter or (iv) the date on which we have issued more than $1 billion in non-convertible debt during the preceding three-year period.

We have not engaged our independent registered public accounting firm to perform an audit of our internal control over financial reporting as of any balance sheet date or for any period reported in our financial statements. Had our independent registered public accounting firm performed an audit of our internal control over financial reporting, material weaknesses may have been identified. For so long as we qualify as an "emerging growth company" under the JOBS Act, we will not have to provide an auditor's attestation report on our internal controls in future annual reports on Form 10-K as otherwise required by Section 404(b) of the Sarbanes-Oxley Act. During the course of the evaluation, documentation or attestation, our independent registered public accounting firm may identify weaknesses and deficiencies that we may not otherwise identify in a timely manner or at all as a result of the deferred implementation of this additional level of review.

***Our legal counsel has advised us that we may have violated Section 402 of the Sarbanes-Oxley Act of 2002, which prohibits an issuer from extending or maintaining personal loans to its directors or executive officers. As a result, we could become subject to criminal, civil or administrative sanctions or penalties and we may also face potential private securities litigation.***

On September 14, 2012, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with Mr. Thomas J. Knox (a member of our Board from July 2013 through August 2017). Pursuant to the Purchase Agreement, Mr. Knox purchased, amongst other things, 10,000,000 shares of the Series A Preferred Stock. The Series A Preferred Stock were convertible at any time into 320,512 shares of common stock. The Company requested that Mr. Knox convert the Series A Preferred Stock, and though under no obligation to do so, on November 15, 2013, Mr. Knox converted all 10,000,000 shares of Series A Preferred Stock into 320,512 shares of common stock pursuant to the terms of the Series A Preferred Stock. In order to satisfy the required onetime payment of $500,000 (the "Purchase Price") due upon conversion as set forth in the Purchase Agreement, Mr. Knox issued a promissory note in favor of the Company for the principal aggregate amount of $500,000 (the "2013 Knox Note"). The 2013 Knox Note required payment of the principal in full prior to maturity date of November 15, 2014 (the "Maturity Date") with interest on the unpaid principal balance at the rate of the thirty day average LIBOR per annum commencing on November 15, 2013. The 320,512 shares of common stock were to be held by the Company as collateral until all amounts owing under the 2013 Knox Note were paid in full.

We have taken immediate steps to address the above situation by cancelling the 2013 Knox Note and seeking immediate repayment from Mr. Knox. On December 3, 2013 the Company issued Mr. Knox 261,997 shares of common stock and cancelled the remaining shares issuable to him under the terms of the Series A Preferred Stock in full satisfaction of the Purchase Price. Section 402 of the Sarbanes-Oxley Act of 2002 prohibits public U.S. companies, including us, from extending or maintaining personal loans to its directors or executive officers. The arrangements with Mr. Knox may have violated this prohibition. The potential violation of the Section 402 may cause governmental authorities, such as the SEC or other U.S. authorities, to impose certain criminal, civil, and administrative sanctions or penalties upon us. Similarly, private parties may also bring civil litigations against us for such violations.

**Risks Related to the Market**

***Recent global economic trends could adversely affect our business, liquidity and financial results.***

Recent global economic conditions, including a disruption of financial markets, could adversely affect us, primarily through limiting our access to capital. In addition, the continuation or worsening of general market conditions in economies important to our businesses may adversely affect our clients' level of spending and ability to obtain financing, leading to us being unable to generate the levels of sales that we require. Current and continued disruption of financial markets could have a material adverse effect on the Company's business, financial condition, results of operations and future prospects.

**Risks Relating to our Common Stock**

***We currently have a limited trading volume, which results in higher price volatility for, and reduced liquidity of, our common stock.***

There has been limited trading of our common stock in the U.S since we began trading on NASDAQ in January 2014. Since 2002, our shares of common stock have been listed for trading on AIM. However, historically there has been limited volume of trading in our common stock on AIM, which has limited the liquidity of our common stock on that market. We cannot predict whether or how investor interest in our common stock on the AIM market might translate to the market price of our common stock or the development of an active trading market in the U.S. or how liquid that market might become.

Furthermore, if we cease to be listed on AIM or NASDAQ, holders would find it more difficult to dispose of, or to obtain accurate quotations as to the market value of, our common stock, and the market value of our common stock would likely decline.

***If we fail to continue to meet all applicable NASDAQ requirements and NASDAQ determines to delist our common stock, the delisting could adversely affect the market liquidity of our common stock and the market price of our common stock could decrease.***

Our common stock is listed on NASDAQ. In order to maintain our listing, we must meet minimum financial and other requirements, including requirements for a minimum amount of capital and a minimum price per share. On November 28, 2017, we received a notice from the staff (the "Staff") of NASDAQ that, for a period of thirty (30) consecutive business days, the bid price of our common stock had closed below the minimum $1.00 per share requirement for continued inclusion under NASDAQ Rule 5550(a)(2) (the "Bid Price Rule"). The notification had no immediate effect on the listing or trading of the common stock on NASDAQ.

NASDAQ stated in its letter that in accordance with the NASDAQ Listing Rules we have been provided an initial period of 180 calendar days, or until May 29, 2018, to regain compliance. The letter states that the Staff will provide written notification that we have achieved compliance with the minimum bid price listing requirement if at any time before May 29, 2018, the bid price of the common stock closes at $1.00 per share or more for a minimum of ten (10) consecutive business days.

If we are unable to regain compliance by May 29, 2018, we may be eligible for an additional 180 calendar day compliance period to demonstrate compliance with the bid price requirement. To qualify, we will be required to meet the continued listing requirement for market value of publicly held shares set forth in Market Place Rule 5550(a) and all other initial listing standards for NASDAQ set forth in Marketplace Rule 5505, with the exception of the bid price requirement, and will need to provide written notice to NASDAQ of its intention to cure the deficiency during the second compliance period, by effecting a reverse stock split, if necessary. If we do not qualify for the second compliance period or fails to regain compliance during the second 180-day period, then NASDAQ will notify us of its determination to delist the common stock, at which point we would have an opportunity to appeal the delisting determination to a Hearings Panel.

We intend to monitor the closing bid price of the common stock and may, if appropriate, consider implementing available options to regain compliance with the minimum bid price requirement under the NASDAQ Listing Rules. If we fail to continue to meet all applicable NASDAQ requirements, NASDAQ may determine to delist our common stock. If our common stock is delisted for any reason, it could reduce the value of our common stock and its liquidity.

If our common stock is delisted as a result of our failure to comply with the Bid Price Rule or any other NASDAQ continued listing requirement, we would expect our common stock to be traded in the over-the-counter market, which could adversely affect the liquidity of our common stock. Additionally, delisting would substantially impair our ability to raise additional funds to fund our operations, to meaningfully advance the development of our products, and we could face other significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a reduced amount of news and analyst coverage for us;
- reduced liquidity for our stockholders;
- potential loss of confidence by employees and potential future partners or collaborators; and
- loss of institutional investor interest and fewer business development opportunities.

***Substantial doubt exists about our ability to continue as a going concern within one year of September 30, 2017.***

Substantial doubt exists about the Company's ability to continue as a going concern within one year after the financial statements are issued. The Company has identified three conditions or events that support this determination:

*The Company's current working capital position.*

The Company is working diligently to raise additional working capital either through various financial institutions, investment banks or other sources while minimizing dilution to the shareholders.

Executive management continues to monitor expenses and directives are in place to restrict non-essential expenses until the working capital situation is resolved.

***Negotiations are underway with multiple customers for the Company's products and are anticipated to be completed during the three months ending March 31, 2018. All parties are confident that a solution can be achieved but a significant delay will impact revenue projections.***

*The Company is awaiting a 510(k) approval from the United States Food & Drug Administration ("FDA") for its PIFA Chlamydia product. An extended delay in receipt of this approval will negatively impact revenue projections.*

The Company is actively working with the FDA's examiner to insure requests for additional data and responses to questions are completed as quickly as possible.

If the proceeds from this offering are insufficient for us to continue as a going concern, it could make it more difficult for us to raise additional capital, should it be needed, or cause our customers, suppliers and other business partners to lose confidence in us thereby resulting in a reduction of revenue, loss of supply resources and other effects that would be significantly harmful to our business. If adequate funds are not available when needed, our liquidity, financial condition and operating results would be materially and adversely affected, and we may not be able to operate our business without significant changes in our operations or at all.

***If and when a larger trading market for our common stock develops, the market price of our common stock is still likely to be highly volatile and subject to wide fluctuations, and you may be unable to resell your shares at or above the price at which you acquired them.***

The market price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in response to a number of factors that are beyond our control, including, but not limited to:

- variations in our revenue and operating expenses;
- actual or anticipated changes in the estimates of our operating results or changes in stock market analyst recommendations regarding our ordinary shares, other comparable companies or our industry generally;
- market conditions in our industry and the economy as a whole;
- developments in the financial markets and worldwide or regional economies;
- announcements of innovations or new products or services by us or our competitors;
- announcements by the government relating to regulations that govern our industry;
- sales of our common stock or other securities by us or in the open market; and
- changes in the market valuations of other comparable companies.

In addition, if the market for biotech stocks or the stock market in general experiences loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, financial condition or operating results. The trading price of our shares might also decline in reaction to events that affect other companies in our industry, even if these events do not directly affect us. Each of these factors, among others, could harm the value of your investment in our common stock. In the past, following periods of volatility in the market, securities class-action litigation has often been instituted against companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management's attention and resources, which could materially and adversely affect our business, operating results and financial condition.

***The Series B Preferred Stock will be an unlisted security and as such there will not be public market for such securities.***

There is no established public trading market for the Series B Preferred Stock, and we do not expect a market to develop. In addition, the Series B Preferred Stock is not listed, and we do not intend to apply for listing of the Series B Preferred Stock on any securities exchange or trading system. Without an active market, the liquidity of the Series B Preferred Stock is limited, and investors may be unable to liquidate their investments in the Series B Preferred Stock.

***Holders of Series B Preferred will have limited voting rights.***

Except with respect to certain material changes in the terms of the Series B Preferred and certain other matters and except as may be required by New Jersey law, holders of Series B Preferred will have no voting rights. You will have no right to vote for any members of our board of directors.

***Holders of the warrants will not have rights of common stockholders until such Warrants are exercised.***

The warrants being offered do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the common stock and pay the exercise price prior to five years from the date of issuance, after which date any unexercised warrants will expire and have no further value.

***Future sales of our common stock, or the perception that future sales may occur, may cause the market price of our common stock to decline, even if our business is doing well.***

Sales by our stockholders of a substantial number of shares of our common stock in the public market could occur in the future. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock.

***Exercise of options or warrants or conversion of convertible securities may have a dilutive effect on your percentage ownership and may result in a dilution of your voting power and an increase in the number of shares of common stock eligible for future resale in the public market, which may negatively impact the trading price of our shares of common stock.***

The exercise or conversion of some or all of our outstanding options, warrants, or convertible securities could result in significant dilution in the percentage ownership interest of investors in this offering and in the percentage ownership interest of our existing common stockholders and in a significant dilution of voting rights and earnings per share.

As of December 12, 2017, we had outstanding warrants to purchase up to 1,490,570 shares of our common stock at a weighted exercise price of $1.39 per share.

Additionally, the issuance of up to 255,000 shares of our common stock upon exercise of stock options outstanding under our stock incentive plans will further dilute our stockholders' voting interests. To the extent options and/or warrants and/or conversion rights are exercised (including with respect to the warrants and any Series B Preferred issued in this offering), additional shares of common stock will be issued, and such issuance will dilute stockholders.

***Our common stock is listed on two separate stock markets and investors seeking to take advantage of price differences between such markets may create unexpected volatility in our share price; in addition, investors may not be able to easily move shares for trading between such markets.***

Our common stock is already admitted to trading on AIM and the Nasdaq Capital Market. Price levels for our ordinary shares could fluctuate significantly on either market, independent of our share price on the other market. Investors could seek to sell or buy our shares to take advantage of any price differences between the two markets through a practice referred to as arbitrage. Any arbitrage activity could create unexpected volatility on either exchange with respect to both our share price and the volume of shares available for trading. In addition, holders of shares in either jurisdiction will not be immediately able to transfer such shares for trading on the other market without effecting necessary procedures with our transfer agent. This could result in time delays and additional cost for our shareholders. Further, if we are unable to continue to meet the regulatory requirements for listing on AIM or Nasdaq, we may lose our listing on AIM or Nasdaq, which could impair the liquidity of our shares.

The SEC has adopted a number of rules to regulate "penny stock" that restricts transactions involving stock which is deemed to be penny stock. Such rules include Rules 3a51-1, 15g-1, 15g-2, 15g-3, 15g-4, 15g-5, 15g-6, 15g-7, and 15g-9 under the Securities and Exchange Act of 1934, as amended. These rules may have the effect of reducing the liquidity of penny stocks. "Penny stocks" generally are equity securities with a price of less than $5.00 per share (other than securities registered on certain national securities exchanges or quoted on the Nasdaq Stock Market if current price and volume information with respect to transactions in such securities is provided by the exchange or system). Our securities have in the past constituted, and may again in the future constitute, "penny stock" within the meaning of the rules. The additional sales practice and disclosure requirements imposed upon U.S. broker-dealers may discourage such broker-dealers from effecting transactions in shares of our common stock, which could severely limit the market liquidity of such shares and impede their sale in the secondary market.

A U.S. broker-dealer selling penny stock to anyone other than an established customer or "accredited investor" (generally, an individual with net worth in excess of $1,000,000 or an annual income exceeding $200,000, or $300,000 together with his or her spouse) must make a special suitability determination for the purchaser and must receive the purchaser's written consent to the transaction prior to sale, unless the broker-dealer or the transaction is otherwise exempt. In addition, the "penny stock" regulations require the U.S. broker-dealer to deliver, prior to any transaction involving a "penny stock", a disclosure schedule prepared in accordance with SEC standards relating to the "penny stock" market, unless the broker-dealer or the transaction is otherwise exempt. A U.S. broker-dealer is also required to disclose commissions payable to the U.S. broker-dealer and the registered representative and current quotations for the securities. Finally, a U.S. broker-dealer is required to submit monthly statements disclosing recent price information with respect to the "penny stock" held in a customer's account and information with respect to the limited market in "penny stocks".

Stockholders should be aware that, according to SEC, the market for "penny stocks" has suffered in recent years from patterns of fraud and abuse. Such patterns include (i) control of the market for the security by one or a few broker-dealers that are often related to the promoter or issuer; (ii) manipulation of prices through prearranged matching of purchases and sales and false and misleading press releases; (iii) "boiler room" practices involving high-pressure sales tactics and unrealistic price projections by inexperienced sales persons; (iv) excessive and undisclosed bid-ask differentials and markups by selling broker-dealers; and (v) the wholesale dumping of the same securities by promoters and broker-dealers after prices have been manipulated to a desired level, resulting in investor losses. Our management is aware of the abuses that have occurred historically in the penny stock market. Although we do not expect to be in a position to dictate the behavior of the market or of broker-dealers who participate in the market, management will strive within the confines of practical limitations to prevent the described patterns from being established with respect to our securities.

***We have not paid dividends in the past and do not expect to pay dividends for the foreseeable future, and any return on investment may be limited to potential future appreciation on the value of our common stock.***

We currently intend to retain any future earnings to support the development and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. Our payment of any future dividends will be at the discretion of our board of directors after taking into account various factors, including without limitation, our financial condition, operating results, cash needs, growth plans and the terms of any credit agreements that we may be a party to at the time. To the extent we do not pay dividends, our stock may be less valuable because a return on investment will only occur if and to the extent our stock price appreciates, which may never occur. In addition, investors must rely on sales of their common stock after price appreciation as the only way to realize their investment, and if the price of our stock does not appreciate, then there will be no return on investment. Investors seeking cash dividends should not purchase our common stock.

***Non-U.S. investors may have difficulty effecting service of process against us or enforcing judgments against us in courts of non-U.S. jurisdictions.***

We are a company incorporated under the laws of the State of New Jersey. All of our directors and officers reside in the United States. It may not be possible for non-U.S. investors to effect service of process within their own jurisdictions upon our company and our directors and officers. In addition, it may not be possible for non-U.S. investors to collect from our company, its directors and officers, judgments obtained in courts in such non-U.S. jurisdictions predicated on non-U.S. legislation.

***If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who may cover us

change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

***If we fail to establish and maintain an effective system of internal control, we may not be able to report our financial results accurately or prevent fraud. Any inability to report and file our financial results accurately and timely could harm our reputation and adversely impact the trading price of our common stock.***

Effective internal control is necessary for us to provide reliable financial reports and prevent fraud. If we cannot provide reliable financial reports or prevent fraud, we may not be able to manage our business as effectively as we would if an effective control environment existed, and our business and reputation with investors may be harmed. As a result, our small size and any current internal control deficiencies may adversely affect our financial condition, results of operations and access to capital.

Internal control over financial reporting cannot provide absolute assurance of achieving their objectives. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgement and breakdowns resulting from human failures. Due to their inherent limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. It is possible to design safeguards to reduce, but not eliminate, this risk. Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company.

Management has used the framework set forth in the report entitled Internal Control—Integrated Framework published by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), known as COSO, to evaluate the effectiveness of our internal control over financial reporting.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. Based on such evaluation, our CEO and Principal Financial Officer ("PFO") have concluded that, as of December 31, 2016, our internal controls over financial reporting were not effective. As of September 30, 2017 and based upon that evaluation, the Company's CEO and PFO concluded that the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in the reports that the Company files or submits under the Exchange Act, are recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including the Company's CEO and PFO, as appropriate, to allow timely decisions regarding required disclosure

As a result of our evaluation, we identified a material weakness in our controls related to segregation of duties and other immaterial weaknesses in several areas of data management and documentation.

The Company's management is composed of a small number of professionals resulting in a situation where limitations on segregation of duties exists. Accordingly, as a result of the material weakness identified above, we have concluded that the control deficiencies result in a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented on a timely basis by the Company's internal controls. The Company has committed to hiring a Financial Controller during the year ending December 31, 2017 which will allow for a higher level of segregation and improve the Company's overall compliance with COSO.

While the material weakness set forth above were the result of the scale of our operations and are intrinsic to our small size, the Company believes the risk of material misstatements relative to financial reporting are minimal.

**Risks Related to the Offering**

***Investors in this offering will experience immediate and substantial dilution in net tangible book value.***

The public offering price per share of common stock in this offering will be substantially higher than the net tangible book value per share of our outstanding shares of common stock. Accordingly, investors in this offering will pay a price per share that substantially exceeds the net tangible book value per share of our common stock. Based on an at an assumed public offering price of $0.39 per Class A Unit and $1,000 per Class B Unit, investors in this offering will incur immediate dilution of $0.04 per share. See "Dilution" for a more complete description of how the value of your investment will be diluted upon the completion of this offering.

***We may need additional capital, and the sale of additional shares or equity or debt securities could result in additional dilution to our stockholders.***

We believe that our existing cash, together with the net proceeds from this offering, will be sufficient to meet our anticipated cash needs for at least the next twelve months. We may, however, require additional cash resources due to changed business conditions or other future developments. If these resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain one or more credit facilities. The sale of additional equity securities could result in additional dilution to our stockholders and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations. It is uncertain whether financing will be available in amounts or on terms acceptable to us, if at all.

If we raise additional funds through government or other third-party funding, collaborations, strategic alliances, licensing arrangements or marketing and distribution arrangements, we may have to relinquish valuable rights to our technologies, future revenue stream or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market products that we would otherwise prefer to develop and market ourselves.

***We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.***

Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in the section of this prospectus entitled “Use of Proceeds.” You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our securities to decline and delay the development of our product candidates. Pending the application of these funds, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

***Sales of a substantial number of shares of our common stock following this offering may adversely affect the market price of our common stock and the issuance of additional shares will dilute all other stockholders.***

Sales of a substantial number of shares of our common stock in the public market or otherwise following this offering, or the perception that such sales could occur, could adversely affect the market price of our common stock. After completion of this offering at an assumed offering price of $0.39 per Class A Unit and $1,000 per Class B Unit, our existing stockholders will own approximately 56% of our common stock, assuming there is no exercise of the underwriter’s over-allotment option.

After completion of this offering at an assumed offering price of $0.39 per Class A Unit and $1,000 per Class B Unit, there will be 17,612,860 shares of our common stock outstanding. This excludes shares of common stock that may be issued upon exercise of the warrants and conversion of the Series B Preferred to be issued in this offering. In addition, our certificate of incorporation, as amended, permits the issuance of up to approximately 482,387,140 additional shares of common stock after the completion of this offering. Thus, we have the ability to issue substantial amounts of common stock in the future, which would dilute the percentage ownership held by the investors who purchase shares of our common stock in this offering.

We and our officers, directors and certain stockholders have agreed, subject to customary exceptions, not to, without the prior written consent of Joseph Gunnar & Co., LLC, the sole underwriter, during the period ending 180 days from the date of this offering in the case of us and our certain directors and officers, 90 days from the date of this offering in the case of our stockholders who beneficially own more than 5% of our common stock, directly or indirectly, offer to sell, sell, pledge or otherwise transfer or dispose of any of shares of our common stock, enter into any swap or other derivatives transaction that transfers to another any of the economic benefits or risks of ownership of shares of our common stock, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any other securities of the Company or publicly disclose the intention to do any of the foregoing.

After the lock-up agreements with our directors and officers pertaining to this offering expire, up to of the shares that had been locked up will be eligible for future sale in the public market. Sales of a significant number of these shares of common stock in the public market could reduce the market price of the common stock.

## USE OF PROCEEDS

We estimate that the net proceeds from sale of Units offered by us will be approximately $5.4 million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and assuming a public offering price of $0.39 per Class A Unit and $1,000 per Class B Unit. If the underwriter's over-allotment option is exercised in full, we estimate that our net proceeds will be approximately $6.2 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and assuming a public offering price of $0.39 per Class A Unit and $1,000 per Class B Unit.

The principal purposes of this offering are to increase our capitalization and financial flexibility, and increase our visibility in the marketplace. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds of this offering. However, we currently intend to use the net proceeds to us from this offering, together with existing cash, primarily for general corporate purposes, including working capital, product development, marketing activities, expanding our internal sales organization and further developing sales channels and other capital expenditures. We may also use a portion of the net proceeds for the acquisition of, or investment in, businesses, products, technologies or other assets that complement our business, although we have no present commitments or agreements to enter into any material acquisitions or investments. We will have broad discretion over the uses of the net proceeds in this offering.

The information discussed above is illustrative only and may change based on the actual public offering price and other terms of this Offering determined at pricing.

## MARKET PRICE INFORMATION FOR OUR SHARES

Our common stock began trading on The Nasdaq Capital Market on January 23, 2014 under the symbol "AKER". Prior to such date our common stock was not previously listed or quoted on any other U.S. market. Our common stock began trading on AIM in May 2002 under the symbol "AKR.L".

The following table shows the high and low market prices per share of our common stock on The Nasdaq for each fiscal quarter for the two most recent fiscal years. Market prices for our shares have fluctuated significantly since they were listed on Nasdaq and trading volume on Nasdaq have been very small in relation to the number of our total outstanding shares.

| Quarter ended | Low Price | High Price |
|---|---|---|
| Through December 12, 2017 | $ 0.36 | $ 1.82 |
| September 30, 2017 | 0.70 | 1.30 |
| June 30, 2017 | 1.15 | 2.10 |
| March 30, 2017 | 1.15 | 2.90 |
| December 31, 2016 | 1.55 | 3.60 |
| September 30, 2016 | 2.47 | 3.70 |
| June 30, 2016 | 1.43 | 3.50 |
| March 31, 2016 | 1.08 | 2.47 |
| December 31, 2015 | 1.12 | 3.73 |
| September 30, 2015 | 2.27 | 4.54 |
| June 30, 2015 | 3.65 | 5.28 |
| March 31, 2015 | 3.08 | 4.85 |

The following table shows the high and low market prices per share of our common stock on AIM for each fiscal quarter for the two most recent fiscal years. Market prices for our shares have fluctuated significantly since they were listed on AIM and trading volume on AIM have been very small in relation to the number of our total outstanding shares.

| | Low Price | | High Price | | Exchange |
|---|---|---|---|---|---|
| Quarter Ended | GBP | USD | GBP | USD | Rate |
| Through December 12, 2017 | £ 0.42 | $ 0.55 | £ 0.85 | $ 1.12 | $ 1.3227 |
| September 30, 2017 | 0.65 | 0.85 | 1.02 | 1.34 | 1.3092 |
| June 30, 2017 | 0.90 | 1.15 | 1.50 | 1.92 | 1.2788 |
| March 30, 2017 | 0.86 | 1.07 | 1.90 | 2.35 | 1.2388 |
| December 31, 2016 | 1.45 | 1.80 | 2.55 | 3.17 | 1.2429 |
| September 30, 2016 | 1.94 | 2.55 | 2.55 | 3.35 | 1.3127 |
| June 30, 2016 | 1.05 | 1.51 | 2.15 | 3.08 | 1.4344 |
| March 31, 2016 | 0.79 | 1.13 | 1.50 | 2.15 | 1.4324 |
| December 31, 2015 | 0.83 | 1.26 | 2.09 | 3.17 | 1.5173 |
| September 30, 2015 | 1.41 | 2.18 | 2.83 | 4.38 | 1.5492 |
| June 30, 2015 | 2.60 | 3.98 | 3.30 | 5.06 | 1.5320 |
| March 31, 2015 | 2.10 | 3.18 | 2.83 | 4.29 | 1.5146 |

* The Company's stock is listed on the AIM where stock prices are in pounds. All shares prices in the table above are reflected in dollars after having been converted according to the periods average exchange rates.

## DIVIDEND POLICY

We have never declared dividends on our equity securities, and currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. Subject to the foregoing, the payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our board of directors.

## CAPITALIZATION

The following table presents a summary of our cash, cash equivalents, short-term investments and capitalization as of September 30, 2017:

- an actual basis;
- a pro forma basis, giving effect to (i) the Exercise Agreements; (ii) the issuance of stock grants to officers and key employees; and
- a pro forma, as adjusted basis, giving effect to (i) the sale by us 7,692,308 Class A Units, at the assumed public offering price of $0.39 per Class A Unit and 3,000 Class B Units, at the public offering price of $1,000 per Class B Unit.

The pro forma information below is illustrative only and our capitalization following the completion of this offering will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited and unaudited consolidated financial statements and the related notes appearing elsewhere in this prospectus.

| | As of September 30, 2017 | | |
|---|---|---|---|
| | **Actual** | **Pro Forma** | **As Adjusted** |
| Cash, cash equivalents and short-term investments | $ 145,311 | $ 826,059 | $ 6,226,059 |
| Long-term debt | $ — | $ — | $ — |
| Stockholders' equity | | | |
| Convertible preferred stock 50,000,000 shares authorized, no par value; no shares issued and outstanding (actual); and no shares issued and outstanding (pro forma) and 3,000 issued and outstanding (as adjusted) | $ — | $ — | $ 2,700,000 |
| Common stock 500,000,000 shares authorized, no par value; 8,901,245 shares issued and outstanding (actual); 9,920,552 shares issued and outstanding (pro forma); 17,612,860 shares issued and outstanding (as adjusted) | $ 104,628,437 | $ 105,309,185 | $ 108,009,185 |
| Accumulated deficit | $ (100,673,108) | $ (100,673,108) | $ (100,673,108) |
| Deferred Compensation | $ (8,788) | $ (8,788) | $ (8,788) |
| Total stockholders' equity (deficit) | $ 3,946,541 | $ 4,627,289 | $ 10,027,289 |
| Total capitalization | $ 3,946,541 | $ 4,627,289 | $ 10,027,289 |

Excludes (i) 1,490,570 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of $1.39 per share as of December 12, 2017, (ii) 1,054,893 shares reserved for future issuances under our 2017 Plan. All future grants will be made pursuant to the 2017 Plan at the market price per share on the date of issuance, (iii) 255,000 shares reserved for outstanding stock options issued under our 2013 Plan, as amended (iv) shares of our common stock issuable upon exercise of the warrants to be issued in this offering, (v) shares of our common stock issuable upon conversion of the Series B Preferred to be issued in this offering, (vi) shares of our common stock issuable by the Company upon exercise of the underwriter's warrants (5% of the shares of common stock sold in this offering, including shares issuable upon conversion of the Series B Preferred but excluding any securities sold upon exercise of the underwriter's over-allotment option or shares issuable upon exercise of the warrants).

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series B Preferred shares convert their shares to common stock

To the extent we sell any Class B Units in this offering, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series B Preferred issued as part of the Class B Units.

The information discussed above is illustrative only and may change based on the actual public offering price and other terms of this offering determined at pricing.

## DILUTION

If you invest in our securities, your investment will be diluted immediately to the extent of the difference between the public offering price you pay in this offering, and the pro forma net tangible book value per share of common stock immediately after this offering.

Net tangible book value per share represents the amount of our total tangible assets reduced by our total liabilities, divided by the outstanding shares of common stock. Tangible assets equal our total assets less intangible assets. As of September 30, 2017, our actual net tangible deficit value was $2.77 million and our net tangible book value per share was $0.3115.

Our pro forma net tangible book value of our Common Stock as of September 30, 2017 was $8.85 million, or $0.3499 per share. Pro forma net tangible book value represents pro forma total tangible assets less pro forma total liabilities and pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of September 30, 2017, each after giving effect to the receipt of the net proceeds from our sale in this offering of shares of common stock at an assumed public offering price of $0.39 per Class A Unit and $1,000 per Class B Unit, and assuming all Class B units were converted to common stock, applying proceeds as set forth in Use of Proceeds and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us:

The following table illustrates this dilution on a per share basis to new investors:

| | | |
|---|---|---|
| Assumed public offering price per share of common stock | $ | 0.39 |
| Historical net tangible book value per share as of September 30, 2017 | $ | 0.3115 |
| Proforma net tangible book value per share as of September 30, 2017 | $ | 0.3482 |
| As adjusted proforma net tangible book value per share after this offering | $ | 0.3499 |
| Increase in proforma net tangible book value per share attributable to this offering | $ | 0.0384 |
| Dilution to new investors | $ | 0.0401 |

Excludes (i) 1,490,570 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of $1.39 per share as of December 12, 2017, (ii) 1,054,893 shares reserved for future issuances under our 2017 Plan. All future grants will be made pursuant to the 2017 Plan at the market price per share on the date of issuance, (iii) 255,000 shares reserved for outstanding stock options issued under our 2013 Plan, as amended (iv) shares of our common stock issuable upon exercise of the warrants to be issued in this offering, (v) shares of our common stock issuable by the Company upon exercise of the underwriter's warrants (5% of the shares of common stock sold in this offering, including shares issuable upon conversion of the Series B Preferred but excluding any securities sold upon exercise of the underwriter's over-allotment option or shares issuable upon exercise of the warrants).

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series B Preferred shares convert their shares to common stock

To the extent we sell any Class B Units in this offering, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series B Preferred issued as part of the Class B Units. If the underwriter's over-allotment option is exercised in full, our adjusted pro forma net tangible book value following the offering will be $0.3500 per share, and the dilution to new investors in the offering will be $0.0400 per share. The number of shares of our common stock to be outstanding after this offering also assumes only the Common Stock are sold in this offering. To the extent we sell any Series B Preferred Stock, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series B Preferred Stock.

The information discussed above is illustrative only and may change based on the actual public offering price and other terms of this Offering determined at pricing.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Forward-looking statements present our current expectations or forecasts of future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Forward-looking statements involve risks and uncertainties and include statements regarding, among other things, our projected revenue growth and profitability, our growth strategies and opportunity, anticipated trends in our market and our anticipated needs for working capital. They are generally identifiable by use of the words "may," "will," "should," "anticipate," "estimate," "plans," "potential," "projects," "continuing," "ongoing," "expects," "management believes," "we believe," "we intend" or the negative of these words or other variations on these words or comparable terminology. These statements may be found under the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," as well as in this prospectus generally. In particular, these include statements relating to future actions, prospective products, market acceptance, future performance or results of current and anticipated products, sales efforts, expenses, and the outcome of contingencies such as legal proceedings and financial results.

Examples of forward-looking statements in this prospectus include, but are not limited to, our expectations regarding our business strategy, business prospects, operating results, operating expenses, working capital, liquidity and capital expenditure requirements. Important assumptions relating to the forward-looking statements include, among others, assumptions regarding demand for our products and services, the cost, terms and availability of components, pricing levels, the timing and cost of capital expenditures, competitive conditions and general economic conditions. These statements are based on our management's expectations, beliefs and assumptions concerning future events affecting us, which in turn are based on currently available information. These assumptions could prove inaccurate. Although we believe that the estimates and projections reflected in the forward-looking statements are reasonable, our expectations may prove to be incorrect.

Important factors that could cause actual results to differ materially from the results and events anticipated or implied by such forward-looking statements include, but are not limited to:

- changes in the market acceptance of our products and services;
- increased levels of competition;
- changes in political, economic or regulatory conditions generally and in the markets in which we operate;
- our relationships with our key customers;
- adverse conditions in the industries in which our customers operate;
- our ability to retain and attract senior management and other key employees;
- our ability to quickly and effectively respond to new technological developments;
- our ability to protect our trade secrets or other proprietary rights, operate without infringing upon the proprietary rights of others and prevent others from infringing on the proprietary rights of the Company; and
- other risks, including those described in the "Risk Factors" discussion of this prospectus.

We operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for us to predict all of those risks, nor can we assess the impact of all of those risks on our business or the extent to which any factor may cause actual results to differ materially from those contained in any forward-looking statement. The forward-looking statements in this prospectus are based on assumptions management believes are reasonable. However, due to the uncertainties associated with forward-looking statements, you should not place undue reliance on any forward-looking statements. Further, forward-looking statements speak only as of the date they are made, and unless required by law, we expressly disclaim any obligation or undertaking to publicly update any of them in light of new information, future events, or otherwise.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the financial statements and the related notes included elsewhere in this prospectus. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in "Risk Factors."*

### Overview

Akers develops, manufactures, and supplies rapid, point-of-care screening and testing products designed to bring health-related information directly to the patient or clinician in a time- and cost-efficient manner. Akers believes it has advanced the science of diagnostics through the development of several proprietary platform technologies that provide product development flexibility.

All of Akers' rapid, single-use tests are performed *in vitro* (outside the body) and are designed to enhance patient well-being and reduce the cost of healthcare. The Company's current product offerings and pipeline products focus on delivering diagnostic assistance in a wide variety of healthcare fields/specialties, including cardiology/emergency medicine, metabolism/nutrition, diabetes, oncology and infectious disease detection, as well as for on- and off-the-job alcohol safety initiatives.

Akers believes that low-cost, single-use testing not only saves time and money, but allows for more frequent, near-patient testing which may save lives. We believe that our FDA-cleared rapid diagnostic tests help facilitate targeted diagnoses and real-time treatment. We also believe that our rapid diagnostic tests surpass most other current diagnostic products with their flexibility, speed, ease-of-use, readability, low cost and accuracy. In minutes, detection of disease states and medical conditions can be performed on single-patient specimens, without sacrificing accuracy.

We believe the use of rapid tests, which can be performed at the point-of-care when and where the patient is being consulted, can result in immediate diagnostic decisions and subsequent treatment regimens and is an important development in the practice of medicine. Point-of-care testing addresses today's challenges in the healthcare industry, such as:

- cost pressures/efficiency of healthcare delivery;
- need for affordable mass screening tests for key infectious diseases, cardiac conditions, and metabolic markers;
- need for easy to use, accurate at-home tests for individuals to monitor their personal health and wellness; and
- public health needs in developing countries lacking basic health infrastructure.

Recently, the Company has developed tests for non-medical use within the health and wellness industry. These tests will monitor general markers of health and wellness as they relate to diet, nutrition and exercise programs.

### Management's Plans and Basis of Presentation

To date, the Company has in large part relied on equity financing to fund its operations, raising $13,101,336, net of expenses, in an initial public offering on the Nasdaq Capital Market in 2014. The Company has experienced recurring losses and negative cash flows from operations. Management's strategic plans include the following:

- continuing to advance the development and commercialization of the Company's products, especially those that utilize MPC Biosensor, PIFA and seraSTAT technologies;
- continuing to strengthen and forge domestic and international relationships with well-established sales organizations with strong distribution channels in specific target markets for both our currently marketed and emerging products;

- establishing clinical protocols that support regulatory submissions and publication of data within peer-reviewed journals; and
- continuing to monitor and implement cost control initiatives to conserve cash.

Despite our plans, the Company expects to continue to incur losses from operations for the near-term for the following reasons:

- some of Akers' distribution partnerships have been recently established or are in the process of being initiated and, therefore, consistent and historical ordering patterns have not been instituted;
- the Company continues to incur expenses related to the initial commercialization and marketing activities for its wellness products and product development (research, clinical trials, regulatory tasks) costs for its emerging products including Breath PulmoHealth, BreathScan® DKA and PIFA PLUSS® Infectious Disease point-of-care tests; and
- to expand the use of its clinical laboratory products, the Company may need to invest in additional marketing support programs to increase brand awareness.

At September 30, 2017, Akers had cash and cash equivalents of $145,311, working capital of $2,401,500, stockholders' equity of $3,946,541 and an accumulated deficit of $100,673,108. Substantial doubt exists about the Company's ability to continue as a going concern within one year after the financial statements are issued. The Company has identified three conditions or events that support this determination:

The Company's current working capital position;

Negotiations are underway with multiple customers for the Company's products and are anticipated to be completed during the three months ending March 31, 2018. All parties are confident that a solution can be achieved but a significant delay will impact revenue projections. All parties are confident that a solution can be achieved but a significant delay will impact revenue projections; and

The Company is awaiting a 510(k) approval from the United States Food & Drug Administration ("FDA") for its PIFA Chlamydia product. An extended delay in receipt of this approval will negatively impact revenue projections.

Please refer to Note 3, Management Plan, of the Financial Statements as of and for the three and nine months ended September 30, 2017 for the Company's plans to address the going concern.

**Summary of Statements of Operations for the Nine Months Ended September 30, 2017 and 2016:**

**Revenue**

Akers' revenue for the nine months ended September 30, 2017 totaled $2,540,942, a 10% increase from the same period in 2016. The table below summarizes our revenue by product line and geographic region for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Product Lines | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Particle ImmunoFiltration Assay ("PIFA") | $ 1,477,726 | $ 2,029,095 | (27)% |
| MicroParticle Catalyzed Biosensor ("MPC") | 381,569 | 195,040 | 96% |
| Rapid Enzymatic Assay ("REA") | 27,500 | — | 100% |
| Other | 616,647 | 83,573 | 638% |
| Total Product Revenue | 2,503,442 | 2,307,708 | 8% |
| License & Service Revenue | 37,500 | — | 100% |
| Total Revenue | $ 2,540,942 | $ 2,307,708 | 10% |

Revenue from the Company's PIFA Heparin/PF4 Rapid Assay products decreased 27% during the nine months ended September 30, 2017 over the same period of 2016. Additional revenue from PIFA related components, totaling $500,000, during the nine months ended September 30, 2017 is included in other revenue. During the nine months ended September 30, 2016 the Company recognized approximately $494,000 (2017: $-) in PIFA revenue from the Company's distribution partner in the People's Republic of China ("PRC"). The distributor continues to work with the various provincial governments in the PRC to finalize reimbursement rates for the providers. Once these rates are established, the distributor expects strong demand for the PIFA products.

The Company is taking steps to improve its market presence and to educate the marketplace through the preparation and publication of additional clinical studies and physician seminars on the risks associated with heparin induced thrombocytopenia.

The Company's MPC breathalyzer technology product sales increased 96% during the nine months ended September 30, 2017 over the same period of 2016. Sales in this category include the BreathScan OxiChek and BreathScan Lync products as well as the traditional BreathScan Breath Alcohol product lines.

Demand for the BreathScan Breath Alcohol products is beginning to re-emerge in Western Europe, Australia and the Far East through the efforts of our Independent Manufacturing Representative ("IMR") in Italy working in conjunction with our Corporate staff. The Company expects this trend to continue as the distribution partners in these areas continue to expand their markets.

The Company began shipping the Tri-Cholesterol product, based on the Company's REA technology, during the nine months ended September 30, 2017. The first order, totaling $27,500, was fulfilled in September and two additional orders have been received to date and will ship before the end of the fourth quarter.

Other operating revenue increased to $616,647 (2016: $83,573) during the nine months ended September 30, 2017 as compared to the same period of 2016. The product group consists of fees received for shipping and handling and the sale of components. The significant increase resulted from an initial order, as explained above, for manufacturing components from NovoTek totaling $500,000. NovoTek will utilize these components along with additional materials to be purchased in a future period to assemble PIFA Heparin/PF4 products in either the PRC or Poland.

During August 2017, the Company received a non-refundable $50,000 fee from a potential customer for the Company's BreathScan OxiChek products in exchange for the use of equipment, access to product documentation and data, technical support and to restrict the Company from actively pursuing another commercial partner in a specific market segment.

The Company recognized $37,500 of this fee as License & Service Revenue during the three months ended September 30, 2017 and will recognize the balance of $12,500 in the three months ended December 31, 2017.

The table below summarizes our revenue by geographic region for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Geographic Region | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| United States | $ 1,755,695 | $ 1,721,967 | 2% |
| People's Republic of China | 627,132 | 506,781 | 24% |
| Rest of World | 158,115 | 78,960 | 100% |
| Total Revenue | $ 2,540,942 | $ 2,307,708 | 10% |

Domestic sales represent the most significant portion of the Company's revenue, contributing 69.1% (2016: 74.6%). The primary sales and marketing efforts are concentrated on expanding the Company's domestic market share in the rapid clinical diagnostic and health and wellness segments and the recent introduction of the Tri-Cholesterol test has allowed the Company to re-enter the retail market.

Revenue from China continues to be highly unpredictable. NovoTek Pharmaceuticals ("NovoTek"), our distribution partner for the PIFA Heparin/PF4 Rapid Assay products, continues to pursue approvals for reimbursement rates from the various Provinces and although they anticipate receipt of these approvals, their timing is unknown. Over the past

several years, NovoTek has created significant product demand by identifying and working with the key opinion leaders and seeding the marketplace with sample products. As a result, they anticipate strong demand for the PIFA Heparin/PF4 Rapid Assay product once reimbursement rates are approved.

Revenue from the rest of the world consists mostly of the BreathScan Breath Alcohol products being distributed in Western Europe and Australia.

The Company's gross margin declined to 67% (2016: 69%) for the nine months ended September 30, 2017. The initial commercial production of the Company's new Tri-Cholesterol product contributed to the decline in gross margin. One-time costs associated with the transition from Research and Development to Manufacturing as the production plans were implemented and adjusted included engineering, raw material waste as processes were fine-tuned to meet commercial production levels, training of the production staff and increased quality review and testing. The inclusion of several of the Research and Development department's professional staff as part of the initial production team significantly increased direct labor costs.

Cost of sales for the nine months ended September 30, 2017 totaled $846,488 (2016: $713,576). Direct cost of sales increased to 16% of product revenue while other cost of sales remained steady at 17% for the nine months ended September 30, 2017 as compared to 14% and 17% respectively for the same period in 2016.

Direct cost of sales for the nine-month period ended September 30, 2017 were $420,189 (2016: $325,922). Other cost of sales for the nine months ended September 30, 2017 were $426,299 (2016: $387,654).

**General and Administrative Expenses**

General and administrative expenses for the nine months ended September 30, 2017, totaled $2,440,023, which was a 6% increase as compared to $2,298,099 for the nine months ended September 30, 2016.

The table below summarizes our general and administrative expenses for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Description | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 781,833 | $ 712,683 | 10% |
| Professional Service Costs | 866,403 | 587,196 | 48% |
| Stock Market & Investor Relations Costs | 320,446 | 322,956 | (1)% |
| Other General and Administrative Costs | 471,341 | 675,264 | (30)% |
| Total General and Administrative Expense | $ 2,440,023 | $ 2,298,099 | 6% |

Personnel expenses increased by 10% for the nine months ended September 30, 2017 as compared to the same period of 2016. The increase is related to the creation of the Controller's position in the Finance department, salary adjustments for executive management and higher employee benefit expenses.

Professional service costs increased by 48% for the nine months ended September 30, 2017 as compared to the same period of 2016. A significant increase in accounting and audit ($140,130 (2016: $80,896)), personnel recruitment ($22,355 (2016: $409)), engineering ($82,718 (2016: $51,072)), legal fees ($568,225 (2016: $443,065)) and general consulting services ($52,975 (2016: $5,513)) accounted for the change.

The Company's other general and administrative expenses declined by 30% for the nine months ended September 30, 2017 as compared to the same period of 2016. Continued efforts to reduce costs resulted in savings across several expense categories, the most significant of which resulted from the travel restrictions put in place earlier in the year. Travel expenses for the executive and administrative staff totaled $36,345 (2016: $114,293).

**Sales and Marketing Expenses**

Sales and marketing expenses for the nine months ended September 30, 2017 totaled $1,382,416 which was a 22% decrease as compared to $1,764,952 for the nine months ended September 30, 2016.

The table below summarizes our sales and marketing expenses for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Description | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 702,319 | $ 937,777 | (25)% |
| Professional Service Costs | 204,237 | 384,114 | (47)% |
| Royalties and Outside Commission Costs | 192,470 | 178,873 | 8% |
| Other Sales and Marketing Costs | 283,390 | 264,188 | 7% |
| Total Sales and Marketing Expenses | $ 1,382,416 | $ 1,764,952 | (22)% |

Personnel costs decreased 25% in the nine months ended September 30, 2017 as compared to the same period of 2016. The Company has reduced its sales and marketing staff from 10 members on January 1, 2016 to 4 as of September 30, 2017. The new sales and marketing strategy targets large integrated delivery networks instead of individual facilities. This strategy requires fewer, but more experienced and technically knowledgeable sales personnel to interact with executive management, laboratory and medical directors. The Company incurred severance expenses related to staff reductions during the nine months ended September 30, 2016 which did not recur during the same period of 2017.

The Company renegotiated or eliminated several consulting arrangements targeted at improving market penetration or identifying marketing or distribution partners during the first half of 2016. The result is a reduction of 47% in professional service fees. General consulting services ($190,176 (2016: $295,299)) and marketing services ($161 (2016: $51,246)) accounted for the savings for the nine months ended September 30, 2017.

The legal settlement with ChubeWorkx Guernsey, Ltd (“ChubeWorkx”), signed on August 11, 2016, requires the Company to pay a 5% royalty on adjusted gross sales to ChubeWorkx on a quarterly basis. During the nine months ended September 30, 2017, this royalty totaled $128,109 (2016: $117,949).

The Company has launched an awareness campaign directed at surgeons, pathologists and laboratory and medical directors regarding the risks associated with heparin induced thrombocytopenia (“HIT”) and a campaign directed at health and wellness professionals to introduce the BreathScan Lync™ and OxiChek™ products. In support of the health and wellness project, the Company produced an infomercial in coordination with Balancing Act that aired on May 8, 2017. Expenses related to the production, which occurred in February 2017, totaled $54,700.

**Research and Development**

Research and development expenses for the nine months ended September 30, 2017 totaled $952,724, which was a 2% increase as compared to $932,858 for the nine months ended September 30, 2016.

The table below summarizes our research and development expenses for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Description | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 727,206 | $ 539,810 | 35% |
| Clinical Trial Costs | 2,453 | 160,405 | (98)% |
| Professional Service Costs | 89,541 | 96,515 | (7)% |
| Other Research and Development Costs | 133,524 | 136,128 | (2)% |
| Total Research and Development Expenses | $ 952,724 | $ 932,858 | 2% |

Personnel costs increased 35% during the nine months ended September 30, 2017 as compared to the same period of 2016. This increase was a result of the transfer of Dr. Akers’ salary and benefits from the General and Administrative

department to Research and Development as he assumed his new responsibilities for the Company. In addition, employee benefit expenses ($72,026 (2016: $45,052)) also contributed to the increase.

Clinical trial costs decreased 98% during the nine months ended September 30, 2017 as compared to the same period of 2016. The Company performed two clinical trials during the nine months ended September 30, 2016, one to test the effectiveness of the PIFA Chlamydia assay and one for the KetoChek™ health and wellness product. Both studies were completed during 2016 and no significant expense was incurred during the nine months ended September 30, 2017.

A reduction in general consulting services ($30,503 (2016: $57,651)) was offset by an increase in engineering and product design fees ($56,164 ($36,593)) for the nine months ended September 30, 2017 resulting in a 7% decline in professional service fees.

Moderate decreases in several expense categories were offset by increases in internal resource utilization ($17,110 (2016: $6,976)) and travel expenses ($28,875 (2016 $11,050)) to account for the 2% decrease in other research and development expenses.

The following table illustrates research and development costs by project for the nine months ended September 30, 2017 and 2016, respectively:

| Project | 2017 | 2016 |
|---|---|---|
| Asthma/Ph | $ 52,368 | $ — |
| Breath Alcohol | 6,885 | 1,381 |
| Chlamydia Trachomatis | 182,825 | 10,685 |
| CHUBE | — | 22,307 |
| Heparin/PF4 | 57,180 | 72,823 |
| HIV | — | 16,885 |
| Ketone | 7,154 | 2,125 |
| KetoChek/OxiChek | 284,278 | 365,177 |
| Lithium | — | 117,871 |
| METRON | 1,098 | 2,507 |
| Other Projects | 59,688 | 101,659 |
| Pulmo Health | 11,361 | 6,126 |
| SeraSTAT | 5,610 | — |
| Sonicator OQ | — | 5,447 |
| Tri-Cholesterol | 283,685 | 117,903 |
| VIVO | 592 | 89,962 |
| Total R&D Expenses: | $ 952,724 | $ 932,858 |

**Other Income and Expenses**

Other income, net of expense for the nine months ended September 30, 2017 totaled $15,468, which was a 32% decrease as compared to $22,792 for the nine months ended September 30, 2016.

The table below summarizes our other income and expenses for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Description | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Currency Translation Gain/(Loss) | $ 6,172 | $ (1,189) | 619% |
| Realized Gain on Investments | 3,375 | 3,421 | (1)% |
| Interest and Dividends | 5,921 | 20,560 | (71)% |
| Other Income | — | — | —% |
| Total Other Income, Net of Expenses | $ 15,468 | $ 22,792 | (32)% |

Gains and losses associated with foreign currency transactions increased by 619% during the nine months ended September 30, 2017 as compared to the same period of 2016, primarily a result of the increased strength of the US Dollar compared to the British Pound during the three quarters of 2017.

Realized gains, interest and dividend income declined to $9,296 (2016: $23,981). The Company's available capital for investment activities was limited during the nine months ended September 30, 2017 resulting in the decline in investment income.

**Summary of Statements of Operations for the Years Ended December 31, 2016 and 2015**

Revenue

The Company's total revenue for the year ended December 31, 2016 was $2,960,912, a 40% increase compared to the same period in 2015. The table below presents a summary of our sales by product line:

| Product Line | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| MicroParticle Catalyzed Biosensor ("MPC") | $ 282,516 | $ 296,328 | (5)% |
| Particle ImmunoFiltration Assay ("PIFA") | 2,577,148 | 1,391,017 | 85% |
| Other | 97,499 | 107,149 | (9)% |
| Product Revenue Total | $ 2,957,162 | $ 1,794,494 | 65% |
| License Fees | 3,750 | 320,556 | (99)% |
| Total Revenue | $ 2,960,912 | $ 2,115,050 | 40% |

Product revenue increased by 65% to $2,957,162 (2015: $1,794,494) during the year ended December 31, 2016 driven primarily by a price increase for our PIFA Heparin/PF4 Rapid Assay products. Licensing revenue declined by 99% to $3,750 ($320,556), the result of the loss of licensing revenue from Chube as a result of the termination of the distribution agreement for the Company's BreathScan Alcohol Breathalyzers that occurred in the second quarter of 2015.

The Company's MPC product sales declined by 5% to $282,516 (2015: $296,328) during the year ended December 31, 2016. A distributor's initial stocking order of approximately $144,000 for the Company's BreathScan Alcohol Breathalyzer products in Great Britain was included for the year ended December 31, 2015 but not repeated in 2016. Net of this significant order, MPC product sales increased 85% year-over-year. The Company's new BreathScan Lync and BreathScan OxiChek™ products and renewed interest in the Company's BreathScan Alcohol Breathalyzers, both domestically and internationally, contributed to the increase for the year ended December 31, 2016.

The Company's total PIFA sales increased during the year ended December 31, 2016 by 85% to $2,577,148 (2015: $1,391,017). The increase is due primarily to two events; first, the implementation of a significant price increase for the product line and second, the fulfillment during the year of approximately 20% of the $2.5 million order from Novotek, our exclusive distributor for PIFA Heparin/PF4 Rapid Assay products in the People's Republic of China.

The Company's dedicated technical sales account executives are supporting over 300 sales representatives of Akers' U.S. distribution partners, Cardinal Health ("Cardinal Health"), Fisher HealthCare ("Fisher Healthcare") and Typenex Medical, LLC ("Typenex"). The Company's relationship-building initiative with our partners has delivered a measurable increase in product trials and adoptions. Domestic sales for the year ended December 31, 2016 of our distributors, Cardinal Health and Fisher HealthCare, accounted for $1,820,186 of the total PIFA Heparin/PF4 Rapid Assay sales as compared to $1,213,006 for the same period of 2015 and individually represented 37% and 22% of such sales, respectively.

The Company's international sales of its PIFA Heparin/PF4 Rapid Assay products totaled $493,850 (2015: $-) during the year ended December 31, 2016 primarily as a result of the partial fulfillment of a $2.5 million order from NovoTek. Although the product has been approved for use in China by the China Food and Drug Administration, each province in which it is sold must establish reimbursement rates for the medical facilities that utilize the test. NovoTek is diligently working through this provincial approval process and is projecting reimbursement rate approvals in several provinces during 2017 which is expected to allow for the release of and payment for further products in line with user demand.

Other operating revenue decreased by 9% to $97,499 (2015: $107,149) for the year ended December 31, 2016 due in a major part to a decline in the sale of miscellaneous components to $42,570 (2015: $50,612).

The Company's exclusive License and Supply Agreement with Chube for the Company's proprietary breathalyzer product was cancelled by both parties on May 7, 2015. As a result of this event, and per the terms of the original agreement, the Company recognized the remaining $166,667 of deferred revenue in the statement of operations and comprehensive income for the year ended December 31, 2015. The Company is now able to solicit business outside the United States for its alcohol breathalyzer products and has begun to receive and ship orders.

Licensing fee revenue declined to $3,750 (2015: $320,556). The decline is associated with the cancellation of the Company's exclusive License and Supply Agreement with Chube as described above.

Cost of sales for the year ended December 31, 2016 totaled $1,083,087 (2015: $950,792) on the increased revenue during the year ended December 31, 2016. Direct cost of sales decreased to 26% (2015: 43%) and indirect cost of sales decreased to 21% (2015: 24%) of product revenue for year ended December 31, 2016. Overall, cost of sales, as a percentage of product revenue, was 37% and 53% for the years ended December 31, 2016 and 2015.

Direct costs associated with the MPC products remained constant at 30% (2015: 30%) and PIFA products decreased to 9% (2015: 11%) related to the increased use of sub-contractors for the assembly of components.

Indirect cost of sales for the year ended December 31, 2016 totaled $634,848 (2015: $425,609) which represented 21% (2015: 24%) of product revenue. Costs associated with personnel, consumable supplies other general production declined while a project to identify and discard expired, stale and obsolete inventory resulted in a significant increase in expenses related to slippage and obsolescence. In addition, the percentage change is affected by the fixed cost nature of many of the components in this category.

Akers' gross profit margin, as a percentage of revenue, increased to 63% for the year ended December 31, 2016 as compared to 55% in 2015 for the reasons described above.

General and Administrative Expenses

General and administrative expenses in the year ended December 31, 2016 totaled $3,008,811, which was a 25% decrease as compared to $4,029,516 for the year ended December 31, 2015. The table below summarizes our general and administrative expenses for the years ended December 31, 2016 and 2015 as well as the percentage of change year-over-year:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 886,294 | $ 902,431 | (2)% |
| Professional Service Costs | 885,746 | 1,233,126 | (28)% |
| Stock Market & Investor Relations Costs | 441,453 | 572,161 | (23)% |
| Other General and Administrative Costs | 795,318 | 1,321,798 | (40)% |
| Total General and Administrative Costs | $ 3,008,811 | $ 4,029,516 | (25)% |

Several specific categories of expense decreased significantly during the year ended December 31, 2016. Below is a summary of these categories:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Professional Services | $ 885,746 | $ 1,233,136 | (28)% |
| Stock Market & Investor Relations | 441,453 | 572,161 | (23)% |
| Travel Costs | 118,980 | 268,201 | (56)% |
| Total | $ 1,446,179 | $ 2,073,488 | (30)% |

Professional services included significant decreases in employment agency fees ($409 (2015: $237,553)), general consulting services ($73,405 (2015: $125,168)) and legal fees ($613,159 (2015 $736,745)) which were offset by an increase in accounting and audit expenses ($182,396 ((2015: $133,660)) during the year ended December 31, 2016.

The Company recognized cost savings in all of its stock market and investor relations categories. These include consulting, investor relations, stock exchange fees and transfer agent fees.

Travel to China in support of NovoTek and Hainan Savy-Akers Biosciences ("Savy-Akers"), our Chinese joint venture, were consolidated resulting in two (2) extended trips during the year ended December 31, 2016. During 2015, the Company made several trips to assist NovoTek in gaining government approvals and developing the market for the Company's PIFA Heparin/PF4 Rapid Assay product.

Sales and Marketing Expenses

Sales and marketing expenses in the year ended December 31, 2016 totaled $2,137,282, which was a 16% decrease as compared to $2,543,286 for the year ended 2015. The table below summarizes our sales and marketing expenses for the years ended December 31, 2016 and 2015 as well as the percentage of change year-over-year:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 1,129,722 | $ 1,359,460 | (17)% |
| Professional Service Costs | 441,632 | 751,220 | (41)% |
| Royalties and Commission Costs | 225,159 | 158,347 | 42% |
| Other Sales and Marketing Costs | 340,769 | 274,259 | 24% |
| Total Sales and Marketing Costs | $ 2,137,282 | $ 2,543,286 | (16)% |

Personnel costs decreased in the year ended December 31, 2016 due to a revision of the sales strategy to target large integrated delivery networks ("IDNs") which require fewer, but more experienced, area business directors. This was accomplished by replacing the executive sales staff with a Vice President for Global Marketing and a Vice President of United States Sales. The strategy established five (5) areas, each with an Area Business Director ("ABDs"), however, attrition during the year resulted in the loss of three (3) ABDs and the strategy was revised to use pay-for-performance based Independent Manufacturing Representatives ("IMRs") in-lieu of replacing staff.

The decrease in the use of contracted marketing services firms ($51,246 (2015: $225,064)) and general sales consultants ($351,459 (2015: $525,938)) resulted in a 41% decrease in professional service costs. The Company has refocused its sales and marketing strategy, concentrating on the development of relationships with Independent Manufacturing Representatives that are paid for performance versus the use of contracted sales groups paid fixed monthly fees.

Royalty and commission costs increased as a result of outside sales commissions ($71,305 (2015: $66,436)), due to increased sales of the PIFA products, both domestically and internationally, and royalty expenses ($153,854 (2015: $91,910)) during the year ended December 31, 2016.

Other sales and marketing costs increased primarily due to technology ($53,312 (2015: $20,261)), sponsorships ($10,500 (2015: $-)) and travel ($182,420 (2015: $145,688)) expenses and was partially offset by decreases in advertising and promotional materials expenses ($5,080 (2015: $42,323)).

Research and Development

Research and development expenses in the year ended December 31, 2016 totaled $1,188,868, which was a 15% decrease as compared to $1,406,895 for the year ended 2015. The table below summarizes our research and development expenses for the years ended December 31, 2016 and 2015 as well as the percentage of change year-over-year:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Personnel Costs | $ 745,326 | $ 699,595 | 7% |
| Professional Service Costs | 113,807 | 504,800 | (77)% |
| Clinical Trial Costs | 160,405 | 41,586 | 286% |
| Other Research and Development Costs | 169,330 | 160,914 | 5% |
| Total Research and Development Costs | $ 1,188,868 | $ 1,406,895 | (15)% |

Personnel costs increased 7% during the year ended December 31, 2016 as compared to the same period of 2015 as a result of the transfer to this department of Dr. Akers from the General and Administrative department effective April 25, 2016 and the employment of a new Director of Quality Assurance.

The Company had two clinical trials in-process during the year ended December 31, 2016 in respect of the Company's rapid chlamydia assay and Diabetic Ketoacidosis breath test resulting in a significant increase in costs associated with these programs. The trials are collecting data to support submissions to the U.S. Food and Drug Administration for 510(k) approvals and to support the clinical effectiveness of the products.

Professional service costs declined 77% during the year ended December 31, 2016. During the year ended December 31, 2015, the Company was expending funds for the engineering and design of the BreathScan Lync™ reader and cartridge being used with the new Health and Wellness MPC products. These design projects are now complete.

Increase in supplies ($52,317 (2015: $45,235)), seminars and professional development ($26,849 (2015: $1,980)) waste disposal ($19,322 (2015: $15,082)) and travel expenses ($29,561 ($2015: 9,739) was offset by a reduction in the utilization of inventory resources for development and testing ($8,595 (2015: $46,590)) that resulted in an increase of 5% for other research and development costs during the year ended December 31, 2016.

The following table illustrates research and development costs by project for the years ended December 31, 2016 and 2015, respectively.

| | 2016 | 2015 |
|---|---|---|
| Asthma/pH | $ — | $ 4,917 |
| BreathScan | 1,483 | 110,609 |
| Chlamydia Trachomatis | 35,808 | 134,362 |
| CHUBE | — | 397 |
| H/PF4 | 104,436 | 98,876 |
| HIV | — | 150,543 |
| Diabetic Ketoacidosis | 3,098 | 72,757 |
| KetoChek/OxiChek | 584,585 | 252,462 |
| Lithium | — | 41,086 |
| Metron | 5,832 | 77,796 |
| Other Projects | 144,457 | 156,379 |
| Pulmo Health | 22,069 | 18,283 |
| Sonicator OQ | — | 886 |
| Troponin | — | 127,095 |
| Tri Cholesterol | 281,884 | 96,271 |
| VIVO | 5,216 | 64,176 |
| Total R&D Expenses: | $ 1,188,868 | $ 1,406,895 |

(Reversal of Allowance for) Bad Debt Expense — Related Party

The Company established an allowance for doubtful accounts for $1,299,609 for a note receivable – related party as a result of an internal assessment indicating a high level of risk of collectability as of December 31, 2015. In August 2016, the two companies reached a settlement agreement which included recovery for the value of the note receivable. As a result, the allowance for doubtful accounts was reversed during the year ended December 31, 2016.

Other Income and Expense

Other income and expense decreased for the year ended December 31, 2016 to $25,097 from $100,973 for the same period in 2015. The table below summarizes our other income and expenses for the years ended December 31, 2016 and 2015 as well as the percentage of change year-over-year:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Currency Translation (Gain)/Loss | $ (3,398) | $ 7,535 | 145% |
| Dividend on Series A Preferred Stock | — | — | —% |
| Investment (Gain)/Loss | 85 | 6,512 | 99% |
| Interest and Dividends | (21,784) | (108,968) | (80)% |
| Other Extraordinary Income | — | (6,052) | (100)% |
| Total Other (Income) and Expense | $ (25,097) | $ (100,973) | (75)% |

Income Taxes

During 2015, the Company was approved by the State of New Jersey to sell a portion of its state tax benefits that existed as of December 31, 2014, pursuant to the Technology Tax Certificate Transfer Program. The Company received net proceeds of $269,344 for the year ended December 31, 2015 as a result of the sale of the tax benefits. The Company, anticipating profitability for 2016 at the June 30, 2016 filing deadline, did not participate in the program during the year ended December 31, 2016.

As of December 31, 2016 and 2015, the Company had Federal net operating loss carry forwards of approximately $60,100,000 and $58,000,000, respectively, expiring through the year ending December 31, 2036. As of December 31, 2016 and 2015, the Company had New Jersey state net operating loss carry forwards of approximately $9,400,000 and $7,200,000, respectively, expiring the year ending December 31, 2023.

The principal components of deferred tax assets and valuation allowance as of December 31, 2016 and December 31, 2015 are as follows:

Deferred Tax Assets

| | Year Ended December 31, | |
|---|---|---|
| | 2016 | 2015 |
| Reserves and other | $ 865,000 | $ 2,506,000 |
| Net operating loss carry-forwards | $ 21,618,000 | $ 20,728,000 |
| Valuation Allowance | $ (22,483,000) | $ (23,234,000) |
| Net | $ — | $ — |

The valuation allowance for deferred tax assets as of December 31, 2016 and 2015 was $22,483,000 and $23,234,000. The change in the total valuation for the years ended December 31, 2016 and 2015 were a decrease of $751,000 and an increases of $3,795,104. In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the net operating losses and temporary differences become deductible. Management considered projected future taxable income and tax planning strategies in making this assessment. The value of the deferred tax assets was fully offset by a valuation allowance, due to the current uncertainty of the future realization of the deferred tax assets.

The reconciliation of income taxes using the statutory U.S. income tax rate and the benefit from income taxes for the years ended December 31, 2016 and December 31, 2015 are as follows.

Tax Rates & Benefits

| | Year Ended December 31, | |
|---|---|---|
| | 2016 | 2015 |
| Statutory U.S. Federal Income Tax Rate | (35.0)% | (35.0)% |
| New Jersey State income taxes, net of U.S. | | |
| Federal tax effect | (6.0)% | (6.0)% |
| Benefit from sale of New Jersey NOL | 0.0% | (2.9)% |
| Change in Valuation Allowance | 41.0% | 41.0% |
| Net | 0.0% | (2.9)% |

**Liquidity and Capital Resources**

For the nine months ended September 30, 2017 and 2016, the Company generated a net loss attributable to shareholders of $3,193,571 and $2,207,707, respectively. For the years ended December 31, 2016 and 2015, the Company generated a net loss attributable to shareholders of $3,303,538 and $9,311,913, respectively. As of September 30, 2017 and December 31, 2016, the Company has an accumulated deficit of $100,673,108 and $94,479,537 and had cash and equivalents totaling $145,311 and $72,700, respectively. As of December 31, 2016 and 2015, the Company has an accumulated deficit of $97,479,537 and $94,175,999 and had cash and cash equivalents totaling $72,700 and $402,059, respectively The Company had marketable securities of $50,001 and $4,025,104 available as of December 31, 2016 and 2015.

Currently, our primary focus is to expand the domestic and international distribution of our PIFA Heparin/PF4 rapid assays.

The Company's secondary focus is fully commercializing the health and wellness product line linked to smartphones and tablets. The Company continues commercialization tasks for its PIFA PLUSS® Infectious Disease single-use assays, BreathScan® DKA, and Breath PulmoHealth products, including advancement of the steps required for FDA clearance or CE marking in the EU where necessary.

The Company continues to expand the global distribution of our PIFA Heparin/PF4 rapid assays. The Company's future and focus resides in preparing for the launch of our health and wellness product line linked to smartphones and tablets and the Company's rapid manual point-of-care chlamydia assay.

Substantial doubt exists about the Company's ability to continue as a going concern within one year after the financial statements are issued. The Company has identified three conditions or events that support this determination:

The Company's current working capital position

Negotiations are underway with multiple customers for the Company's products and are anticipated to be completed during the three months ending March 31, 2018. All parties are confident that a solution can be achieved but a significant delay will impact revenue projections.

The Company is awaiting a 510(k) approval from the United States Food & Drug Administration ("FDA") for its PIFA Chlamydia product. An extended delay in receipt of this approval will negatively impact revenue projections.

Please refer to Note 3 in the September 30, 2017 unaudited financial statement footnotes, Management Plan, of the Financial Statements for the Company's plans to address the going concern.

We expect that our primary expenditures will be to continue development of our health and wellness line, Tri-cholesterol test, PIFA Chlamydia assay and PIFA PLUSS® Infectious Disease single-use assays products, enrolling patients in clinical trials to support performance claims, generating studies in peer-reviewed journals to support product marketing, and provide data for the FDA 510(k) clearance/CE certifications processes when required. We will also continue to support commercialization and marketing activities of commercialized products. Based upon our experience, clinical trial and related regulatory expenses can be significant costs. Steps to achieve commercialization of emerging products

will be an ongoing and evolving process with expected improvements and possible subsequent generations being evaluated for commercialized and emerging tests. Should we be unable to achieve FDA clearance for products that require such regulatory “approval”, develop performance characteristics for rapid tests that satisfy market needs, or generate sufficient revenue from commercialized products, we would need to rely on other business or product opportunities to generate revenue and costs that we have incurred for the patents may be deemed impaired.

Capital expenditures for the nine months ended September 30, 2017 were $37,191 (2016: $88,023). Capital expenditures, primarily for production and laboratory costs for the year ending December 31, 2017 are expected to be approximately $50,000. As per the Company’s lease agreement, the owner of the facility will be handling the majority of facility upgrades, and we anticipate financing any production and laboratory capital expenditures through working capital. Capital expenditures, primarily for production, laboratory and facility improvement costs for the year ending December 31, 2016 totaled $123,301 (2015: $112,951). As per the Company’s lease agreement, the owner of the facility will be handling the majority of facility upgrades, and we anticipate financing any production and laboratory capital expenditures through working capital.

The Company may enter into generally short-term consulting and development agreements primarily for testing services and in connection with clinical trials conducted as part of the Company’s development process which may include activities related to the development of technical files for FDA 510(k) clearance submissions. Such commitments at any point in time may be significant but the agreements typically contain cancellation provisions.

We lease our manufacturing facility which also contains our administrative offices. Our current lease was executed January 1, 2013 and is effective through December 31, 2019. The Company has leased this property from the current owner since 1997.

The Company executed a lease for a satellite office in Ramsey, New Jersey on June 23, 2017 which is effective through May 31, 2019. The satellite office supports members of executive management and the sales and marketing team with convenient access to resources in the metro New York area.

Due to recent market events that have adversely affected all industries and the economy as a whole, management has placed increased emphasis on monitoring the risks associated with the current environment, particularly the recoverability of current assets, the fair value of assets, and the Company’s liquidity. At this point in time, there has not been a material impact on the Company’s assets and liquidity. Management will continue to monitor the risks associated with the current environment and their impact on the Company’s results.

The table below summarizes our cash flows for the nine months ended September 30, 2017 and 2016 as well as the percentage of change year-over-year:

| Description | Nine Months Ended September 30, 2017 | Nine Months Ended September 30, 2016 | Percent Change |
|---|---|---|---|
| Cash at beginning of period | $ 72,700 | $ 402,059 | (82)% |
| Loss from operations | (3,193,571) | (2,207,707) | (45)% |
| Adjustments | | | |
| Non-Operating Gains | — | — | —% |
| Non-Cash Activities | 266,881 | (846,749) | 129% |
| Cash Used in Operating Activities | | | |
| Cash Consumed by Operating Activities | (935,622) | (754,781) | (12)% |
| Cash Contributed by Operating Activities | 207,454 | 275,588 | (50)% |
| Cash Flows from Investing Activities | | | |
| Cash Consumed by Investing Activities | (2,746,339) | (125,383) | (2,090)% |
| Cash Contributed by Investing Activities | 2,749,119 | 3,452,833 | (20)% |
| Cash Flows from Financing Activities | | | |
| Cash Consumed by Financing Activities | — | — | —% |
| Cash Contributed by Financing Activities | 3,714,511 | — | 100% |
| Cash at end of period | $ 135,133 | $ 195,860 | (31)% |

The Company's net cash provided by investing and financing activities totaled $6,463,630 during the nine months ended September 30, 2017. Cash of $2,746,339 was consumed by capital expenditures and the purchase of marketable securities. Proceeds from the sale of marketable securities contributed cash of $2,749,119 for the period ended September 30, 2017.

The Company's net cash provided by investing and financing activities totaled $3,452,833 during the nine months ended September 30, 2016. Cash of $125,383 was consumed by capital expenditures and the purchase of marketable securities. Proceeds from the sale of marketable securities contributed cash of $3,452,833 for the period ended September 30, 2016.

Our net cash consumed by operating activities totaled $3,654,858 during the nine months ended September 30, 2017. Cash was consumed by the loss of $3,193,571 plus non-cash adjustments of $182,866 for depreciation and amortization of non-current assets, $46,239 for allowances for doubtful accounts, $15,784 for amortization of deferred compensation, $14,502 for share based compensation, $2,183 for options issued for services and $5,455 for restricted stock issued for services less and $148 for accrued income on marketable securities. For the nine months ended September 30, 2017, decreases in deposits and other receivables of $2,034, prepaid expense of $68,798, prepaid expense — related parties of $38,438 and an increase in trade and other payables of $85,684 and deferred revenue of $12,500 provided cash, primarily related to routine changes in operating activities. A net increase in trade receivables of $570,065, trade receivables — related parties of $93,109, inventories of $49,346 and other assets of $9,280 and a decrease in trade and other payables — related party of $213,822 consumed cash from operating activities.

Our net cash consumed by operating activities totaled $3,533,649 during the nine months ended September 30, 2016. Cash was consumed by the loss of $2,207,707 plus non-cash adjustments of $221,946 for depreciation and amortization of non-current assets, $146,196 for allowances for doubtful accounts, $24,834 for amortization of deferred compensation, $22,828 for share based compensation, $23,676 for options issued for services and $13,380 for accrued income on marketable securities less $1,299,609 for the reversal of a bad debt allowance. For the nine months ended September 30, 2016, decreases in deposits and other receivables of $65,855. prepaid expense of $91,706, prepaid expense — related party of $58,974 and an increase in trade and other payables — related party of $59,673 provided cash, primarily related to routine changes in operating activities. A net increase in trade receivables of $275,541 and inventories of $60,862 and a decrease in trade and other payables of $418,998 consumed cash from operating activities.

The Company's net cash consumed by operating activities in the year ended December 31, 2016 totaled $4,173,148, which was a 19% decrease as compared to $5,132,343 for the year ended December 31, 2015. The table below summarizes our net cash consumed for the years ended December 31, 2016 and 2015 as well as the percentage of change year-over-year:

| Description | Year Ended December 31, 2016 | Year Ended December 31, 2015 | Percent Change |
|---|---|---|---|
| Loss from Operations | $ (3,303,538) | $ (9,311,913) | 65% |
| *Adjustments* | | | |
| Non-Operating Gains | (1,153,413) | (6,052) | (18,958)% |
| Non-Cash Activities | 414,545 | 3,331,291 | 88% |
| *Cash Used in Operating Activities* | | | |
| Cash Consumed by Operating Activities | (531,220) | (663,010) | 20% |
| Cash Contributed by Operating Activities | 400,478 | 1,517,341 | (74)% |
| Net Cash Used in Operating Activities | $ (4,173,148) | $ (5,132,343) | 19% |

For the year ended December 31, 2016, cash was consumed by the loss of $3,303,538 and non-operating gains of $1,153,413 offset by a non-cash adjustment of $14,244 for accrued interest and dividends, $286,162 for depreciation, amortization of non-current assets, $32,333 for a reserve for obsolete inventory, $30,153 for amortization of deferred compensation and $51,653 for non-cash share based compensation and services. Decreases in deposits and other receivables ($71,795), prepaid expenses ($17,689), prepaid expenses — related party of ($76,927) and an increase in trade and other payables — related party ($234,067) provided cash. Increases in trade receivables ($138,272), trade receivables — related party ($380), inventories ($187,200) and a decrease in trade and other payables ($205,368) consumed cash. The decrease in net cash used in operating activities was related to improvements to the Company's budgeting process, termination of several consulting agreements and a significant reduction in legal expenses.

For the year ended December 31, 2015, cash was consumed by the loss of $9,311,913 and non-operating gains of $6,052 offset by a non-cash adjustment of $4,199 for accrued interest and dividends, $766,471 for depreciation, amortization and impairment of non-current assets, $2,163,609 for allowances for doubtful accounts and $397,012 for non-cash share based compensation and services. Decreases in trade receivables ($513,583), trade receivables — related party ($176,157) and an increase in trade and other payables ($827,601) provided cash. Increases in other receivables ($54,142), inventories ($226,538), other assets ($76,774) and a decrease in deferred revenue — related party ($305,556) consumed cash. The increase in net cash used in operating activities was related to routine changes in operating activities.

**Critical Accounting Policies**

We intend to utilize the extended transition period provided in Securities Act Section 7(a)(2)(B) as allowed by Section 107(b)(1) of the JOBS Act for the adoption of new or revised accounting standards as applicable to emerging growth companies. Under the JOBS Act, emerging growth companies may delay adopting new or revised accounting standards that have different effective dates for public and private companies until such time as those standards apply to private companies. We have elected to use the extended transition period for complying with these new or revised accounting standards. Since we will not be required to comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies, our financial statements may not be comparable to the financial statements of companies that comply with public company effective dates. If we were to elect to comply with these public company effective dates, such election would be irrevocable pursuant to Section 107 of the JOBS Act.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (US GAAP) requires management to make estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. Future events and their effects cannot be determined with absolute certainty. Therefore, the determination of estimates requires the exercise of judgment. Actual results inevitably will differ from those estimates, and such differences may be material to the financial statements. The most significant accounting estimates inherent in the preparation of our financial statements include estimates associated with revenue recognition, impairment analysis of intangibles and stock-based compensation.

The Company's financial position, results of operations and cash flows are impacted by the accounting policies the Company has adopted. In order to get a full understanding of the Company's financial statements, one must have a clear understanding of the accounting policies employed. A summary of the Company's critical accounting policies follows:

**Trade Receivables, Trade Receivables — Related Party and Allowance for Doubtful Accounts**

The carrying amounts of current trade receivables is stated at cost, net of allowance for doubtful accounts and approximate their fair value given their short term nature.

The normal credit terms extended to customers ranges between 30 and 90 days. The Company reviews all receivables that exceed terms and establishes an allowance for doubtful accounts based on management's assessment of the collectability of trade and other receivables. A considerable amount of judgment is required in assessing the amount of allowance. The Company considers the historical level of credit losses, makes judgments about the credit worthiness of each customer based on ongoing credit evaluations and monitors current economic trends that might impact the level of credit losses in the future.

**Fair Value Measurement — Marketable Securities**

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Company has the Ability to access.

Level 2 Inputs to the valuation methodology include

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

**Intangible Assets**

The Company has developed or acquired several diagnostic tests that can detect the presence of various substances in a person's breath, blood, urine and saliva. Propriety protection for the Company's products, technology and process is important to its competitive position. As of September 30, 2017, the Company has eleven patents from the United States Patent Office in effect (9,383,368; 7,896,167; 8,097,171; 8,003,061; 8,425,859; 8,871,521; 8,808,639; D691,056; D691,057; D691,058 and D786,872). Other patents are in effect in Australia through the Design Registry (348,310; 348,311 and 348,312), European Union Patents 1793906, 2684025, 002216895-0001; 002216895-0002; 002216895-0003; 3459700-0001 and 3459395-001), United Kingdom and France (2684025), Germany (602012021524.0), Spain (E12755523), China (2016305495829), in Hong Kong (HK11004006) and in Japan (1,515,170; 4,885,134; 4,931,821 5,775,790, and 6023096). Patents are in the national phase of prosecution in many Patent Cooperation Treaty participating countries. Additional proprietary technology consists of numerous different inventions. The Company intends to file additional patent applications, where appropriate, relating to new products, technologies and their use in the US, European and Asian markets. Management intends to protect all other intellectual property (e.g. copyrights, trademarks and trade secrets) using all legal remedies available to the Company.

Costs associated with applying for patents are capitalized as patent costs. Once the patents are approved, the respective costs are amortized over a period of twelve to seventeen years on a straight-line basis. Patent pending costs for patents that are not approved are charged to operations the year the patent is rejected.

In addition, patents may be purchased from third parties. The costs of acquiring the patent are capitalized as patent costs if it represents a future economic benefit to the Company. Once a patent is acquired it is amortized over its remaining life. The Company amortizes these costs over the shorter of the legal life of the patent or its estimated economic life using the straight-line method. The Company tests intangible assets with finite lives upon significant changes in the Company's business environment.

**Long-Lived Assets**

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the asset. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized net within "other income" in profit or loss.

**Investments**

In accordance with FASB ASC 323, the Company recognizes investments in joint ventures based upon the Company's ability to significantly influence the operational or financial policies of the joint venture. An objective judgment of the

level of influence is made at the time of the investment based upon several factors including, but not limited to the following:

a) Representation on the Board of Directors

b) Participation in policy-making processes

c) Material intra-entity transactions

d) Interchange of management personnel

e) Technological dependencies

f) Extent of ownership and the ability to influence decision making based upon the makeup of other owners when the shareholder group is small.

The Company follows the equity method for valuating investments in joint ventures when the existence of significant influence over operational and financial policy has been established, as determined by management; otherwise, the Company will valuate these investments using the cost method.

Investments recorded using the cost method will be assessed for any decrease in value that has occurred that is other than temporary and the other than temporary decrease in value shall be recognized. As and when circumstances and facts change, the Company will evaluate the Company's ability to significantly influence operational and financial policy to establish a basis for converting the investment accounted for using the cost method to the equity method of valuation.

**Revenue Recognition**

In accordance with FASB ASC 605, the Company recognizes revenue when (i) persuasive evidence of a customer or distributor arrangement exists, (ii) a retailer, distributor or wholesaler receives the goods and acceptance occurs, (iii) the price is fixed or determinable, and (iv) the collectability of the revenue is reasonably assured. Subject to these criteria, the Company recognizes revenue from product sales when title passes to the customer based on shipping terms. The Company typically does not accept returns nor offer charge backs or rebates except for certain distributors. Revenue recorded is net of any discount, rebate or sales return.

License fee revenue is recognized on a straight-line basis over the term of the license agreement.

When the Company enters into arrangements that contain more than one deliverable, the Company allocates revenue to the separate elements under the arrangement based on their relative selling prices in accordance with FASB ASC 605-25.

**Stock-based Compensation**

FASB ASC 718, *Share-Based Payment*, defines the fair-value-based method of accounting for stock-based employee compensation plans and transactions used by the Company to account for its issuances of equity instruments to record compensation cost for stock-based employee compensation plans at fair value as well as to acquire goods or services from non-employees. Transactions in which the Company issues stock-based compensation to employees, directors and consultants and for goods or services received from non-employees are accounted for based on the fair value of the equity instruments issued. The Company utilizes pricing models in determining the fair values of options and warrants issued as stock-based compensation. The Black-Scholes model is utilized to calculate the fair value of equity instruments.

**Recently Issued and Adopted Accounting Pronouncements**

The Company has evaluated all recently issued and adopted accounting pronouncements and believes such pronouncements do not have a material effect on the Company's financial statements.

**Quantitative and Qualitative Disclosure About Market Risk**

We have limited exposure to market risks from instruments that may impact the *Balance Sheets, Statements of Operations, and Statements of Cash Flows*. Such exposure is due primarily to changing interest rates.

**Interest Rates**

The primary objective for our investment activities is to preserve principal while maximizing yields without significantly increasing risk. This is accomplished by investing excess cash in highly liquid debt and equity investments of highly rated entities which are classified as trading securities.

**Off-Balance Sheet Arrangements**

We have no significant known off balance sheet arrangements.

***Overview***

The Company develops, manufactures, and supplies rapid, point-of-care screening and testing products designed to bring health-related information directly to the patient or clinician in a time- and cost-efficient manner. Akers believes it has advanced the science of diagnostics through the development of several innovative proprietary platform technologies that provide product development flexibility.

All of Akers' rapid, single-use tests are performed *in vitro* (outside the body) and are designed to enhance patient well-being and reduce total outcome costs of healthcare. The Company's current product offerings and pipeline products focus on delivering diagnostic assistance in a wide variety of healthcare fields/specialties, including cardiology/emergency medicine, metabolism/nutrition, diabetes, respiratory diseases and infectious diseases detection, as well as for on and off-the-job alcohol safety initiatives.

Akers believes that low-cost, unit-use testing not only saves time and money, but also allows for more frequent, near-patient testing which may save lives. We believe that Akers' FDA-cleared rapid diagnostic tests help facilitate targeted diagnoses and real-time treatment. We also believe that Akers' rapid diagnostic tests surpass most other current diagnostic products with their flexibility, speed, ease-of-use, readability, low cost and accuracy. In minutes, detection of disease states and medical conditions can be performed from single-patient specimens, without sacrificing accuracy.

We believe the use of rapid tests, which can be performed at the point-of-care when and where the patient is being consulted, can allow for immediate diagnostic decisions and subsequent treatment regimens and is an important development in the practice of medicine. Point-of-care testing addresses today's challenges in the healthcare industry, such as:

- cost pressures/efficiency of healthcare delivery;
- need for fast, easy to use, accurate at-home tests for individuals to monitor their personal health and wellness;
- need for affordable mass screening tests for key infectious diseases, cardiac conditions, and metabolic markers; and
- public health needs in developing countries lacking basic health infrastructure.

Recently, the Company has developed tests for non-medical use within the health and wellness industry. These tests will monitor general markers of health and wellness as they relate to diet, nutrition and exercise programs.

*Market Overview*

Worldwide, healthcare professionals use laboratory tests to support their clinical diagnosis and treatment decisions. According to a Markets and Markets report, *In-Vitro Diagnostic (IVD) Market (Applications, End-users & Types) Trends & Global Forecasts (Major & Emerging Markets — G7, Japan & BRIC) (2011 – 2016)*, published in January 2012 (the "IVD Market Report"), the use of such tests continues to grow as a result of increased patient awareness, patient self-testing and the aging baby boomer population across the globe. Other major drivers for the growth of the *in vitro* diagnostic ("IVD") industry is a rise in the number of diseases like respiratory and hospital-acquired infections and a rise in the chronic diseases such as diabetes, hypertension, cardiovascular diseases, and cancer. Both an increasing understanding of the molecular processes underlying many disease states and the opportunity for clinicians to quickly incorporate that targeted information into treatment decisions (e.g. companion testing). According to an article published on *in vitro* diagnostics by Medical Device and Diagnostic Industry ("MDDI") online in March 2013, in the past, the *in vitro* diagnostics industry has focused on developing tests that require significant time, skill, and often costly, specialized equipment. Patient specimens often had to be collected remotely and processed in a central laboratory with test results sent to a physician at a later date. This general protocol is not particularly well-adapted to the practice of medicine in a cost-effective, timely manner. The pressures on public health budgets and falling profits among third party payors such as insurers, necessitates an alternative approach to disease management. In addition, there has been steady growth of the retail health clinic and urgent care center markets.

According to the IVD Market Report, outside of the United States, socialized medicine and/or a general atmosphere of cost-containment and healthcare efficiency are driving the need for diagnostic testing solutions that are fast, affordable, accurate, simple-to-perform and help enable early diagnosis and treatment of medical conditions or provide an assessment of a person's health status.

Akers designed its products based on single-use assay platforms with straightforward test procedures that can be completed in minutes. In the healthcare setting, the Company's clinical laboratory products can be utilized near or at the point-of-care and do not require the use of expensive equipment or a highly trained or specialized staff. As a result, an individual's test results can immediately be incorporated into diagnostic and treatment decisions, improving the overall efficiency of the healthcare experience for the patient, and ultimately the payor. In addition, in the developing world, the portability and ease-of-use of such point-of-care tests can serve to drastically improve the level of disease screening and subsequent patient care. We believe the benefits of our technology platforms are therefore well-suited to the diagnostic demands of developing countries that seek to deliver modern medical diagnosis with limited medical infrastructure. In addition, some of our products have received FDA clearance for over-the-counter use and others that do not fall within the oversight of regulatory authorities have the added benefit of being self-tests that deliver personal health information on-demand. Akers believes that the products that emerge from its technology platforms address the needs of the evolving healthcare delivery system that is moving patient care closer to or in the home.

In a June 6, 2013 article, "*Global In Vitro Diagnostics Markets Outpace Pharma Industry Growth"* by Frost & Sullivan estimated the global IVD market was $45 billion, with forecasted revenue expected to reach $64 billion in 2017. While the U.S. and Western Europe are the largest IVD markets, the Asian-Pacific and Eastern Europe regions are projected to be the fastest growing by Frost & Sullivan. The Company's main presence is in the U.S., but the Company has recently initiated its strategic move into the China and European Union marketplaces by executing joint venture, distribution and licensing agreements.

*Strategy*

Akers' strategy is to target carefully chosen, high margin market segments within the diagnostics industry where (i) existing tests do not meet clinical requirements, or (ii) where an emerging, unfulfilled need has been identified. The Company seeks to develop tests for applications based on their ability to compliment a particular treatment, lifestyle or testing regimen that requires a time and cost-efficient diagnostic alternative or solution. Akers utilizes its existing platform technologies to internally develop its new products as the Company's proprietary methods.

Akers has established and will continue to pursue distribution relationships with high volume, medical and health & wellness product marketers to maximize its revenue potential, and to be a worldwide competitor in specialized markets within the diagnostics industry.

Akers has developed and continues to develop key strategic relationships with established companies with well-trained technical sales forces and strong distribution networks in the following key market segments:

- Clinical Laboratories;
- Physicians' Office and Urgent Care Clinics;
- Retail;
- Nutraceutical Suppliers; and
- Health and Fitness.

The Company plans to target other markets, such as aid organizations seeking rapid infectious disease tests. Additionally, we plan to target biotechnology companies or pharmaceutical manufacturers that may require companion tests to promote patient compliance with a medication regimen or facilitate initial screenings to qualify patients for a particular therapy.

*Technology Overview*

Akers' proprietary platform technologies merge scientific innovation with user-friendly formats to deliver cost-effective and time-efficient testing and sample preparation solutions where and when they are needed.

*Testing Platform Technologies*

**MPC Biosensor Technology**

MicroParticle Catalyzed Biosensor ("MPC Biosensor") Technology permits the rapid identification of medical conditions through biomarkers in exhaled breath. MPC Biosensor-based products contain microparticles that change color to indicate a positive test result. The microparticles are coated with recently discovered agents that both decrease the time to result and exhibit a more defined color change when appropriate. MPC Biosensor-based products are packaged in small, disposable cartridges through which test subjects can easily blow for several seconds. Breath KetoChek has one U.S. and two international patents granted. In addition, Akers also holds three US, three Australian and three European Community Design patents for Color Comparison Card technology that users can utilize to interpret detector results.

**Particle ImmunoFiltration Assay (PIFA®) Technology**

PIFA® technology is an accurate, rapid, immunoassay (*a procedure for detecting or measuring specific proteins or other substances through their properties as antigens or antibodies*) method based on the selective filtration of dyed microparticles coated with antigen or antibody. The microparticles are combined with a test sample (whole blood, serum, urine or saliva) within a self-contained device. If a patient tests positive for the antibody or antigen, a binding event will occur and the dyed microparticles will be trapped by a filter within the device. As a result, the test window will be void of any color. Conversely, if the patient tests negative, the dyed microparticles will flow freely into the test window. Specific to the PIFA Heparin tests, the Company has two international patents and one US patent granted in force.

**SMC Technology**

Synthetic Macrocycle Complex ("SMC") Technology is a colorimetric testing methodology that pairs a proprietary reagent (*a substance or mixture for use in chemical analysis or other reactions)* with a hand-held, photometric reader that determines the quantitative level of a therapeutic drug in a patient's blood sample. The technology also permits the use of whole blood samples collected from a simple finger stick, making products that use this technology extremely flexible within the healthcare delivery system.

**Rapid Enzymatic Assay**

Rapid Enzymatic Assay ("REA") technology enables the rapid detection of metabolites in blood and urine in assay formats that are easy-to-use and deliver quantitative or semi-quantitative results. Products that employ REA technology are primarily intended for pharmaceutical, nutritional and over-the-counter ("OTC") markets. Akers has three U.S. patents for this technology covering our Tri-Cholesterol "Check" test.

*Sample Preparation Technology*

Rapid Blood Cell Separation Technology

Akers' Rapid Blood Cell Separation ("Separator") Technology, marketed under the brand name seraSTAT ®, further accelerates the rate at which a test result is obtained as the often-required sample preparation step is abbreviated drastically. Conventional methods of blood cell separation are labor-intensive and time-consuming, typically involving blood collection and laboratory personnel, as well as electrically-powered centrifuges and other specialized equipment. The disposable Separator device requires only a small-volume blood sample obtained from a time and cost-efficient finger stick procedure or through a venous blood draw. Akers has obtained the appropriate US FDA regulatory clearances for seraSTAT® as a stand-alone device and the technology is currently integrated into PIFA PLUSS PF4 devices, and will be utilized in the infectious disease products currently under development. The seraSTAT® Rapid Blood Cell Separation Technology is currently protected by two U.S. patents and three international patents.

*Product Portfolio*

Akers is positioned as a provider of rapid diagnostic solutions that encompass the totality of the point-of-care testing process, from sample preparation to immediate test result. In addition, we believe we are a pioneer in disposable breath condensate technology, a testing format that has significant potential given the variety of wellness-and disease-predicting biomarkers present in an exhaled breath sample.

At present, Akers' commercialized and emerging product portfolio incorporates four of the Company's six proprietary platform testing technologies: PIFA®, MPC Biosensor, REA and Rapid Blood Cell Separation Technology. Directly below, is a discussion of the products within our current and emerging portfolio that will be segmented by platform.

Akers designed its products based on single-use assay platforms with straightforward test procedures that can be completed in minutes. In the U.S. some of the Company's clinical laboratory products and those with medical intended uses generally require "prescription use" Federal Drug Administration ("FDA") 510(k) clearance prior to product marketing given that they will be ordered or used by medical practitioners in the course of his or her professional practice. Despite this categorization, Akers' professional use products are still designed for ease of use, can be utilized near or at the point-of-care, and do not require the use of expensive equipment or a highly trained or specialized staff. As a result, an individual's current health status can rapidly be incorporated into diagnostic and treatment decisions, improving the overall efficiency of the healthcare experience for the patient, and ultimately the payor. In addition, in the developing world, the portability and ease-of-use of such point-of-care tests can serve to drastically improve the level of disease screening and subsequent patient care. We believe the benefits of our technology platforms are therefore well-suited to the diagnostic demands of countries in the developing world that seek to deliver modern medical diagnosis with limited medical infrastructure. In addition, some of our products have received FDA 510(k) clearance for over-the-counter ("OTC") use. Other self-tests deliver personal health information of a non-medical nature, on-demand, and are not FDA regulated; these products are still manufactured in compliance with its ISO 13485 quality management system ("QMS-Compliant"). Akers believes that all its technology platforms and products address the needs of the evolving healthcare delivery system that is moving patient care closer to or in the home.

The following table sets forth our marketed and current pipeline products, identifies the appropriate "prescription use" or "OTC" designation and whether the required clearance has been obtained or is still needed prior to product marketing.

Our marketed and emerging products include:

| **Product** | **Platform** | **Marketed/Pipeline** | **Not FDA-regulated; QMS-Compliant Only** | **FDA Clearance Required *Prescription Use/OTC*** | **FDA Clearance Status Obtained/Needed** | **Description** |
|---|---|---|---|---|---|---|
| BreathScan™ | MPC | Marketed | | OTC | Obtained | Disposable breath alcohol detector |
| BreathScan® PRO | MPC | Marketed | | OTC | Obtained | Quantitative breath alcohol detection system |
| Breath Diabetic Ketoacidosis® | MPC | Pipeline | | Prescription Use | Needed | Disposable breath ketone device for diabetic monitoring |
| METRON® | MPC | Marketed | | Health and wellness | n/a | Disposable breath ketone device to monitor ketosis |
| Breath PulmoHealth "Check"® | MPC | Pipeline | | Prescription Use | Needed | A suite of breath tests for biomarkers indicating asthma, chronic obstructive pulmonary disease (COPD), and lung cancer |
| BreathScan Lync | MPC | Marketed | | Health and wellness | n/a | Non-invasive, quantitative measurement of biological markers for health and wellness |

| Product | Platform | Market/Pipeline | Not FDA-regulated; QMS-Compliant Only | FDA Clearance Required *Prescription Use/OTC* | FDA Clearance Status Obtained/Needed | Description |
|---|---|---|---|---|---|---|
| PIFA® Heparin/PF4 & PIFA PLUSS® PF4 | PIFA | Marketed | | Prescription Use | Obtained | Rapid tests for Heparin/PF4 antibodies to detect an allergy to the widely used blood thinner, Heparin |
| PIFA PLUSS® Chlamydia | PIFA | Pipeline | | Prescription Use | Needed | Rapid tests for the most prevalent sexually transmitted disease |
| seraSTAT® | seraStat | Marketed | | Prescription Use | Obtained | Rapid Blood Cell Separator, marketed under the brand name seraSTAT®, further accelerates the rate at which a test result is obtained as the often-required sample preparation step is abbreviated drastically. |
| Tri-Cholesterol "Check"® | REA | Marketed | | OTC | Obtained | Rapid test for Total and high density lipoprotein cholesterol and estimates low density lipo protein |
| *BreathScan OxiCHek* | MPC | Marketed | | Health and wellness | n/a | Breath test for oxidative stress using the Lync reader and digital app |
| BreathScan KetoChek | MPC | Pipeline | | Health and wellness | n/a | Breath test for ketosis using the Lync reader and digital app |

*MPC Biosensor Technology*

The Company's MPC Biosensor breath condensate testing platform forms the basis of a number of Akers' marketed and pipeline products.

Breath Alcohol Franchise

BreathScan® originated the disposable breath alcohol detector category and was the first single-use breathalyzer to obtain the FDA 510(k) clearance in 2006 for Over-the-Counter use required to facilitate sales to U.S. consumers; CE certification is not required to market the product in the EU because BreathScan® results are not used to diagnose any medical conditions. The Company's breath alcohol detector technology was granted an Australian Standard certification trademark, which cleared the commercial pathway for product sales in Australia, New Zealand, and South Africa.

The Company's disposable breath alcohol detectors are available in versions designed to detect .02%, .04%, .05% and .08% blood alcohol concentrations ("BACs") and provide users with a test result in two minutes. If the crystals in the interior of the device change from yellow to aqua, the user has tested positive for the specific alcohol level. Should the crystals remain yellow, the result is negative.

The Company's proprietary breath alcohol detection technology is paired with the quantitative precision of an electronic analyzer in the BreathScan® PRO alcohol detection system. As with all BreathScan® products, the test subject exhales into a specially calibrated, BreathScan® PRO detector. The testing coordinator then inserts the used detector into the BreathScan® PRO Digital Analyzer (the "Analyzer"). After two minutes, the Analyzer's sophisticated optics calculate the subject's BAC; the detectable range spans from 0.00% to .15% BAC. Unlike other electronic breathalyzers, BreathScan® PRO never requires recalibration so it is in "ready" mode at all times. In 2011, the Company received FDA over-the-counter clearance for the system, providing a commercialization path in the U.S. for use by trained

professionals, including those in civil and military law enforcement, and the general public; in addition, the CE-Mark was affixed to the alcohol detection system for professional use. Finally, the .02 Breath Alcohol Detection System has been approved to the Conforming Products List by the U.S. Department of Transportation, and may be sold as a compliance tool to the transportation industry.

Since the appropriate regulatory clearances have been obtained in the U.S. and other major markets requiring specific certifications for specific devices (i.e., Australia for the Company's single-use detectors for these products), the Company does not anticipate needing to fund additional clinical trials to facilitate or initiate product marketing in other international regions at this time.

Other Emerging MPC Platform Products

The Company's MPC Biosensor technology is being applied to the development of products that serve the nutraceutical, fitness, and weight loss marketplaces. As a category, these disposable screening tests are exempt from FDA 510(k) premarket clearances. Biomarkers related to various metabolic processes can be measured in breath condensate. As a result, Akers has used its proprietary, easy-to-use platform to design disposable breath devices that measure ketone (acid) production associated with fat-burning (METRON® and KetoChek) and oxidative stress levels that relate to cellular damage and the development of many preventable diseases (OxiChek). The Company believes that personalized health and wellness – and eventually personalized medicine – will become an increasingly significant market. The Company is positioning its tests for fitness, weight loss and oxidative stress for this market by designing a more consumer-focused reagent device, and linking this device to an application for smartphones and tablets that can not only produce a result, but also track progress over time. Initial marketing activities have commenced for these products and the Company is preparing for commercialization. The Company is currently assessing distribution opportunities with companies specializing in weight loss and/or mass distribution through health-related multilevel marketing organizations. Since devices with claims related to weight loss or nutrition are exempt from FDA oversight, a clinical program to support 510(k) submission is not required for any of these products. Given the non-medical intended use, the Company does not believe products will be required to hold a CE-mark prior to marketing in the EU.

Akers is continuing its clinical development of the BreathScan Diabetic Ketoacidosis "Check" disposable breath tube for the diagnosis of ketoacidosis in diabetics. Breath DKA "Check" is being designed to provide real-time information that allows diabetics to determine if they have a more severe level of ketone (acid) build up in their body that can cause a life-threatening medical emergency called ketoacidosis. The estimated 28.5 million Type I (insulin-dependent) diabetics worldwide are at particular risk for ketoacidosis and require routine monitoring of their ketone levels. To date, the medical industry relies on blood and urine-based ketone testing methods, which are invasive and/or inconvenient. Since breath and blood ketone levels are closely correlated, the Breath DKA "Check" is designed to offer healthcare professionals and their patients a convenient, accurate method, which can be completed anytime, anywhere, to quickly determine if an individual's ketone level is approaching a dangerous threshold requiring medical attention. Since this product requires FDA 510(k) clearance, the Company continues to develop its technical file and complete required clinical studies to complete the regulatory submission.

The Company is also devoting resources to the research and development of the Breath PulmoHealth "Check" suite of assays. These disposable detectors are being designed to signal the detection of various biomarkers related to pulmonary health, namely asthma, chronic obstructive pulmonary disease ("COPD") and lung cancer, through convenient, rapid analysis of an individual's breath sample. Akers has chosen to target this trio of conditions due to their significant impact on global health:

- over 300 million people worldwide are living with asthma and up to 18% of a country's population are undiagnosed asthmatics;
- 210 million individuals are being treated for COPD but each of the 1 billion smokers worldwide are at risk for the disease; and
- more than 1.6 million people worldwide receive the diagnosis of lung cancer annually with many more victims expected as 80% of all lung cancers can be attributed to smoking.

Akers believes these statistics suggest that pulmonary conditions are under-diagnosed and under-treated and will continue to pose a chronic strain on worldwide public health. Currently, diagnostic methods used for the detection of lung-related diseases and illnesses are often costly as specialized medical personnel must facilitate analysis and testing, and radiologic exams or invasive surgical procedures may be required. While Akers does not presume Breath PulmoHealth "Check" products to be replacements for such tests in all markets, it does however have ambitions for the devices to become effective, highly cost-efficient, primary screening tools. Their ease-of-use, portability and non-invasive nature provide healthcare professionals and public health officials with a testing platform that can be deployed in high volume, and even in regions of the developing world. At present, the Company's primary development efforts are focused on configuring the clinical dossier for the asthma product.

The Breath KetoChek and the Breath PulmoHealth "Check" suite of products will require the development of individual clinical trial programs to facilitate eventual FDA 510(k) submissions. The Company has self-certified Breath KetoChek as being in compliance with CE requirements in the EU, and intends to pursue the same designation for each product in the Breath PulmoHealth "Check" trio once the appropriate technical file is assembled.

MPC Biosensor technology is currently protected by one United States patents (8,871,521).

*PIFA® Technology*

The core products marketed under the PIFA® platform are the PIFA® Heparin/PF4 Rapid Assay, and the PIFA PLUSS® PF4.

PIFA® Heparin/PF4 Rapid Assay and PIFA PLUSS® PF4 remain the only FDA-cleared rapid manual assays that quickly determine if a patient being treated with the blood thinner Heparin may be developing a drug allergy. This clinical syndrome, referred to as Heparin-Induced Thrombocytopenia ("HIT"), reverses the Heparin's intended therapeutic effect and transforms it into a clotting agent. Patients with HIT are at risk of developing limb- and life-threatening complications, so the timely test result provided by Akers' Heparin/PF4 devices is paramount to effective clinical decision making. In the U.S. alone, approximately 12 million patients are exposed to Heparin annually and 1% to 5% of those patients receive a HIT diagnosis. The largest at-risk populations are patients undergoing major cardiac or orthopedic surgical procedures. It is estimated that up to 50% of cardiac surgery patients develop HIT-antibodies. Given the size of the aging baby boomer market segment and the prevalence of cardiac disease, surgeries within this category is expected to increase, as would the potential demand for the Company's convenient, rapid tests.

The PIFA® Heparin/PF4 Rapid Assay improves the standard of care in HIT-testing with its result delivered in less than five minutes after the patient sample has been prepared. Traditional methods required the use of expensive equipment, specialized laboratory personnel and hours of technician time to complete the 20+ assay test procedure in-house. Clinicians were subjected to a 24-to-72 hour turnaround time if the HIT-antibody determination was outsourced to a reference laboratory. Especially in the latter scenario, the patient information obtained is retrospective in nature as the HIT-antibody result cannot be factored into time-sensitive diagnostic and treatment decisions.

The Company has also introduced PIFA PLUSS® PF4 to U.S. hospitals to further improve the rate at which healthcare professionals can obtain a HIT-antibody result. This PIFA® line extension merges the ease-of-use of the PIFA testing platform with Akers' recently patented Rapid Blood Cell Separation Technology, marketed under the brand name seraSTAT®. The marriage of these two technologies condenses the sample preparation and analysis procedures as the precise micro-volume of a seraSTAT® -prepared patient specimen is delivered directly into the PIFA® cassette for immediate testing. This eliminates an additional one-hour of sample processing time and the need for healthcare personnel to have access to a centrifuge to separate the liquid fraction of blood from the cellular fraction. As a result, HIT-testing can be initiated and completed at or near the point-of-care, especially in emergency and critical care departments where time-efficient diagnostic results can drastically improve patient outcomes.

Since the appropriate regulatory clearances have been obtained in the United States for these products, the Company does not anticipate needing to fund additional clinical trials to facilitate product marketing domestically. In addition, the current technical file that has been assembled for seraSTAT® and PIFA PLUSS PF4® will also be used to support Akers' CE-marking self-certification process to initiate product sales in the EU; the PIFA Heparin/PF4 Rapid Assay is already CE-marked. The Company's strategy in other foreign jurisdictions that may require additional clinical trials to support regulatory clearance is to partner with a distributor that will fund the required clinical program in exchange for some degree of marketing exclusivity.

*Other PIFA® Platform Assays in development*

The Company can quickly apply the PIFA PLUSS® methodology to its infectious disease and emergency-related testing products to further consolidate the test result turn-around time and eliminate the need for any specialized sample preparation personnel or equipment. To date, the Company's custom reagent work has focused on a variety of infectious diseases, markers of cardiovascular disease, and blood typing tests including the following:

- Chlamydia
- Troponin I
- ABOD Battlefield Blood Transfusion Card

*REA Technology*

Akers' Tri-Cholesterol "Check" test is initiated with an easy-to-obtain finger stick blood sample, and provides users with an estimate of both their total and high density lipoprotein ("HDL") cholesterol levels, and by a simple calculation, approximates their low density lipoprotein ("LDL") level. We believe that there is global demand for this category of disposable tests given healthcare trends that identify cardiovascular disease, and related risk factors like high cholesterol, diabetes and high blood pressure. These complications are particularly on the rise in developing nations that have gained access to the dietary habits of the west. In fact, studies reported by Middle East Health Magazine recently conducted in various medical centers throughout Saudi Arabia and the United Arab Emirates ("UAE") categorized the cardiovascular health risk as being on the edge of a potentially serious epidemic. In addition, the research revealed that half the subjects were undiagnosed prior to participating in the study that may be indicative of insufficient healthcare resources. This regional case study has global application as cardiovascular disease is the leading cause of death worldwide and access to healthcare remains a challenge to much of the aggregate population. This drives home the need for rapid, straightforward screening tests that are easily accessible to individuals for routine monitoring.

Tri-Cholesterol "Check" has the appropriate U.S. FDA market clearances and is also CE-marked for sale in the European Union. At present, the Company's Tri-Cholesterol "Check" business strategy is to focus on distribution activities to the OTC and walk-in clinic markets in the U.S. and Europe through strategic alliances, such as Alere in the U.S.

The REA Technology is currently protected by three United States patents (8,808,639; 8,003,061; 8,425,859).

*Sample Preparation Technology*

Rapid Blood Cell Separation Technology

In addition to the Company's testing platforms, Akers' recently patented Rapid Blood Cell Separation ("Separator") Technology, marketed under the brand name seraSTAT ®, further accelerates the rate at which a test result is obtained as the often-required sample preparation step is abbreviated drastically. Conventional methods of blood cell separation are labor-intensive and time-consuming, typically involving blood collection and laboratory personnel, as well as electrically-powered centrifuges and other specialized equipment. The Separator device requires only a small-volume blood sample obtained from a time- and cost-efficient finger stick procedure.

The required micro-volume specimen of serum or plasma is immediately extracted and introduced into a rapid assay device for real-time analysis. The savings afforded by the Separator device can be measured in time and cost given its quick turn-around-time and straightforward, easy-to-master procedure.

Since the appropriate regulatory clearances have been obtained in the United States for seraSTAT® as a stand-alone device, the Company does not anticipate needing to fund additional clinical trials to expand product marketing domestically. Currently, seraSTAT® is integrated into PIFA PLUSS PF4 devices, and will be utilized in the infectious disease products currently under development. Akers may consider partnerships with other medical device companies, functioning as an Original Equipment Manufacturer ("OEM"), as the benefits of the seraSTAT® Rapid Blood Cell Separation Technology can be integrated into other assay platforms. Also, the current technical file that has been assembled for seraSTAT® will be used to support Akers' CE-marking self-certification process to initiate product sales in the EU. The Company's strategy in foreign jurisdictions that may require additional clinical trials to support regulatory clearance is to partner with a distributor that will fund the required clinical program in exchange for some degree of marketing exclusivity.

The seraSTAT® Rapid Blood Cell Separation Technologies currently protected by two United States patents (7,896,167; 8,097,171) and one international patent (JP 4,885,134).

*Competition*

Competitors of Akers include other companies developing and marketing rapid, point-of-care diagnostic devices and companies with dedicated laboratory instruments and/or automated test systems. We face intense competition from companies with dominant market positions within the *in vitro* diagnostic testing market such as Abbott, ACON Laboratories, Inc., Alere, Diagnostica Stago, SA., Immucor, Inc., OraSure Technologies, Inc., and Quidel Corporation.

The Company believes the primary criteria for determining competitiveness within the rapid point-of-care sector are cost, ease-of-use, speed, readability, accuracy and flexibility. The time required by Akers to develop a working prototype test ready for clinical trials typically ranges from eight to twelve weeks from inception. We believe that competitors' laboratory tests normally require at least a year to develop to a similar point.

However, our competitors have significantly greater financial, technical, marketing and other resources than we have and may be better able to:

- respond to new technologies or technical standards;
- devote resources to the development, production, promotion, support and sale of products;
- acquire other companies to gain new technologies or products that may displace our product lines;
- react to changing customer requirements and expectations;
- manufacture, market and sell products; and
- deliver a broad range of competitive products at lower prices.

Our principal competitors are able to leverage their broader product portfolios and dominant market positions in some segments by, for example, bundling their products into specially priced packages that create strong financial incentives for their customers to purchase their products. These practices may negate savings customers would gain from buying select products from Akers and may deter such customers from buying Akers' products. We expect competition in the markets in which we participate to continue to increase as existing competitors improve or expand their product offerings.

*How we Generate Revenue*

The majority of our revenue comes from selling rapid, screening and testing products, largely through our distribution networks. Some of our assays are used in the clinical laboratory to ultimately help healthcare professionals to diagnose a medical condition or complication that may require treatment. Other products can be sold over-the-counter, to the general public, to help assess an individual's status as it relates to his/her blood alcohol or cholesterol level, to help monitor his/her progress on a specific wellness regimen, and/or to screen for a biomarker that may be indicative of an individual's general level of health. Some of our revenue is associated with licensing payments that may relate to exclusive access to specific markets.

*Our Current Target Markets*

Regarding the Company's test for the heparin drug allergy, the testing market largely resides within the clinical hospital laboratories of medical facilities. In the U.S., the Company accesses decision makers within these institutions through profiling by its highly trained technical sales team and collaborative prospecting with distributor sales representatives. Internationally, Akers provides comprehensive training to its distributor partners which will enable them to implement the same selling and technical training strategies.

The markets for alcohol breathalyzers are reached through a network of large and small distributors. These markets include industrial safety, education, law enforcement, social responsibility and retail.

The health and wellness markets include MLM nutraceutical companies, fitness centers and diet and weight loss centers.

*Manufacturing and Suppliers*

We are a vertically integrated manufacturer, producing substantially all of our devices in-house. The vast majority of our products start out as high quality, medical grade polymers and exit our facilities as fully manufactured and packaged medical devices. As a result, we have a short supply line between our raw materials and finished goods which gives us greater control over our product quality. The downside of our in-house manufacturing is the requirements for facilities, power, and equipment. This approach also requires mid-to-long-term planning and the ability to predict future needs. Many of our processes are unique to us, but the Company's flexible manufacturing capabilities and unused current capacity generally translate into relatively short production timelines. As demand for our products increase, additional capacities may be required to advance our evolving needs.

We use a diverse and broad range of raw materials in the manufacturing of our products. We purchase all of our raw materials and select items, such as packaging, from external suppliers. In addition, we purchase some supplies from single sources for reasons of proprietary know-how, quality assurance, sole source availability, or due to regulatory qualification requirements. U.S. medical device manufacturers must establish and follow quality systems to help ensure that their products consistently meet applicable requirements and specifications. The quality systems for FDA-regulated products are known as current good manufacturing practices ("cGMP's"). cGMP requirements for devices in part 820 (21 CFR part 820) were first authorized by section 520(f) of the Federal Food, Drug, and Cosmetic Act. We work closely with our suppliers to ensure continuity of supply while maintaining high quality and reliability. To date, we have not experienced any significant difficulty locating and obtaining the materials necessary to fulfill our production requirements.

On February 4, 2015, the Company's quality management system was certified as compliant with the International Standards Organization's ("ISO") 13485:2003 requirements for the design, manufacture and distribution of medical devices including in vitro diagnostic products.

*Distribution*

We distribute our products through direct and indirect channels of distribution. We have well-developed indirect distribution channels in the U.S. with, among others, Cardinal Health 200, Inc. ("Cardinal Health"), Fisher Healthcare, a Division of Fisher Scientific Company L.L.C. ("Fisher Healthcare"), ("Medline"), and Typenex Medical L.L.C. ("Typenex") for the Company's PIFA Heparin/PF4 assays. The relationships with Cardinal Health and Fisher Healthcare provide us with access to the majority of U.S. hospitals.

With respect to the Company's breath alcohol franchise, historically Akers focused its commercial attention within the on-the-job safety/human resources sector. Access was and currently is largely achieved through designated BreathScan® distributors and limited arrangements in which the Company serves in an OEM capacity.

Our dedicated technical sales force works in tandem with distributor sales representatives to uncover opportunities in the clinical laboratory marketplace. The Company facilitates direct sales for hospitals that prefer to purchase direct from the manufacturer.

Since 2012, the Company has also had a distribution relationship with Novotek Therapeutics Inc. ("Novotek"), a Beijing-based pharmaceutical and *in vitro* diagnostic business development corporation. The multi-year distribution agreement assigns exclusive sales and marketing rights to Novotek to make Akers' Particle ImmunoFiltration Assay ("PIFA") products available in Mainland China and that market clearance has now been obtained.

In select European countries and Australia we have distribution relationships with specialized sales and marketing organizations for some of our products. We do not have a strong presence in many emerging markets, but are seeking to enter into agreements to enable us to enter other international markets in the current fiscal year.

During the year ended December 31, 2016 sales to Cardinal Health and Fisher Healthcare accounted for a significant part of the Company's product revenue. This concentration makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

*Joint Venture*

On October 24, 2014, the Company entered into a Joint Venture Agreement (the "Joint Venture Agreement") by and among the Company, Hainan Savy Investment Management Ltd. ("Hainan") and Mr. Thomas Knox, a member of the Board at that time, to research, develop, produce and sell certain Akers rapid diagnostic screening and testing products in China (the "Joint Venture"). The Joint Venture is located in Haikou, the capital city of Hainan, China, and is incorporated as Hainan Savy Akers Biosciences, Ltd ("HSAB").

*Intellectual Property*

We rely on a combination of patent, trademark and trade secret laws in the U.S. and other jurisdictions to protect our proprietary platform technologies and our brands. We also rely on confidentiality procedures and agreements with key employees and distribution/business partners where appropriate, and contractual provisions to achieve the same. We do not pursue patent protection where the possibility for meaningful enforcement is limited.

The Akers logo is a registered trademark in the U.S. Other registered trademarks/service marks include: BreathScan®, PIFA®, PIFA PLUSS®, seraSTAT®, HealthTest®, and Be a Hero, Get Their Keys®, and METRON®.

The following table summarizes the U.S. and international utility patents that currently protect Akers intellectual property; the core and emerging products to which they relate are also noted:

| Description | Jurisdiction | Utility Patent No. | Type of Protection | Expiration Date | Product(s) To Which They Relate |
|---|---|---|---|---|---|
| breath ketone detector | US | 8,871,521 | Manufacture | 3/8/2031 | Breath KetoChek® |
| breath ketone detector | Japan | 6023906 | Manufacture | 3/8/2032 | Breath KetoChek® |
| breath ketone detector | European Union | 2684025 | Manufacture | 3/8/2032 | Breath KetoChek® |
| blood separator and method of separating fluid fraction from whole blood | US | 7,896,167 | Manufacture | 9/7/2026 | seraSTAT®; PIFA PLUSS® PF4; PIFA PLUSS® Infectious Diseases Rapid Assays |
| blood separator and method of separating fluid fraction from whole blood | US | 8,097,171 | Manufacture | 8/5/2025 | seraSTAT®; rapid blood cell separator also integrated into PIFA PLUSS® PF4 and PIFA PLUSS® Infectious Diseases Rapid Assays |
| blood separator and method of separating fluid fraction from whole blood | Japan | 4,885,134 | Manufacture | 8/5/2025 | seraSTAT®; rapid blood cell separator also integrated into PIFA PLUSS® PF4 and PIFA PLUSS® Infectious Diseases Rapid Assays |
| blood cell separator | European Union | 1793906 | Manufacture | 8/5/2025 | seraSTAT®; rapid blood cell separator also integrated into PIFA PLUSS® PF4 and PIFA PLUSS® Infectious Diseases Rapid Assays |
| blood cell separator | Hong Kong | 11004006 | Manufacture | 8/5/2025 | seraSTAT®; rapid blood cell separator also integrated into PIFA PLUSS® PF4 and PIFA PLUSS® Infectious Diseases Rapid Assays |
| methods for detecting heparin platelet factor 4 | US | 9,383,368 | Manufacture | 10/4/2024 | PIFA® Heparin/PF4 Rapid Assay; PIFA PLUSS® PF4 |

| Description | Jurisdiction | Utility Patent No. | Type of Protection | Expiration Date | Product(s) To Which They Relate |
|---|---|---|---|---|---|
| methods and kits for detecting heparin/platelet factor 4 antibodies | Japan | 4,931,821 | Manufacture | 10/4/2025 | PIFA® Heparin/PF4 Rapid Assay; PIFA PLUSS® PF4 |
| Methods and kits for detecting heparin platelet factor 4 antibodies | Japan | 577579 | Manufacture | 10/4/2025 | PIFA® Heparin/PF4 Rapid Assay; PIFA PLUSS® PF4 |
| test strip card | US | 8,003,061 | Manufacture | 5/6/2024 | Tri-Cholesterol "Check"® |
| test strip card | US | 8,425,859 | Manufacture | 5/6/2024 | Tri-Cholesterol "Check"® |
| test strip card | US | 8,808,639 | Manufacture | 5/6/2024 | Tri-Cholesterol "Check"® |

Circumstances outside our control could pose a threat to our intellectual property. For example, effective intellectual property protection may not be available in every country in which our products are distributed. Also, the efforts we have taken to protect our proprietary rights may not be sufficient or effective. Any significant impairment of our intellectual property rights is costly and time consuming. Any increase in unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results.

Akers' Tri-Cholesterol "Check", PIFA Heparin/PF4 Rapid Assay, BreathScan PRO alcohol detection system, and the Breath KetoChek are CE-marked for sale in the EU for professional use. The CE-mark must be affixed to a product that is intended, by the manufacturer, to be used for a medical purpose and will be sold into EU member states as well as Iceland, Norway and Liechtenstein. For Akers' current and proposed "medical-purpose" products, the CE-marking process is facilitated by self-certification, as a manufacturer must carry out a conformity assessment, perform any appropriate electromagnetic testing, create a technical file with supporting documentation, and sign an EC declaration of conformity. The documentation is verified by the Company's authorized representative in the EU and must be made available to authorities upon request.

*Government Regulations*

*FDA Approval/Clearance Requirements*

Unless an exemption applies, each medical device that we wish to market in the U.S. must receive 510(k) clearance. It has been the Company's experience thus far, that the FDA's 510(k) clearance process usually takes from four to twelve months, but can last significantly longer. We cannot be sure that 510(k) clearance will ever be obtained for any product we propose to market. We have obtained the required FDA clearance for all of our current products that require such clearance.

The FDA decides whether a device line must undergo either the 510(k) clearance or Premarket approval ("PMA"). PMA is the FDA process of scientific and regulatory review to evaluate the safety and effectiveness of Class III medical devices. Class III devices are those that support or sustain human life, are of substantial importance in preventing impairment of human health, or which present a potential, unreasonable risk of illness or injury. The PMA approval process is based on statutory criteria. These criteria include the level of risk that the agency perceives is associated with the device and a determination whether the product is a type of device that is similar to devices that are already legally marketed. Devices deemed to pose relatively less risk are placed in either Class I or II, which requires the manufacturer to submit a premarket notification ("PMN") requesting 510(k) clearance, unless an exemption applies. The PMN must demonstrate that the proposed device is "substantially equivalent" in intended use and in safety and effectiveness to a legally marketed predicate device, which is a pre-existing medical device to which equivalence can be drawn, that is either in Class I, Class II, or is a Class III device that was in commercial distribution before May 28, 1976, for which the FDA has not yet called for submission of a PMA application.

Class I devices are those for which safety and effectiveness can be assured by adherence to the FDA's general regulatory controls for medical devices, or the General Controls, which include compliance with the applicable portions of the FDA's quality system regulations, facility registration and product listing, reporting of adverse medical events, and appropriate, truthful and non-misleading labeling, advertising, and promotional materials. Some Class I devices also require premarket clearance by the FDA through the 510(k) PMN process described below. A small number of our products are Class I devices.

Class II devices are subject to the FDA's General Controls, and any other special controls as deemed necessary by the FDA to ensure the safety and effectiveness of the device. Premarket review and clearance by the FDA for Class II devices is accomplished through the 510(k) PMN procedure. Pursuant to the Medical Device User Fee and Modernization Act of 2002, or MDUFMA, as of October 2002 unless a specific exemption applies, 510(k) PMN submissions are subject to user fees. Certain Class II devices are exempt from this premarket review process. A majority of our products, encompassing all of our significant product lines, are Class II devices.

Class III devices are those devices which have a new intended use, or use advanced technology that is not substantially equivalent to that of a legally marketed device. The safety and effectiveness of Class III devices cannot be assured solely by the General Controls and the other requirements described above. These devices almost always require formal clinical studies to demonstrate safety and effectiveness and must be approved through the premarket approval process described below. Premarket approval applications (and supplemental premarket approval applications) are subject to significantly higher user fees under MDUFMA than are 510(k) PMNs. None of our products are Class III devices.

A clinical trial may be required in support of a 510(k) submission. These trials generally require an Investigational Device Exemption, or IDE, application approved in advance by the FDA for a specified number of patients, unless the product is deemed a non-significant risk device eligible for more abbreviated IDE requirements. The IDE application must be supported by appropriate data, such as animal and laboratory testing results. Clinical trials may begin if the IDE application is approved by the FDA and the appropriate institutional review boards at the clinical trial sites.

*Pervasive and Continuing FDA Regulation*

A host of regulatory requirements apply to our marketed devices, including the quality system regulation (which requires manufacturers to follow elaborate design, testing, control, documentation and other quality assurance procedures), the Medical Reporting Regulations ("MDR") regulations (which require that manufacturers report to the FDA specified types of adverse events involving their products), labeling regulations, and the FDA's general prohibition against promoting products for unapproved or "off-label" uses. Class II devices also can have special controls such as performance standards, post-market surveillance, patient registries and FDA guidelines that do not apply to class I devices. Unanticipated changes in existing regulatory requirements or adoption of new cGMP requirements could hurt our business, financial condition and results of operations.

*Health Care Fraud and Abuse*

In the United States, there are federal and state anti-kickback laws that generally prohibit the payment or receipt of kickbacks, bribes or other remuneration in exchange for the referral of patients or other health-related business. For example, the Federal Health Care Programs' Anti-Kickback Law (42 U.S.C. §1320a-7b(b)) prohibits anyone from, among other things, knowingly and willfully offering, paying, soliciting or receiving any bribe, kickback or other remuneration intended to induce the referral of patients for, or the purchase, order or recommendation of, health care products and services reimbursed by a federal health care program (including Medicare and Medicaid). Recognizing that the federal anti-kickback law is broad and potentially applicable to many commonplace arrangements, the Office of Inspector General within the Department of Health and Human Services, or OIG, has issued regulations, known as the safe harbors, which identify permissible practices. If all of the requirements of an applicable safe harbor are met, an arrangement will not be prosecuted under this law. Safe harbors exist for a number of arrangements relevant to our business, including, among other things, payments to bona fide employees, certain discount arrangements, and certain payment arrangements involving GPOs. The failure of an arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal. However, conduct that does not fully satisfy each requirement of an applicable safe harbor may result in increased scrutiny by government enforcement authorities, such as the OIG or the Department of Justice. Violations of this federal law can result in significant penalties, including imprisonment, monetary fines and assessments, and exclusion from Medicare, Medicaid and other federal health care programs. Exclusion of a manufacturer would preclude any federal health care program from paying for its products. In addition to the federal anti-kickback law, many states have their own kickback laws. Often, these state laws closely follow the language of the federal law. Some state anti-kickback laws apply regardless of whether a federal health care program payment is involved. Federal and state anti-kickback laws may affect our sales, marketing and promotional activities, and relationship with health care providers or laboratory professionals by limiting the kinds of arrangements we may have with hospitals and others in a position to purchase or recommend our products.

Federal and state false claims laws prohibit anyone from presenting, or causing to be presented, claims for payment to third-party payors that are false or fraudulent. For example, the federal Civil False Claims Act (31 U.S.C. §3729 et seq.) imposes liability on any person or entity who, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal health care program (including Medicaid and Medicare). Manufacturers, like us, can be held liable under false claims laws, even if they do not submit claims to the government, where they are found to have caused submission of false claims by, among other things, providing incorrect coding or billing advice about their products to customers that file claims, or by engaging in kickback arrangements with customers that file claims. A number of states also have false claims laws, and some of these laws may apply to claims for items or services reimbursed under Medicaid and/or commercial insurance. Sanctions under these federal and state laws may include civil monetary penalties, exclusion of a manufacturer's products from reimbursement under government programs, and imprisonment.

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, created two new federal crimes: health care fraud and false statements related to healthcare matters. The health care fraud statute prohibits knowingly and willingly executing a scheme to defraud any health care benefit program, including private payors. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from government sponsored programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services. A violation of this statute is a felony and may result in fines or imprisonment.

Due to the breadth of some of these laws, it is possible that some of our current or future practices might be challenged under one or more of these laws. In addition, there can be no assurance that we would not be required to alter one or more of our practices to be in compliance with these laws. Evolving interpretations of current laws or the adoption of new federal or state laws or regulations could adversely affect many of the arrangements we have with customers and physicians. Our risk of being found in violation of these laws is increased by the fact that some of these laws are open to a variety of interpretations. If our past or present operations are found to be in violation of any of these laws, we could be subject to civil and criminal penalties, which could hurt our business, results of operations and financial condition.

*Foreign Regulation*

Many foreign countries in which we market or may market our products have regulatory bodies and restrictions similar to those of the FDA. International sales are subject to foreign government regulation, the requirements of which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval and the requirements may differ. Companies are now required to obtain a CE Mark, which shows conformance with the requirements of applicable European Conformity directives, prior to sale of some medical devices within the European Union. Some of our current products that require CE Markings have them and it is anticipated that additional and future products may require them as well. As of the date of this filing, the Company has received CE marks for eight for of its commercialized products/product components: PIFA Heparin/PF4 Rapid Assay; Heparin/PF4 Serum Panels; Tri-Cholesterol "Check" and BreathScan PRO Detectors, Analyzer Field Kit, Starter Kit and Blow Bags.

*Third-Party Reimbursement*

Health care providers, including hospitals, that purchase our products generally rely on third-party payors, including the Medicare and Medicaid programs, and private payors, such as indemnity insurers and managed care plans, to cover and reimburse all or part of the cost of the products and the procedures in which they are used. As a result, demand for our products is dependent in part on the coverage and reimbursement policies of these payors.

CMS, the federal agency responsible for administering the Medicare program, along with its contractors establishes coverage and reimbursement policies for the Medicare program. In addition, private payors often follow the coverage and reimbursement policies of Medicare. We cannot assure you that government or private third-party payors will cover and reimburse the procedures using our products in whole or in part in the future or that payment rates will be adequate.

In general, Medicare will cover a medical product or procedure when the product or procedure is reasonable and necessary for the diagnosis or treatment of an illness or injury. Even if the medical product or procedure is considered medically necessary and coverage is available, Medicare may place restrictions on the circumstances where it provides coverage. For some of our products, our success in non-U.S. markets may depend upon the availability of coverage and reimbursement from the third-party payors through which health care providers are paid in those markets. Health care

payment systems in non-U.S. markets vary significantly by country, and include single-payor, government managed systems as well as systems in which private payors and government-managed systems exist, side-by-side. For some of our products, our ability to achieve market acceptance or significant sales volume in international markets may be dependent on the availability of reimbursement for our products under health care payment systems in such markets. There can be no assurance that reimbursement for our products, will be obtained or that such reimbursement will be adequate.

*Other U.S. Regulation*

We must also comply with numerous federal, state and local laws relating to matters such as environmental protection, safe working conditions, manufacturing practices, fire hazard control and, among other things, the generation, handling, transportation and disposal of hazardous substances.

*Available information*

Our website address is *www.akersbio.com*. We do not intend our website address to be an active link or to otherwise incorporate by reference the contents of the website into this Report. The public may read and copy any materials the Company files with the U.S. Securities and Exchange Commission (the "SEC") at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0030. The SEC maintains an Internet website (*http://www.sec.gov*) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

**Employees**

We currently employ 28 full-time equivalent employees, contractors or consultants, which include 11 in research and development, 4 in general and administrative, 4 in sales and marketing and 9 in direct and indirect manufacturing. None of our employees are represented by a labor union or are a party to a collective bargaining agreement. We believe that we have good relations with our employees.

**Properties**

Our corporate headquarters which houses our research and development, engineering, manufacturing, operations and support personnel, is located in Thorofare, New Jersey, in an office consisting of a total of 12,500 square feet. For the past eleven years, the Company has leased this facility at this location. The current lease term is effective from January 1, 2013 through December 31, 2019 with an annual rent of $132,000.

We believe our current facilities are sufficient for our current needs and will be adequate, or that suitable additional or substitute space will be available on commercially reasonable terms, for the foreseeable future.

**Legal Proceedings**

From time to time, we are a party to litigation and subject to claims incident to the ordinary course of business. Future litigation may be necessary to defend ourselves and our customers by determining the scope, enforceability and validity of third party proprietary rights or to establish our proprietary rights.

On August 17, 2016, the Company entered into a Settlement Deed (the "Settlement Agreement") by and among the Company, ChubeWorkx Guernsey Limited ("Chube"), Thirty Six Strategies, LLC ("36S"), Gavin Moran ("Mr. Moran") and Frank Runge ("Mr. Runge") (each, a "Party" and, collectively, the "Parties") to resolve disputes related to (i) the Company's claims brought against Chube in United States District Court, District of New Jersey for outstanding amounts due to the Company pursuant to that certain promissory note (the "Note") issued in favor of Chube on December 31, 2014 ("Dispute 1"); (ii) various claims brought by Chube against the Company brought in The High Court of Justice, Queen's Bench Division Commercial Court, Royal Courts of Justice, United Kingdom arising out that certain Licensing and Supply Agreement, as amended (the "License Agreement"), pursuant to which Chube was granted a worldwide, exclusive license to import, offer for sale, sell, distribute, use, promote or label certain products using the Company's intellectual property ("Dispute 2") and (iii) various claims brought by the Company against 36S, Mr. Moran and Mr. Runge in the United States District Court, District of New Jersey, related to that certain Distribution Agreement entered into by and between the Company and 36S on October 5, 2015 ("Dispute 3" and, together with Dispute 1 and Dispute 2, the "Disputes").

Pursuant to the Settlement Agreement, all of the Disputes have been settled and all of the proceedings related to such have been dismissed. Under the terms of the Settlement Agreement, the Company recovered the full outstanding principal amount of the Note during the 2016 fiscal year in the form of $750,000 worth of BreathScan® Alcohol Detector stock to inventory (which the Company intends to subsequently sell) and $500,000 in prepaid royalty (the "Cash Payment"). In addition, the Settlement Agreement also allows the Company to market and sell all of the Company's breath technology tests worldwide, unencumbered by any past and/or future claims by Chube under the Licensing Agreement. Pursuant to the Settlement Agreement, Chube no longer holds any rights pertaining to the Company's BreathScan® technology.

In return for the Company regaining the full rights to sell its breath technology products, among other things, Chube will receive a royalty of 5% of the Company's gross revenues (the "Chube Royalty") totaling $5,000,000, after which Chube will no longer be entitled to receive any royalties and the Company shall have no further obligations to Chube. The Settlement Agreement further allows the Company to retain 50% of the Chube Royalty until the Cash Payment has been made.

In connection with the Settlement Agreement, on August 17, 2016, the Company and Chube entered into a Security Agreement pledging all of the Company's assets including all inventory and receivables (but excluding the specific assets referred to in the Settlement Agreement) in order to secure the Chube Royalty, and as security for the settlement sum which remains unpaid by the Company to Chube, the Company pledged all (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment. Upon payment of the Chube Royalty to Chube the Security Agreement is terminated and the Company's assets become unencumbered.

On October 17, 2016 the Company was served with a notice that Pulse Health LLC ("Pulse") filed a lawsuit against the Company on September 30, 2016 in United States Federal District Court, District of Oregon, alleging a breach of contract under the settlement agreement entered into by the Company and Pulse on April 8, 2011 which settled all claims and disputes between the Company and Pulse arising from a previously executed Technology Development Agreement entered into by the Company and Pulse and damages resulting from said alleged breach. Additionally, Pulse alleges false advertising and unlawful trade practices in connection with the Company's sales activities related to the Company's OxiChek™ products.

The Company filed a series of motions with the Court seeking (1) to dismiss the Pulse complaint for lack of jurisdiction or, in the alternative, transfer the matter to the District Court for the District of New Jersey, Camden Vicinage and (2) to dismiss the unfair competition claims for failure to state a claim on which relief could be granted. Oral arguments on these motions were heard by the Court on March 10, 2017.

The Court decided by order dated April 14, 2017 in favor of the Company and has dismissed with prejudice the claims brought by Pulse for unfair competition (both federal and state counts). The court decided against the Company in its motions for transfer of venue and for lack of jurisdiction. As such, the case shall proceed in the District Court of Oregon.

Pulse subsequently filed an Amended Complaint, in which Pulse seeks not less than $500,000 in damages and, among other items, an injunction prohibiting the Company from manufacture, use and sale of the OxiChek product. The Company answered the Amended Complaint on May 11, 2017. Discovery has commenced and is scheduled to conclude on January 22, 2018. The Court has set the trial date for July 17, 2018.

The Company intends to establish a rigorous defense of all claims. As the case has not progressed beyond initial motion practice and early discovery, the Company is unable to assess the potential outcome, no accrual for losses was made as of September 30, 2017. All legal fees were expensed as and when incurred.

With the exception of the foregoing, we are not currently involved in any litigation that we believe could have a materially adverse effect on our financial condition or results of operations. There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the executive officers of our Company, threatened against or affecting our Company or our common stock, in which an adverse decision could have a material adverse effect.

**Executive Officers and Directors**

The following table sets forth the names, ages and positions of all of the directors and executive officers of the Company and the positions they hold as of the date hereof. The directors of the Company serve until their successors are elected and shall qualify. Executive officers are elected by the Board of Directors and serve at the discretion of the directors.

| Name | Age | Position |
|---|---|---|
| John J. Gormally | 61 | Chief Executive Officer, Director |
| Raymond F. Akers, Jr. PhD | 59 | Executive Chairman of the Board of Directors, Chief Scientific Director, Secretary |
| Gary M. Rauch | 61 | Vice President, Finance and Treasurer |
| Bill J. White | 56 | Independent Director |
| Richard C. Tarbox | 65 | Independent Director |
| Christopher C. Schreiber | 52 | Independent Director |

Set forth below is a brief description of the background and business experience of each of our executive officers and directors.

**John J. Gormally**, age 61, has served as the Company's Chief Executive Officer since appointed to the position on November 16, 2015. Mr. Gormally has over 30 years of experience as a member of senior management in the healthcare industry. He joined Becton, Dickinson and Company ("Becton"), a medical technology company that manufactures and sells a range of medical supplies and diagnostic equipment, in 1978 as a senior sales representative. Mr. Gormally served in a wide range of positions with Becton through 2013, focusing primarily on commercialization of Becton's products and fostering sales growth. From 1999 to 2001, Mr. Gormally served as the Vice President of U.S. Sales and Operations for ConvaTec, a former division of Bristol-Myers Squibb Company. From 2001 to 2002, he served as the Vice President of Global Sales and Marketing for BEI Medical Systems Company, Inc., prior to rejoining Becton from 2002 to 2013. In 2013, Mr. Gormally founded Gormally Elite Medical LLC, a healthcare consulting firm that specializes in human resources and developing go-to-market commercialization strategies.

Mr. Gormally earned an undergraduate degree from DeSales University in 1978 and is currently an MBA candidate at Northeastern University.

Mr. Gormally was selected to serve on the Board in part because of his significant experience running companies operating in the medical device area.

**Raymond F. Akers Jr., Ph.D., age 59,** has been Executive Chairman of the Board since August 10, 2017, served as Vice Chairman from April 2016 through August 2017, and served as Executive Chairman from December 31, 2009 through April 2016. Dr. Akers was appointed Secretary on August 5, 2013. Dr. Akers founded the Company in 1989. He has over 25 years of experience in the diagnostics industry having co-founded Drug Screening Systems, Inc., a publicly listed company, in 1987, and Akers Medical Technology Inc. in 1984. He was Chief Executive Officer and vice president of research and development of Drug Screening Systems, Inc. until the sale of that company in 1989 and served as President and Chief Executive Officer of Akers Medical Technology Inc. until 1987.

Dr. Akers holds a Ph.D. in Neurochemistry from Northwestern University. Dr. Akers has either invented or directed the research and development of all of the Company's products and technologies.

The Company believes that Mr. Akers experience in assisting diagnostic companies develop infrastructure; including but not limited to general management and business development will contribute to the Company's development of its own infrastructure and growth as a public company.

**Gary M. Rauch, age 61,** has over 40 years of experience in accounting, financial and information systems consulting, discrete manufacturing, distribution and administration. Mr. Rauch has been the Company's Controller then Vice President, Finance since March, 2010 and was appointed Treasurer on August 5, 2013. Mr. Rauch also founded DataSys Solutions, LLC in 2004 and is currently the managing member. DataSys Solutions LLC specializes in financial and information systems consulting and technical support services. From July, 2002 through March, 2010, Mr. Rauch was the controller for Cold Star, Inc., a manufacturer of dairy dispensing equipment and a dairy products

distributor. Mr. Rauch also worked for six years as consulting manager with Deloitte & Touche providing financial system selection, development and implementation services for their small to middle market clients.

Mr. Rauch has an associate degree from the University of South Carolina.

**Bill J. White**, age 56, has more than 30 years of experience in financial management, operations and business development. He currently serves as Chief Financial Officer, Treasurer and Secretary of Intellicheck Mobilisa, Inc., a technology company listed on the NYSE MKT. Prior to working at Intellicheck Mobilisa, Inc., he served 11 years as the Chief Financial Officer, Secretary and Treasurer of FocusMicro, Inc. ("FM"). As co-founder of FM, Mr. White played an integral role in growing the business from the company's inception to over $36 million in annual revenue in a five-year period. Mr. White has broad domestic and international experience including managing rapid and significant growth, import/export, implementing tough cost management initiatives, exploiting new growth opportunities, merger and acquisitions, strategic planning, resource allocation, tax compliance and organization development. Prior to co-founding FM, he served 15 years in various financial leadership positions in the government sector. Mr. White started his career in Public Accounting.

Mr. White holds a Bachelor of Arts in Business Administration from Washington State University and is a Certified Fraud Examiner.

Mr. White was selected to serve on the Board in part because of his significant financial and accounting experience with public companies.

**Richard C. Tarbox III**, age 65, combines over 40 years of management experience in the medical device and diagnostics sector of the healthcare industry. Mr. Tarbox presently serves as a registered investment banker at Aquilo Partners, L.P., focusing his practice on the needs of clients in the life science tools and diagnostics sectors. Previously, he held executive roles, primarily in business development and operations management, with Becton Dickinson, Thermo Fisher Scientific and Cardinal Health, Baxter International Inc. and American Hospital Supply Corporation. He has also served a number of companies in the industry as an officer and member of the board of directors including; Alverix, Inc., as Chief Executive Officer and board member from 2010 to 2014, Quidel Corporation, as Corporate Development Officer from 2007 to 2009, ClearData Networks, as Chief Operating Officer and a board member from 1999 to 2001, Bioseparations Inc., as Chief Executive Officer and a board member from 1995 to 1998, Metrika Laboratories, as a board member from 1994 to 1995, DenOptix, Inc., as a board member from 1995 to 1998 and Ostex International Inc., as Chief Operating Officer from 1992 to 1995. Mr. Tarbox currently serves as a member of the advisory boards of Qorvo Inc. and Safeguard Scientifics, Inc.

Mr. Tarbox is a graduate of the University of Washington, where he received his Bachelor's Degree in Clinical Psychology and the Kellogg School of Management at Northwestern University where he earned a Master's degree in Business Management.

Mr. Tarbox was selected to serve on the Board in part because of his significant experience in the medical device and diagnostics industry, as well as his management experience.

**Christopher C. Schreiber**, age 52, combines over 30 years of experience in the securities industry. As the Managing Director of Capital Markets at Taglich Brothers, Inc., Mr. Schreiber builds upon his extensive background in capital markets, deal structures, and syndications. Prior to his time at Taglich Brothers, he was a member of the board of directors of Paulson Investment Company, a 40-year-old full service Investment Banking firm. In addition, Mr. Schreiber serves has a director and partner of Long Island Express North, an elite lacrosse training organization for teams and individuals. He also volunteers on the board of directors for Fox Lane Youth Lacrosse, a community youth program.

Mr. Schreiber is a graduate of Johns Hopkins University, where he received a Bachelor's Degree in Political Science.

Mr. Schreiber was selected to serve on the Board in part because of his significant experience in capital markets and knowledge of the Company.

***Chubeworkx Purchase Agreement/Voting Agreement***

On June 19, 2013, the Company and Chubeworkx entered into a purchase agreement (the "Chubeworkx Purchase Agreement") pursuant to which Chubeworkx purchased 512,820 of the Company's common stock for an aggregate purchase price of $1,600,000. As further consideration to induce Chubeworkx to enter into the Chubeworkx Purchase

Agreement, the Company, Chubeworkx and Mr. Tom Knox entered into a voting agreement (the "Voting Agreement") whereby Mr. Knox and Chubeworkx agreed to vote their respective shares pursuant to the terms of the Voting Agreement. Amongst other things, the Company, Mr. Knox and Chubeworkx agreed as follows:

(i) to take all other actions necessary to ensure that at all times, (a) the size of the Board shall be a maximum of five (5) directors and (b) the Company's organizational documents specify that each director has equal rights to each other director;

(ii) on all matters relating to the election of one or more directors of the Company, each of Mr. Knox and Chubeworkx shall vote at regular or special meetings of shareholders and so long as each maintains ten percent (10%) or more of the voting rights with respect to the Company shall be entitled to designate their own directors (each a "Designee and together the "Designees"); and

(iii) Mr. Knox shall vote at a regular or special meeting of stockholders (or by written consent) all of the shares held by him, and the Company and Mr. Knox shall otherwise take all actions necessary to ensure that at all times up to the time which is immediately prior to the consummation of this offering, the unanimous approval of the board of directors of the Company shall be required for any issuance by the Company of any new shares of capital stock of the Company or any instruments convertible into shares of capital stock of the Company (including any such issuance of shares of capital stock of the Company in connection with this offering, including without limitation voting in favor of any amendment to the Certificate of Incorporation or Bylaws, as necessary.

Although Mr. Knox is no longer a member of the Board, the Voting Agreement remains in place.

**Family Relationships**

There are no family relationships between any of our officers or directors.

***Board Composition and Committees and Director Independence***

On August 7, 2017, the shareholders of the Company reelected Raymond F. Akers, Jr. Ph.D to the Board and elected John J. Gormally, Bill J. White, Richard C. Tardbox III and Christopher C. Shcreiber as members of the Board. Mr. White, Mr. Tarbox and Mr. Schreiber comprise the Board's Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. Mr. White acts as Chairman of the Audit Committee, Mr. Tarbox acts as Chairman of the Nominating and Corporate Governance Committee, and Mr. Schreiber acts as Chairman of the Compensation Committee.

The directors will serve until our next annual meeting and until their successors are duly elected and qualified. The Company defines "independent" as that term is defined in Rule 5605(a)(2) of the Nasdaq listing standards.

In making the determination of whether a member of the board is independent, our board considers, among other things, transactions and relationships between each director and his immediate family and the Company, including those reported under the caption "Related Party Transactions". The purpose of this review is to determine whether any such relationships or transactions are material and, therefore, inconsistent with a determination that the directors are independent. On the basis of such review and its understanding of such relationships and transactions, our board affirmatively determined that Mr. Bill J. White, Mr. Richard C. Tarbox and Mr. Christopher C. Schreiber are qualified as independent and that none of them have any material relationship with us that might interfere with his or her exercise of independent judgment.

***Board Committees***

The Company has established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Each committee has its own charter, which is available on our website at *www.akersbio.com.* Information contained on our website is not incorporated herein by reference.

***Audit Committee***

We have a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act of 1934, as amended (the "Exchange Act"). The members of our Audit Committee are Mr. White,

Mr. Tarbox and Mr. Schreiber. Each of these Committee members is "independent" within the meaning of R ule 10A-3 under the Exchange Act and the Nasdaq Stock Market Rules. Our board has determined that Mr. White is an "audit committee financial expert", as such term is defined in Item 407(d)(5) of Regulation S-K. Mr. White serves as Chairman of our Audit Committee.

The Audit Committee oversees our accounting and financial reporting processes and oversee the audit of our financial statements and the effectiveness of our internal control over financial reporting. The specific functions of this Committee include, but are not limited to:

- selecting and recommending to our board of directors the appointment of an independent registered public accounting firm and overseeing the engagement of such firm;
- approving the fees to be paid to the independent registered public accounting firm;
- helping to ensure the independence of the independent registered public accounting firm;
- overseeing the integrity of our financial statements;
- preparing an audit committee report as required by the SEC to be included in our annual proxy statement;
- resolve any disagreements between management and the auditors regarding financial reporting;
- reviewing with management and the independent auditors any correspondence with regulators and any published reports that raise material issues regarding the Company's accounting policies;
- reviewing and approving all related party transactions; and
- overseeing compliance with legal and regulatory requirements

***Compensation Committee***

The members of our Compensation Committee are Mr. Bill J. White, Mr. Richard C. Tarbox and Mr. Christopher C. Schreiber. Each such member is "independent" within the meaning of the Nasdaq Stock Market Rules. In addition, each member of our Compensation Committee qualifies as a "non-employee director" under Rule 16b-3 of the Exchange Act. Our Compensation Committee assists the board of directors in the discharge of its responsibilities relating to the compensation of the board of directors and our executive officers. Mr. Schreiber will serve as Chairman of our Compensation Committee.

The Committee's compensation-related responsibilities include, but are not limited to:

- reviewing and approving on an annual basis the corporate goals and objectives with respect to compensation for our Chief Executive Officer;
- reviewing, approving and recommending to our board of directors on an annual basis the evaluation process and compensation structure for our other executive officers;
- determining the need for an the appropriateness of employment agreements and change in control agreements for each of our executive officers and any other officers recommended by the Chief Executive Officer or board of directors;
- providing oversight of management's decisions concerning the performance and compensation of other company officers, employees, consultants and advisors;
- reviewing our incentive compensation and other equity-based plans and recommending changes in such plans to our board of directors as needed, and exercising all the authority of our board of directors with respect to the administration of such plans;
- reviewing and recommending to our board of directors the compensation of independent directors, including incentive and equity-based compensation; and
- selecting, retaining and terminating such compensation consultants, outside counsel or other advisors as it deems necessary or appropriate.

***Nominating and Corporate Governance Committee***

The members of our Nominating and Corporate Governance Committee are Mr. Bill J. White, Mr. Richard C. Tarbox and Mr. Christopher C. Schreiber. Each such member is "independent" within the meaning of the Nasdaq Stock Market Rules. The purpose of the Nominating and Corporate Governance Committee is to recommend to the board nominees for election as directors and persons to be elected to fill any vacancies on the board, develop and recommend a set of corporate governance principles and oversee the performance of the board. Mr. Tarbox serves as Chairman of our Nominating and Corporate Governance Committee.

The Committee's responsibilities include:

- recommending to the board of directors nominees for election as directors at any meeting of stockholders and nominees to fill vacancies on the board;
- considering candidates proposed by stockholders in accordance with the requirements in the Committee charter;
- overseeing the administration of the Company's Code of Ethics;
- reviewing with the entire board of directors, on an annual basis, the requisite skills and criteria for board candidates and the composition of the board as a whole;
- the authority to retain search firms to assist in identifying board candidates, approve the terms of the search firm's engagement, and cause the Company to pay the engaged search firm's engagement fee;
- recommending to the board of directors on an annual basis the directors to be appointed to each committee of the board of directors;
- overseeing an annual self-evaluation of the board of directors and its committees to determine whether it and its committees are functioning effectively; and
- developing and recommending to the board a set of corporate governance guidelines applicable to the Company.

The Nominating and Corporate Governance Committee may delegate any of its responsibilities to subcommittees as it deems appropriate. The Nominating and Corporate Governance Committee is authorized to retain independent legal and other advisors, and conduct or authorize investigations into any matter within the scope of its duties.

*Management-Non-Executive Director Compensation*

Currently, no director of the Company receives any cash compensation for their services as such, but in the future directors may receive stock options pursuant to the Company's stock option plan and grants of the Company's common stock.

***Code of Ethics***

We have adopted a Code of Business Conduct and Ethics, which applies to our board of directors, our executive officers and our employees, outlines the broad principles of ethical business conduct we adopted, covering subject areas such as:

- compliance with applicable laws and regulations,
- handling of books and records,
- public disclosure reporting,
- insider trading,
- discrimination and harassment,
- health and safety,

- conflicts of interest,
- competition and fair dealing, and
- protection of company assets.

A copy of our Code of Business Conduct and Ethics is available without charge, to any person desiring a copy of the Code of Business Conduct and Ethics, by written request to us at our principal offices at 201 Grove Road, Thorofare, New Jersey USA 08086.

**Involvement in Certain Legal Proceedings**

To the best of our knowledge, none of our directors or executive officers has, during the past ten years:

- been convicted in a criminal proceeding or been subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- had any bankruptcy petition filed by or against the business or property of the person, or of any partnership, corporation or business association of which he was a general partner or executive officer, either at the time of the bankruptcy filing or within two years prior to that time;
- been subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction or federal or state authority, permanently or temporarily enjoining, barring, suspending or otherwise limiting, his involvement in any type of business, securities, futures, commodities, investment, banking, savings and loan, or insurance activities, or to be associated with persons engaged in any such activity;
- been found by a court of competent jurisdiction in a civil action or by the Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;
- been the subject of, or a party to, any federal or state judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated (not including any settlement of a civil proceeding among private litigants), relating to an alleged violation of any federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- been the subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Except as set forth in our discussion below in “Certain Relationships and Related Transactions,” none of our directors or executive officers has been involved in any transactions with us or any of our directors, executive officers, affiliates or associates which are required to be disclosed pursuant to the rules and regulations of the Commission.

## EXECUTIVE COMPENSATION

The following table summarizes information regarding the compensation awarded to, earned by or paid to, our Chief Executive Officer, and our other most highly compensated executive officers who earned in excess of $100,000 during 2016, 2015 and 2014.

| Name and Principal Position | Year | Salary $ | Cash Bonus $ | Stock Awards $ | Option Awards $ | All Other $ | Total $ |
|---|---|---|---|---|---|---|---|
| Raymond F Akers, Jr PhD | | | | | | | |
| Former Executive Chairman | 2016 | 269,231 | — | — | — | 7,800[1] | 277,031 |
| Secretary, Chief Scientific Director | 2015 | 397,450 | — | 256,900 | — | 7,800[1] | 662,150 |
| | 2014 | 394,231 | — | — | 124,270 | 7,800[1] | 526,301 |
| | | | | | | | |
| John J. Gormally[2] | | | | | | | |
| Chief Executive Officer | 2016 | 248,500 | — | 54,725 | — | 7,800[3] | 311,025 |
| | 2015 | 24,038 | — | — | — | 650[3] | 24,688 |
| | | | | | | | |
| Gary M Rauch | | | | | | | |
| Vice President, Finance and | 2016 | 95,000 | — | — | — | — | 95,000 |
| Treasurer | 2015 | 95,000 | — | 27,675 | — | — | 122,675 |
| | 2014 | 78,414 | — | — | 46,601 | 11,250[4] | 138,765 |

(1) Other Compensation for Dr. Akers consisted of a car allowance.
(2) Mr. Gormally was appointed as Chief Executive Officer on November 16, 2015.
(3) Other Compensation for Mr. Gormally consisted of a car allowance.
(4) Mr. Rauch became an employee of the Company effective February 2, 2014. Prior to this date, Mr. Rauch was paid a fee pursuant to his consultant agreement. Fees paid to Mr. Rauch for his pre-employment period are recorded as other compensation.

**Employment Agreements**

On December 2, 2015, the Company and John J. Gormally finalized the terms of his employment and entered into an employment agreement (the "Employment Agreement"), pursuant to which Mr. Gormally will serve as the Company's Chief Executive Officer. Mr. Gormally shall have such duties, responsibilities and authority as are commensurate and consistent with the position of Chief Executive Officer of a public company.

The Company shall pay Mr. Gormally a salary at a rate of Two Hundred Fifty Thousand and 00/100 Dollars ($250,000) per year (the "Base Salary"). On January 31, 2017, pursuant to the terms of the Employment Agreement, the Board adjusted Mr. Gormally's salary to Three Hundred Twenty-Five Thousand and 00/100 Dollars ($325,000) effective as of January 1, 2017. In addition, subject to the discretion of the Company's Compensation Committee and the Board, provided that the Employment Agreement has not been terminated, Mr. Gormally shall be eligible for an annual performance-based cash bonus of up to 100% of the Base Salary (the "Cash Incentive Bonus"). Mr. Gormally shall receive certain grants of the Company's restricted common stock (each an "Incentive Award" and together with the Cash Incentive Bonus, the "Incentive Compensation") on a bi-annual basis, with such awards expected to be made on or about February 15 and August 15 of each year, under the Company's Amended and Restated 2013 Incentive Stock and Award Plan. Each Incentive Award will vest or has vested as follows: (i) 1/3 vested on the date of grant; (ii) 1/3 vest on the first anniversary of the date of grant and (iii) 1/3 shall vest on the second anniversary of the date of grant. The Incentive Awards will be made within the following ranges, in the aggregate, for each such year: (i) for 2016, up to 140,000 shares of restricted common stock, but no less than 27,500 shares of restricted common stock; (ii) for 2017, up to 125,000 shares of restricted common stock, but no less than 25,000 shares of restricted common stock; (iii) for 2018, up to 125,000 shares of restricted common stock, but no less than 25,000 shares of restricted common stock; (iv) for 2019, up to 125,000 shares of restricted common stock, but no less than 25,000 shares of restricted common stock; and (v) for 2020, up to 125,000 shares of restricted common stock, but no less than 25,000 shares of restricted common stock.

The Employment Agreement may be terminated by either party upon thirty (30) days' written notice to the other party or sooner upon the parties' mutual written consent. In the event that Mr. Gormally is terminated without Cause (as defined in the Employment Agreement), including termination pursuant to thirty (30) days' written notice, or Mr. Gormally terminates his employment for Good Reason (as defined in the Employment Agreement) the Company shall pay Mr. Gormally severance in accordance to the following: (i) if the date of termination is prior to the four month anniversary of the effective date of the Employment Agreement (the "Four Month Anniversary"), Mr. Gormally shall receive no severance; (ii) if the date of termination is after the Four Month Anniversary but prior to the one year anniversary (the "One Year Anniversary") of the effective date of the Employment Agreement, the Company shall pay Mr. Gormally severance equal to one third (1/3) of his Base Salary; (iii) if the date of termination is on or after the One Year Anniversary but prior to the two year anniversary (the "Two Year Anniversary") of the effective date of the Employment Agreement, the Company shall pay Mr. Gormally severance equal to one half (1/2) of the Mr. Gormally's then current Base Salary; and (iv) if the date of termination is on or after the Two Year Anniversary, the Company shall pay Mr. Gormally severance equal to one year of Mr. Gormally's then current Base Salary. If Mr. Gormally is terminated for Cause the Company will not pay any severance.

**Stock Awards**

| Name (a) | Number of Securities Underlying Unexercised Options (#) Exercisable (b) | Number of Securities Underlying Unexercised Options (#) Unexercisable (c) | Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d) | Option Exercise Price ($) (e) | Option Expiration Date (f) | Number of Shares or Units of Stock That Have Not Vested (#) (g) (9) | Market Value of Shares or Units of Stock That Have Not Vested ($) (h) | Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (i) | Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (#) (j) |
|---|---|---|---|---|---|---|---|---|---|
| Raymond F. Akers Jr. Director, Secretary | 40,000(1) | 0 | 0 | 5.50 | 06/30/2019 | 0 | 0 | 0 | 0 |
| John J. Gormally Chief Executive Officer | 0 | 0 | 0 | 0 | n/a | 18,666 | 35,465 | 0 | 0 |
| Gary Rauch VP of Finance | 15,000 | 0 | 0 | 5.50 | 06/30/2019 | 0 | 0 | 0 | 0 |
| Thomas Knox, Non-Executive Chairman | 20,000 | 0 | 0 | 5.50 | 06/30/2019 | 0 | 0 | 0 | 0 |
| Robert E. Andrews Director | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| Brandon Knox, Director | 20,000 | 0 | 0 | 5.50 | 06/30/2019 | 0 | 0 | 0 | 0 |
| Dr. Raza Bokhari | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |

(1) Dr. Akers gifted such options to the Akers Family Trust, a trust to which he is not a named beneficiary.

Effective October 5, 2016, the Board of Directors (the "Board") of Akers Biosciences, Inc. (the "Company") amended (the "Amendment"), upon recommendation from the Compensation Committee of the Board, the Akers Biosciences, Inc. First Amended and Restated 2013 Incentive Stock and Award Plan (the "Plan"). The Amendment increases the number of authorized shares of common stock subject to the Plan by 30,000 shares, or 3.75% of the amount of shares previously authorized under the Plan.

## DIRECTOR COMPENSATION

The following sets forth the compensation awarded to, earned by, or paid to the named director by us during the year ended December 31, 2016.

| Name | Fees earned or paid in cash ($) | Stock Awards ($) | Option Awards ($) | Non-equity incentive plan compensation ($) | All other compensation ($) | Total ($) |
|---|---|---|---|---|---|---|
| Raymond Akers, Jr.[1] | 0 | 0 | 0 | 0 | 0 | 0 |
| Thomas Knox[2] | 0 | 0 | 0 | 0 | 0 | 0 |
| Brandon Knox[3] | 0 | 0 | 0 | 0 | 0 | 0 |
| Robert E. Andrews[4] | 0 | 0 | 0 | 0 | 0 | 0 |
| Dr. Raza Bokhari[5] | 0 | 0 | 0 | 0 | 0 | 0 |

(1) Effective April 22, 2016, Dr. Akers resigned as Executive Chairman of the Board. Dr. Akers was Vice Chairman from April 22, 2016 through August 10, 2017 when he resumed his position as Executive Chairman.

(2) Effective July 1, 2013, Mr. Thomas Knox was appointed as Director and, on April 22, 2016, was appointed sole Non-Executive Chairman of the Board. Mr. T. Knox did not seek reelection to the Board and his term ended on August 10, 2017.

(3) Effective January 23, 2014, Mr. Brandon Knox was appointed as Director. Mr. B. Knox did not seek reelection to the Board and his term ended on August 10, 2017.

(4) Effective June 29, 2015, Mr. Robert E. Andrews was appointed as Director. Mr. Andrews did not seek reelection to the Board and his term ended on August 10, 2017.

(5) Effective November 11, 2015, Dr. Raza Bokhari was appointed as Director. Mr. Bokhari did not seek reelection to the Board and his term ended on August 10, 2017.

***Compensation-Setting Process/Role of Our Compensation Committee***

The Compensation Committee has responsibility for the Company's compensation practices with appropriate approval and general oversight from the Board. This responsibility includes the determination of compensation levels and awards provided to the named executive officers. The Compensation Committee provides a recommendation for the performance review and any compensation adjustments to the Board for approval. Grants of equity-based compensation are approved by the Compensation Committee in accordance with the Company's stock incentive and award plan established by the Compensation Committee.

Base Salary

We provide base salary as a fixed source of compensation for our executive officers, allowing them a degree of certainty when having a meaningful portion of their compensation "at risk" in the form of equity awards covering the shares of a Company for whose shares there has been limited liquidity to date. The Board recognizes the importance of base salaries as an element of compensation that helps to attract highly qualified executive talent.

Base salaries for our executive officers were established primarily based on individual negotiations with the executive officers when they joined us and reflect the scope of their anticipated responsibilities, the individual experience they bring, the Board members' experiences and knowledge in compensating similarly situated individuals at other companies, our then-current cash constraints and a general sense of internal pay equity among our executive officers and key personnel.

The Compensation Committee does not apply specific formulas in determining base salary increases. Actual base salaries may differ from the competitive market rates target as a result of various other factors including relative depth of experience, prior individual performance and expected future contributions, internal pay equity considerations within our Company and the degree of difficulty in replacing the individual.

***Outstanding Equity Awards at Fiscal Year-End 2016***

There were no outstanding equity awards at Fiscal Year-End 2016.

***Compensation Risk Assessment***

In connection with this offering, our board of directors expects to review the potential risks associated with the structure and design of our various compensation plans, including a comprehensive review of the material compensation plans and programs for all employees. Our material plans and programs operate within our larger corporate governance and review structure that serves and supports risk mitigation.

***Employee Stock Incentive Plans***

Effective August 7, 2017, the shareholders of the "Company, upon the recommendation of the Board of the Company, approved and adopted the Akers Biosciences, Inc. 2017 Equity Incentive Plan (the "Plan"). The Plan provides for the issuance of up to 1,350,000 shares of the Company's common stock, no par value per share (the "Common Stock"), through the grant of non-qualified options (the "Non-qualified Options"), incentive options (the "Incentive Options" and together with the Non-qualified Options, the "Options"), restricted stock (the "Restricted Stock") and unrestricted stock to directors, officers, consultants, attorneys, advisors and employees.

The Board will initially administer the Plan. The Compensation Committee of the Board will recommend to the Board the employees and non-employees who receive awards, the number of shares covered thereby, and, subject to the terms and limitations expressly set forth in the Plan, the terms, conditions and other provisions of the grants. The Board intends to appoint the Compensation Committee of the Board to administer the Plan at such time as the newly elected directors comprising the Compensation Committee of the Board are prepared to administer the Plan.

*Options are subject to the following conditions*:

(i) The Board or committee administering the Plan (the "Committee") determines the strike price of Incentive Options at the time the Incentive Options are granted. The assigned strike price must be no less than 100% of the Fair Market Value (as defined in the Plan) of the Common Stock. In the event that the recipient is a Ten Percent Owner (as defined in the Plan), the strike price must be no less than 110% of the Fair Market Value of the Company.

(ii) The strike price of each Option will be at least 100% of the Fair Market Value of such share of the Company's Common Stock on the date the Non-qualified Option is granted.

(iii) The Committee fixes the term of Options,*provided* that Options may not be exercisable more than ten years from the date the Option is granted, and *provided further* that Incentive Options granted to a Ten Percent Owner may not be exercisable more than five years from the date the Incentive Option is granted.

(iv) The Committee may designate the vesting period of Options. The vesting period accelerates upon the consummation of a Sale Event (as defined in the Plan).

(v) Options are not transferable and Options are exercisable only by the Options' recipient, except upon the recipient's death.

(vi) Incentive Options may not be issued in an amount or manner where the amount of Incentive Options exercisable in one year entitles the holder to Common Stock of the Company with an aggregate Fair Market value of greater than $100,000.

*Awards of Restricted Stock are subject to the following conditions*:

(i) The Committee grants Restricted Stock and determines the restrictions on each Restricted Stock Award (as defined in the Plan). Upon the grant of a Restricted Stock Award and the payment of any applicable purchase price, grantee is considered the record owner of the Restricted Stock and entitled to vote the Restricted Stock if such Restricted Stock is entitled to voting rights.

(ii) Restricted Stock may not be delivered to the grantee until the Restricted Stock has vested.

(iii) Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as provided in the Plan or in the Award Agreement (as defined in the Plan).

*Issuances made pursuant to the Plan*

On October 17, 2017, pursuant to the Plan, the Board issued (i) John J. Gormally, the Company's CEO, 150,000 shares of Restricted Stock, (ii) Gary Rauch, the Company's CFO, 36,277 shares of Restricted Stock, (iii) 58,043 shares of Restricted Stock to a current employee of the Company and (iv) 50,787 shares of Restricted Stock to a former employee of the Company, for a total of 295,107 shares of Restricted stock.

As of December 4, 2017, under the Plan, the Company has issued 295,107 shares of Restricted Stock and has 1,054,893 shares of Common Stock available for issuance.

The above description of the Plan does not purport to be complete and is qualified in its entirety by reference to the full text of the Plan, which is attached as Exhibit 10.1 to this Current Report on Form 8-K is are incorporated by reference herein.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than compensation arrangements, the following is a description of transactions to which we were a participant or will be a participant to, in which:

On June 19, 2012, the Company entered into a 3-year exclusive License & Supply Agreement with ChubeWorkx for the purchase and distribution of Akers' proprietary breathalyzers outside North America. ChubeWorkx paid a licensing fee of $1,000,000 which was recognized over the term of the agreement through September 30, 2015.

On June 13, 2013, the Company announced an expansion of the License and Supply Agreement with ChubeWorkx to include worldwide marketing and distribution of the "Be CHUBE" program using the Company's breathalyzer.

On August 17, 2016, the Company entered into the Settlement Agreement with ChubeWorkx, which settled all pending claims between the Company and ChubeWorkx. Specifically, the Company and ChubeWorkx agreed to voluntarily dismiss the action brought by the Company against ChubeWorkx for outstanding amounts due to Akers Bio under a promissory note in a United States Federal Court suit, District of New Jersey and various claims brought by ChubeWorkx against the Company arising from an exclusive licensing agreement between ChubeWorkx and the Company ("Licensing Agreement") in a suit brought in The High Court of Justice, Queen's Bench Division Commercial Court, Royal Courts of Justice, United Kingdom.

Under the terms of the Settlement Agreement, the Company recovered the full outstanding principal amount in the current fiscal year in the form of $750,000 of BreathScan® Alcohol Detector products — which the Company intends to subsequently sell — and the balance of $549,609 as prepaid royalty. The goods were received in August, 2016. Akers' established an allowance for this doubtful note in the Company's financial statements for the year ended December 31, 2015. As a result of the Settlement Agreement, the Company reversed the allowance for doubtful note in the amount of $1,299,609 which is included in the Condensed Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2016.

In addition to addressing the promissory note described above, the Settlement Agreement also allows the Company to market and sell all of the Company's breath technology tests worldwide, unencumbered by any past/future claims by ChubeWorkx under the Licensing Agreement (entered into with ChubeWorkx in 2012 and subsequently amended in 2013). Under the terms of the Settlement Agreement, ChubeWorkx no longer holds any rights pertaining to Akers' BreathScan ® technology, which serves as the basis for a number of commercialized products including BreathScan® Alcohol Detector and BreathScan OxiChek™; and a number of products in development.

In return for the Company regaining the full rights to sell breath technology products, under the terms of the Settlement Agreement, ChubeWorkx is entitled to receive a royalty of 5% of the Company's gross revenues (the "ChubeWorkx Royalty") until ChubeWorkx has earned an aggregate $5,000,000, after which point ChubeWorkx will no longer be entitled to receive any royalties from the Company and the Company shall have no further obligation to ChubeWorkx. The Settlement Agreement further allows the Company to retain 50% of the ChubeWorkx Royalty until the full $549,609 cash component of the monies owed by ChubeWorkx to the Company as described above has been satisfied. The Company recorded royalty expenses of $153,854 for the year ended December 31, 2016 which are included in sales and marketing expenses — related party on the Consolidated Statement of Operations and Comprehensive Loss.

Other terms of the Settlement include: 1) the pledge as security of all earned but unpaid royalties by the Company to ChubeWorkx all Company assets, worthy to satisfy its obligations, including all inventory and receivables, with the exception of (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment; 2) the pledge as security of the settlement sum which remains unpaid by the Company to ChubeWorkx all Company (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment; and 3) the grant of voting proxy by ChubeWorkx to the Company which allows the Company to vote ChubeWorkx's shares for corporate formalities under certain conditions.

The pledged assets are only at risk in the event that the Company cannot satisfy any outstanding royalty payment obligations subject to various cure periods and/or through a restructuring and/or liquidation under the United States Bankruptcy laws of the Company in favor of payment of said obligation.

The Company began purchasing manufacturing molds, plastic components and the assembled BreathScan Lync device through Hainan and its related parties during the year ended December 31, 2016 (Note 11). The Company purchased a total of $207,135 during the year ended December 31, 2016 from this related party. As of December 31, 2016, the Company owed the three companies $164,049 which is included in trade and other payables — related party on the Consolidated Balance Sheet.

Trade receivables — related party as of December 31, 2016 and 2015 were $31,892 and $31,512. The amounts due are non-interest bearing, unsecured and generally have a term of 30-90 days (Note 5). This receivable is past due and management deemed it fully collectable.

Product revenue — related party for the year ended December 31, 2016 and 2015 were $380 and $36,512. The revenue was the result of sales to Hainan.

Other than compensation arrangements, the following is a description of transactions to which we were a participant or will be a participant to, in which:

- the amounts involved exceeded or will exceed the lesser of 1% of our total assets or $120,000; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Pursuant to the Settlement Agreement, all of the Disputes have been settled and all of the proceedings related to such have been dismissed. For more detailed information related to the Settlement Agreement See — Item 3, Legal Proceedings and Note 18 to the Company's audited financial statements.

On March 9, 2015, the Company contributed capital of $64,675 in Hainan Savy Akers Biosciences, Ltd., a company incorporated in the People's Republic of China, resulting in a 19.9% ownership interest. The contribution was adjusted downward to $64,091 on April 8, 2015; the net effect of the currency conversion when the contribution was processed in Hainan. Mr. Thomas Knox, a member of the Company's Board of Directors, is also an investor in the joint venture.

**Indemnification of our Directors and Officers**

Section 14A:2-7(3) of the New Jersey Business Corporation Act permits a corporation to provide in its certificate of incorporation that a director or officer shall not be personally liable, or shall be liable only to the extent therein provided, to the corporation or its shareholders for damages for breach of any duty owed to the corporation or its shareholders, except that such provision shall not relieve a director or officer from liability for any breach of duty based upon an act or omission (a) in breach of such person's duty of loyalty to the corporation or its shareholders, (b) not in good faith or involving a knowing violation of law or (c) resulting in receipt by such person of an improper personal benefit. Akers Biosciences, Inc.'s certificate of incorporation provides for such limitation of liability.

Section 14A:3-5 of the New Jersey Business Corporation Act empowers a corporation to indemnify any current or former director or officer made a party to a proceeding because he or she is or was a director or officer against liability incurred in the proceeding; provided that such director or officer acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal proceeding, such director or officer had no reasonable cause to believe his conduct was unlawful.

Akers Biosciences, Inc.'s certificate of incorporation provides that the corporation must indemnify its directors and officers to the fullest extent authorized by law. Akers Biosciences, Inc. is also expressly required to advance certain expenses to its directors and officers. Akers Biosciences, Inc. believes that these indemnification provisions are useful to attract and retain qualified directors and executive officers.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

**Policy on Future Related Party Transactions**

All future transactions between us and our officers, directors, principal stockholders and their affiliates will be approved by the audit committee, or a similar committee consisting of entirely independent directors, according to the terms of our Code of Business Conduct and our Related Party Transaction Policies and Procedures.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of November 20, 2017, information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

Beneficial ownership is determined according to the rules of the SEC and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of the applicable security, including options that are currently exercisable or exercisable within 60 days of November 20, 2017. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons named in the table below have sole voting and investment power with respect to all shares of common stock shown that they beneficially own, subject to community property laws where applicable.

Our calculation of the percentage of beneficial ownership is based on 9,920,552 shares of our common stock issued and outstanding as of November 20, 2017.

Common stock subject to stock options currently exercisable or exercisable within 60 days of November 20, 2017, are deemed to be outstanding for computing the percentage ownership of the person holding these securities and the percentage ownership of any group of which the holder is a member but are not deemed outstanding for computing the percentage of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Akers Biosciences, Inc., 201 Grove Road, Thorofare, New Jersey USA 08086.

| | Shares Beneficially Owned as of November 20, 2017 | Percentage of Ownership as of November 20, 2017 |
|---|---|---|
| **Name of Beneficial Owner:** | | |
| **5% Stockholders:** | | |
| Empery Asset Management, LP | 724,200 | 7.30% |
| Hudson Bay Master Fund, LTD | 632,000 | 6.37% |
| Chubeworkx Guernsey Limited(1) | 512,820 | 5.17% |
| | | |
| **Named Executive Officers and Directors:*** | | |
| Raymond F. Akers, Jr. Phd(2) | — | —% |
| Bill J. White | — | —% |
| Richard C. Tarbox III | — | —% |
| Christopher C. Schreiber | — | —% |
| John J. Gormally | 180,000 | 1.81% |
| Gary M. Rauch(3) | 78,777 | 0.79% |
| All executive officers and directors as a group (6 persons) | 258,777 | 2.60% |

(1) Mark Chasey is the Chairman of Chubeworkx Guernsey Limited and has beneficial ownership of the shares.
(2) Dr. Akers previously gifted 70,000 shares of Common Stock to the Akers Family Trust, a trust to which he is not a named beneficiary. On January 5, 2016, Dr. Akers' wife purchased 2,100 shares of Common Stock.
(3) Mr. Rauch owns 63,777 shares of common stock and has 15,000 vested options.
* Aside from Mr. Rauch, all other named executive officers and directors in the table above only hold shares of common stock and do not have any options outstanding.

**Changes in Control**

We are not aware of any arrangements that may result in "changes in control" as that term is defined by the provisions of Item 403(c) of Regulation S-K.

The following table shows information with respect this plan as of the fiscal year ended December 31, 2016.

**Equity Compensation Plan Information**

| Plan category | Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) | Weighted-average Exercise price of outstanding options, warrants and rights (b) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c) |
|---|---|---|---|
| Equity compensation plans approved by security holders | — | $ — | — |
| Equity compensation plans not approved by security holders | 259,000 | $ 4.23 | 13,292 |
| **Total** | 259,000 | $ 4.23 | 13,292 |

## DESCRIPTION OF SECURITIES

### General

The following description of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the bylaws that were filed with the Securities and Exchange Commission as exhibits to the registration statement of which this prospectus forms a part.

Our authorized capital stock consists of 550,000,000 shares, of which 500,000,000 are common stock, without par value, and 50,000,000 are preferred stock, without par value. As of November 20, 2017 we had issued and outstanding 9,920,552 shares of common stock and no preferred stock.

### Common Stock

#### *Voting Rights*

Each Stockholder has one vote for each share of common stock held on all matters submitted to a vote of stockholders. A shareholder may vote in person or by proxy. Elections of directors are determined by a plurality of the votes cast and all other matters are decided by a majority of the votes cast by those Shareholders entitled to vote and present in person or by proxy.

Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the voting power of our shares of common stock will be able to elect all of our directors. Our amended and restated certificate of incorporation and bylaws provide that stockholder actions may be effected at a duly called meeting of stockholders or pursuant to written consent of the majority of shareholders. A special meeting of stockholders may be called by the President, Chief Executive Officer or the Board of Directors pursuant to a resolution approved by the majority of the Board of Directors.

#### *Dividend Rights*

The holders of outstanding shares of common stock are entitled to receive dividends out of funds legally available at the times and in the amounts that our board may determine, provided that required dividends, if any, on preferred stock have been paid or provided for. However, to date we have not paid or declared cash distributions or dividends on our common stock and do not currently intend to pay cash dividends on our common stock in the foreseeable future. We intend to retain all earnings, if and when generated, to finance our operations. The declaration of cash dividends in the future will be determined by the board based upon our earnings, financial condition, capital requirements and other relevant factors.

#### *No Preemptive or Similar Rights*

Holders of our common stock do not have preemptive rights, and common stock is not convertible or redeemable.

#### *Right to Receive Liquidation Distributions*

Upon our dissolution, liquidation or winding-up, the assets legally available for distribution to our stockholders and remaining after payment to holders of preferred stock of the amounts, if any, to which they are entitled, are distributable ratably among the holders of our common stock subject to any senior class of securities.

The Company is authorized to issue 50,000,000 shares of preferred stock, with no par value per share. Pursuant to the Company's Certificate of Incorporation, the Board of Directors has the authority to amend the Company's Certificate of Incorporation, without further stockholder approval, to designate and determine the preferences, limitations and relative rights of the preferred stock before any issuance of the preferred stock and to create one or more series of preferred stock, fix the number of shares of each such series, and determine the preferences, limitations and relative

rights of each series of preferred stock, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, and liquidation preferences. Our certificate of incorporation provides that only holders of an affected series of preferred stock have the ability to vote on an amendment to the certificate of incorporation that solely relates to the terms of such preferred stock.

***Series A Preferred Stock***

The Company has authorized 10,000,000 shares of Series A Cumulative Preferred Stock (the "Series A Preferred Stock"). As of November 20, 2017 there were no shares of the Company's Series A Preferred Stock issued and outstanding.

***Series B Convertible Preferred Stock***

The following is a summary of the material terms of the Series B Preferred. This summary is not complete. The following summary of the terms and provisions of the Series B Preferred is qualified in its entirety by reference to the Series B Preferred, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part.

*General.* Our board of directors has authorized the designation of up to 7,000 shares of the 50,000,000 authorized shares of preferred stock as Series B Convertible Preferred Stock and the Company will file the Series B Preferred Certificate of Designation (i) following the effectiveness of the registration statement of which this prospectus forms a part and (ii) prior to the closing of this offering. When issued, the shares of Series B Preferred will be validly issued, fully paid and non-assessable. Each share of Series B Preferred will have a stated value of $1,000 per share.

*Rank.* The Series B Preferred will rank on parity to our common stock.

*Conversion.* Each share of Series B Preferred is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price equal to the public offering price of the Class A Units in this offering. Holders of Series B Preferred will be prohibited from converting Series B Preferred into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding.

*Liquidation Preference.* In the event of our liquidation, dissolution or winding-up, holders of Series B Preferred will be entitled to receive the same amount that a holder of our common stock would receive if the Series B Preferred were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock.

*Voting Rights.* Shares of Series B Preferred will generally have no voting rights, except as required by law and except that the affirmative vote of the holders of a majority of the then outstanding shares of Series B Preferred is required to, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred, (b) amend our certificate of incorporation or other charter documents in any manner that materially adversely affects any rights of the holders, (c) increase the number of authorized shares of Series B Preferred, or (d) enter into any agreement with respect to any of the foregoing.

*Dividends*. Shares of Series B Preferred will not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series B Preferred will participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

*Redemption.* We are not obligated to redeem or repurchase any shares of Series B Preferred. Shares of Series B Preferred are not otherwise entitled to any redemption rights or mandatory sinking fund or analogous fund provisions.

*Exchange Listing.* We do not plan on making an application to list the Series B Preferred on any national securities exchange or other nationally recognized trading system.

***Warrants to be Issued in this Offering***

The following is a summary of the material terms of the warrants. This summary is not complete. The following summary of the terms and provisions of the warrants is qualified in its entirety by reference to the warrants, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part.

*Form.* The warrants will be issued in electronic book-entry form to the investors. You should review a copy of the form of warrant, which is filed as an exhibit to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the warrants.

*Exercisability.* The warrants are exercisable at any time after their original issuance, expected to be , 2017, and at any time up to the date that is five years after their original issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

*Exercise Limitation.* A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants.

*Exercise Price.* The exercise price per share of common stock purchasable upon exercise of the warrants is $ . The warrants may also be exercised via cashless exercise, whereby the holder will receive upon exercise of the warrant (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the warrant. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

*Transferability.* Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

*Exchange Listing.* We do not plan on making an application to list the warrants on any national securities exchange or other nationally recognized trading system.

*Fundamental Transactions.* In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

*Rights as a Stockholder.* Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

***Options and Warrants***

As of November 20, 2017, we had 1,490,570 shares issuable upon exercise of outstanding warrants at exercise prices ranging from $1.20 to $1.96 per share and 255,000 shares issuable upon the exercise of outstanding stock options under the 2013 Stock Incentive Plan at exercise prices ranging from $1.23 to $5.50 per share. There are no other outstanding warrants or options at this time.

As of December 1, 2017, there are 7,292 shares of common stock reserved for issuance under the 2013 Equity Incentive Plan.

On October 17, 2017, pursuant to the Akers Biosciences, Inc. 2017 Equity Incentive Plan (the "Plan"), the Board issued (i) John J. Gormally, the Company's CEO, 150,000 shares of Restricted Stock, (ii) Gary Rauch, the Company's CFO, 36,277 shares of Restricted Stock, (iii) 58,043 shares of Restricted Stock to a current employee of the Company and (iv) 50,787 shares of Restricted Stock to a former employee of the Company, for a total of 295,107 shares of Restricted stock.

As of December 4, 2017, under the Plan, the Company has issued 295,107 shares of Restricted Stock and has 1,054,893 shares of Common Stock available for issuance.

***Anti-Takeover Provisions***

The provisions of our certificate of incorporation, bylaws and the New Jersey corporation law summarized in the following paragraphs may be deemed to have anti-takeover effects and may delay, defer, or prevent a tender offer or takeover attempt that a shareholder might consider to be in such shareholder's best interest, including those attempts that might result in a premium over the market price for the shares held by shareholders, and may make removal of management more difficult.

The authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us.

These provisions are also designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

**New Jersey Shareholders Protection Act**

A provision of New Jersey law, the New Jersey Shareholders Protection Act (the "SPA"), prohibits certain transactions involving an "interested stockholder" and a corporation. An "interested stockholder" is generally defined as one who is the beneficial owner, directly or indirectly, of 10% or more of the voting power of the outstanding stock of the corporation. The SPA prohibits certain business combinations between an interested stockholder and a New Jersey corporation subject to the SPA for a period of five years after the date the interested stockholder acquired his stock, unless the transaction was approved by the corporation's board of directors prior to the time the interested stockholder acquired his stock. After the five-year period expires, the prohibition on business combinations with an interested stockholder continues unless certain conditions are met. The conditions include (i) that the business combination is approved by the board of directors of the target corporation; (ii) that the business combination is approved by a vote of two-thirds of the voting stock not owned by the interested stockholder; and (iii) that the stockholders of the corporation receive a price in accordance with the SPA.

**Transfer Agent and Registrar**

Our transfer agent for our common stock is VStock Transfer LLC, 18 Lafayette Place Woodmere, NY 11598.

## SHARES ELIGIBLE FOR FUTURE SALE

Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options and warrants, or the anticipation of these sales, could adversely affect prevailing market prices from time to time and could impair our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of December 12, 2017, after giving pro forma effect to the closing of this offering, we will have there will be 17,612,860 shares of our common stock outstanding. This excludes shares of common stock that may be issued upon exercise of the warrants and conversion of the Series B Preferred to be issued in this offering. Of those shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144, may only be sold in compliance with the limitations described below.

**Rule 144**

In general, under Rule 144, any person who is not our affiliate and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares without regard to whether current public information about us is available. A person who is our affiliate or who was our affiliate at any time during the preceding three months, and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately [•] shares immediately after this offering; or
- the average weekly trading volume of our common stock on the Nasdaq Capital Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements, and to the availability of current public information about us.

***Our common stock traded on AIM in the United Kingdom***

All of the shares of our common stock are admitted for trading on AIM. Our shares that trade on AIM are held in certificated form by individual stockholders or by CREST, which acts as a depositary, pursuant to a trust deed with us or are held in the SIS electronic settlement system. CREST in turn, issues Depositary Interests, or Dis, to each of the brokerage firms that are members of CREST, which hold interests in shares on behalf of their clients who are stockholders. Dis are settled through CREST, operated by Euroclear U.K. & Ireland Limited. Our shares that trade on AIM under the ticker "AKR.L" are unrestricted. Shares of our common stock are restricted under Regulation S of the Securities Act and are considered "restricted securities" under Rule 144. The legends on "AKR" shares require the seller and seller's broker to provide standard letters in connection with a sale of stock, under which they represent that the sale is in compliance with the offshore resale requirements of Rule 904 of the Securities Act.

***The AIM Rules***

For so long as any of our common stock is admitted for trading on AIM, we are subject to the AIM Rules. A copy of the AIM Rules may be obtained at the London Stock Exchange's website at *www.londonstockexchange.com.* The information on, or that can be accessed through, this website is not part of this prospectus.

The AIM Rules regulate the admission of shares to trading on AIM and impose various continuing obligations on AIM-listed companies. Under the AIM Rules, we are obliged, among other things, to:

- disclose to the public details of certain transactions and various corporate and other information relating to our business and our stockholders;

- seek the approval of our stockholders for certain corporate transactions, such as reverse takeovers, transactions resulting in fundamental changes in our business or a cancellation of our AIM listing;
- publish half-yearly and annual accounts within certain time periods and in accordance with prescribed accounting standards; and
- ensure that our directors and certain employees do not deal in our shares during prescribed periods prior to the publication of our financial results or when we are in possession of material non-public information.

The AIM Rules also require us to retain the services of a nominated advisor, or Nomad, and a broker. The Nomad is a full-time corporate finance advisor approved by the London Stock Exchange to act in this capacity. The Nomad assesses our overall suitability for AIM and assists us in meeting our continuing obligations under the AIM Rules, maximizing the benefits of our AIM quotation and dealing with market issues as they arise. The Nomad also has responsibilities to the London Stock Exchange itself and must comply with the AIM Rules for Nominated Advisers. A broker is a securities house that is a member of the London Stock Exchange and is responsible for facilitating and promoting trading in a company's shares on the market. Often an AIM company will choose the same firm to act as both Nomad and broker. Daniel Stewart & Company Plc is our Nomad.

The AIM Rules also enable the London Stock Exchange to take various steps to fine or censure us or impose other sanctions, including suspending or cancelling the trading of our shares on AIM, should we breach the AIM Rules or in order to preserve the integrity of the market or protect investors.

***Disclosure and Transparency Rules***

We are required to notify AIM if we are notified that the legal or beneficial interest that a stockholder holds in us (or are deemed to hold through their direct or indirect holding of financial instruments) reaches, exceeds or falls below 3% of our total outstanding shares, or any single percentage point increment above the 3% threshold. Since we are not subject to Chapter 5 of the Disclosure and Transparency Rules of the Financial Services Authority, and under our amended and restated certificate of incorporation and our bylaws there are no provisions requiring disclosure of interests in shares by stockholders, our stockholders are not required to provide us notification upon reaching, exceeding or falling below these thresholds.

**Moving Our Shares of Common Stock Between the United States and the United Kingdom**

If a holder of our common stock in certificated form, other than shares which are registered in this offering, or as Dis in uncertificated form in the CREST system, wishes to sell its shares on Nasdaq, the holder needs to use an eligible U.S. brokerage firm and, in general, abide by Rule 144. Upon sale of the common stock on Nasdaq through an eligible U.S. brokerage firm, such firm will need to contact our transfer agent, who will either take possession of the share certificate(s) or remove the shares from the CREST system and, in turn, convert such shares to certificated form in the name of Cede & Co, as nominee for DTC. The common stock held by Cede & Co. for DTC will be then be transferred by DTC to the purchaser.

Conversely, if a holder of common stock in the United States wishes to sell its common stock via AIM using the CREST system, the holder will need to contact Capita Registrars and request that the shares be removed from the DTC system and converted to certificated form in the name of Capita Trustees IRG Limited, who will deposit such common stock in the CREST system.

Please note that the arrangements described above may be difficult or unavailable due to:

- temporary delays that may arise because the transfer books for the common stock are closed;
- obligations to pay fees, taxes and similar charges that would arise; or
- restrictions imposed because of laws or regulations applicable to shares of common stock in the United States or the United Kingdom.

## UNDERWRITING

Joseph Gunnar & Co., LLC is acting as the sole underwriter of this offering. We have entered into an underwriting agreement, dated [____], 2017, with the underwriter. Subject to the terms and conditions of the underwriting agreement between us and the underwriter, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase from us, at the public offering price less the underwriting discounts set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

| Underwriters | Number of Class A Units | Number of Class B Units |
|---|---|---|
| Joseph Gunnar & Co. LLC | | |

The underwriter is committed to purchase all the Units offered by us, other than those covered by the over-allotment option described below, if any are purchased. The obligations of the underwriter may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriter's obligations are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriter of officers' certificates and legal opinions.

The underwriter is offering the Units, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel and other conditions specified in the underwriting agreement. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

***Over-Allotment Option***

We have granted the underwriter an over-allotment option. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the underwriter to purchase a maximum of 2,307,692 additional shares of common stock (15% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series B Preferred included as part of the Class B Units sold in this offering) and/or warrants to purchase a maximum of 2,307,692 shares of common stock (15% of the warrants included as part of the Units sold in this offering) solely to cover over-allotments, if any. If the underwriter exercises all or part of this option, it will purchase such common stock covered by the option at the public offering price per Class A Unit, minus one cent, and the warrants covered by the option at a price of one cent per warrant, in each case less the underwriting discounts and commissions. If this option is exercised in full, the total offering price to the public will be approximately $6.9 million and the total net proceeds, after expenses, to us will be approximately $6.2 million.

***Discounts, Commissions and Expense Reimbursement.***

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

| | Per Class A Unit | Per Class B Unit | Total Without Over-Allotment Option | Total With Over-Allotment Option |
|---|---|---|---|---|
| Public offering price | $ | $ | $ | $ |
| Underwriting discount (7%) | $ | $ | $ | $ |
| Non-accountable expense allowance (1%)[(1)] | $ | $ | $ | $ |
| Proceeds, before expense, to us | $ | $ | $ | $ |

(1) We have agreed to pay a non-accountable expense allowance to the underwriter equal to 1.0% of the gross proceeds received in this offering; provided, however, the expense allowance of 1.0% is not payable with respect to any securities sold upon exercise of the underwriter's over-allotment option.

The underwriter proposes to offer the Units offered by us to the public at the public offering price per respective Unit set forth on the cover of this prospectus. In addition, the underwriter may offer some of the Units to other securities dealers at such price less a concession of up to $ per Class A Unit and $ per Class B Unit.

If all of the Units offered by us are not sold at the respective public offering prices per Unit, the underwriter may change the offering price per Unit and other selling terms by means of a supplement to this prospectus.

We have paid an expense deposit of $10,000 to the underwriter, which will be applied against the underwriter's accountable out-of-pocket expenses (in compliance with FINRA Rule 5110(f)(2)(C)) that are payable by us in connection with this offering. We have agreed to reimburse the underwriter for the fees and expenses of its legal counsel in connection with the offering in an amount not to exceed $75,000, the fees and expenses related to the

use of book building, prospectus tracking and compliance software for the offering in the amount of $29,500, up to $15,000 for background checks of our officers and directors, and out-of-pocket fees and expenses of the underwriter for marketing and roadshows for the offering not to exceed $20,000.

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount and non-accountable expense allowance, will be approximately $138,000.

**Underwriter's Warrants**

We have agreed to issue to the underwriter warrants to purchase up to an aggregate of 769,231 shares of our common stock (5% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series B Preferred included in the Class B Units sold in this offering, but excluding any shares of common stock underlying the warrants issued in this offering and any shares of common stock sold (and any shares of common stock underlying any warrants sold) upon exercise of the underwriter's over-allotment option). The warrants will be exercisable at any time, and from time to time, in whole or in part, during the four-year period commencing one year from the date of this prospectus (the effective date of this offering). The warrants are exercisable at a per share price equal to $____ per share, or 125% of the public offering price per Class A Unit in the offering. The warrants are deemed underwriter compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The underwriter (or permitted assignees under Rule 5110(g)(1)) will not sell, transfer, assign, pledge, or hypothecate these warrants or the securities underlying these warrants, nor will they engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrants or the underlying securities for a period of 180 days from the date of this prospectus. In addition, the warrants provide for registration rights upon request, in certain cases. The demand registration right provided will expire five years from the date of this prospectus in compliance with FINRA Rule 5110(f)(2)(G)(iv). The piggyback registration right provided will expire seven years from the date of this prospectus in compliance with FINRA Rule 5110(f)(2)(G)(v). We will bear all fees and expenses attendant to registering the common stock issuable on exercise of the warrants other than underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrants may be proportionately adjusted in the event of a stock split, stock dividend, recapitalization, reorganization or similar event involving the company in compliance with FINRA Rule 5110(f)(2)(G)(vi).

**Discretionary Accounts**

The underwriter does not intend to confirm sales of the securities offered hereby to any accounts over which it has discretionary authority.

**Lock-Up Agreements**

We have agreed with the underwriter not to offer for sale, issue or sell, or register for offer or sale, any of our common stock or securities convertible into our common stock for a period of 180 days after the date of this prospectus, subject to certain exceptions. In addition, pursuant to certain "lock-up" agreements, all of our officers and directors and holders of 5% or more of our outstanding common stock have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic risk of ownership of, directly or indirectly, engage in any short selling of any common stock or securities convertible into or exchangeable or exercisable for any common stock, whether currently owned or subsequently acquired, without the prior written consent of the underwriter, for a period of 180 days from the date of this prospectus, in the case of our officers and directors, and for a period of 90 days from the date of this prospectus, in the case of 5% or more stockholders who are not officers or directors of the company.

**Right of First Refusal**

For a period of 24 months from the date of this prospectus (the effective date of this offering), the underwriter shall have a right of first refusal to act as sole investment banker, sole book-runner, and/or sole placement agent, at the underwriter's sole discretion, for each and every future public and private equity and debt offerings for the company or any successor to or any subsidiary of the company, including all equity-linked financings, on terms customary to the underwriter. The underwriter shall have the sole right to determine whether or not any other broker-dealer shall have

the right to participate in any such offering and the economic terms of any such participation. The underwriter will not have more than one opportunity to waive or terminate the right of first refusal in consideration of any payment or fee.

**Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make for these liabilities.

*Electronic Offer, Sale and Distribution of* **Shares**

A prospectus in electronic format may be made available on the websites maintained by the underwriter or one or more selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The underwriter may agree to allocate a number of Units to selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriter and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriter's website is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or the underwriter in its capacity as underwriter, and should not be relied upon by investors.

*Nasdaq Capital Market Listing*. Our common stock is listed on The Nasdaq Capital Market under the symbol "AKER."

*AIM Listing* Our common stock is listed on the AIM under the symbol "AKR.L."

- *Stabilization*. In connection with this offering, the underwriter may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids and purchases to cover positions created by short sales.

  Stabilizing transactions permit bids to purchase securities so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the securities while the offering is in progress.

- Over-allotment transactions involve sales by the underwriter of securities in excess of the number of securities that underwriter is obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriter is not greater than the number of securities that it may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriter may close out any short position by exercising its over-allotment option and/or purchasing securities in the open market.

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriter will consider, among other things, the price of securities available for purchase in the open market as compared with the price at which they may purchase securities through exercise of the over-allotment option. If the underwriter sells more securities than could be covered by exercise of the over-allotment option and, therefore, has a naked short position, the position can be closed out only by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that after pricing there could be downward pressure on the price of the securities in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of our securities. As a result, the price of our securities in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriter makes any representation or prediction as to the effect that the transactions described above may have on the price of our securities. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

*Passive Market Making*

In connection with this offering, the underwriter and selling group members may engage in passive market making transactions in our common stock on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the securities and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

**Other Relationships**

The underwriter and certain of its affiliates have provided, and may from time to time in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees; however, except as disclosed in this prospectus, we have no present arrangements with the underwriter or any of its affiliates for any further services.

**Offer Restrictions Outside the United States**

Other than in the United States, no action has been taken by us or the underwriter that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

**Australia**

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this prospectus.

**China**

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to "qualified domestic institutional investors."

**European Economic Area — Belgium, Germany, Luxembourg and Netherlands**

The information in this document has been prepared on the basis that all offers of common stock and warrants will be made pursuant to an exemption under the Directive 2003/71/EC ("Prospectus Directive"), as implemented in Member States of the European Economic Area (each, a "Relevant Member State"), from the requirement to produce a prospectus for offers of securities.

An offer to the public of common stock has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State: (a) to legal entities that are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities; (b) to any legal entity that has two or more of (i) an average of

at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements) and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements); (c) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)I of the Prospectus Directive) subject to obtaining the prior consent of the Company or any underwriter for any such offer; or (d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of common stock shall result in a requirement for the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

**France**

This document is not being distributed in the context of a public offering of financial securities (*offre au public de titres financiers*) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (*Code monétaire et financier)* and Articles 211-1 et seq. of the General Regulation of the French *Autorité des marchés financiers* ("AMF"). The common stock has not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the common stock has not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in France.

Such offers, sales and distributions have been and shall only be made in France to (i) qualified investors (*investisseurs qualifiés*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D. 744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (*cercle restreint d'investisseurs non-qualifiés*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the common stock cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

**Ireland**

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the "Prospectus Regulations"). The common stock has not been offered or sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

**Israel**

The common stock offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority ("ISA"), nor have such common stock been registered for sale in Israel. The common stock may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the common stock being offered. Any resale in Israel, directly or indirectly, to the public of the common stock offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

**Italy**

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (*Commissione Nazionale per le Societá la Borsa, "CONSOB'*) pursuant to the Italian securities legislation and, accordingly, no offering material relating to the common stock may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 ("Decree No. 58"), other than: to Italian qualified investors, as defined in Article 100 of Decree no. 58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 ("Regulation no. 1197l") as amended

("Qualified Investors"); and in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

Any offer, sale or delivery of the common stock or distribution of any offer document relating to the common stock in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such common stock being declared null and void and in the liability of the entity transferring the common stock for any damages suffered by the investors.

**Japan**

The common stock has not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the "FIEL") pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional

Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the common stock may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires common stock may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of common stock is conditional upon the execution of an agreement to that effect.

**Portugal**

This document is not being distributed in the context of a public offer of financial securities (*oferta pública de valores mobiliários*) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (*Código dos Valores Mobiliários*). The common stock has not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the common stock has not been, and will not be, submitted to the Portuguese Securities Market Commission (*Comissão do Mercado de Valores Mobiliários*) for approval in Portugal and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales and distributions of common stock in Portugal are limited to persons who are "qualified investors" (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

**Sweden**

This document has not been, and will not be, registered with or approved by *Finansinspektionen* (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the common stock be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (*Sw. lag (1991:980) om handel med finansiella instrument*). Any offering of securities in Sweden is limited to persons who are "qualified investors" (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

**Switzerland**

The common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the common stock has been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority ("FINMA").

This document is personal to the recipient only and not for general circulation in Switzerland.

**United Arab Emirates**

Neither this document nor the common stock has been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor have we received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the common stock within the United Arab Emirates. This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the common stock, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by us.

No offer or invitation to subscribe for common stock is valid or permitted in the Dubai International Financial Centre.

**United Kingdom**

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended ("FSMA")) has been published or is intended to be published in respect of the common stock. This document is issued on a confidential basis to "qualified investors" (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the common stock may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the common stock has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to the Company.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 ("FPO"), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

**Canada**

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal, that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws. Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor. Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriter are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

## LEGAL MATTERS

Lucosky Brookman LLP will render a legal opinion as to the validity of the securities registered hereby. Certain legal matters in connection with this offering will be passed upon for the underwriter by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

## EXPERTS

Our financial statements as of and for the years ended December 31, 2016 and 2015 included in this prospectus have been audited by MorisonCogen LLP independent certified public accountants, to the extent and for the periods set forth in their report appearing elsewhere herein, and are included in reliance on such report given upon the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock, warrants to purchase common stock, and Series B Preferred convertible into shares of our common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information in the registration statement and the exhibits of the registration statement. For further information with respect to us and the securities being offered under this prospectus, we refer you to the registration statement, including the exhibits and schedules thereto.

You may read and copy the registration statement of which this prospectus is a part at the SEC's Public Reference Room, which is located at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's Public Reference Room. In addition, the SEC maintains an Internet web site, which is located at *www.sec.gov*, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet web site. We are subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. The internet address of the Company is *http://www.akersbiosciences.com*. Information contained on our website is not a part of, and is not incorporated into, this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

## INCORPORATION OF INFORMATION BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, which we refer to as the "Exchange Act" in this prospectus, between the date of this prospectus and the termination of the offering of the securities described in this prospectus. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on April 11, 2017 and Amendment No.1 to the Form 10-K filed with the SEC on April 18, 2017;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 15, 2017;
- Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed with the SEC on August 14, 2017;
- Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 14, 2017;
- Our definitive proxy statement on Schedule 14A, filed with the SEC on July 24, 2017;
- Our Current Reports on Form 8-K filed with the SEC on January 10, 2017 January 13, 2017, April 5, 2017, August 11, 2017, October 13, 2017, October 19, 2017 and December 1, 2017; and
- The description of our common stock contained in our Registration Statement on Form 8-A (Registration No. 001-36268), filed with the SEC on January 17, 2014, under Section 12(b) of the Exchange Act, including any amendment or report filed with the SEC for the purpose of updating the description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

Akers Biosciences, Inc.
201 Grove Road
Thorofare, New Jersey 08086
(856) 848-8698

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus and any accompanying prospectus supplement.

**INDEX TO FINANCIAL STATEMENTS**

**September 30, 2017**
**(unaudited)**



**December 31, 2016 and December 31, 2015**
**(Audited)**

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Condensed Consolidated Balance Sheets**
**September 30, 2017 and December 31, 2016**

| | 2017 (unaudited) | 2016 (audited) |
|---|---|---|
| **ASSETS** | | |
| **Current Assets** | | |
| Cash | $ 135,133 | $ 72,700 |
| Marketable Securities | 10,178 | 50,001 |
| Trade Receivables, net | 1,125,097 | 601,271 |
| Trade Receivables – Related Parties, net | 125,001 | 31,892 |
| Deposits and other receivables | 21,748 | 23,782 |
| Inventories, net | 2,085,867 | 2,036,521 |
| Prepaid expenses | 99,479 | 168,277 |
| Prepaid expenses – Related Parties | 380,789 | 202,500 |
| **Total Current Assets** | 3,983,292 | 3,186,944 |
| **Non-Current Assets** | | |
| Prepaid expenses – Related Party | 53,456 | 270,183 |
| Property, Plant and Equipment, net | 242,048 | 259,392 |
| Intangible Assets, net | 1,173,444 | 1,301,775 |
| Other Assets | 76,093 | 66,813 |
| **Total Non-Current Assets** | 1,545,041 | 1,898,163 |
| **Total Assets** | $ 5,528,333 | $ 5,085,107 |
| **LIABILITIES** | | |
| **Current Liabilities** | | |
| Trade and Other Payables | $ 1,549,047 | $ 1,463,363 |
| Trade and Other Payables – Related Parties | 20,245 | 234,067 |
| Deferred Revenue | 12,500 | |
| **Total Current Liabilities** | 1,581,792 | 1,697,430 |
| **Total Liabilities** | 1,581,792 | 1,697,430 |
| **STOCKHOLDERS' EQUITY** | | |
| Convertible Preferred Stock, No par value, 50,000,000 shares authorized, no shares issued and outstanding as of September 30, 2017 and December 31, 2016 | — | — |
| Common Stock, No par value, 500,000,000 shares authorized, 8,901,245 and 5,452,545 issued and outstanding as of September 30, 2017 and December 31, 2016 | 104,628,437 | 100,891,786 |
| Deferred Compensation | (8,788) | (24,572) |
| Accumulated Deficit | (100,673,108) | (97,479,537) |
| Accumulated Other Comprehensive Income | — | — |
| **Total Stockholders' Equity** | 3,946,541 | 3,387,677 |
| **Total Liabilities and Stockholders' Equity** | $ 5,528,333 | $ 5,085,107 |

See accompanying notes to these condensed consolidated financial statements.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Condensed Consolidated Statements of Operations and Comprehensive Loss**
**(unaudited)**

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| Revenues: | | | | |
| Product Revenue | $ 638,331 | $ 613,198 | $ 2,378,811 | $ 2,307,328 |
| Product Revenue – Related parties | — | — | 124,631 | 380 |
| License & Service Revenue | 37,500 | — | 37,500 | — |
| Total Revenues | 675,831 | 613,198 | 2,540,942 | 2,307,708 |
| Cost of Sales: | | | | |
| Product Cost of Sales | (323,527) | (236,700) | (846,487) | (713,576) |
| Gross Income | 352,304 | 376,498 | 1,694,455 | 1,594,132 |
| Administrative Expenses | 819,565 | 558,293 | 2,440,023 | 2,298,099 |
| Sales and Marketing Expenses | 342,763 | 408,248 | 1,254,308 | 1,647,003 |
| Sales and Marketing Expenses – Related Party | 34,328 | 117,949 | 128,108 | 117,949 |
| Research and Development Expenses | 290,447 | 247,578 | 929,730 | 932,858 |
| Research and Development Expenses – Related Party | — | — | 22,994 | — |
| (Reversal of Allowance for) Bad Debt Expenses-Related parties | — | (1,299,609) | — | (1,299,609) |
| Amortization of Non-Current Assets | 42,777 | 42,777 | 128,331 | 128,331 |
| (Loss)/Income from Operations | (1,177,576) | 301,262 | (3,209,039) | (2,230,499) |
| Other (Income)/Expenses | | | | |
| Foreign Currency Transaction (Gain)/Loss | 3,195 | (3,629) | (6,172) | 1,189 |
| Interest and Dividend Income | (3,127) | (5,264) | (9,296) | (23,981) |
| Other Income | — | — | — | — |
| Total Other (Income)/Expense | 68 | (8,893) | (15,468) | (22,792) |
| (Loss)/Income Before Income Taxes | (1,177,644) | 310,155 | (3,193,571) | (2,207,707) |
| Income Tax Benefit | — | — | — | — |
| Net (Loss)/Income Attributable to Common Stockholders | (1,177,644) | 310,155 | (3,193,571) | (2,207,707) |
| Other Comprehensive Income/(Loss) | | | | |
| Net Unrealized Gain/(Loss) on Marketable Securities | (1,009) | (2,837) | — | 3,691 |
| Total Other Comprehensive Income/(Loss) | (1,009) | (2,837) | — | 3,691 |
| Comprehensive (Loss)/Income | $ (1,178,653) | $ 307,318 | $ (3,193,571) | $ (2,204,016) |
| Basic income/(loss) per common share | $ (0.13) | $ 0.06 | $ (0.39) | $ (0.41) |
| Diluted income/(loss) per common share | $ (0.13) | $ 0.06 | $ (0.39) | $ (0.41) |
| Weighted average basic common shares outstanding | 8,892,079 | 5,434,212 | 8,268,851 | 5,428,859 |
| Weighted average diluted common shares outstanding | 8,892,079 | 5,508,545 | 8,268,851 | 5,428,859 |

See accompanying notes to these condensed consolidated financial statements.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Condensed Consolidated Statement of Changes in Stockholder's Equity**
**For the nine months ended September 30, 2017**

| | Common Shares Issued and Outstanding | Common Stock | Deferred Compensation | Accumulated Deficit | Accumulated Other Comprehensive Income/(Loss) | Total Equity |
|---|---|---|---|---|---|---|
| **Balance at December 31, 2016 (audited)** | 5,452,545 | $ 100,891,786 | $ (24,572) | $ (97,479,537) | $ — | $ 3,387,677 |
| Net loss | — | — | — | (3,193,571) | — | (3,193,571) |
| Public offering of common stock, net of offering costs of $494,406 | 1,789,500 | 1,652,994 | — | — | — | 1,652,994 |
| Private offering of common stock, net of offering costs of $267,443 | 1,448,400 | 1,760,317 | — | — | — | 1,760,317 |
| Exercise of warrants for common stock | 200,800 | 301,200 | — | — | — | 301,200 |
| Amortization of deferred compensation | — | — | 15,784 | — | — | 15,784 |
| Issuance of non-qualified stock options to key employees | — | 14,502 | — | — | — | 14,502 |
| Issuance of non-qualified stock options for services to non-employees | — | 2,183 | — | — | — | 2,183 |
| Issuance of restricted stock for services for non-employees | 10,000 | 5,455 | — | — | — | 5,455 |
| **Balance at September 30, 2017 (unaudited)** | 8,901,245 | $ 104,628,437 | $ (8,788) | $(100,673,108) | $ — | $ 3,946,541 |

See accompanying notes to these condensed consolidated financial statements.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Condensed Consolidated Statements of Cash Flows**
**For the nine months ended September 30, 2017 and 2016**
**(unaudited)**

| | 2017 | 2016 |
|---|---|---|
| **Cash flows from operating activities** | | |
| Net loss | $ (3,193,571) | $ (2,207,707) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Accrued income on marketable securities | (148) | 13,380 |
| Depreciation and amortization | 182,866 | 221,946 |
| Allowance for/(reversal of) doubtful accounts | 46,239 | (1,153,413) |
| Amortization of deferred compensation | 15,784 | 24,834 |
| Share based compensation to employees – options | 14,502 | 22,828 |
| Share based compensation to non-employees – options | 2,183 | 23,676 |
| Share based compensation to non-employees – restricted stock | 5,455 | — |
| Changes in assets and liabilities: | | |
| Increase in trade receivables | (570,065) | (275,541) |
| Increase in trade receivables – related parties | (93,109) | — |
| Decrease in deposits and other receivables | 2,034 | 65,855 |
| Increase in inventories | (49,346) | (60,862) |
| Decrease in prepaid expenses | 68,797 | 91,706 |
| Decrease in prepaid expenses – related parties | 38,438 | 58,974 |
| Increase in other assets | (9,280) | — |
| Increase/(decrease) in trade and other payables | 85,685 | (418,998) |
| Increase/(decrease) in trade and other payables – related parties | (213,822) | 59,673 |
| Increase in deferred revenue | 12,500 | — |
| **Net cash used in operating activities** | (3,654,858) | (3,533,649) |
| | | |
| **Cash flows from investing activities** | | |
| Purchases of property, plant and equipment | (37,191) | (88,023) |
| Purchases of marketable securities | (2,709,148) | (37,360) |
| Proceeds from sale of marketable securities | 2,749,119 | 3,452,833 |
| **Net cash provided by investing activities** | 2,780 | 3,327,450 |
| | | |
| **Cash flows from financing activities** | | |
| Net proceeds from issuance of common stock | 3,413,311 | — |
| Net proceeds from exercise of warrants for common stock | 301,200 | — |
| **Net cash provided by financing activities** | 3,714,511 | — |
| | | |
| Net increase/(decrease) in cash | 62,433 | (206,199) |
| Cash at beginning of period | 72,700 | 402,059 |
| Cash at end of period | $ 135,133 | $ 195,860 |
| | | |
| **Supplemental Schedule of Non-Cash Financing and Investing Activities** | | |
| Issuance of a restricted common stock grant to an officer | $ — | $ 54,725 |
| Net unrealized gains on marketable securities | $ — | $ 3,691 |
| Reclassification of note receivable to inventory | $ — | $ 750,000 |
| Reclassification of note receivable to prepaid expense | $ — | $ 549,609 |

See accompanying notes to these condensed consolidated financial statements.

**Note 1 — Nature of Business**

**(a) Reporting Entity**

The accompanying financial statements have been prepared by Akers Biosciences, Inc. ("Akers" or the "Company"), a company domiciled in the United States of America. The address of the Company's registered office is 201 Grove Road, West Deptford, New Jersey, 08086. The Company is incorporated in the United States of America under the laws of the State of New Jersey.

The consolidated financial statements include two dormant subsidiaries, Akers Acquisition Sub, Inc. and Bout Time Marketing Corporation. All material intercompany transactions have been eliminated upon consolidation.

**(b) Nature of Business**

The Company's primary focus is the development and sale of disposable diagnostic testing devices that can be performed in minutes, to facilitate time sensitive therapeutic decisions. The Company's main products are a disposable breathalyzer test that measures the blood alcohol content of the user, a rapid test detecting the antibody causing an allergic reaction to Heparin and a disposable breathalyzer test that measures Free Radical activity in the human body. When the Company enters into an agreement with a new distributor it typically requires an upfront licensing fee to be paid for the right to sell the Company's products in specific markets.

**Note 2 — Basis of Presentation and Significant Accounting Policies**

**(a) Basis of Presentation**

The Condensed Consolidated Financial Statements of the Company are prepared in U.S. Dollars and in accordance with accounting principles generally accepted in the United States of America (US GAAP).

Certain information and note disclosures normally included in the financial statements prepared in accordance with US GAAP have been condensed. As such, the information included in these financial statements should be read in conjunction with the audited financial statements as of and for the years ended December 31, 2016 and 2015 included in the Company's 2016 Form 10-K. In the opinion of the management, these consolidated financial statements include all adjustments, consisting of only normal recurring nature, necessary for a fair statement of the financial position of the Company as of September 30, 2017 and its results of operations and cash flows for the three and nine months ended September 30, 2017 and 2016. The results of operations for the three and nine months ended September 30, 2017 are not necessarily indicative of the results to be expected for the full fiscal year ending December 31, 2017.

The Company is an emerging growth company as the term is used in The Jumpstart Our Business Startups Act enacted on April 5, 2012 and has elected to comply with certain reduced public company reporting requirements.

**(b) Use of Estimates and Judgments**

The preparation of financial statements in conformity with US GAAP requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is included in the following notes for revenue recognition, allowances for doubtful accounts, inventory write-downs, impairment of intangible assets and valuation of share based payments.

**(c) Functional and Presentation Currency**

These consolidated financial statements are presented in U.S. Dollars, which is the Company's functional currency. All financial information presented in U.S. Dollars has been rounded to the nearest dollar. Foreign Currency

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

Transaction Gains or Losses, resulting from loans and cash balances denominated in Foreign Currencies, are recorded in the consolidated statement of operations and comprehensive loss.

**(d) Comprehensive Income (Loss)**

The Company follows Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) 220 in reporting comprehensive income (loss). Comprehensive income is a more inclusive financial reporting methodology that includes disclosure of certain financial information that historically has not been recognized in the calculation of net income.

**(e) Cash and Cash Equivalents**

Cash and cash equivalents comprise cash balances. The Company considers all highly liquid investments, which include short-term bank deposits (up to 3 months from date of deposit) that are not restricted as to withdrawal date or use, to be cash equivalents. Bank overdrafts are shown as part of trade and other payables in the consolidated balance sheet.

**(f) Fair Value of Financial Instruments**

The Company's financial instruments consist of cash and cash equivalents, marketable securities, receivables and trade and other payables. The carrying value of cash and cash equivalents, receivables and trade and other payables approximate their fair value because of their short maturities. The fair value of marketable securities is described in Note 4.

**(g) Fair Value Measurement — Marketable Securities**

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Company has the ability to access.

Level 2 Inputs to the valuation methodology include

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

**(h) Trade Receivables, Trade Receivables — Related Parties and Allowance for Doubtful Accounts**

The carrying amounts of current trade receivables is stated at cost, net of allowance for doubtful accounts and approximate their fair value given their short-term nature.

The normal credit terms extended to customers ranges between 30 and 90 days. Credit terms longer than these may be extended after considering the credit worthiness of the customers and the business requirements. The Company reviews all receivables that exceed terms and establishes an allowance for doubtful accounts based on management's assessment of the collectability of trade and other receivables. A considerable amount of judgment is required in assessing the amount of allowance. The Company considers the historical level of credit losses, makes judgments about the credit worthiness of each customer based on ongoing credit evaluations and monitors current economic trends that might impact the level of credit losses in the future.

As of September 30, 2017 and December 31, 2016, allowances for doubtful accounts for trade receivables were $192,435 and $1,010,196. Bad debt expenses for trade receivables were $- and $47,741 for the three month and nine months ended September 30, 2017 and a credit of $1,299,609 and a credit of $1,153,414 for the three and nine months ended September 30, 2016. The credit of $1,153,414 comprises the reversal of an allowance for bad debts expense — related party of $1,299,609 and an allowance for bad debts for an external party of $146,195 included in the administrative expenses for the nine months ended September 30, 2016.

As of September 30, 2017 and December 31, 2016, the aging of trade receivables and trade receivables — related parties was as follows:

| *Aging Period* | September 30 2017 | % | December 31 2016 | % |
|---|---|---|---|---|
| Current | $ 1,008,025 | 70% | $ 464,365 | 28% |
| 01-30 Days | 41,746 | 3% | 43,223 | 3% |
| 31-60 Days | 50,000 | 3% | 39,203 | 2% |
| 61-90 Days | 101,093 | 7% | 6,150 | 0% |
| >90 Days | 241,669 | 17% | 1,090,418 | 66% |
| Subtotal | 1,442,533 | — | 1,643,359 | — |
| Bad Debts Allowance | (192,435) | — | (1,010,196) | — |
| ***Total*** | $ 1,250,098 | — | $ 633,163 | — |
| ***Average Days in Receivable*** | 166 | | 194 | |

The aging above represents the number of days that the account receivable balance exceeds the credit terms. Included in the current category is accounts receivable of $550,800 and $- as of September 30, 2017 and December 31, 2016 with payment terms extended to 180 days.

**(i) Concentration of Credit Risk**

The Company is exposed to credit risk in the normal course of business primarily related to trade receivables and cash and cash equivalents.

All of the Company's cash is maintained with Fulton Bank of New Jersey, Bank of America, NA and PayPal. The funds are insured by the FDIC up to a maximum of $250,000, but are otherwise unprotected. The Company placed $130,053 and $67,865 with Fulton Bank of New Jersey, $1,040 and $795 with Bank of America, NA and $4,040 and $4,040 with PayPal as of September 30, 2017 and December 31, 2016. No losses have been incurred in these accounts.

Concentration of credit risk with respect to trade receivables exists as approximately 68% of the Company's product revenue is generated by three customers. These customers accounted for 59% of trade receivables as of September 30, 2017. To limit such risks, the Company performs ongoing credit evaluations of its customers' financial condition.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

**(j) Inventories**

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is based on the weighted-average principle, and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, costs include an appropriate share of production overheads based on normal operating capacity.

**(k) Property, Plant and Equipment**

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Costs include expenditures that are directly attributable to the acquisition of the asset.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized within "other income" in the consolidated statement of operations and comprehensive loss.

Depreciation is recognized in profit and loss on the accelerated basis over the estimated useful lives of the property, plant and equipment. Leased assets are depreciated over the shorter of the lease term or their useful lives.

The estimated useful lives for the current and comparative periods are as follows:

| | Useful Life (in years) |
|---|---|
| Plant and equipment | 5-12 |
| Furniture and fixtures | 5-10 |
| Computer equipment & software | 3-5 |
| Leasehold Improvements | Shorter of the remaining lease or estimated useful life |

Depreciation methods, useful lives and residual values are reviewed at each reporting date.

**(l) Intangible Assets**

**(i) Patents and Trade Secrets**

The Company has developed or acquired several diagnostic tests that can detect the presence of various substances in a person's breath, blood, urine and saliva. Propriety protection for the Company's products, technology and process is important to its competitive position. As of September 30, 2017, the Company has ten patents from the United States Patent Office in effect (9,383,368; 7,896,167; 8,097,171; 8,003,061; 8,425,859; 8,871,521; 8,808,639; D691,056; D691,057 and D691,058). Other patents are in effect in Australia through the Design Registry (348,310; 348,311 and 348,312), European Union Patents 1793906, 2684025, 002216895-0001; 002216895-0002 and 002216895-0003), in Hong Kong (HK11004006) and in Japan (1,515,170; 4,885,134; 4,931,821 5,775,790, and 6023096). Patents are in the national phase of prosecution in many Patent Cooperation Treaty participating countries. Additional proprietary technology consists of numerous different inventions. The Company intends to file additional patent applications, where appropriate, relating to new products, technologies and their use in the U.S., European and Asian markets. Management intends to protect all other intellectual property (e.g. copyrights, trademarks and trade secrets) using all legal remedies available to the Company.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

**(ii) Patent Costs**

Costs associated with applying for patents are capitalized as patent costs. Once the patents are approved, the respective costs are amortized over their estimated useful lives (maximum of 17 years) on a straight-line basis. Patent pending costs for patents that are not approved are charged to operations the year the patent is rejected.

In addition, patents may be purchased from third parties. The costs of acquiring the patent are capitalized as patent costs if it represents a future economic benefit to the Company. Once a patent is acquired it is amortized over its remaining useful life.

**(iii) Other Intangible Assets**

Other intangible assets that are acquired by the Company, which have definite useful lives, are measured at cost less accumulated amortization and accumulated impairment losses.

**(iv) Amortization**

Amortization is recognized on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use. The estimated useful lives for the current and comparative periods are as follows:

| | Useful Life (in years) |
|---|---|
| Patents and trademarks | 12-17 |
| Customer lists | 5 |

**(m) Recoverability of Long Lived Assets**

In accordance with FASB ASC 360-10-35 “Impairment or Disposal of Long-lived Assets”, long-lived assets to be held and used are analyzed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable or that the useful lives of those assets are no longer appropriate. The Company evaluates at each balance sheet date whether events and circumstances have occurred that indicate possible impairment.

The Company determines the existence of such impairment by measuring the expected future cash flows (undiscounted and without interest charges) and comparing such amount to the carrying amount of the assets. An impairment loss, if one exists, is then measured as the amount by which the carrying amount of the asset exceeds the discounted estimated future cash flows. Assets to be disposed of are reported at the lower of the carrying amount or fair value of such assets less costs to sell. Asset impairment charges are recorded to reduce the carrying amount of the long-lived asset that will be sold or disposed of to their estimated fair values. Charges for the asset impairment reduce the carrying amount of the long-lived assets to their estimated salvage value in connection with the decision to dispose of such assets.

**(n) Investments**

In accordance with FASB ASC 323, the Company recognizes investments in joint ventures based upon the Company’s ability to significantly influence the operational or financial policies of the joint venture. An objective judgment of the level of influence is made at the time of the investment based upon several factors including, but not limited to the following:

a) Representation on the Board of Directors

b) Participation in policy-making processes

c) Material intra-entity transactions

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

d) Interchange of management personnel

e) Technological dependencies

f) Extent of ownership and the ability to influence decision making based upon the makeup of other owners when the shareholder group is small.

The Company follows the equity method for valuating investments in joint ventures when the existence of significant influence over operational and financial policy has been established, as determined by management; otherwise, the Company will valuate these investments using the cost method.

Investments recorded using the cost method will be assessed for any decrease in value that has occurred that is other than temporary and the other than temporary decrease in value shall be recognized. As and when circumstances and facts change, the Company will evaluate the Company's ability to significantly influence operational and financial policy to establish a basis for converting the investment accounted for using the cost method to the equity method of valuation.

**(o) Revenue Recognition**

In accordance with FASB ASC 605, the Company recognizes revenue when (i) persuasive evidence of a customer or distributor arrangement exists, (ii) a retailer, distributor or wholesaler receives the goods and acceptance occurs, (iii) the price is fixed or determinable, and (iv) the collectability of the revenue is reasonably assured. Subject to these criteria, the Company recognizes revenue from product sales when title passes to the customer based on shipping terms. The Company typically does not accept returns nor offer charge backs or rebates except for certain distributors. Revenue recorded is net of any discount, rebate or sales return. The accrual for estimated sales returns was $- as of September 30, 2017 and December 31, 2016.

The Company implemented a standard dealer cost model during the year ended December 31, 2016 which includes a provision for rebates to the distributors under limited circumstances. The Company established an accrual of $27,073 and $18,858, which is a reduction of revenue as of September 30, 2017 and December 31, 2016. Accounts receivable will be reduced when the rebates are applied by the customer. The Company recognized $51,791 and $222,469 during the three and nine months ended September 30, 2017 and $84,128 and $299,781 for the three and nine months ended September 30, 2016 for rebates, which is included as a reduction of product revenue in the Condensed Consolidated Statement of Operations and Comprehensive Loss.

License fee revenue is recognized on a straight-line basis over the term of the license agreement.

When the Company enters into arrangements that contain more than one deliverable, the Company allocates revenue to the separate elements under the arrangement based on their relative selling prices in accordance with FASB ASC 605-25.

**(p) Income Taxes**

The Company follows FASB ASC 740 when accounting for income taxes, which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for temporary differences between the financial statements and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense or benefit is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

**(q) Shipping and Handling Fees and Costs**

The Company charges actual shipping plus a handling fee to customers, which amounted to $13,679 and $12,321 for the three months ended September 30, 2017 and 2016 and to $47,148 and $42,754 for the nine months ended September 30, 2017 and 2016. These fees are classified as part of product revenue in the Condensed Consolidated Statement of Operations and Comprehensive Loss. Shipping and other related delivery costs, including those for incoming raw materials are classified as part of the cost of net revenue, which amounted to $16,148 and $63,719 for the three and nine months ended September 30, 2017 and to $19,695 and $88,427 for the three and nine months ended September 30, 2016.

**(r) Research and Development Costs**

In accordance with FASB ASC 730, research and development costs are expensed when incurred.

**(s) Stock-based Payments**

The Company accounts for stock-based compensation under the provisions of FASB ASC 718, "Compensation —Stock Compensation", which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and directors based on estimated fair values on the grant date. The Company estimates the fair value of stock-based awards on the date of grant using the Black-Scholes model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over shorter of the period over which services are to be received or the vesting period.

The Company accounts for stock-based compensation awards to non-employees in accordance with FASB ASC 505-50, "Equity-Based Payments to Non-Employees". Under FASB ASC 505-50, the Company determines the fair value of the stock warrants or stock-based compensation awards granted as either the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable.

The Company estimates the fair value of stock-based awards to non-employees on the date of grant using the Black-Scholes model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the period which services are to be received. At the end of each financial reporting period, prior to vesting or prior to completion of services, the fair value of equity based payments will be re-measured and the non-cash expense recognized during the period will be adjusted accordingly. Since the fair value of equity based payments granted to non-employees is subject to change in the future, the amount of the future expense will include fair value re-measurement until the equity based payments are fully vested or the service is completed.

**(t) Basic and Diluted Earnings per Share of Common Stock**

Basic earnings per common share are based on the weighted average number of shares outstanding during the periods presented. Diluted earnings per share are computed using the weighted average number of common shares plus dilutive common share equivalents outstanding during the period. Potential common shares that would have the effect of increasing diluted earnings per share are considered anti-dilutive, i.e. the exercise prices of the outstanding stock options were greater than the market price of the common stock.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

The table below details the classification of the basic and diluted income/(loss per share for the three and nine months ended September 30, 2017 and 2016:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Numerator | | | | |
| Net Income/(Loss) | $ (1,177,644) | $ 310,155 | $ (3,193,571) | $ (2,207,707) |
| | | | | |
| Denominator | | | | |
| Weighted Average Basic Common Shares Outstanding | 8,892,079 | 5,434,212 | 8,268,851 | 5,428,859 |
| Add the Dilutive Effect of Stock Options | — | 56,000 | — | — |
| Stock Warrants | — | — | — | — |
| Unvested Restricted Shares | — | 18,333 | — | — |
| Weighted Average Basic and Diluted Common Shares Outstanding | 8,892,079 | 5,508,545 | 8,268,851 | 5,428,859 |
| | | | | |
| Net Income/(Loss) per Share | | | | |
| Basic | $ (0.13) | $ 0.06 | $ (0.39) | $ (0.41) |
| Diluted | $ (0.13) | $ 0.06 | $ (0.39) | $ (0.41) |

**(u) Reclassifications**

Certain prior year amounts have been reclassified to conform to the current year's presentation.

**(v) Recently Adopted Accounting Pronouncements**

As of September 30, 2017 and for the period then ended, there were no recently adopted accounting pronouncements that had a material effect on the Company's financial statements.

**(w) Recently Issued Accounting Pronouncements Not Yet Adopted**

As the Company is an emerging growth company, it has elected to adopt recently issued standards based on effective dates applicable to nonpublic entities. All effective dates as mentioned in the following paragraphs refer to that applicable to nonpublic entities.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, FASB issued ASU 2015-14 which deferred the effective date of Update 2014-09 to annual reporting periods beginning after December 15, 2018 and interim reporting periods within annual reporting periods beginning after December 15, 2019. Early application is permitted as of annual reporting periods beginning after December 15, 2016 including interim reporting periods within that reporting period. The Company is currently evaluating the effect of the amendments but it does not anticipate a material impact of its financial statements. The Company expects to use the modified retrospective adoption method.

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740), Balance Sheet Classification of Deferred Taxes*. The amendments in this Update require that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The amendments in this Update are effective for financial statements issued for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 31, 2018. Earlier application is permitted for all entities as of the beginning of an interim or annual reporting period. The Company has no deferred tax balances as a 100% valuation allowance has been made. No material impact is expected.

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

In January 2016, the FASB issued ASU No. 2016-01, *Financial Instruments — Overall (Subtopic 825-10)*, *Recognition and Measurement of Financial Assets and Financial Liabilities*. The amendments in this Update require all equity investments to be measured at fair value with changes in the fair value recognized through net income (other than those accounted for under the equity method of accounting or those that result in consolidation of the investee). The amendments in this Update also require an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. The amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. The Company is evaluating the effect of the adoption of this Update on its financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The amendments in this Update specify the accounting for leases. The core principle of Topic 842 is that a lessee should recognize the assets and liabilities that arise from leases. The amendments in this Update are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early application of the amendments in this Update is permitted. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, which clarifies certain aspects of the principal versus agent guidance in the new revenue recognition standard. The effective date and transition requirement for this ASU are the same as the effective date and transition requirements of ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, as amended by ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which deferred the effective date to annual reporting periods beginning after December 15, 2018. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, which simplifies several aspects of the accounting for share-based payment award transactions, including: (1) income tax consequences; (2) classification of awards as either equity or liabilities, and (3) classification on the statement of cash flows. The amendments in this ASU are effective for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted in any interim or annual period. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments.* The Update addresses eight specific changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted. An entity that elects early adoption must adopt all of the amendments in the same period. The amendments in this Update should be applied using a retrospective transition method to each period presented. If it is impracticable to apply the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In May 2017, the FASB issued ASU 2017-09, *Compensation — Stock Compensation* (Topic 718), Scope of Modification Accounting. The amendments in this Update provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The amendments in this Update are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for

**Note 2 — Basis of Presentation and Significant Accounting Policies** (cont.)

(1) public business entities for reporting periods for which financial statements have not yet been issued and (2) all other entities for reporting periods for which financial statements have not yet been made available for issuance. The amendments in this Update should be applied prospectively to an award modified on or after the adoption date.

**Note 3 — Management Plan**

Historically, the Company has relied upon public offerings and private placements of common stock to raise operating capital. During the ten months ending October 31, 2017, the Company raised approximately $1.7 million in a public offering, $1.8 million from a private placement of common stock and an additional $982,000 from the execution of warrants (Notes 11 and 20). As of November 10, 2017, the Company had cash and marketable securities of approximately $432,000 and working capital of approximately $2.6 million.

The 2017-19 Strategic Business Plan ("Strat Plan") was presented to and approved by the Board of Directors on December 12, 2016. The plan outlines the Company's business objectives for the next three years and sets measurable targets for new product releases, sales and marketing programs to increase market penetration for the Company's products and operational expense management. The Company has prepared the initial Go-To-Market Plan ("GTM Plan") for 2018 and will present the completed GTM Plan to the Board of Directors on December 19, 2017 for final approval.

Implementation of the Strat Plan began in January 2017 and although management remains committed to the overall strategy, the Company will not meet the Strat Plan's revenue targets for 2017. The Company had anticipated the market introduction of its over-the-counter Tri-Cholesterol test in the first half and its PIFA Chlamydia Rapid Assay product during the third quarter of 2017, both of which were delayed.

The Company encountered significant delays from raw material vendors for critical components of the Tri-Cholesterol test which resulted in the product's first commercial production to be postponed into the third quarter. The first shipments of the product began at the end of September 2017 and feedback from the customer has been favorable. Three additional orders totaling $110,000 have been received.

The PIFA Chlamydia Rapid Assay test's introduction has been delayed into 2018 due to unanticipated requests for additional clinical data from the United Stated Food & Drug Administration ("FDA"). The FDA's approval of the 510(k) application is required to begin production and commercialization of the product.

The Company continues to encounter periods of cash shortages and is proactively working to minimize their impact on operations. The Company expects to achieve a cash-flow positive position during the next twelve months based upon the revised revenue targets as outlined in the Strat Plan and the 2018 GTM Plan. The Company is actively pursuing financing options with various financial institution, investment banks and other sources to enhance The Company's liquidity while minimizing dilution to the shareholders.

During the year ended December 31, 2016, the Company significantly reduced operating expenses through a systematic review of operations throughout the organization. As a result, the Company achieved a reduction in our weekly operating cash requirements of approximately 19% to $80,253 (2015: $98,699).

The Company achieved the reduction in weekly cash requirements by renegotiating contracts with key consultants and canceling consulting agreements where the cost-benefits are negligible, working with vendors to reduce or eliminate minimum purchasing requirements, to extend payment terms and re-sourcing materials when necessary to reduce costs.

Production cost savings, especially direct manufacturing costs, have been realized by utilizing sub-contractors to perform labor intensive production processes. This improves efficiency for our manufacturing staff, allowing them to concentrate their efforts on more complex assembly and production tasks.

**Note 3 — Management Plan** (cont.)

During the nine months ended September 30, 2017, the Company's average weekly operating cash requirement increased to $93,714 (2016: $88,341). The increase resulted from payments to vendors and sub-contractors included in the December 31, 2016 accounts payable balance, a significant royalty payment that had been deferred in 2016 as part of a legal settlement, professional service fees and other payments for contractual obligations. Many of these items are one-time events and the Company anticipates the cash requirements to revert to the $85,000 to $90,000 per week by the end of 2017.

Substantial doubt exists about the Company's ability to continue as a going concern within one year after the financial statements are issued. The Company has identified three conditions or events that support this determination:

*The Company's current working capital position.*

The Company is working diligently to raise additional working capital either through various financial institutions, investment banks or other sources while minimizing dilution to the shareholders.

Executive management continues to monitor expenses and directives are in place to restrict non-essential expenses until the working capital situation is resolved.

*Negotiations are underway with multiple customers for the Company's products and are anticipated to be completed during the three months ending March 31, 2018. All parties are confident that a solution can be achieved but a significant delay will impact revenue projections.*

The Company is awaiting a 510(k) approval from the United States Food & Drug Administration ("FDA") for its PIFA Chlamydia product. An extended delay in receipt of this approval will negatively impact revenue projections.

The Company is actively working with the FDA's examiner to insure requests for additional data and responses to questions are completed as quickly as possible.

**Note 4 — Fair Value Measurement — Marketable Securities**

Following is a description of the valuation methodologies used for assets measured at fair value as of September 30, 2017 and December 31, 2016.

*U.S. Agency Securities, Corporate and Municipal Securities and Certificates of Deposits:* Valued using pricing models maximizing the use of observable inputs for similar securities. This includes basing value on yields currently available on comparable securities of issuers with similar credit ratings.

| | As of September 30, 2017 | | | | |
|---|---|---|---|---|---|
| | Cost | Accrued Income | Unrealized Gains | Unrealized Losses | Fair Value |
| ***Level 2:*** | | | | | |
| Money market funds | $ 10,000 | $ 1 | $ — | $ — | $ 10,001 |
| Municipal securities | — | 177 | — | — | 177 |
| Total Level 2: | 10,000 | 178 | — | — | 10,178 |
| | | | | | |
| ***Total:*** | $ 10,000 | $ 178 | $ — | $ — | $ 10,178 |

**Note 4 — Fair Value Measurement — Marketable Securities**(cont.)

| | As of December 31, 2016 | | | | |
|---|---|---|---|---|---|
| | Cost | Accrued Income | Unrealized Gains | Unrealized Losses | Fair Value |
| ***Level 2:*** | | | | | |
| Money market funds | $ 29,657 | $ 15 | $ — | $ — | $ 29,672 |
| Municipal securities | 20,314 | 15 | — | — | 20,329 |
| Total Level 2: | 49,971 | 30 | — | — | 50,001 |
| | | | | | |
| ***Total:*** | $ 49,971 | $ 30 | $ — | $ — | 50,001 |

Marketable securities include U.S. agency securities, corporate securities, and municipal securities, which are classified as available for sale. The securities are valued at fair market value. Maturities of the securities are less than one year. Unrealized gains relating to the available for sale investment securities were recorded in the Condensed Consolidated Statement of Changes in Stockholders' Equity as comprehensive income. These amounts were an unrealized loss of $1,009 and $- (net of effect of income tax expense of $-) for the three and nine months ended September 30, 2017 and an unrealized loss of $2,837 and an unrealized gain of $3,691 for the three and nine months ended September 30, 2016.

Proceeds from the sale of marketable securities in the three and nine months ended September 30, 2017 were $1,003,565 and $2,749,119 and were $950,514 and $3,452,833 for the three and nine months ended September 30, 2016. Gross gains, resulting from these sales, amounted to $1,719 and $1,269 for the three months ended September 30, 2017 and 2016 and $3,375 and $3,421 for the nine months ended September 30, 2017 and 2016.

**Note 5 — Trade Receivables — Related Parties**

Trade receivables — related parties are made up of amounts due from related parties of Hainan Savy Akers Biosciences Ltd ("Hainan"), a joint venture between Akers, Thomas Knox, Akers' former Board Chairman, and Hainan Savy Investment Management Ltd, located in the People's Republic of China. The Company holds a 19.9% position in the joint venture. The amount due is non-interest bearing, unsecured and generally has a term of 30-90 days (Note 14). Credit terms of 180 days were extended to Hainan for a bulk purchase of BreathScan Breath Alcohol detectors during June 2017 while Hainan expands their market presence in the People's Republic of China.

**Note 6 — Inventories**

Inventories consists of the following categories:

| | September 30, 2017 | December 31, 2016 |
|---|---|---|
| Raw Materials | $ 473,443 | $ 440,316 |
| Sub-Assemblies | 848,078 | 907,989 |
| Finished Goods | 807,973 | 749,488 |
| Reserve for Obsolescence | (43,627) | (61,272) |
| | $ 2,085,867 | $ 2,036,521 |

Obsolete inventory charged to cost of goods during the three and nine months ended September 30, 2017 totaled $2,664 and $3,158 and $24,965 and $27,933 was charged for the three and nine months ended September 30, 2016.

**Note 7 — Property, Plant and Equipment**

Property, plant and equipment consists of the following:

| | September 30, 2017 | December 31, 2016 |
|---|---|---|
| Computer Equipment | $ 114,771 | $ 114,771 |
| Computer Software | 40,681 | 40,681 |
| Office Equipment | 39,959 | 39,959 |
| Furniture & Fixtures | 38,356 | 29,939 |
| Machinery & Equipment | 1,138,134 | 1,126,134 |
| Molds & Dies | 851,254 | 834,480 |
| Leasehold Improvements | 222,593 | 222,593 |
| | 2,445,748 | 2,408,557 |
| Less | | |
| Accumulated Depreciation | 2,203,700 | 2,149,165 |
| | | |
| | $ 242,048 | $ 259,392 |

Depreciation expenses totaled $18,709 and $54,536 for the three and nine months ended September 30, 2017 and $65,264 and $93,615 for the three and nine months ended September 30, 2016.

**Note 8 — Intangible Assets**

Intangible assets as of September 30, 2017 and December 31, 2016 and the movements for the periods then ended are as follows:

| | Patents & Trademarks | Distributor & Customer Relationships | Totals |
|---|---|---|---|
| ***Cost or Deemed Cost*** | | | |
| At December 31, 2016 | $ 2,626,996 | $ 1,270,639 | $ 3,897,635 |
| Additions | — | — | — |
| Disposals | — | — | — |
| At September 30, 2017 | $ 2,626,996 | $ 1,270,639 | $ 3,897,635 |
| | | | |
| ***Accumulated Amortization*** | | | |
| At December 31, 2016 | $ 1,325,221 | $ 1,270,639 | $ 2,595,860 |
| Amortization Charge | 128,331 | — | 128,331 |
| Disposals | — | — | — |
| At September 30, 2017 | $ 1,453,552 | $ 1,270,639 | $ 2,724,191 |
| | | | |
| ***Net Book Value*** | | | |
| At December 31, 2016 | $ 1,301,775 | $ — | $ 1,301,775 |
| At September 30, 2017 | $ 1,173,444 | $ — | $ 1,173,444 |

Amortization expense totaled $42,777 and $128,331 during the three and nine months ended September 30, 2017 and $42,777 and $128,331 for the three and nine months ended September 30, 2016.

**Note 8 — Intangible Assets**(cont.)

The estimated aggregate amortization expense for each of the five succeeding fiscal years is as follows:

| Period | Amount |
|---|---|
| 2017 | $ 171,108 |
| 2018 | $ 171,108 |
| 2019 | $ 171,108 |
| 2020 | $ 171,108 |
| 2021 | $ 171,108 |

**Note 9 — Trade and Other Payables**

Trade and other payables consists of the following:

| | September 30, 2017 | December 31, 2016 |
|---|---|---|
| Trade Payables | $ 1,044,056 | $ 923,311 |
| Accrued Expenses | 445,241 | 480,302 |
| Deferred Compensation | 59,750 | 59,750 |
| | $ 1,549,047 | $ 1,463,363 |

Trade and other payables — related party are as follows:

| | September 30, 2017 | December 31, 2017 |
|---|---|---|
| Trade Payables | $ 20,245 | $ 182,001 |
| Accrued Expenses | — | 52,066 |
| | $ 20,245 | $ 234,067 |

As of September 30, 2017, the Company owed ChubeWorkx Guernsey Limited, a major shareholder, royalties of $17,164 (Note 14) which was paid on October 24, 2017.

As of September 30, 2017, the Company owed Hainan $670. Senior management at Hainan are actively involved in Shenzhen Savy-Akers Biosciences (“Shenzhen”) which is therefore being included as a related party. The Company owed Shenzhen $2,411 as of September 30, 2017.

Trade and other payables are non-interest bearing and are normally settled on 30 – 60 day terms.

**Note 10 — Share-based Payments**

On January 23, 2014, upon effectiveness of the registration statement filed with the SEC, the Company adopted the 2013 Stock Incentive Plan (the “Plan”) which will provide for the issuance of up to 400,000 shares. The purpose of the Plan is to provide additional incentive to those officers, employees, consultants and non-employee directors of the Company and its parents, subsidiaries and affiliates whose contributions are essential to the growth and success of the Company’s business.

On January 9, 2015, the Board of Directors of the Company approved, upon recommendation from the Compensation Committee of the Board, by unanimous written consent the Amended and Restated 2013 Incentive Stock and Award Plan (the “Amended Plan”), which increases the number of authorized shares of common stock subject to the Plan to 800,000 shares.

On September 30, 2016, the Board of Directors increased the number of authorized shares of common stock subject to the Amended Plan to 830,000 shares. As of September 30, 2017, under the 2013 Amended Plan, grants of restricted stock and options to purchase 268,166 shares of common stock have been issued and are unvested or unexercised and 7,292 shares of common stock remain available for grants.

**Note 10 — Share-based Payments** (cont.)

On August 7, 2017, the Shareholders approved and the Company adopted the 2017 Equity Incentive Plan (the "Plan") which will provide for the issuance of up to 1,350,000 shares. The purpose of the Plan is to provide additional incentive to those officers, employees, consultants and non-employee directors of the Company and its parents, subsidiaries and affiliates whose contributions are essential to the growth and success of the Company's business.

The Plan may be administered by the board or a board-appointed committee. Eligible recipients of option awards are employees, officers, consultants or directors (including non-employee directors) of the Company or of any parent, subsidiary or affiliate of the Company. The board has the authority to grant to any eligible recipient any options, restricted stock or other awards valued in whole or in part by reference to, or otherwise based on, the Company's common stock.

Qualified option holders may exercise their options at their discretion. Each option granted may be exchanged for a prescribed number of shares of common stock.

The Company did not issue any options or warrants under the above plan during the three and nine months ended September 30, 2017.

The following table summarizes the option activities for the nine months ended September 30, 2017:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term (years) | Aggregate Intrinsic Value |
|---|---|---|---|---|
| ***Balance at December 31, 2016*** | 259,000 | $ 4.23 | 3.05 | $ 20,100 |
| Granted | — | — | — | — |
| Exercised | — | — | — | — |
| Forfeited | (4,000) | 3.25 | 3.89 | — |
| Canceled/Expired | — | — | — | — |
| ***Balance at September 30, 2017*** | 255,000 | $ 4.25 | 2.27 | $ — |
| ***Exercisable as of September 30, 2017*** | 250,334 | $ 4.27 | 2.24 | $ — |

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the closing stock price of $0.81 for our common shares on September 29, 2017.

A summary of the Company's non-vested shares as of September 30, 2017 and the changes during the period then ended are as follows:

| Non-Vested Shares | Shares | Weighted Average Grant Date Fair Value |
|---|---|---|
| Non-vested at January 1, 2017 | 19,834 | $ 2.36 |
| Granted | — | — |
| Vested | (11,168) | 2.07 |
| Forfeited | (4,000) | 2.36 |
| Non-vested at September 30, 2017 | 4,666 | $ 2.36 |

Unrecognized compensation cost related to non-vested employee stock options totaled $9,702 as of September 30, 2017. The cost is to be recognized over a weighted average period of 0.88 years.

**Note 10 — Share-based Payments** (cont.)

During the three and nine months ended September 30, 2017, the Company incurred stock option expenses totaling $4,373 and $16,685 and totaled $38,263 and $46,504 for the three and nine months ended September 30, 2016.

During the nine months ended September 30, 2017, the Company issued 894,750 warrants in conjunction with the January 2017 public offering and an additional 796,620 warrants with the March 2017 private placement. All warrants carry a five-year expiration term. The table below summarizes the warrant activity for the nine months ended September 30, 2017:

| | Number of Warrants | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term (years) |
|---|---|---|---|
| ***Balance at December 31, 2016*** | — | $ — | — |
| Granted | 1,691,370 | 1.88 | — |
| Exercised | (200,800) | 1.50 | — |
| Forfeited | — | — | — |
| Canceled/Expired | — | — | — |
| ***Balance at September 30, 2017*** | 1,490,570 | $ 1.73 | 4.40 |
| ***Exercisable as of September 30, 2017*** | 1,490,570 | $ 1.73 | 4.40 |

**Note 11 — Equity**

The holders of common shares are entitled to one vote per share at meetings of the Company. Holders of Series A convertible preferred shares are entitled to five votes per share at meetings of the Company.

A restricted stock award is an award of common shares that are subject to certain restrictions during a specified period. Restricted stock awards are independent of option grants and are generally subject to forfeiture if employment terminates prior to the release of the restrictions. The grantee cannot transfer the shares before the restricted shares vest. Shares on non-vested restricted stock have the same voting rights as common stock, are entitled to receive dividends and other distributions thereon and are considered to be currently issued and outstanding. The Company expenses the cost of the restricted stock awards, which is determined to be the fair market value of the shares at the date of grant, straight-line over the period during which the restrictions lapse. For these purposes, the fair market value of the restricted stock is determined based on the closing price of the Company's common stock on the grant date.

On June 8, 2016, the Company issued 27,500 restricted common shares to an officer in connection with his employment agreement. These shares vest 1/3 immediately on the date of the grant and the remaining 2/3 vests equally on March 1, 2017 and March 1, 2018. The fair value of these shares was $54,725 and was based on the share price on the date of the grant. $5,374 and $15,784 was recorded during the three months and nine ended September 30, 2017 as administrative expense on the Condensed Consolidated Statement of Operations and Comprehensive Loss and the remaining $8,788 is reported as deferred compensation, a contra equity account, on the Condensed Consolidated Balance Sheet as of September 30, 2017.

**Note 11 — Equity** (cont.)

On January 13, 2017, the Company completed a public offering of 1,789,500 common shares, raising net proceeds of $1,652,994. Below is a summary of the gross proceeds to net proceeds calculation.

| | Shares | $ | $ |
|---|---|---|---|
| Common Shares | | | |
| Base Offering | 1,667,000 | 2,000,400 | |
| Over-Allotment | 122,500 | 147,000 | |
| Gross Proceeds | | | 2,147,400 |
| *Underwriter/Gunnar Expenses* | | | |
| Discount | | 150,318 | |
| Legal Fees | | 60,000 | |
| Roadshow | | 1,783 | |
| Miscellaneous | | 34,005 | |
| *Total* | | | 246,106 |
| *Akers Biosciences Expenses* | | | |
| Legal & Accounting | | 197,813 | |
| Registration/Regulatory | | 50,487 | |
| *Total* | | | 248,300 |
| Net Proceeds | | | 1,652,994 |

In addition to the common shares issued, the Company also issued 833,500 warrants with an exercise price of $1.50 per common share in support of the base offering and 61,250 warrants with an exercise price of $1.20 per common share. All of the warrants issued have a five-year term.

During the three months ended March 31, 2017, warrant holders from the January 13, 2017 public offering executed 163,300 warrants with an exercise price of $1.50 per common share, raising net proceeds of $244,950.

On March 30, 2017, the Company completed a private placement of 1,448,400 unregistered shares of common stock, raising net proceeds of $1,760,317. The unregistered shares were admitted to trading on June 30, 2017 upon notification from the Securities and Exchange Commission that the Registration Statement, filed April 19, 2017, had been deemed effective. Below is a summary of the gross proceeds to net proceeds calculation.

| | Shares | $ | $ |
|---|---|---|---|
| Common Shares | | | |
| Base Offering | 1,448,400 | 2,027,760 | |
| Gross Proceeds | | | 2,027,760 |
| *Underwriter/Gunnar Expenses* | | | |
| Discount | | 141,943 | |
| Legal Fees | | 50,000 | |
| *Total* | | | 191,943 |
| *Akers Biosciences Expenses* | | | |
| Legal & Accounting | | 75,000 | |
| Filing Fees | | 500 | |
| *Total* | | | 75,500 |
| Net Proceeds | | | 1,760,317 |

In addition to the common shares issued, the Company also issued 796,620 warrants with an exercise price of $1.96 per common share with a five-year term.

**Note 11 — Equity** (cont.)

On April 11, 2017, the Company issued 10,000 restricted shares to a consultant for services to be rendered during the year ending December 31, 2017. These shares vested on the date of the grant. The fair value of these shares was $18,000 and was based on the share price on the date of the grant. The Company recorded $5,455 during the nine months ended September 30, 2017 as sales and marketing expenses on the Condensed Consolidated Statement of Operations and Comprehensive Loss.

During the three months ended June 30, 2017, warrant holders from the January 13, 2017 public offering executed 37,500 warrants with an exercise price of $1.50 per common share, raising net proceeds of $56,250.

**Note 12 — Earnings/(Loss) per share**

Diluted net loss per share is computed using the weighted average number of common and dilutive potential common shares outstanding during the period.

Potential common shares consist of options, warrants and unvested restricted stock. Diluted net loss per common share was the same as basic net loss per common share for the three months ended September 30, 2017 since the effect of options and warrants would be anti-dilutive due to the net loss attributable to the common shareholders. Instruments excluded from dilutive earnings per share, because their inclusion would be anti-dilutive, were as follows: incentive and award stock options — 255,000; unvested restricted shares of common stock — 9,166; warrants — 1,490,570 as of September 30, 2017.

Potential common shares consist of options, warrants and unvested restricted stock. Diluted net income per common share was the same as basic net income per common share for the three months ended September 30, 2016. Dilutive Instruments included were as follows: incentive and award stock options — 56,000; unvested restricted shares of common stock — 18,333; warrants — - as of September 30, 2016. Instruments excluded from dilutive earnings per share, because their inclusion would be anti-dilutive, were incentive and award stock options — 203,000 as of September 30, 2016.

Potential common shares consist of options, warrants and unvested restricted stock. Diluted net loss per common share was the same as basic net loss per common share for the nine months ended September 30, 2017 and 2016 since the effect of options and warrants would be anti-dilutive due to the net loss attributable to the common shareholders. Instruments excluded from dilutive earnings per share, because their inclusion would be anti-dilutive, were as follows: incentive and award stock options — 255,000 (2016: 203,000); unvested restricted shares of common stock — 9,166 (2016: 18,333); warrants — 1,490,570 (2016: -) as of September 30, 2017.

**Note 13 — Income Tax Expense**

There is no income tax benefit for the losses for the three ended September 30, 2017 since management has determined that the realization of the net deferred tax asset is not assured and has created a valuation allowance for the entire amount of such benefits.

There is no income tax expense for the three months ended September 30, 2016 since the income arose from the reversal of an allowance for doubtful collection of a note. This temporary difference has no tax effect for the Company due to the net operating loss carry forwards available.

There is no income tax benefit for the losses for the nine months ended September 30, 2017 and 2016 since management has determined that the realization of the net deferred tax asset is not assured and has created a valuation allowance for the entire amount of such benefits.

The Company's policy is to record interest and penalties associated with unrecognized tax benefits as additional income taxes in the statement of operations. As of January 1, 2017, the Company had no unrecognized tax benefits, or any tax related interest or penalties. There were no changes in the Company's unrecognized tax benefits during the three and nine months ended September 30, 2017 related to unrecognized tax benefits. With few exceptions, the U.S. and state income tax returns filed for the tax years ended on December 31, 2013 and thereafter are subject to examination by the relevant taxing authorities.

**Note 14 — Related Party Transactions**

On June 19, 2012, the Company entered into a 3-year exclusive License & Supply Agreement with ChubeWorkx Guernsey Limited (as successor to SONO International Limited) ("ChubeWorkx") for the purchase and distribution of Akers' proprietary breathalyzers outside North America. ChubeWorkx paid a licensing fee of $1,000,000 which was recognized over the term of the agreement through September 30, 2015.

On June 13, 2013, the Company announced an expansion of the License and Supply Agreement with ChubeWorkx to include worldwide marketing and distribution of the "Be CHUBE" program using the Company's breathalyzer.

On August 17, 2016, the Company entered into a Settlement Agreement (the "Settlement Agreement") with ChubeWorkx, a major shareholder, which settled all pending claims between the Company and ChubeWorkx. Specifically, the Company and ChubeWorkx agreed to voluntarily dismiss (i) the action in the United States Federal Court, District of New Jersey brought by the Company against ChubeWorkx for outstanding amounts due to the Company under a promissory note and (ii) the action in The High Court of Justice, Queen's Bench Division Commercial Court, Royal Courts of Justice, United Kingdom brought by ChubeWorkx against the Company arising from an exclusive licensing agreement between ChubeWorkx and the Company ("Licensing Agreement").

Under the terms of the Settlement Agreement, the Company will recover the full outstanding principal amount in the current fiscal year in the form of $750,000 of BreathScan® Alcohol Detector inventory — which the Company intends to subsequently sell — and the balance of $549,609 as prepaid royalty. Akers' established an allowance for this doubtful note in the Company's financial statements for the year ended December 31, 2015. As a result of the Settlement Agreement, the Company reversed the allowance for doubtful note in the amount of $1,299,609 which was included in the Condensed Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2016.

In addition to addressing the promissory note described above, the Settlement Agreement also allows the Company to market and sell all of the Company's breath technology tests worldwide, unencumbered by any past/future claims by ChubeWorkx under the Licensing Agreement (entered into with ChubeWorkx in 2012 and subsequently amended in 2013). Under the terms of the Settlement Agreement, ChubeWorkx no longer holds any rights pertaining to Akers' BreathScan® technology, which serves as the basis for a number of commercialized products including BreathScan® Alcohol Detector and BreathScan OxiChek™; and a number of products in development.

In return for the Company regaining the full rights to sell breath technology products, under the terms of the Settlement Agreement, ChubeWorkx is entitled to receive a royalty of 5% of the Company's gross revenues (the "ChubeWorkx Royalty") until ChubeWorkx has earned an aggregate $5,000,000, after which point ChubeWorkx will no longer be entitled to receive any royalties from the Company and the Company shall have no further obligation to ChubeWorkx. The Settlement Agreement further allows the Company to retain 50% of the ChubeWorkx Royalty until the full $549,609 cash component of the monies owed by ChubeWorkx to the Company as described above has been satisfied. The Company recorded royalty expenses of $34,328 and $128,108 for the three and nine months ended September 30, 2017 and $117,949 for the three and nine months ended September 30, 2016 which are included in sales and marketing expenses — related party on the Condensed Consolidated Statement of Operations and Comprehensive Loss.

Other terms of the Settlement include: 1) the pledge as security of all earned but unpaid royalties by the Company to ChubeWorkx all Company assets, worthy to satisfy its obligations, including all inventory and receivables, with the exception of (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment; 2) the pledge as security of the settlement sum which remains unpaid by the Company to ChubeWorkx all Company (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other

**Note 14 — Related Party Transactions** (cont.)

equipment; and 3) the grant of voting proxy by ChubeWorkx to the Company which allows the Company to vote ChubeWorkx's shares for corporate formalities under certain conditions.

The pledged assets are only at risk in the event that the Company cannot satisfy any outstanding royalty payment obligations subject to various cure periods and/or through a restructuring and/or liquidation under the United States Bankruptcy laws of the Company in favor of payment of said obligation.

Prior to the acquisition of the BreathScan® Alcohol Detector inventory pursuant to the Settlement Agreement from ChubeWorkx, the Company had pre-existing inventory totaling $467,646 for the detectors purchased. During the three and nine months ended September 30, 2017, the Company sold 1.8% and 6.2% of the cumulative unit inventory and recognized revenue totaling $39,100 and $139,900 and $- for the three and nine months ended September 30, 2016.

The Company began purchasing manufacturing molds, plastic components and the assembled BreathScan Lync™ device through Hainan and its related party during the year ended December 31, 2016 (Note 9). The Company purchased a total of $- during the three months ended September 30, 2017 and 2016 and $16,774 and $2,287 for the nine months ended September 30, 2017 and 2016 from this related party. As of September 30, 2017, the Company had a prepayment credit of $25,989 with Shenzhen and owed two other related companies of Hainan $3,081 which is included in trade and other payables — related parties on the Condensed Consolidated Balance Sheet.

Trade receivables — related parties as of September 30, 2017 and December 31, 2016 were $125,001 and $31,892. The amounts due are non-interest bearing, unsecured and generally have a term of 30-180 days (Note 5).

Product revenue — related parties for the three months ended September 30, 2017 and 2016 were $- and total $124,631 and $380 for the nine months then ended. The revenue was the result of sales to Hainan and its related parties.

**Note 15 — Commitments**

The Company leases its facility in West Deptford, New Jersey under an operating lease ("Thorofare Lease") with annual rentals of $132,000 plus common area maintenance (CAM) charges. The lease, which took effect on January 1, 2008, reduced the CAM charges allowing the Company to reach their own agreements with utilities and other maintenance providers.

On January 7, 2013, the Company extended its lease agreement for a term of 7 years, expiring December 31, 2019.

Rent expense for the Thorofare Lease, including related CAM charges for the three months ended September 30, 2017 and 2016 totaled $40,440 and $40,290, respectively. Rent expenses for the Thorofare Lease, including related CAM charges totaled $121,220 and $120,870 for the nine months ended September 30, 2017 and 2016.

The Company entered into a 24-month lease for a satellite office located in Ramsey, New Jersey ("Ramsey Lease") with annual rents of $25,980 plus common area maintenance (CAM) charges. The lease took effect on June 1, 2017 and runs through May 31, 2019.

Rent expenses for the Ramsey Lease, including related CAM charges totaled $6,506 and $6,506 for the three and nine months ended September 30, 2017. The Company posted a security deposit of $4,330 which is included in other assets on the Condensed Consolidated Balance Sheet.

The Company entered into a 29-month lease for warehouse space located in Pitman, New Jersey ("Pitman Lease") with annual rents of $39,650. The lease took effect on August 1, 2017 and runs through December 31, 2019.

**Note 15 — Commitments** (cont.)

Rent expenses for the Pitman Lease totaled $6,608 for the three and nine months ended September 30, 2017. A security deposit of $4,950 is included in other assets on the Condensed Consolidated Balance Sheet.

The Company entered into a 60-month operating lease for equipment with annual rentals of $6,156 on September 29, 2014. The lease commenced on October 21, 2014 upon the delivery of the equipment.

The schedule of lease commitments is as follows:

| | Thorofare Lease $ | Ramsey Lease $ | Pitman Lease $ | Equipment Lease $ | Total $ |
|---|---|---|---|---|---|
| Next 12 Months | 132,000 | 25,980 | 39,650 | 6,156 | 203,786 |
| Next 13-24 Months | 132,000 | 17,320 | 39,650 | 6,156 | 195,126 |
| Next 25-36 Months | 33,000 | — | 9,913 | 513 | 43,426 |

On June 30, 2017, the Company signed the Third Amendment to the exclusive Distribution Agreement with NovoTek Pharmaceuticals Limited ('NovoTek') which expanded the geographic area of coverage to include Poland and grants NovoTek the right to assemble certain PIFA Heparin PF/4 products in their facilities from components acquired from the Company.

The Company has agreed to provide PIFA Heparin/PF4 devices, valued at approximately $90,000, at no charge to NovoTek for their use and are to be shipped upon their request. To date, the products purchased by NovoTek have been used for regulatory submissions, clinical studies or trials and as product samples to generate interest in the product in the Peoples Republic of China.

As of September 30, 2017, the Company had not incurred any expense related to the program.

**Note 16 — Major Customers**

For the three months ended September 30, 2017, two customers generated 10% or more of the Company's revenue. Sales to these customers accounted for 65% of the Company's revenue. As of September 30, 2017, the amount due from these customers was $345,201. This concentration makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

For the nine months ended September 30, 2017, three customers generated 10% or more of the Company's revenue. Sales to these customers accounted for 67% of the Company's revenue. As of September 30, 2017, the amount due from these customers was $854,103 of which $500,000 has an extended term of 180 days. This concentration makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

For the three months ended September 30, 2016, two customers each generated more than 10% of the Company's product revenue. In aggregate, sales to these customers accounted for 74% of the Company's product revenue. As of September 30, 2016, the amount due from these two customers was $669,437.

For the nine months ended September 30, 2016, three customers each generated more than 10% of the Company's product revenue. In aggregate, sales to these customers accounted for 80% of the Company's product revenue. As of September 30, 2016, the amount due from these three customers was $675,838. This concentration makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

**Note 17 — Major Suppliers**

For the three months ended September 30, 2017, two suppliers accounted for 10% or more of the Company's purchases. These suppliers accounted for 31% of the Company's total purchases. As of September 30, 2017, the amount due to these suppliers was $30,702.

**Note 17 — Major Suppliers** (cont.)

For the nine months ended September 30, 2017, one supplier accounted for 10% or more of the Company's purchases. This supplier accounted for 11% of the Company's total purchases. As of September 30, 2017, the amount due to this supplier was $-.

For the three months ended September 30, 2016, one supplier accounted for more than 10% of the Company's purchases. The supplier accounted for 86% of the Company's total purchases. As of September 30, 2016, the amount due to the supplier was $6,908.

For the nine months ended September 30, 2016, one supplier accounted for more than 10% of the Company's purchases. The supplier accounted for 61% of the Company's total purchases. As of September 30, 2016, the amount due to the supplier was $6,908.

**Note 18 — Contingencies**

On October 17, 2016 the Company was served with a notice that Pulse Health LLC ("Pulse") filed a lawsuit against the Company on September 30, 2016 in United States Federal District Court, District of Oregon, alleging a breach of contract under the settlement agreement entered into by the Company and Pulse on April 8, 2011 which settled all claims and disputes between the Company and Pulse arising from a previously executed Technology Development Agreement entered into by the Company and Pulse and damages resulting from said alleged breach. Additionally, Pulse alleges false advertising and unlawful trade practices in connection with the Company's sales activities related to the Company's OxiChek™ products.

The Company filed a series of motions with the Court seeking (1) to dismiss the Pulse complaint for lack of jurisdiction or, in the alternative, transfer the matter to the District Court for the District of New Jersey, Camden Vicinage and (2) to dismiss the unfair competition claims for failure to state a claim on which relief could be granted. Oral arguments on these motions were heard by the Court on March 10, 2017.

The Court decided by order dated April 14, 2017 in favor of the Company and has dismissed with prejudice the claims brought by Pulse for unfair competition (both federal and state counts). The court decided against the Company in its motions for transfer of venue and for lack of jurisdiction. As such, the case shall proceed in the District Court of Oregon.

Pulse subsequently filed an Amended Complaint, in which Pulse seeks not less than $500,000 in damages and, among other items, an injunction prohibiting the Company from manufacture, use and sale of the OxiChek product. The Company answered the Amended Complaint on May 30, 2017. Discovery has commenced and is scheduled to conclude on January 22, 2018. The Court has set the trial date for July 17, 2018.

The Company intends to establish a rigorous defense of all claims. As the case has not progressed beyond initial motion practice and early discovery, the Company is unable to assess the potential outcome, no accrual for losses was made as of September 30, 2017. All legal fees were expensed as and when incurred.

**Note 19 — Segment Information**

The Company is organized and operates as one operating segment. In accordance with FASB ASC 280 "Segment Reporting", the Chief Operating Officer is the chief operating decision-maker who reviews operating results to make decisions on allocation of resources and assessment of performance for the entire company.

**Note 19 — Segment Information** (cont.)

The total revenue by different product lines was as follows:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| **Product Line** | **2017** | **2016** | **2017** | **2016** |
| MicroParticle Catalyzed Biosensor ("MPC") | $ 104,094 | $ 85,337 | $ 381,569 | $ 195,040 |
| Particle ImmunoFiltration Assay ("PIFA") | 490,058 | 514,840 | 1,477,726 | 2,029,095 |
| Rapid Enzymatic Assay ("REA") | 27,500 | — | 27,500 | — |
| Other | 16,679 | 13,021 | 616,647 | 83,573 |
| Product Revenue Total | $ 638,331 | $ 613,198 | $ 2,503,442 | $ 2,307,708 |
| License Fees | 37,500 | — | 37,500 | — |
| Total Revenue | $ 675,831 | $ 613,198 | $ 2,540,942 | $ 2,307,708 |

The total revenue by geographic area determined based on the location of the customers was as follows:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| **Geographic Region** | **2017** | **2016** | **2017** | **2016** |
| United States | $ 626,077 | $ 603,006 | $ 1,755,695 | $ 1,721,967 |
| People's Republic of China | — | 383 | 627,132 | 506,781 |
| Rest of World | 49,754 | 9,809 | 158,115 | 78,960 |
| Total Revenue | $ 675,831 | $ 613,198 | $ 2,540,942 | $ 2,307,708 |

The Company had long-lived assets totaling $55,504 and $61,081 located in the People's Republic of China and $1,359,987 and $1,500,086 located in the United States as of September 30, 2017 and December 31, 2016, respectively.

**Note 20 — Subsequent Events**

On October 12, 2017, the Company entered into Warrant Exercise Agreements with the existing holders from the March 2017 private placement to exercise their current warrants at $1.00 per share and receive a new warrant which would be convertible into the same number of common shares as the original warrant. The new warrants have an exercise price of $1.26, expire five years from the date of issuance and are not exercisable for six months after issuance. The incremental fair value resulting from the modification of these warrants will be accounted for as a deemed dividend in the statement of operations.

Pursuant to the Warrant Exercise Agreements, as of the date of the filing of this report, 724,200 warrants were exercised for the purchase of 724,200 shares of the Company's common stock raising net proceeds of $680,748.

On October 17, 2017, the Board of Directors issued 295,107 restricted shares of common stock to key employees and officers of the Company as part of the 2017 Equity Incentive Plan. The restricted stock vested immediately and were issued at the closing price of $0.88 per share. Expenses related to the grants totaled $259,694 and will be reported on the Consolidated Statement of Operations for the year ending December 31, 2017 as follows:

| **Expense Category** | **2017** | **2016** |
|---|---|---|
| General & Administrative | $ 163,924 | — |
| Sales & Marketing | 95,770 | — |
| | $ 259,694 | $ — |

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Akers Biosciences, Inc. and Subsidiaries

We have audited the accompanying consolidated balance sheets of Akers Biosciences, Inc. and Subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity, and cash flows for the years then ended. Akers Biosciences, Inc. and Subsidiaries' management is responsible for these consolidated financial statements. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Akers Biosciences, Inc. and Subsidiaries as of December 31, 2016 and 2015, and the consolidated results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

*/s/ Morison Cogen LLP*

Blue Bell, Pennsylvania
April 11, 2017

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Consolidated Balance Sheets**
**December 31, 2016 and 2015**

| | 2016 | 2015 |
|---|---|---|
| **ASSETS** | | |
| **Current Assets** | | |
| Cash | $ 72,700 | $ 402,059 |
| Marketable Securities | 50,001 | 4,025,104 |
| Trade Receivables, net | 601,271 | 609,195 |
| Trade Receivables – Related Party, net | 31,892 | 31,512 |
| Deposits and other receivables | 23,782 | 95,577 |
| Inventories, net | 2,036,521 | 1,131,654 |
| Prepaid expenses | 168,277 | 185,967 |
| Prepaid expenses – Related Party | 202,500 | — |
| **Total Current Assets** | 3,186,944 | 6,481,068 |
| **Non-Current Assets** | | |
| Prepaid expenses – Related Party | 270,183 | — |
| Property, Plant and Equipment, net | 259,392 | 251,145 |
| Intangible Assets, net | 1,301,775 | 1,472,883 |
| Other Assets | 66,813 | 66,813 |
| **Total Non-Current Assets** | 1,898,163 | 1,790,841 |
| **Total Assets** | $ 5,085,107 | $ 8,271,909 |
| **LIABILITIES** | | |
| **Current Liabilities** | | |
| Trade and Other Payables | $ 1,463,363 | $ 1,668,731 |
| Trade and Other Payables – Related Party | 234,067 | — |
| **Total Current Liabilities** | 1,697,430 | 1,668,731 |
| **Total Liabilities** | 1,697,430 | 1,668,731 |
| **STOCKHOLDERS' EQUITY** | | |
| Convertible Preferred Stock, No par value, 50,000,000 shares authorized, no shares issued and outstanding as of December 31, 2016 and 2015 | — | — |
| Common Stock, No par value, 500,000,000 shares authorized, 5,452,545 and 5,425,045 issued and outstanding as of December 31, 2016 and 2015 | 100,891,786 | 100,785,408 |
| Deferred Compensation | (24,572) | — |
| Accumulated Deficit | (97,479,537) | (94,175,999) |
| Accumulated Other Comprehensive Loss | — | (6,231) |
| **Total Stockholders' Equity** | 3,387,677 | 6,603,178 |
| **Total Liabilities and Stockholders' Equity** | $ 5,085,107 | $ 8,271,909 |

The accompanying notes are an integral part of these consolidated financial statement.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Consolidated Statements of Operations and Comprehensive Loss**
**For the years ended December 31, 2016 and 2015**

| | 2016 | 2015 |
|---|---|---|
| Revenues: | | |
| Product Revenue | $ 2,956,782 | $ 1,757,982 |
| Product Revenue – Related party | 380 | 36,512 |
| License Revenue | 3,750 | 15,000 |
| License Revenue – Related party | — | 305,556 |
| Total Revenues | 2,960,912 | 2,115,050 |
| Cost of Sales: | | |
| Product Cost of Sales | (1,083,087) | (950,792) |
| | | |
| Gross Income | 1,877,825 | 1,164,258 |
| | | |
| Administrative Expenses | 3,008,811 | 4,029,516 |
| Sales and Marketing Expenses | 1,983,428 | 2,543,286 |
| Sales and Marketing Expenses – Related Party | 153,854 | — |
| Research and Development Expenses | 1,188,868 | 1,406,895 |
| (Reversal of Allowance for) Bad Debt Expenses – Related party | (1,299,609) | 2,163,609 |
| Impairment of Non-Current Assets | — | 466,476 |
| Amortization of Non-Current Assets | 171,108 | 236,706 |
| | | |
| Loss from Operations | (3,328,635) | (9,682,230) |
| | | |
| Other (Income)/Expenses | | |
| Foreign Currency Transaction (Gain)/Loss | (3,398) | 7,535 |
| Interest and Dividend Income | (21,699) | (102,456) |
| Other Income | — | (6,052) |
| Total Other Income | (25,097) | (100,973) |
| | | |
| Loss Before Income Taxes | (3,303,538) | (9,581,257) |
| | | |
| Income Tax Benefit | — | 269,344 |
| | | |
| Net Loss Attributable to Common Stockholders | (3,303,538) | (9,311,913) |
| | | |
| Other Comprehensive Income | | |
| Net Unrealized Gains on Marketable Securities | 6,231 | 13,893 |
| Total Other Comprehensive Income | 6,231 | 13,893 |
| | | |
| Comprehensive Loss | $ (3,297,307) | $ (9,298,020) |
| | | |
| Basic and diluted loss per common share | $ (0.61) | $ (1.81) |
| | | |
| Weighted average basic and diluted common shares outstanding | 5,430,205 | 5,140,920 |

The accompanying notes are an integral part of these consolidated financial statement.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Consolidated Statement of Changes in Stockholder's Equity**
**For the years ended December 31, 2016 and 2015**

| | Common Shares Issued and Outstanding | Common Stock | Deferred Compensation | Accumulated Deficit | Accumulated Other Comprehensive Income/(Loss) | Total Equity |
|---|---|---|---|---|---|---|
| **Balance at December 31, 2014** | 4,954,837 | $ 99,691,096 | $ — | $(84,864,086) | $ (20,124) | $14,806,886 |
| Net loss | — | — | — | (9,311,913) | — | (9,311,913) |
| Issuance of restricted common stock to directors & officers | 417,708 | 977,381 | — | — | — | 977,381 |
| Issuance of restricted common stock to key employees | 22,500 | 27,675 | | | | 27,675 |
| Issuance of restricted common stock for services | 30,000 | 36,900 | | | | 36,900 |
| Issuance of non-qualified stock options to key employees | — | 23,636 | — | — | — | 23,636 |
| Issuance of non-qualified stock options for services from non-employees | — | 28,720 | — | — | — | 28,720 |
| Net unrealized gain on marketable securities | — | — | — | — | 13,893 | 13,893 |
| **Balance at December 31, 2015** | 5,425,045 | $100,785,408 | $ — | $(94,175,999) | $ (6,231) | $ 6,603,178 |
| Net loss | — | — | — | (3,303,538) | — | (3,303,538) |
| Issuance of restricted common stock to officers | 27,500 | 54,725 | (54,725) | — | — | — |
| Amortization of deferred compensation | — | — | 30,153 | — | — | 30,153 |
| Issuance of non-qualified stock options to key employees | — | 27,977 | — | — | — | 27,977 |
| Issuance of non-qualified stock options for services from non-employees | — | 23,676 | — | — | — | 23,676 |
| Net unrealized gain on marketable securities | — | — | — | — | 6,231 | 6,231 |
| **Balance at December 31, 2016** | 5,452,545 | $100,891,786 | $ (24,572) | $(97,479,537) | $ — | $ 3,387,677 |

The accompanying notes are an integral part of these consolidated financial statement.

**AKERS BIOSCIENCES, INC. AND SUBSIDIARIES**
**Consolidated Statements of Cash Flows**
**For the years ended December 31, 2016 and 2015**

| | 2016 | 2015 |
|---|---|---|
| **Cash flows from operating activities** | | |
| Net loss for the year | $ (3,303,538) | $ (9,311,913) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Accrued income on marketable securities | 14,244 | 4,199 |
| Depreciation and amortization | 286,162 | 299,995 |
| Reserve for obsolete inventory | 32,333 | — |
| Impairment of non-current assets | — | 466,476 |
| Allowance for doubtful accounts | (1,153,413) | 2,163,609 |
| Gain from other non-operating activities | — | (6,052) |
| Fair value of restricted common stock issued for services | 30,153 | 344,656 |
| Share based compensation to employees – options | 27,977 | 23,636 |
| Share based compensation to non-employees – options | 23,676 | 28,720 |
| Changes in assets and liabilities: | | |
| (Increase)/decrease in trade receivables | (138,272) | 513,583 |
| Increase in trade receivables – related party | (380) | — |
| Decrease in notes receivables – related party | — | 176,157 |
| (Increase)/decrease in deposits and other receivables | 71,795 | (54,142) |
| Increase in inventories | (187,200) | (226,538) |
| (Increase)/decrease in prepaid expenses | 17,689 | (76,774) |
| Decrease in prepaid expenses – related party | 76,927 | — |
| Increase/(decrease) in trade and other payables | (205,368) | 827,601 |
| Increase in trade and other payables – related party | 234,067 | — |
| Decrease in deferred revenue – related party | — | (305,556) |
| **Net cash used in operating activities** | (4,173,148) | (5,132,343) |
| | | |
| **Cash flows from investing activities** | | |
| Purchases of property, plant and equipment | (123,301) | (112,951) |
| Purchases of marketable securities | (35,944) | (60,940) |
| Investment in Hainan Savy Akers Biosciences, Ltd. joint venture | — | (64,091) |
| Proceeds from other non-operating activities | — | 6,052 |
| Proceeds from sale of marketable securities | 4,003,034 | 5,310,491 |
| **Net cash provided by investing activities** | 3,843,789 | 5,078,561 |
| | | |
| Net decrease in cash | (329,359) | (53,782) |
| Cash at beginning of year | 402,059 | 455,841 |
| Cash at end of year | $ 72,700 | $ 402,059 |
| | | |
| **Supplemental Schedule of Non-Cash Financing and Investing Activities** | | |
| Issuance of restricted common stock grant to an officer | $ 54,725 | $ — |
| Net unrealized gains on marketable securities | $ 6,231 | $ 13,893 |
| Settlement of note receivable in the form of inventory | $ 750,000 | $ — |
| Settlement of note receivable in the form of prepaid expense | $ 549,609 | $ — |
| Issuance of restricted common share grants to directors and officers accrued in 2014 | $ — | $ 697,300 |

The accompanying notes are an integral part of these consolidated financial statement.

**Note 1 — Nature of Business**

**(a) Reporting Entity**

The accompanying audited financial statements have been prepared by Akers Biosciences, Inc. ("Akers" or the "Company"), a company domiciled in the United States of America. The address of the Company's registered office is 201 Grove Road, West Deptford, New Jersey, 08086. The Company is incorporated in the United States of America under the laws of the State of New Jersey.

The consolidated financial statements include two dormant subsidiaries, Akers Acquisition Sub, Inc. and Bout Time Marketing Corporation. All material intercompany transactions have been eliminated upon consolidation.

**(b) Nature of Business**

The Company's primary focus is the development and sale of disposable diagnostic testing devices that can be performed in minutes, to facilitate time sensitive therapeutic decisions. The Company's main products are a disposable breathalyzer test that measures the blood alcohol content of the user, a rapid test detecting the antibody causing an allergic reaction to Heparin and a disposable breathalyzer test that measures Free Radical activity in the human body. When the Company enters into an agreement with a new distributor it typically requires an upfront licensing fee to be paid for the right to sell the Company's products in specific markets.

**Note 2 — Basis of Presentation**

**(a) Statement of Compliance**

The consolidated financial statements of the Company are prepared in U.S. Dollars and in accordance with accounting principles generally accepted in the United States of America (US GAAP).

The Company is an emerging growth company as the term is used in The Jumpstart Our Business Startups Act enacted on April 5, 2012 and has elected to comply with certain reduced public company reporting requirements.

**(b) Use of Estimates and Judgments**

The preparation of financial statements in conformity with US GAAP requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. In particular, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is included in the following notes for revenue recognition, allowances for doubtful accounts, inventory write-downs, impairment of intangible assets and valuation of share based payments.

**(c) Functional and Presentation Currency**

These consolidated financial statements are presented in U.S. Dollars, which is the Company's functional currency. All financial information presented in U.S. Dollars has been rounded to the nearest dollar. Foreign Currency Transaction Gains or Losses, resulting from loans and cash balances denominated in Foreign Currencies, are recorded in the consolidated statement of operations and comprehensive loss.

**(d) Comprehensive Income**

The Company follows Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) 220 in reporting comprehensive income (loss). Comprehensive income is a more inclusive financial reporting methodology that includes disclosure of certain financial information that historically has not been recognized in the calculation of net income.

**Note 3 — Significant Accounting Policies**

**(a) Cash and Cash Equivalents**

Cash and cash equivalents comprise cash balances. The Company considers all highly liquid investments, which include short-term bank deposits (up to 3 months from date of deposit) that are not restricted as to withdrawal date or use, to be cash equivalents. Bank overdrafts are shown as part of trade and other payables in the consolidated balance sheet.

**(b) Fair Value of Financial Instruments**

The Company's financial instruments consist of cash and cash equivalents, marketable securities, receivables and trade and other payables. The carrying value of cash and cash equivalents, receivables and trade and other payables approximate their fair value because of their short maturities. The fair value of marketable securities is described in Note 3(c).

**(c) Fair Value Measurement — Marketable Securities**

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Company has the ability to access.

Level 2 Inputs to the valuation methodology include

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

**(d) Trade Receivables, Trade Receivables — Related Party and Allowance for Doubtful Accounts**

The carrying amounts of current trade receivables is stated at cost, net of allowance for doubtful accounts and approximate their fair value given their short term nature.

The normal credit terms extended to customers ranges between 30 and 90 days. The Company reviews all receivables that exceed terms and establishes an allowance for doubtful accounts based on management's assessment of the collectability of trade and other receivables. A considerable amount of judgment is required in assessing the amount of allowance. The Company considers the historical level of credit losses, makes judgments about the credit worthiness of each customer based on ongoing credit evaluations and monitors current economic trends that might impact the level of credit losses in the future.

**Note 3 — Significant Accounting Policies** (cont.)

As of December 31, 2016 and 2015, allowances for doubtful accounts for trade receivables were $1,010,196 and $864,000. Bad debt expenses for trade receivables were $146,196 and $864,000 for the years ended December 31, 2016 and 2015.

**(e) Concentration of Credit Risk**

The Company is exposed to credit risk in the normal course of business primarily related to trade receivables and cash and cash equivalents.

All of the Company's cash is maintained with Fulton Bank of New Jersey, Bank of America, NA and PayPal. The funds are insured by the FDIC up to a maximum of $250,000, but are otherwise unprotected. The Company placed $67,865 and $369,525 with Fulton Bank of New Jersey, $795 and $28,494 with Bank of America, NA and $4,040 and $4,040 with PayPal as of December 31, 2016 and 2015. No losses have been incurred in these accounts.

Concentration of credit risk with respect to trade receivables exists as approximately 75% of the Company's product revenue is generated by three customers. These customers accounted for 30% of trade receivables as of December 31, 2016. In order to limit such risks, the Company performs ongoing credit evaluations of its customers' financial condition.

**(f) Inventories**

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is based on the weighted-average principle, and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, costs include an appropriate share of production overheads based on normal operating capacity.

**(g) Property, Plant and Equipment**

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Costs include expenditures that are directly attributable to the acquisition of the asset.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized within "other income" in the consolidated statement of operations and comprehensive loss.

Depreciation is recognized in profit and loss on the accelerated basis over the estimated useful lives of the property, plant and equipment. Leased assets are depreciated over the shorter of the lease term or their useful lives.

The estimated useful lives for the current and comparative periods are as follows:

| | Useful Life (in years) |
|---|---|
| Plant and equipment | 5-12 |
| Furniture and fixtures | 5-10 |
| Computer equipment & software | 3-5 |
| Leasehold Improvements | Shorter of the remaining lease or estimated useful life |

Depreciation methods, useful lives and residual values are reviewed at each reporting date.

**Note 3 — Significant Accounting Policies** (cont.)

**(h) Intangible Assets**

**(i) Patents and Trade Secrets**

The Company has developed or acquired several diagnostic tests that can detect the presence of various substances in a person's breath, blood, urine and saliva. Propriety protection for the Company's products, technology and process is important to its competitive position. As of December 31, 2016, the Company has ten patents from the United States Patent Office in effect (9,383,368; 7,896,167; 8,097,171; 8,003,061; 8,425,859; 8,871,521; 8,808,639; D691,056; D691,057 and D691,058). Other patents are in effect in Australia through the Design Registry (348,310; 348,311 and 348,312), European Union Patents 1793906, 2684025, 002216895-0001; 002216895-0002 and 002216895-0003), in Hong Kong (HK11004006) and in Japan (1,515,170; 4,885,134; 4,931,821 5,775,790, and 6023096). Patents are in the national phase of prosecution in many Patent Cooperation Treaty participating countries. Additional proprietary technology consists of numerous different inventions. The Company intends to file additional patent applications, where appropriate, relating to new products, technologies and their use in the U.S., European and Asian markets. Management intends to protect all other intellectual property (e.g. copyrights, trademarks and trade secrets) using all legal remedies available to the Company.

**(ii) Patent Costs**

Costs associated with applying for patents are capitalized as patent costs. Once the patents are approved, the respective costs are amortized over their estimated useful lives (maximum of 17 years) on a straight-line basis. Patent pending costs for patents that are not approved are charged to operations the year the patent is rejected.

In addition, patents may be purchased from third parties. The costs of acquiring the patent are capitalized as patent costs if it represents a future economic benefit to the Company. Once a patent is acquired it is amortized over its remaining useful life.

**(iii) Other Intangible Assets**

Other intangible assets that are acquired by the Company, which have definite useful lives, are measured at cost less accumulated amortization and accumulated impairment losses.

**(iv) Amortization**

Amortization is recognized on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use. The estimated useful lives for the current and comparative periods are as follows:

| | **Useful Life (in years)** |
|---|---|
| Patents and trademarks | 12-17 |
| Customer lists | 5 |

**(i) Recoverability of Long Lived Assets**

In accordance with FASB ASC 360-10-35 "Impairment or Disposal of Long-lived Assets", long-lived assets to be held and used are analyzed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable or that the useful lives of those assets are no longer appropriate. The Company evaluates at each balance sheet date whether events and circumstances have occurred that indicate possible impairment.

The Company determines the existence of such impairment by measuring the expected future cash flows (undiscounted and without interest charges) and comparing such amount to the carrying amount of the assets. An impairment loss, if one exists, is then measured as the amount by which the carrying amount of the asset

**Note 3 — Significant Accounting Policies** (cont.)

exceeds the discounted estimated future cash flows. Assets to be disposed of are reported at the lower of the carrying amount or fair value of such assets less costs to sell. Asset impairment charges are recorded to reduce the carrying amount of the long-lived asset that will be sold or disposed of to their estimated fair values. Charges for the asset impairment reduce the carrying amount of the long-lived assets to their estimated salvage value in connection with the decision to dispose of such assets.

**(j) Investments**

In accordance with FASB ASC 323, the Company recognizes investments in joint ventures based upon the Company's ability to significantly influence the operational or financial policies of the joint venture. An objective judgment of the level of influence is made at the time of the investment based upon several factors including, but not limited to the following:

a) Representation on the Board of Directors

b) Participation in policy-making processes

c) Material intra-entity transactions

d) Interchange of management personnel

e) Technological dependencies

f) Extent of ownership and the ability to influence decision making based upon the makeup of other owners when the shareholder group is small.

The Company follows the equity method for valuating investments in joint ventures when the existence of significant influence over operational and financial policy has been established, as determined by management; otherwise, the Company will valuate these investments using the cost method.

Investments recorded using the cost method will be assessed for any decrease in value that has occurred that is other than temporary and the other than temporary decrease in value shall be recognized. As and when circumstances and facts change, the Company will evaluate the Company's ability to significantly influence operational and financial policy to establish a basis for converting the investment accounted for using the cost method to the equity method of valuation.

On March 9, 2015, the Company contributed capital of $64,675 in Hainan Savy Akers Biosciences, Ltd., a company incorporated in the People's Republic of China, resulting in a 19.9% ownership interest. The contribution was adjusted downward to $64,091 on April 8, 2015; the net effect of the currency conversion when the contribution was processed in Hainan. This is included in other assets in the Consolidated Balance Sheet as of December 31, 2016 and 2015 and is accounted for using the cost method.

**(k) Revenue Recognition**

In accordance with FASB ASC 605, the Company recognizes revenue when (i) persuasive evidence of a customer or distributor arrangement exists, (ii) a retailer, distributor or wholesaler receives the goods and acceptance occurs, (iii) the price is fixed or determinable, and (iv) the collectability of the revenue is reasonably assured. Subject to these criteria, the Company recognizes revenue from product sales when title passes to the customer based on shipping terms. The Company typically does not accept returns nor offer charge backs or rebates except for certain distributors. Revenue recorded is net of any discount, rebate or sales return. The accrual for estimated sales returns $- as of December 31, 2016 and 2015.

The Company implemented a significant price increase for certain PIFA products effective May 1, 2015 and a standard dealer cost model during the year ended December 31, 2016. In an effort to phase in these changes, the programs include a provision for rebates to the distributors under limited circumstances. The Company has established an accrual of $41,120 and $233,542, which is a reduction of revenue, for the years ended

**Note 3 — Significant Accounting Policies** (cont.)

December 31, 2016 and 2015. Accounts receivable will be reduced when the rebates are applied by the customer. During the years ended December 31, 2016 and 2015, the Company recognized $471,949 and $438,360 in rebates, which is included as a reduction of product revenue in the Consolidated Statement of Operations and Comprehensive Loss.

License fee revenue is recognized on a straight-line basis over the term of the license agreement.

When the Company enters into arrangements that contain more than one deliverable, the Company allocates revenue to the separate elements under the arrangement based on their relative selling prices in accordance with FASB ASC 605-25.

**(l) Income Taxes**

The Company follows FASB ASC 740 when accounting for income taxes, which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for temporary differences between the financial statements and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense or benefit is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

**(m) Shipping and Handling Fees and Costs**

The Company charges actual shipping plus a handling fee to customers, which amounted to $54,928 and $56,537 for the years ended December 31, 2016 and 2015. These fees are classified as part of product revenue in the consolidated statement of operations and comprehensive loss. Shipping and other related delivery costs, including those for incoming raw materials are classified as part of the cost of net revenue, which amounted to $138,662 and $115,423 for the years ended December 31, 2016 and 2015.

**(n) Research and Development Costs**

In accordance with FASB ASC 730, research and development costs are expensed when incurred.

**(o) Stock-based Payments**

The Company accounts for stock-based compensation under the provisions of FASB ASC 718, “Compensation — Stock Compensation”, which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and directors based on estimated fair values on the grant date. The Company estimates the fair value of stock-based awards on the date of grant using the Black-Scholes model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over shorter of the period over which services are to be received or the vesting period.

The Company accounts for stock-based compensation awards to non-employees in accordance with FASB ASC 505-50, “Equity-Based Payments to Non-Employees”. Under FASB ASC 505-50, the Company determines the fair value of the stock warrants or stock-based compensation awards granted as either the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable.

The Company estimates the fair value of stock-based awards to non-employees on the date of grant using the Black-Scholes model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the period which services are to be received. At the end of each financial reporting period, prior to vesting or prior to completion of services, the fair value of equity based payments will be re-measured and the non-cash expense recognized during the period will be adjusted accordingly. Since the fair value of equity based payments granted to non-employees is subject to change in the future, the amount of the future expense will include fair value re-measurement until the equity based payments are fully vested or the service is completed.

**Note 3 — Significant Accounting Policies** (cont.)

**(p) Basic and Diluted Earnings per Share of Common Stock**

Basic earnings per common share are based on the weighted average number of shares outstanding during the periods presented. Diluted earnings per share are computed using the weighted average number of common shares plus dilutive common share equivalents outstanding during the period. Potential common shares that would have the effect of increasing diluted earnings per share are considered anti-dilutive, i.e. the exercise prices of the outstanding stock options were greater than the market price of the common stock.

**(q) Reclassifications**

Certain prior year amounts have been reclassified to conform to the current year's presentation.

**(r) Recently Adopted Accounting Pronouncements**

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements — Going Concern (Subtopic 205-40), Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern.* The amendments in this Update provide guidance about management's responsibility to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued and to provide related footnote disclosures. Substantial doubt about an entity's ability to continue as a going concern exists when relevant conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued. The amendments in this Update are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The amendments in this Update were adopted as of December 31, 2016. See Note 4 for management's evaluation and discussion.

In July 2015, the FASB issued ASU No. 2015-11, *Inventory (Topic 330)*, *Simplifying the Measurement of Inventory*. The amendments in this Update require an entity to measure inventory at the lower of cost or net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments in this Update are effective for fiscal years beginning after December 15, 2016 and interim periods within fiscal years beginning after December 15, 2017. The amendments in this Update should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. As of December 31, 2016, the Company adopted the amendments in this Update which does not have any material effect on the financial statements.

**(s) Recently Issued Accounting Pronouncements Not Yet Adopted**

As the Company is an emerging growth company, it has elected to adopt recently issued standards based on effective dates applicable to nonpublic entities. All effective dates as mentioned in the following paragraphs refer to that applicable to nonpublic entities.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, FASB issued ASU 2015-14 which deferred the effective date of Update 2014-09 to annual reporting periods beginning after December 15, 2018 and interim reporting periods within annual reporting periods beginning after December 15, 2019. Early application is permitted as of annual reporting periods beginning after December 15, 2016 including interim reporting periods within that reporting period. The Company is currently evaluating the effect of the amendments but it does not anticipate a material impact of its financial statements. The Company expects to use the modified retrospective adoption method.

**Note 3 — Significant Accounting Policies** (cont.)

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740), Balance Sheet Classification of Deferred Taxes*. The amendments in this Update require that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The amendments in this Update are effective for financial statements issued for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 31, 2018. Earlier application is permitted for all entities as of the beginning of an interim or annual reporting period. The Company does not expect the adoption of the amendments in this Update to have a material impact on its financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The amendments in this Update specify the accounting for leases. The core principle of Topic 842 is that a lessee should recognize the assets and liabilities that arise from leases. The amendments in this Update are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early application of the amendments in this Update is permitted. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, which clarifies certain aspects of the principal versus agent guidance in the new revenue recognition standard. The effective date and transition requirement for this ASU are the same as the effective date and transition requirements of ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, as amended by ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which deferred the effective date to annual reporting periods beginning after December 15, 2018. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, which simplifies several aspects of the accounting for share-based payment award transactions, including: (1) income tax consequences; (2) classification of awards as either equity or liabilities, and (3) classification on the statement of cash flows. The amendments in this ASU are effective for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted in any interim or annual period. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments.* The Update addresses eight specific changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted. An entity that elects early adoption must adopt all of the amendments in the same period. The amendments in this Update should be applied using a retrospective transition method to each period presented. If it is impracticable to apply the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company is currently evaluating the effect the amendments in this Update will have on its financial statements and related disclosures.

**Note 4 — Management Plan**

Historically, the Company has relied upon public offerings and private placements of common stock to raise operating capital. During the three month period ending March 31, 2017, the Company raised approximately $1.7 million in a public offering and an additional $1.8 million from a private placement of common stock (Note 23). As of April 5, 2017, the Company had cash and marketable securities of approximately $2.3 million.

**Note 4 — Management Plan** (cont.)

The 2017-19 Strategic Business Plan ("Strat Plan") was presented to and approved by the Board of Directors on December 12, 2016. The plan outlines the Company's business objectives for the next three years and sets measurable targets for new product releases, sales and marketing programs to increase market penetration for the Company's products and operational expense management.

Implementation of the Strat Plan began in January 2017 and management remains confident that the objectives are achievable, however; during the first half of 2017, the Company may encounter limited periods of cash shortages and is proactively working to minimize their impact on operations. We anticipate maintaining a cash-flow positive position during the next twelve months based upon the revenue targets as outlined in the Strat Plan, the results of the private placement offering in March 2017 and the backing by a shareholder if required. In Addition, the Company has initiated discussions with our primary financial institution to establish a line of credit to manage short-term cash fluctuations.

During the year ended December 31, 2016, the Company significantly reduced operating expenses through a systematic review of operations throughout the organization. As a result, the Company achieved a reduction in our weekly operating cash requirements of approximately 19% to $80,253 (2015: $98,699). The Strat Plan assumes the weekly cash requirement to remain steady through the year ending December 31, 2017.

The Company has achieved the reduction in weekly cash requirements by renegotiating contracts with key consultants and canceling consulting agreements where the cost-benefits are negligible, working with vendors to reduce or eliminate minimum purchasing requirements, to extend payment terms and re-sourcing materials when necessary to reduce costs.

Production cost savings, especially direct manufacturing costs, have been realized by utilizing sub-contractors to perform labor intensive production processes. This improves efficiency for our manufacturing staff, allowing them to concentrate their efforts on more complex assembly and production tasks.

Barring any unforeseen circumstances, the Company believes that it is probable that it will be able to meet its obligations as they fall due within one year after the financial statements are issued.

**Note 5 — Fair Value Measurement — Marketable Securities**

Following is a description of the valuation methodologies used for assets measured at fair value as of December 31, 2016 and 2015.

*U.S. Agency Securities, Corporate and Municipal Securities and Certificates of Deposits:* Valued using pricing models maximizing the use of observable inputs for similar securities. This includes basing value on yields currently available on comparable securities of issuers with similar credit ratings.

| | As of December 31, 2016 | | | | |
|---|---|---|---|---|---|
| | Cost | Accrued Income | Unrealized Gains | Unrealized Losses | Fair Value |
| ***Level 2:*** | | | | | |
| Money market funds | $ 29,657 | $ 15 | $ — | $ — | $ 29,672 |
| Municipal securities | 20,314 | 15 | — | — | 20,329 |
| Total Level 2: | 49,971 | 30 | — | — | 50,001 |
| | | | | | |
| ***Total:*** | $ 49,971 | $ 30 | $ — | $ — | $ 50,001 |

**Note 5 — Fair Value Measurement — Marketable Securities**(cont.)

| | As of December 31, 2015 | | | | |
|---|---|---|---|---|---|
| | Cost | Accrued Income | Unrealized Gains | Unrealized Losses | Fair Value |
| ***Level 2:*** | | | | | |
| Money market funds | $ 750 | $ — | $ — | $ — | $ 750 |
| Certificates of deposits | 2,050,000 | 8,584 | — | (135) | 2,058,449 |
| Corporate Securities | 1,528,308 | 4,934 | — | (5,918) | 1,527,324 |
| Municipal securities | 438,003 | 756 | — | (178) | 438,581 |
| Total Level 2: | 4,017,061 | 14,274 | — | (6,231) | 4,025,104 |
| | | | | | |
| ***Total:*** | $ 4,017,061 | $ 14,274 | $ — | $ (6,231) | $ 4,025,104 |

Marketable securities include U.S. agency securities, corporate securities, and municipal securities, which are classified as available for sale. The securities are valued at fair market value. Maturities of the securities are less than one year. Unrealized gains relating to the available for sale investment securities were recorded in the Consolidated Statement of Changes in Stockholders' Equity as comprehensive income. These amounts were $6,231 and $13,893 (net of effect of income tax expense of $-) for the years ended December 31, 2016 and 2015.

Proceeds from the sale of marketable securities in the year ended December 31, 2016 and 2015 were $4,003,034 and $5,310,491. Gross gains as a result of the sales amounted to $3,582 and $1,594 and gross losses amounted to $3,667 and $8,105 for the years ended December 31, 2016 and 2015, respectively.

**Note 6 — Trade Receivables — Related Party**

Trade receivables — related party are made up of amounts due from Hainan Savy Akers Biosciences Ltd ("Hainan"), a joint venture between Akers, Thomas Knox, Akers' current Board Chairman, and Hainan Savy Investment Management Ltd, located in the People's Republic of China. The Company holds a 19.9% position in the joint venture. The amount due is non-interest bearing, unsecured and generally has a term of 30-90 days (Note 17).

**Note 7 — Note Receivable — Related Parties**

On December 31, 2014, a note of $1,475,766 was issued to the Company in exchange for the Company's open trade receivables from ChubeWorkx Guernsey Limited ("ChubeWorkx"), a major shareholder. It is payable in sixty equal installments of $27,734 commencing January 1, 2015 and has an interest rate of 5% per annum.

As of December 31, 2015, the Company established an allowances for doubtful accounts for notes receivable — related party of $1,299,609 which is reported as bad debt expense — related parties in the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2015.

On August 17, 2016, the Company entered into a Settlement Agreement with ChubeWorkx which settled all pending claims between the companies. Under the terms of the Settlement Agreement, the Company recovered the full outstanding principal amount in the current fiscal year in the form of $750,000 of BreathScan® Alcohol Detector inventory — which the Company intends to subsequently sell — and the balance of $549,609 as a prepaid royalty (Note 17). As a result of the Settlement Agreement, the Company reversed the allowance for doubtful note in the amount of $1,299,609 which is included in the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2016.

**Note 8 — Inventories**

Inventories at December 31, 2016 and 2015 consists of the following categories:

| | 2016 | 2015 |
|---|---|---|
| Raw Materials | $ 440,316 | $ 348,216 |
| Sub-Assemblies | 907,989 | 786,656 |
| Finished Goods | 749,488 | 25,721 |
| Reserve for Obsolescence | (61,272) | (28,939) |
| | $ 2,036,521 | $ 1,131,654 |

For the years ended December 31, 2016 and 2015 $32,333 and $- was charged to cost of goods sold for obsolete inventory.

**Note 9 — Property, Plant and Equipment**

Property, plant and equipment as of December 31, 2016 and 2015 are as follows:

| | 2016 | 2015 |
|---|---|---|
| Computer Equipment | $ 114,771 | $ 100,405 |
| Computer Software | 40,681 | 40,681 |
| Office Equipment | 39,959 | 50,049 |
| Furniture & Fixtures | 29,939 | 29,939 |
| Machinery & Equipment | 1,126,134 | 1,112,060 |
| Molds & Dies | 834,480 | 756,279 |
| Leasehold Improvements | 222,593 | 222,593 |
| | 2,408,557 | 2,312,006 |
| Less | | |
| Accumulated Depreciation | 2,149,165 | 2,060,861 |
| | | |
| | $ 259,392 | $ 251,145 |

During the years ended December 31, 2016 and 2015 depreciation expense was $115,053 and $63,289.

**Note 10 — Intangible Assets**

Intangible assets as of December 31, 2016 and 2015 and the movements for the years then ended are as follows:

| | Patents & Trademarks | Distributor & Customer Relationships | Totals |
|---|---|---|---|
| ***Cost or Deemed Cost*** | | | |
| At December 31, 2014 | $ 3,851,495 | $ 1,270,639 | $ 5,122,134 |
| Additions | — | — | — |
| Disposals | (1,224,499) | — | (1,224,499) |
| At December 31, 2015 | $ 2,626,996 | $ 1,270,639 | $ 3,897,635 |
| | | | |
| ***Accumulated Amortization*** | | | |
| At December 31, 2014 | $ 1,675,430 | $ 1,270,639 | $ 2,946,069 |
| Amortization Charge | 236,706 | — | 236,706 |
| Disposals | (758,023) | — | (758,023) |
| At December 31, 2015 | $ 1,154,113 | $ 1,270,639 | $ 2,424,752 |

**Note 10 — Intangible Assets** (cont.)

| | Patents & Trademarks | Distributor & Customer Relationships | Totals |
|---|---|---|---|
| ***Net Book Value*** | | | |
| At December 31, 2014 | $ 2,176,065 | $ — | $ 2,176,065 |
| At December 31, 2015 | $ 1,472,883 | $ — | $ 1,472,883 |
| | | | |
| ***Cost or Deemed Cost*** | | | |
| At December 31, 2015 | $ 2,626,996 | $ 1,270,639 | $ 3,897,635 |
| Additions | — | — | — |
| Disposals | — | — | — |
| At December 31, 2016 | $ 2,626,996 | $ 1,270,639 | $ 3,897,635 |
| | | | |
| ***Accumulated Amortization*** | | | |
| At December 31, 2015 | $ 1,154,113 | $ 1,270,639 | $ 2,424,752 |
| Amortization Charge | 171,108 | — | 171,108 |
| Disposals | — | — | — |
| At December 31, 2016 | $ 1,325,221 | $ 1,270,639 | $ 2,595,860 |
| | | | |
| ***Net Book Value*** | | | |
| At December 31, 2015 | $ 1,472,883 | $ — | $ 1,472,883 |
| At December 31, 2016 | $ 1,301,775 | $ — | $ 1,301,775 |

On December 31, 2015, the Company reassigned two fully amortized patents to the original holder as part of the settlement of a legal dispute.

During the years ended December 31, 2016 and 2015 amortization expense was $171,108 and $236,706.

The estimated aggregate amortization expense for each of the five succeeding fiscal years is as follows:

| Period | Amount |
|---|---|
| 2017 | $ 171,108 |
| 2018 | $ 171,108 |
| 2019 | $ 171,108 |
| 2020 | $ 171,108 |
| 2021 | $ 171,108 |

**Note 11 — Trade and Other Payables**

Trade and other payables as of December 31, 2016 and 2015 are as follows:

| | 2016 | 2015 |
|---|---|---|
| Trade Payables | $ 923,311 | $ 538,449 |
| Accrued Expenses | 480,302 | 1,020,532 |
| Legal Settlements Payable | — | 50,000 |
| Deferred Compensation | 59,750 | 59,750 |
| | $ 1,463,363 | $ 1,668,731 |

Trade and other payables — related party as of December 31, 2016 and December 31 2015 are as follows:

**Note 11 — Trade and Other Payables** (cont.)

| | 2016 | 2015 |
|---|---|---|
| Trade Payables (Note 17) | $ 182,001 | $ — |
| Accrued Expenses (Note 17) | 52,066 | — |
| | $ 234,067 | $ — |

The Company recorded royalty expenses of $153,854 for the year ended December 31, 2016 for ChubeWorkx Guernsey Limited ("ChubeWorkx"), a major shareholder, in relation to the settlement of legal claims (Note 17). The expense is included in sales and marketing expenses — related party on the Consolidated Statement of Operations and Comprehensive Loss. As of December 31, 2016, the Company owed ChubeWorkx $17,953 for the period of October 1, 2016 through December 31, 2016 which was paid on January 20, 2017 and had an accrual of $52,066 for the period of January 1, 2016 through August 17, 2016 which was paid on January 16, 2017.

As of December 31, 2016, the Company owed Hainan $14,664. Senior management at Hainan are actively involved in two other companies, Shenzhen Savy-Akers Biosciences ("Shenzhen") and Dong Guan Senming E&P ("Senming") and are therefore being included as related parties. The Company owed these two companies $149,384 as of December 31, 2016.

Trade and other payables are non-interest bearing and are normally settled on 30 — 60 day terms.

**Note 12 — Deferred Revenue — Related Party**

Deferred revenue represented the unearned revenue from the 3-year exclusive License and Supply Agreement with ChubeWorkx Guernsey Limited ("ChubeWorkx")(Note 17) for the purchase and distribution of the Company's proprietary breathalyzer that was signed in June 2012.

On May 7, 2015, the Company and ChubeWorkx mutually terminated the exclusive license and supply agreement that granted worldwide distribution rights to ChubeWorkx for the Company's breathalyzer test. As a result of this action and per the terms of the original agreement, the Company recognized the remaining $166,667 of deferred revenue in the statement of operations for the year ended December 31, 2015.

**Note 13 — Share-based Payments**

On January 23, 2014, upon effectiveness of the registration statement filed with the SEC, the Company adopted the 2013 Stock Incentive Plan (the "Plan") which will provide for the issuance of up to 400,000 shares. The purpose of the Plan is to provide additional incentive to those officers, employees, consultants and non-employee directors of the Company and its parents, subsidiaries and affiliates whose contributions are essential to the growth and success of the Company's business.

On January 9, 2015, the Board of Directors of the Company approved, upon recommendation from the Compensation Committee of the Board, by unanimous written consent the Amended and Restated 2013 Incentive Stock and Award Plan (the "Amended Plan"), which increases the number of authorized shares of common stock subject to the Plan to 800,000 shares.

On September 30, 2016, the Board of Directors increased the number of authorized shares of common stock subject to the Amended Plan to 830,000 shares. As of December 31, 2016, under the 2013 Amended Plan, grants of restricted stock and options to purchase 277,333 shares of common stock have been issued and are unvested or unexercised and 13,292 shares of common stock remain available for grants.

The Amended Plan may be administered by the board or a board-appointed committee. Eligible recipients of option awards are employees, officers, consultants or directors (including non-employee directors) of the Company or of any parent, subsidiary or affiliate of the Company. The board has the authority to grant to any eligible recipient any options, restricted stock or other awards valued in whole or in part by reference to, or otherwise based on, the Company's common stock.

**Note 13 — Share-based Payments** (cont.)

Qualified option holders may exercise their options at their discretion. Each option granted may be exchanged for a prescribed number of shares of common stock.

On December 30, 2015, the Company approved the issuance of 30,000 options to purchase common shares to key employees at an exercise price of $1.23 per common share and 15,500 options to purchase common shares for services at a weighted average exercise price of $3.70 per common share. All options are immediately exercisable and carry a five-year expiration.

On January 1, 2016, the Company approved the issuance of 12,500 options to purchase common shares to a key consultant for services at an exercise price of $3.70 per common share with vesting over one year. The options carry a five-year expiration.

On August 9, 2016 the Company approved the issuance of 26,000 options to purchase common shares to two key employees at an exercise price of $3.25 per common share with vesting over two years. The options carry a five-year expiration.

The options and warrants issued under the above plan were valued using a Black Scholes option pricing model. The assumptions utilized in calculating the value of the issued options under Black Scholes are as follows:

| | 2016 | 2015 |
|---|---|---|
| Expected option term | 5 yrs | 5 yrs |
| Expected volatility | 95.02% | 82.86% |
| Expected divident yield | 0.00% | 0.00% |
| Risk free interest rate | 1.16% | 1.73% |

The following table summarizes the option activities for the years ended December 31, 2016 and 2015:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term (years) | Aggregate Intrinsic Value |
|---|---|---|---|---|
| ***Balance at December 31, 2014*** | 175,000 | $ 4.98 | 4.50 | $ 600 |
| Granted | 45,500 | 2.07 | 5.00 | — |
| Exercised | — | — | — | — |
| Forfeited | — | — | — | — |
| Cancelled/Expired | — | — | — | — |
| ***Balance at December 31, 2015*** | 220,500 | $ 4.38 | 3.81 | $ — |
| ***Exercisable as of December 31, 2015*** | 220,500 | $ 4.38 | 3.81 | $ — |
| | | | | |
| ***Balance at December 31, 2015*** | 220,500 | $ 4.38 | 3.81 | $ — |
| Granted | 38,500 | 3.40 | 4.43 | — |
| Exercised | — | — | — | — |
| Forfeited | — | — | — | — |
| Cancelled/Expired | — | — | — | — |
| ***Balance at December 31, 2016*** | 259,000 | $ 4.23 | 3.05 | $ 20,100 |
| ***Exercisable as of December 31, 2016*** | 239,167 | $ 4.31 | 2.92 | $ 20,100 |

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the closing stock price of $1.90 and $1.21 for our common shares on December 31, 2016 and 2015.

**Note 13 — Share-based Payments** (cont.)

The weighted-average fair value of stock options granted for the years ended December 31, 2016 and 2015 was $1.98 and $0.70, respectively. A summary of the Company's non-vested shares as of December 31 2016 and the changes during the year then ended are as follows:

| Non-Vested Shares | Shares | Weighted Average Grant Date Fair Value |
|---|---|---|
| Non-vested at January 1, 2016 | — | $ — |
| Granted | 38,500 | 1.98 |
| Vested | (18,666) | 1.90 |
| Forfieted | — | — |
| Non-vested at December 31, 2016 | 19,834 | $ 2.36 |

Unrecognized compensation cost related to non-vested employee stock options totaled $33,296 and $- as of December 31, 2016 and 2015. The cost is to be recognized over a weighted average period of 1.63 years.

During the years ended December 31, 2016 and 2015, the Company incurred stock options expenses totaling $51,653 and $52,356, respectively.

**Note 14 — Equity**

The holders of common shares are entitled to one vote per share at meetings of the Company. Holders of Series A convertible preferred shares are entitled to five votes per share at meetings of the Company.

A restricted stock award is an award of common shares that are subject to certain restrictions during a specified period. Restricted stock awards are independent of option grants and are generally subject to forfeiture if employment terminates prior to the release of the restrictions. The grantee cannot transfer the shares before the restricted shares vest. Shares on non-vested restricted stock have the same voting rights as common stock, are entitled to receive dividends and other distributions thereon and are considered to be currently issued and outstanding. The Company's restricted stock awards vest of a period of one to three years. The Company expenses the cost of the restricted stock awards, which is determined to be the fair market value of the shares at the date of grant, straight-line over the period during which the restrictions lapse. For these purposes, the fair market value of the restricted stock is determined based on the closing price of the Company's common stock on the grant date.

On January 9, 2015, the Company issued 190,000 common shares to directors for services provided to the Company through December 31, 2014. The fair value of these shares was $697,300, which was reported as administrative expenses on the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2014, and the corresponding liability is included in trade and other payables on the December 31, 2014 Consolidated Balance Sheet.

On December 29, 2015, the Company issued 227,708 common shares to directors and officers for services rendered to the Company through December 31, 2015. The fair value of these shares was $280,081, which was reported as administrative expenses on the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2015.

On December 29, 2015, the Company issued 22,500 common shares to key employees for services rendered to the Company through December 31, 2015. The fair value of these shares was $27,675, which was reported as research and development expenses on the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2015.

On December 29, 2015, the Company issued 30,000 common shares in exchange for legal services rendered. The fair value of these shares was $36,900, which was reported as administrative expenses on the Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2015.

**Note 14 — Equity** (cont.)

On June 8, 2016, the Company issued 27,500 restricted common shares to an officer in connection with his employment agreement. These shares vest 1/3 immediately on the date of the grant and the remaining 2/3 vests equally on March 1, 2017 and March 1, 2018. The fair value of these shares was $54,725 and was based on the share price on the date of the grant. $30,153 was recorded during the year December 31, 2016 as administrative expense on the Consolidated Statement of Operations and Comprehensive Loss and the remaining $24,572 was recorded as deferred compensation, a contra equity account, on the Consolidated Balance Sheet as of December 31, 2016.

The following is a reconcilement of the movement of shares of Series A Convertible Preferred stock ("preferred stock") and common stock:

| | Authorized | | Issued | |
|---|---|---|---|---|
| | Preferred Stock | Common Stock | Preferred Stock | Common Stock |
| ***Balance at December 31, 2014*** | 50,000,000 | 500,000,000 | — | 4,954,837 |
| | | | | |
| ***Shares Issued:*** | | | | |
| January 9, 2015 | — | — | — | 190,000 |
| December 29, 2015 | — | — | — | 280,208 |
| ***Balance at December 31, 2015*** | 50,000,000 | 500,000,000 | — | 5,425,045 |
| | | | | |
| ***Shares Issued:*** | | | | |
| June 8, 2016 | — | — | — | 27,500 |
| ***Balance at December 31, 2016*** | 50,000,000 | 500,000,000 | — | 5,452,545 |

**Note 15 — Loss per share**

The calculation of basic and diluted loss per share at December 31, 2016 and 2015 was based on the loss attributable to common shareholders of $3,303,538 and $9,311,913. The basic and diluted weighted average number of common shares outstanding for 2016 and 2015 was 5,430,205 and 5,140,920.

Diluted net loss per share is computed using the weighted average number of common and dilutive potential common shares outstanding during the period.

Potential common shares consist of options and warrants. Diluted net loss per common share was the same as basic net loss per common share for the years ended December 31, 2016 and 2015 since the effect of options and warrants would be anti-dilutive due to the net loss attributable to the common shareholders. Instruments excluded from dilutive earnings per share, because their inclusion would be anti-dilutive, were as follows: incentive and award stock options — 259,000 for 2016 (2015: 220,500).

**Note 16 — Income Tax Expense**

The Company's income tax benefit/(provision) is as follows:

| | Years Ended December 31 | |
|---|---|---|
| | 2016 | 2015 |
| Current | $ 895,000 | $ 3,228,852 |
| Deferred | (1,646,000) | 835,596 |
| Change in Valuation Allowance | 751,000 | (3,795,104) |
| Net | $ — | $ 269,344 |

**Note 16 — Income Tax Expense** (cont.)

During 2015, the Company was approved by the State of New Jersey to sell a portion of its state tax benefits that existed as of December 31, 2014, pursuant to the Technology Tax Certificate Transfer Program. The Company received net proceeds of $269,344 for the year ending December 31, 2015 from the sale of the tax benefits, which has been included as an income tax benefit in the Consolidated Statement of Operations and Comprehensive Loss.

As of December 31, 2016 and 2015, the Company had Federal net operating loss carry forwards of approximately $60,100,000 and $58,000,000, expiring through the year ending December 31, 2036. As of December 31, 2016 and 2015, the Company had New Jersey state net operating loss carry forwards of approximately $9,400,000 and $7,200,000, expiring through the year ending December 31, 2023.

The principle components of the deferred tax assets and related valuation allowances as of December 31, 2016 and 2015 are as follows:

| | Years Ended December 31 | |
|---|---|---|
| | 2016 | 2015 |
| Reserves and other | $ 865,000 | $ 2,506,000 |
| Net operating loss carry-forwards | 21,618,000 | 20,728,000 |
| Valuation Allowance | (22,483,000) | (23,234,000) |
| Net | $ — | $ — |

The reconciliation of income taxes using the statutory U.S. income tax rate and the benefit from income taxes for the years ended December 31, 2016 and 2015 are as follows:

| | Years Ended December 31 | |
|---|---|---|
| | 2016 | 2015 |
| Statutory U.S. Federal Income Tax Rate | (35.0)% | (35.0)% |
| New Jersey State income taxes, net of U.S. Federal tax effect | (6.0)% | (6.0)% |
| Benefit from Sale of New Jersey NOL | 0.0% | (2.9)% |
| Change in Valuation Allowance | 41.0% | 41.0% |
| Net | —% | (2.9)% |

The valuation allowance for deferred tax assets as of December 31, 2016 and 2015 was $22,483,000 and $23,234,000. The change in the total valuation for the years ended December 31, 2016 and 2015 were a decrease of $751,000 and an increase of $3,795,104. In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the net operating losses and temporary differences become deductible. Management considered projected future taxable income and tax planning strategies in making this assessment. The value of the deferred tax assets was fully offset by a valuation allowance, due to the current uncertainty of the future realization of the deferred tax assets.

The Company's policy is to record interest and penalties associated with unrecognized tax benefits as additional income taxes in the statement of operations. As of January 1, 2016, the Company had no unrecognized tax benefits and no charge during 2016, and accordingly, the Company did not recognize any interest or penalties during 2016 related to unrecognized tax benefits. There is no accrual for uncertain tax positions as of December 31, 2016.

The Company files U.S. federal income tax returns and a state income tax returns. The U.S. and state income tax returns filed for the tax years ending on December 31, 2013 and thereafter are subject to examination by the relevant taxing authorities.

**Note 17 — Related Party Transactions**

On June 19, 2012, the Company entered into a 3-year exclusive License & Supply Agreement with ChubeWorkx Guernsey Limited (as successor to SONO International Limited) ("ChubeWorkx") for the purchase and distribution of Akers' proprietary breathalyzers outside North America. ChubeWorkx paid a licensing fee of $1,000,000 which was recognized over the term of the agreement through September 30, 2015.

On June 13, 2013, the Company announced an expansion of the License and Supply Agreement with ChubeWorkx to include worldwide marketing and distribution of the "Be CHUBE" program using the Company's breathalyzer.

On August 17, 2016, the Company entered into a Settlement Agreement with ChubeWorkx Guernsey Limited ("ChubeWorkx"), a major shareholder, which settled all pending claims between the Company and ChubeWorkx. Specifically, the Company and ChubeWorkx agreed to voluntarily dismiss the action brought by the Company against ChubeWorkx for outstanding amounts due to Akers Bio under a promissory note in a United States Federal Court suit, District of New Jersey and various claims brought by ChubeWorkx against the Company arising from an exclusive licensing agreement between ChubeWorkx and the Company ("Licensing Agreement") in a suit brought in The High Court of Justice, Queen's Bench Division Commercial Court, Royal Courts of Justice, United Kingdom.

Under the terms of the Settlement Agreement, the Company recovered the full outstanding principal amount in the current fiscal year in the form of $750,000 of BreathScan® Alcohol Detector products — which the Company intends to subsequently sell — and the balance of $549,609 as prepaid royalty. The goods were received in August, 2016. Akers' established an allowance for this doubtful note in the Company's financial statements for the year ended December 31, 2015. As a result of the Settlement Agreement, the Company reversed the allowance for doubtful note in the amount of $1,299,609 which is included in the Condensed Consolidated Statement of Operations and Comprehensive Loss for the year ended December 31, 2016.

In addition to addressing the promissory note described above, the Settlement Agreement also allows the Company to market and sell all of the Company's breath technology tests worldwide, unencumbered by any past/future claims by ChubeWorkx under the Licensing Agreement (entered into with ChubeWorkx in 2012 and subsequently amended in 2013). Under the terms of the Settlement Agreement, ChubeWorkx no longer holds any rights pertaining to Akers' BreathScan® technology, which serves as the basis for a number of commercialized products including BreathScan® Alcohol Detector and BreathScan OxiChek™; and a number of products in development.

In return for the Company regaining the full rights to sell breath technology products, under the terms of the Settlement Agreement, ChubeWorkx is entitled to receive a royalty of 5% of the Company's gross revenues (the "ChubeWorkx Royalty") until ChubeWorkx has earned an aggregate $5,000,000, after which point ChubeWorkx will no longer be entitled to receive any royalties from the Company and the Company shall have no further obligation to ChubeWorkx. The Settlement Agreement further allows the Company to retain 50% of the ChubeWorkx Royalty until the full $549,609 cash component of the monies owed by ChubeWorkx to the Company as described above has been satisfied. The Company recorded royalty expenses of $153,854 for the year ended December 31, 2016 which are included in sales and marketing expenses — related party on the Consolidated Statement of Operations and Comprehensive Loss.

Other terms of the Settlement include: 1) the pledge as security of all earned but unpaid royalties by the Company to ChubeWorkx all Company assets, worthy to satisfy its obligations, including all inventory and receivables, with the exception of (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists, (iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment; 2) the pledge as security of the settlement sum which remains unpaid by the Company to ChubeWorkx all Company (i) distribution contracts of the Company or any of its affiliates, (ii) customer lists,

**Note 17 — Related Party Transactions** (cont.)

(iii) manufacturing processes (including all intellectual property required to use those processes and exploit products made thereby), and (iv) all equipment required to perform said manufacturing processes and other equipment; and 3) the grant of voting proxy by ChubeWorkx to the Company which allows the Company to vote ChubeWorkx's shares for corporate formalities under certain conditions.

The pledged assets are only at risk in the event that the Company cannot satisfy any outstanding royalty payment obligations subject to various cure periods and/or through a restructuring and/or liquidation under the United States Bankruptcy laws of the Company in favor of payment of said obligation.

The Company began purchasing manufacturing molds, plastic components and the assembled BreathScan Lync device through Hainan and its related parties during the year ended December 31, 2016 (Note 11). The Company purchased a total of $207,135 during the year ended December 31, 2016 from this related party. As of December 31, 2016, the Company owed the three companies $164,049 which is included in trade and other payables — related party on the Consolidated Balance Sheet.

Trade receivables — related party as of December 31, 2016 and 2015 were $31,892 and $31,512. The amounts due are non-interest bearing, unsecured and generally have a term of 30-90 days (Note 5). This receivable is past due and management deemed it fully collectable.

Product revenue — related party for the year ended December 31, 2016 and 2015 were $380 and $36,512. The revenue was the result of sales to Hainan.

**Note 18 — Commitments**

The Company leases its facility in West Deptford, New Jersey under an operating lease with annual rentals of $132,000 plus common area maintenance (CAM) charges. The lease, which took effect on January 1, 2008, reduced the CAM charges allowing the Company to reach their own agreements with utilities and other maintenance providers.

On January 7, 2013, the Company extended its lease agreement for a term of 7 years, expiring December 31, 2019. Under the terms of the lease.

Rent expense, including related CAM charges for the years ended December 31, 2016 and 2015 was $161,160 and $161,281.

The Company entered into a 60-month operating lease for equipment with annual rentals of $6,156 on September 29, 2014. The lease commenced on October 21, 2014 upon the delivery of the equipment.

The schedule of lease commitments is as follows:

| | Building Lease | Equipment Lease | Total |
|---|---|---|---|
| Next 12 Months | $ 132,000 | $ 6,156 | $ 138,156 |
| Next 13-24 Months | 132,000 | 6,156 | 138,156 |
| Next 25-36 Months | 132,000 | 5,130 | 137,130 |

**Note 19 — Major Customers**

For the year ended December 31, 2016, three customers generated 10% or more of the Company's revenue. Sales to these customers accounted for 75% of the Company's revenue. As of December 31, 2016, the amount due from these customers was $490,725. This concentration makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

For the year ended December 31, 2015, two customers generated 10% or more of the Company's revenue. Sales to these customers accounted for 65% of the Company's revenue. As of December 31, 2015, the amount due from these customers was $435,261.

**Note 20 — Major Suppliers**

For the year ended December 31, 2016, one supplier accounted for 10% or more of the Company's purchases. This supplier accounted for 27% of the Company's total purchases. As of December 31, 2016, the amount due to this supplier was $164,049. This makes the Company vulnerable to a near-term severe impact should the relationships be terminated.

For the year ended December 31, 2015, three suppliers accounted for 10% or more of the Company's purchases. This supplier accounted for 41% of the Company's total purchases. As of December 31, 2015, the amount due to these suppliers was $16,317.

**Note 21 — Contingencies**

On October 17, 2016 the Company was served with a notice that Pulse Health LLC ("Pulse") filed a lawsuit against the Company on September 30, 2016 in United States Federal District Court, District of Oregon, alleging a breach of contract under the Settlement Agreement entered into by the Company and Pulse on April 8, 2011 which settled all claims and disputes between the Company and Pulse arising from a previously executed Technology Development Agreement entered into by the Company and Pulse and damages resulting from said alleged breach. Additionally, Pulse alleges false advertising and unlawful trade practices in connection with the Company's sales activities of the Company's OxiChek products. Pulse is seeking not less than $500,000 in damages for the allegations. The Company disputes such allegations.

The Company filed a series of motions with the Court seeking (1) to dismiss the Pulse complaint for lack of jurisdiction or, in the alternative, transfer the matter to the District Court for the District of New Jersey, Camden Vicinage and (2) to dismiss the unfair competition claims for failure to state a claim — on which relief could be granted.

Oral arguments on these motions was heard by the Court on Friday, March 10, 2017. We expect the Court to issue a ruling on these motions at some point on or before April 21, 2017.

The Company intends to establish a rigorous defense of all claims. As the case has not progressed beyond the initial legal motions and the Company is unable to assess the potential outcome, no accrual for losses was made as of December 31, 2016. All legal fees were expensed as and when incurred.

**Note 22 — Segment Information**

The Company is organized and operates as one operating segment. In accordance with FASB ASC 280 "Segment Reporting", the Chief Operating Officer is the chief operating decision-maker who reviews operating results to make decisions on allocation of resources and assessment of performance for the entire company.

The total revenue by different product lines was as follows:

| | For the years ended December 31, | |
|---|---|---|
| **Product Line** | **2016** | **2015** |
| MicroParticle Catalyzed Biosensor ("MPC") | $ 282,516 | $ 296,328 |
| Particle ImmunoFiltrationAssay ("PIFA") | 2,577,148 | 1,391,017 |
| Other | 97,498 | 107,149 |
| Product Revenue Total | $ 2,957,162 | $ 1,794,494 |
| License Fees | 3,750 | 320,556 |
| Total Revenue | $ 2,960,912 | $ 2,115,050 |

**Note 22 — Segment Information** (cont.)

The total revenue by geographic area determined based on the location of the customers was as follows:

| | For the years ended December 31, | |
|---|---|---|
| **Geographic Region** | **2016** | **2015** |
| United States | $ 2,330,723 | $ 1,579,091 |
| People's Republic of China | 502,998 | 37,506 |
| Rest of World | 127,191 | 498,453 |
| Total Revenue | $ 2,960,912 | $ 2,115,050 |

As of December 31, 2016, the Company had long-lived assets totaling $61,081 located in the People's Republic of China and $1,500,086 located in the United States. All of the Company's long-lived assets were located in the United States as of December 31, 2015.

**Note 23 — Subsequent Events**

On January 13, 2017, the Company completed a public offering of 1,789,500 common shares, raising net proceeds of $1,692,044. Below is a summary of the gross proceeds to net proceeds calculation.

| | **Shares** | **$** | **$** |
|---|---|---|---|
| Common Shares | | | |
| Base Offering | 1,667,000 | 2,000,400 | |
| Over-Allotment | 122,500 | 147,000 | |
| Gross Proceeds | | | 2,147,400 |
| *Underwriter/Gunnar Expenses* | | | |
| Discount | | 150,318 | |
| Legal Fees | | 60,000 | |
| Roadshow | | 1,783 | |
| Miscellaneous | | 34,005 | |
| *Total* | | | 246,106 |
| *Akers Biosciences Expenses* | | | |
| Legal & Accounting | | 197,813 | |
| Registration/Regulatory | | 11,437 | |
| *Total* | | | 208,350 |
| Net Proceeds | | | 1,692,044 |

In addition to the common shares issued, the Company also issued 833,500 warrants with an exercise price of $1.50 per common share in support of the base offering and 61,250 warrants with an exercise price of $1.20 per common share. All of the warrants issued carry have a five-year term.

On March 31, 2017, the Company completed a private offering of 1,448,400 unregistered shares of common stock, raising net proceeds of 1,760,817. The unregistered shares will be admitted to trading once a Registration Statement, which will be filed with the Securities and Exchange Commission within 20 days, has been deemed effective. Below is a summary of the gross proceeds to net proceeds calculation.

**Note 23 — Subsequent Events** (cont.)

| | Shares | $ | $ |
|---|---|---|---|
| Common Shares | | | |
| Base Offering | 1,448,400 | 2,027,760 | |
| Gross Proceeds | | | 2,027,760 |
| *Underwriter/Gunnar Expenses* | | | |
| Discount | | 141,943 | |
| Legal Fees | | 50,000 | |
| *Total* | | | 191,943 |
| *Akers Biosciences Expenses* | | | |
| Legal Fees | | 75,000 | |
| *Total* | | | 75,000 |
| Net Proceeds | | | 1,760,817 |

In addition to the common shares issued, the Company also issued 724,200 warrants with an exercise price of $1.96 per common share with a five-year term.

On April 4, 2017, two warrant holders from the January 13, 2017 public offering exercised 160,000 warrants with an exercise price of $1.50 per common share, raising net proceeds of $240,000.

On April 5, 2017, two warrant holders from the January 13, 2017 public offering exercised 3,300 warrants with an exercise price of $1.50 per common share, raising net proceeds of $4,950.

**7,692,308 Class A Units Consisting of Common Stock and Warrants and 3,000 Class B Units Consisting of Series B Convertible Preferred Stock and Warrants**

**(and 7,692,308 shares of common stock underlying shares of Series B Convertible Preferred Stock and 7,692,308 shares of common stock underlying Warrants)**


**PROSPECTUS**

**Joseph Gunnar & Co.**

**_____, 2017**

## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

### Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, to be paid by the Registrant in connection with the issuance and distribution of the common stock and warrants being registered. All amounts other than the SEC registration fees and FINRA fees are estimates.

| | | |
|---|---|---|
| SEC Registration Fees | $ | 1,979.55 |
| FINRA Fees | $ | 1,591.25 |
| Printing and Engraving Expenses | $ | 20,000 |
| Legal Fees and Expenses | $ | 59,500 |
| Accounting Fees and Expenses | $ | 25,000 |
| Transfer Agent Fees | $ | 10,000 |
| Miscellaneous | $ | 20,000 |
| Total | $ | 138,070.80 |

### Item 14. Indemnification of Directors and Officers

Section 14A:2-7(3) of the New Jersey Business Corporation Act permits a corporation to provide in its certificate of incorporation that a director or officer shall not be personally liable, or shall be liable only to the extent therein provided, to the corporation or its shareholders for damages for breach of any duty owed to the corporation or its shareholders, except that such provision shall not relieve a director or officer from liability for any breach of duty based upon an act or omission (a) in breach of such person's duty of loyalty to the corporation or its shareholders, (b) not in good faith or involving a knowing violation of law or (c) resulting in receipt by such person of an improper personal benefit. Akers Biosciences, Inc.'s certificate of incorporation provides for such limitation of liability.

Section 14A:3-5 of the New Jersey Business Corporation Act empowers a corporation to indemnify any current or former director or officer made a party to a proceeding because he or she is or was a director or officer against liability incurred in the proceeding; provided that such director or officer acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal proceeding, such director or officer had no reasonable cause to believe his conduct was unlawful.

Akers Biosciences, Inc.'s certificate of incorporation provides that the corporation must indemnify its directors and officers to the fullest extent authorized by law. Akers Biosciences, Inc. is also expressly required to advance certain expenses to its directors and officers. Akers Biosciences, Inc. believes that these indemnification provisions are useful to attract and retain qualified directors and executive officers.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

### Item 15. Recent Sales of Unregistered Securities

The following sets forth information regarding all unregistered securities issued for the last three years and through November 20, 2017.

On October 17, 2017, pursuant to the Plan, the Board issued (i) John J. Gormally, the Company's CEO, 150,000 shares of Restricted Stock, (ii) Gary Rauch, the Company's CFO, 36,277 shares of Restricted Stock, (iii) 58,043 shares of Restricted Stock to a current employee of the Company and (iv) 50,787 shares of Restricted Stock to a former employee of the Company, for a total of 295,107 shares of Restricted stock. These issuances are compensation for work performed prior to October 17, 2017.

In connection with the Warrant Exercise Agreements executed on or about October 12, 2017, the Company issued warrants to each Exercising Holder (as defined in the warrant Exercise Agreement) for the number of shares of Common Stock equal to one hundred percent of the number of exercised shares purchased by such Exercising Holder (the "Warrant Shares"), with an exercise price of $1.26 per share (each, an "Additional Warrant", and collectively, the "Additional Warrants"). The Additional Warrants are substantially identical to the Original Warrants, except that the exercise price of the Additional Warrant is $1.26 and such warrant is not exercisable for six months after issuance.

On March 30, 2017, the Company entered into a Placement Agency Agreement (the "Placement Agency Agreement") with Joseph Gunnar & Co., LLC ("Joseph Gunnar"), pursuant to which Joseph Gunnar was to act as placement agent in connection with the private placement (the "Offering") of Common Stock and warrants to purchase Common Stock. The term of the Agreement was from March 30, 2017 until the completion of the Offering. As described below, the Offering was completed on March 30, 2017. Pursuant to the Placement Agency Agreement, Joseph Gunnar received compensation of (i) a cash fee equal to 7% of the gross proceeds of the Offering received by the Company; (ii) 72,420 warrants to purchase Common Stock (the "Placement Agent Warrants"); and (iii) reimbursement for actual expenses of $50,000. The Placement Agent Warrants have a strike price of $1.96, and are exercisable from September 30, 2017 through January 9, 2022.

In connection with the Offering, on March 30, 2017, the Company entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") and a Registration Rights Agreement (the "Registration Rights Agreement") with four purchasers (the "Purchasers"). Pursuant to the Securities Purchase Agreement, the Purchasers purchased an aggregate of $2,027,760 of Common Stock and Purchaser Warrants (the "SPA Securities") at a price of $1.40 per share of Common Stock and Purchaser Warrants to purchase up to fifty percent of the Common Stock sold in the Offering. The Purchaser Warrants have a strike price of $1.96, and are exercisable from September 30, 2017 through March 30, 2022. The Securities Purchase Agreement contains customary representations, warranties, agreements and conditions to completing future sale transactions, indemnification rights and obligations of the parties. Additionally, the Purchasers may participate in a subsequent offering of the Company's securities in an aggregate amount of up to 35% of the subsequent offering.

During the twelve-month period ended December 31, 2016, the Company issued 27,500 restricted shares to one employee. This issuance was made pursuant to the Akers Biosciences, Inc. 2013 Equity Incentive Plan.

During the twelve-month period ended December 31, 2015, The Company issued 470,208 restricted shares to eight directors, officers and employees. The issuances were made pursuant to the Akers Biosciences, Inc. 2013 Equity Incentive Plan.

The issuance of the securities whose information is set forth in this Item 15 were not registered under the Securities Act but qualified for exemption under Section 4(a)(2) of the Securities Act on its own or because the issuance of such securities by the Company complied with Regulation D (Rule 506(b)).

**ITEM 16. Exhibits and Financial Statement Schedules.**

(a)

| Exhibit Number | Description of Exhibit |
|---|---|
| 1.1* | Form of Underwriting Agreement |
| 3.1 | Amended & Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 3.2 | Amendment to Certificate of Incorporation dated June 2, 2008 (incorporated herein by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 3.3 | Amendment to Certificate of Incorporation, Certificate of Designation of Series A Preferred Stock, dated September 21, 2012. (incorporated herein by reference to Exhibit 3.3 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 3.4 | Amendment to Certificate of Incorporation dated January 22, 2013 (incorporated herein by reference to Exhibit 3.4 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |

| Exhibit Number | Description of Exhibit |
|---|---|
| 3.5 | Amended and Restated By-laws dated August 5, 2013 (incorporated herein by reference to Exhibit 3.5 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 3.6 | Amendment to Restated By-laws dated May 11, 2016 (incorporated herein by reference to Exhibit 3.6 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 18, 2016). |
| 3.7* | Form of Amendment to Certificate of Incorporation, Certificate of Series B Preferred Stock Designation. |
| 4.1* | Form of Underwriter's Warrant |
| 4.2 | Form of Warrant (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 10, 2017). |
| 4.3 | Form of Purchaser Warrant (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 5, 2017). |
| 4.4 | Form of Placement Agent Warrant (incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 5, 2017). |
| 4.5 | Form of Purchaser Warrant (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 13, 2017). |
| 4.6** | Form of Stock Certificate of Series B Preferred Stock |
| 4.7** | Form of Common Stock Purchase Warrant |
| 5.1* | Opinion of Lucosky Brookman LLP |
| 10.1 | Employment Agreement, dated January 12, 2011 between Raymond F. Akers, Jr. Phd and Akers Biosciences, Inc. and letter of amendment dated August 3, 2013. (incorporated herein by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.2 | Consulting Agreement between Akers Biosciences, Inc. and Nicolette Consulting Group, dated January 12, 2011(incorporated herein by reference to Exhibit 10.2 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.3 | Consulting Agreement between Akers Biosciences, Inc. and DataSys Solutions, LLC, dated January 1, 2012. (incorporated herein by reference to Exhibit 10.3 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.4 | Amended License and Supply Agreement by and between Akers Biosciences, Inc. and Chubeworkx Guernsey Limited (as successor to Sono International Limited) ("Chubeworkx"), (EN)10 (Guernsey) Limited (formerly BreathScan International (Guernsey) Limited) and (EN)10 Limited (formerly BreathScan International Limited), dated June 12, 2013 (incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.5 | Share Purchase Agreement by and between Akers Biosciences, Inc. and Chubeworkx, dated June 12, 2013. (incorporated herein by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.6 | Voting Agreement by and between Akers Biosciences, Inc., Chubeworkx and Thomas J. Knox, dated June 12, 2013(incorporated herein by reference to Exhibit 10.6 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.7 | Subscription Agreement by and between Akers Biosciences, Inc. and Chubeworkx, dated June 12, 2013(incorporated herein by reference to Exhibit 10.7 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |

| Exhibit Number | Description of Exhibit |
|---|---|
| 10.8 | Subscription Agreement by and between Akers Biosciences, Inc. and Thomas J. Knox, dated September 14, 2012(incorporated herein by reference to Exhibit 10.8 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.9 | Promissory Note entered into by Thomas J Knox issued in favor of Akers Biosciences, Inc., dated September 14, 2012. (incorporated herein by reference to Exhibit 10.9 to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on August 7, 2013). |
| 10.10 | License and Supply Agreement by and among the Company, Sono International Limited ("SIL"), BreathScan International (Guersney) Limited and BreathScan International Limited, dated June 19, 2012 (incorporated herein by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on October 8, 2013). |
| 10.11 | Distribution Agreement by and among the Company and Fisher Healthcare, and Amendment thereto, dated June 15, 2010 and May 1, 2012, respectively. (incorporated herein by reference to Exhibit 10.11 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on October 8, 2013). |
| 10.12 | National Brand Distribution Agreement by and among the Company and Cardinal Health 2000, and Amendment thereto, dated May 1, 2007 and June 1, 2008, respectively. (incorporated herein by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on October 8, 2013). |
| 10.13 | Promissory Note entered into by Thomas J. Knox issued in favor of Akers Biosciences, Inc, dated November 15, 2013(incorporated herein by reference to Exhibit 10.13 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on November 18, 2013). |
| 10.14 | 2013 Incentive Stock and Award Plan (incorporated herein by reference to Exhibit 10.14 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.15 | Form of Nonqualified Stock Option Agreement (Non-Employee) (incorporated herein by reference to Exhibit 10.15 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.16 | Form of Nonqualified Stock Option Agreement (Employee) (incorporated herein by reference to Exhibit 10.16 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.17 | Form of Restricted Stock Agreement (incorporated herein by reference to Exhibit 10.17 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.18 | Form of Incentive Stock Option (incorporated herein by reference to Exhibit 10.18 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.19 | Letter Agreement, dated December 3, 2013, by and between the Company and Mr. Thomas Knox (incorporated herein by reference to Exhibit 10.19 to the Company's Registration Statement on Form S-1/A filed with the Securities and Exchange Commission on December 6, 2013). |
| 10.20 | Joint Venture Agreement, dated October 24, 2014, by and between Akers Biosciences, Inc., Hainan Savy Investment Management Ltd, and Thomas Knox (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 29, 2014). |
| 10.21 | Amended and Restated 2013 Incentive Stock and Award Plan (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 9, 2015). |

| Exhibit Number | Description of Exhibit |
|---|---|
| 10.22 | Form of Lock Up Agreement (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 9, 2015). |
| 10.23 | Employment Agreement between the Company and John J Gormally, dated December 1, 2015. (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 3, 2015). |
| 10.24 | First Amendment to the Amended and Restated 2013 Incentive Stock and Award Plan (incorporated by referenced to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 12, 2016). |
| 10.25 | Form of Placement Agency Agreement, dated March 30, 2017, by and between Akers Biosciences, Inc. and Joseph Gunnar and Co., LLC (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 5, 2017). |
| 10.26 | Form of Securities Purchase Agreement, dated March 30, 2017, by and between Akers Biosciences, Inc. and various purchasers. (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 5, 2017). |
| 10.27 | Form Registration Rights Agreement, dated March 30, 2017, by and between Akers Biosciences, Inc. and various purchasers (incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 5, 2017). |
| 10.28 | Akers Biosciences, Inc. 2017 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on August 8, 2017). |
| 10.29 | Form Warrant Exercise Agreement, dated October 12, 2017 by and between Akers Biosciences, Inc. and various holders (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 13, 2017). |
| 23.1* | Consent of Morison Cogen LLP, dated December 14, 2017. |
| 23.2* | Consent of Lucosky Brookman LLP (Reference is made to Exhibit 5.1). |
| 24.1** | Power of Attorney (set forth on the signature page of the Registration Statement) |

* Filed herewith
** Previously filed

**ITEM 17. Undertakings.**

The undersigned registrant hereby undertakes that:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That for the purpose of determining any liability under the Securities Act of 1933 each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

(7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 14 above, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(8) The undersigned Registrant hereby undertakes:

(i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(iii) For purposes of determining any liability under the Securities Act, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (§ 230.430A of this chapter), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Thorofare, State of New Jersey, on December 14, 2017.

**Akers Biosciences, Inc.**

By: */s/ John J. Gormally*

**John J. Gormally**
**Chief Executive Officer**
**(Principal Executive Officer)**

By: */s/ Gary M. Rauch*

**Gary M. Rauch**
**Vice President, Finance and Treasurer**
**(Principal Financial Officer and Principal Accounting Officer)**

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates stated.

| Signature | Title | Date |
|---|---|---|
| /s/ John J. Gormally<br>John J. Gormally | Chief Executive Officer and Director<br>(Principal Executive Officer) | December 14, 2017 |
| /s/ Raymond F. Akers Jr., Phd<br>Raymond F. Akers Jr. Phd | Executive Chairman and Chief Scientific Director | December 14, 2017 |
| *<br>Gary M. Rauch | Vice President, Finance & Treasurer<br>(Principal Financial Officer and Principal Accounting Officer) | December 14, 2017 |
| *<br>Christopher C. Schreiber | Director | December 14, 2017 |
| *<br>Richard C. Tarbox III | Director | December 14, 2017 |
| *<br>Bill J. White | Director | December 14, 2017 |

* Pursuant to Power of Attorney

By: /s/ John J. Gormally
John J. Gormally
Attorney-in-Fact

**Exhibit 1.1**

**UNDERWRITING AGREEMENT**

**between**

**AKERS BIOSCIENCES, INC.**

**and**

**JOSEPH GUNNAR & CO., LLC**

**as Representative of the Several Underwriters**

**AKERS BIOSCIENCES, INC.**

**UNDERWRITING AGREEMENT**

New York, New York
[●], 2017

Joseph Gunnar & Co., LLC

As Representative of the several Underwriters named on Schedule 1 attached hereto
30 Broad Street, 11th Fl

New York, NY 10004

Ladies and Gentlemen:

The undersigned, Akers Biosciences, Inc., a corporation formed under the laws of the State of New Jersey (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement (as hereinafter defined) as being subsidiaries or affiliates of Akers Biosciences, Inc., the "**Company**"), hereby confirms its agreement (this "**Agreement**") with Joseph Gunnar & Co., LLC. (hereinafter referred to as "you" (including its correlatives) or the "**Representative**") and with the other underwriters named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the "**Underwriters**" or, individually, an "**Underwriter**") as follows:

1. Purchase and Sale of Securities.

1.1 Firm Securities.

1.1.1. Nature and Purchase of Firm Securities.

(i) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the several Underwriters, an aggregate of [ ] Class A Units (each, a "**Class A Unit**" and collectively, the "**Class A Units**"), each Class A Unit consisting of one share of the Company's common stock, no par value per share (the "**Common Stock**"), and a warrant, in the form filed as Exhibit [ ] to the Registration Statement (as defined below), to purchase one share of Common Stock (each, a "**Warrant**" and collectively, the "**Warrants**"), and an aggregate of [ ] Class B Units (each, a "**Class B Unit**" and collectively, the "**Class B Units**"), each Class B Unit consisting of one share of Series B Convertible Preferred Stock, no par value per share (the "**Preferred Stock**"), and a Warrant to purchase the number of shares as would have been issued to such purchaser if they had purchased Class A Units based on the public offering price. Each Warrant shall be exercisable for a period of five (5) years at an exercise price of $[ ] per share, subject to adjustment as provided in the Warrants. The [ ] Class A Units and the [ ] Class B Units are collectively referred to herein as the "**Firm Securities**."

(ii) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Firm Securities set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof, at a purchase price of $[ ] per Class A Unit (93% of the per Class A Unit offering price) and $[ ] per Class B Unit (93% of the per Class B Unit offering price). The Firm Securities are to be offered initially to the public as units at the respective offering prices set forth on the cover page of the Prospectus (as defined in Section 2.1.1 hereof).

1.1.2. Firm Securities Payment and Delivery.

(i) Delivery and payment for the Firm Securities shall be made at 10:00 a.m., Eastern time, on [●], 201[●], or at such earlier time as shall be agreed upon by the Representative and the Company, at the offices of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., 666 Third Avenue, New York, NY 10017 ("**Representative Counsel**"), or at such other place (or remotely by facsimile or other electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Firm Securities is called the "**Closing Date**." The Warrants shall be issued pursuant to, and shall have the rights and privileges set forth in the form of Warrant.

(ii) Payment for the Firm Securities shall be made on the Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the certificates (in form and substance satisfactory to the Underwriters) representing the Firm Securities (or through the facilities of the Depository Trust Company ("**DTC**")) for the account of the Underwriters. The Firm Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Securities except upon tender of payment by the Representative for all of the Firm Securities. The term "**Business Day**" means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

1.2 Over-allotment Option.

1.2.1. Option Securities. For the purposes of covering any over-allotments in connection with the distribution and sale of the Firm Securities, the Company hereby grants to the Underwriters an option to purchase up to [ ] additional shares of Common Stock, representing fifteen percent (15%) of the shares of Common Stock sold as part of the Class A Units and the shares of Common Stock issuable upon conversion of the Preferred Stock sold as part of the Class B Units in the offering, and/or up to [ ] additional Warrants, representing fifteen percent (15%) of the Warrants sold as part of the Class A Units and the Warrants sold as part of the Class B Units, from the Company (the "**Over-allotment Option**"). Such [ ] additional shares of Common Stock are hereinafter referred to as "**Option Shares**," and the [ ] additional Warrants are hereinafter referred to as "**Option Warrants**", and collectively referred to as "**Option Securities**". The purchase price to be paid per Option Share shall be $[ ]. The purchase price to be paid per Option Warrant shall be $[ ]. The Firm Securities, the Option Shares and the Option Warrants are hereinafter referred to collectively as the "**Public Securities**." The offering and sale of the Public Securities is hereinafter referred to as the "**Offering**."

1.2.2. Exercise of Option. The Over-allotment Option granted pursuant to Section 1.2.1 hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Shares and/or Option Warrants within 45 days after the effective date (the "**Effective Date**") of the Registration Statement (as defined in Section 2.1.1 below). The Underwriters shall not be under any obligation to purchase any Option Shares and/or Option Warrants prior to the exercise of the Over-allotment Option. The Over-allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Shares and/or Option Warrants to be purchased and the date and time for delivery of and payment for the Option Shares and/or Option Warrants (the "**Option Closing Date**"), which shall not be later than two (2) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Representative Counsel or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Shares and/or Option Warrants does not occur on the Closing Date, the Option Closing Date will be as set forth in the notice. Upon exercise of the Over-allotment Option with respect to all or any portion of the Option Shares and/or Option Warrants, subject to the terms and conditions set forth herein, (i) the Company shall become obligated to sell to the Underwriters the number of Option Shares and/or Option Warrants specified in such notice and (ii) each of the Underwriters, acting severally and not jointly, shall purchase that portion of the total number of Option Shares and/or Option Warrants then being purchased as set forth in Schedule 1 opposite the name of such Underwriter.

1.2.3. Payment and Delivery.

(i) Payment for the Option Shares and/or Option Warrants shall be made on the Option Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company, which Option Shares shall be delivered via The Depository Trust Company Deposit or Withdrawal at Custodian system for the accounts of the several Underwriters and the Option Warrants will be delivered in certificated form. The Option Shares and/or Option Warrants, as applicable, shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least one (1) full Business Day prior to the Closing Date. The Company shall not be obligated to sell or deliver the Option Shares and/or Option Warrants except upon tender of payment by the Representative for applicable Option Shares and/or Option Warrants.

1.3 Representative's Warrants.

1.3.1. Purchase Warrants. The Company hereby agrees to issue and sell to the Representative (and/or its designees) on the Closing Date an option ("**Representative's Warrant**") for the purchase of an aggregate of [●] shares of Common Stock, representing 5% of the sum of (i) the number of shares of Common Stock contained in the Class A Units sold in this offering and (ii) the number of shares of Common Stock issuable upon conversion of the Preferred Stock contained in the Class B Units sold in this offering, if any, but excluding shares of Common Stock underlying the Warrants issued in this offering and shares of Common Stock (and shares of Common Stock underlying any Warrants) sold, if any, upon exercise of the underwriter's Over-allotment Option, for an aggregate purchase price of $[ ]. The Representative's Warrant agreement, in the form attached hereto as Exhibit A (the "**Representative's Warrant Agreement**"), shall be exercisable, in whole or in part, commencing on a date which is one (1) year after the Effective Date and expiring on the five-year anniversary of the Effective Date at an initial exercise price per share of Common Stock of $[●], which is equal to 125% of the initial public offering price of the Class A Units sold in this offering. The Representative's Warrant Agreement and the shares of Common Stock issuable upon exercise thereof are hereinafter referred to together as the "**Representative's Securities**." The Representative understands and agrees that there are significant restrictions pursuant to FINRA Rule 5110 against transferring the Representative's Warrant Agreement and the underlying shares of Common Stock during the one hundred eighty (180) days after the Effective Date and by its acceptance thereof shall agree that it will not sell, transfer, assign, pledge or hypothecate the Representative's Warrant Agreement, or any portion thereof, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities for a period of one hundred eighty (180) days following the Effective Date to anyone other than (i) an Underwriter or a selected dealer in connection with the Offering, or (ii) a bona fide officer or partner of the Representative or of any such Underwriter or selected dealer; and only if any such transferee agrees to the foregoing lock-up restrictions.

1.3.2. Delivery. Delivery of the Representative's Warrant Agreement shall be made on the Closing Date and shall be issued in the name or names and in such authorized denominations as the Representative may request.

2. Representations and Warranties of the Company. The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below), as of the Closing Date and as of the Option Closing Date, if any, as follows:

2.1 Filing of Registration Statement.

2.1.1. Pursuant to the Securities Act. The Company has filed with the U.S. Securities and Exchange Commission (the "**Commission**") a registration statement, and an amendment or amendments thereto, on Form S-1 (File No. 333-221746), including any related prospectus or prospectuses, for the registration of the Public Securities, the shares of Common Stock issuable upon exercise of the Warrants (the "**Warrant Shares**"), the Common Stock issuable upon conversion of the Preferred Stock (the "**Preferred Conversion Shares**") included in the Public Securities and the Representative's Securities under the Securities Act of 1933, as amended (the "**Securities Act**"), which registration statement and amendment or amendments have been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act (the "**Securities Act Regulations**") and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial statements, schedules, exhibits and all other documents filed as a part thereof or incorporated therein and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the "**Rule 430A Information**")), is referred to herein as the "**Registration Statement**." If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term "Registration Statement" shall include such registration statement filed pursuant to Rule 462(b). The Registration Statement has been declared effective by the Commission on the date hereof.

Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a "**Preliminary Prospectus**." The Preliminary Prospectus, subject to completion, dated [●], 2017, that was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the "**Pricing Prospectus**." The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the "**Prospectus**." Any reference to the "most recent Preliminary Prospectus" shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

"**Applicable Time**" means [TIME] [a.m./p.m.], Eastern time, on the date of this Agreement.

"**Issuer Free Writing Prospectus**" means any "issuer free writing prospectus," as defined in Rule 433 of the Securities Act Regulations ("**Rule 433**"), including without limitation any "free writing prospectus" (as defined in Rule 405 of the Securities Act Regulations) relating to the Public Securities that is (i) required to be filed with the Commission by the Company, (ii) a "road show that is a written communication" within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Public Securities or of the Offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g).

"**Issuer General Use Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a "*bona fide* electronic road show," as defined in Rule 433), as evidenced by its being specified in Schedule 2-B hereto.

"**Issuer Limited Use Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

"**Pricing Disclosure Package**" means any Issuer General Use Free Writing Prospectus issued at or prior to the Applicable Time, the Pricing Prospectus and the information included on Schedule 2-A hereto, all considered together.

2.1.2. Pursuant to the Exchange Act. The shares of Common Stock are registered pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

2.2 Stock Exchange Listing. The shares of Common Stock are listed on The Nasdaq Capital Market (the "**Exchange**"), and the Company has taken no action designed to, or likely to have the effect of, delisting the shares of Common Stock from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating such listing except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The Company has filed an application for the Listing of Additional Shares with the Exchange to list the Public Securities, the Preferred Conversion Shares, the Warrant Shares and the Representative's Securities.

2.3 No Stop Orders, etc. Neither the Commission nor, to the Company's knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company's knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

2.4 Disclosures in Registration Statement.

2.4.1. Compliance with Securities Act and 10b-5 Representation.

(i) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this Offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(iii) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), did not, does not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Limited Use Free Writing Prospectus hereto does not conflict with the information contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, and each such Issuer Limited Use Free Writing Prospectus, as supplemented by and taken together with the Pricing Prospectus as of the Applicable Time, did not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Pricing Prospectus or the Prospectus or any amendment thereof or supplement thereto. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure contained in the "Underwriting" section of the Prospectus: [_____] (the "**Underwriters' Information**");

(iv) Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Date or at any Option Closing Date, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to the Underwriters' Information; and

(v) The documents incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

2.4.2. Disclosure of Agreements. The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company's knowledge, any other party is in default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a "**Governmental Entity**"), including, without limitation, those relating to environmental laws and regulations.

2.4.3. Prior Securities Transactions. No securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Preliminary Prospectus.

2.4.4. Regulations. The disclosures in the Registration Statement, the Pricing Disclosure Package and the Prospectus concerning the effects of federal, state, local and all foreign regulation on the Offering and the Company's business as currently contemplated are correct in all material respects and no other such regulations are required to be disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which are not so disclosed.

2.4.5. No Other Distribution of Offering Materials. The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Preliminary Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 3.2 below.

2.5 Changes After Dates in Registration Statement.

2.5.1. No Material Adverse Change. Since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change in the financial position or results of operations of the Company, nor any change or development that, singularly or in the aggregate, would involve a material adverse change or a prospective material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company (a "**Material Adverse Change**"); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; and (iii) no officer or director of the Company has resigned from any position with the Company.

2.5.2. Recent Securities Transactions, etc. Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

2.6 Independent Accountants. To the knowledge of the Company, Morison Cogen LLP (the "**Auditor**"), whose report is filed with the Commission as part of the Registration Statement, the Pricing Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Securities Act Regulations and the Public Company Accounting Oversight Board. The Auditor has not, during the periods covered by the financial statements included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

2.7 Disclosures in Commission Filings. Since January 23, 2014, (i) none of the Company's filings with the Commission contained any untrue statement of a material fact or omitted to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and (ii) the Company has made all filings with the Commission required under the Exchange Act and the rules and regulations promulgated of the Commission promulgated thereunder (the "**Exchange Act Regulations**").

2.8 Financial Statements, etc. The financial statements, including the notes thereto and supporting schedules included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, fairly present the financial position and the results of operations of the Company at the dates and for the periods to which they apply; and such financial statements have been prepared in conformity with U.S. generally accepted accounting principles ("**GAAP**"), consistently applied throughout the periods involved (provided that unaudited interim financial statements are subject to year-end audit adjustments that are not expected to be material in the aggregate and do not contain all footnotes required by GAAP); and the supporting schedules included in the Registration Statement present fairly the information required to be stated therein. Except as included therein, no historical or pro forma financial statements are required to be included in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act or the Securities Act Regulations. The pro forma and pro forma as adjusted financial information and the related notes, if any, included in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Securities Act Regulations and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein. All disclosures contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission), if any, comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. Each of the Registration Statement, the Pricing Disclosure Package and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company's financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) neither the Company nor any of its direct and indirect subsidiaries, including each entity disclosed or described in the Registration Statement, the Pricing Disclosure Package and the Prospectus as being a subsidiary of the Company (each, a "**Subsidiary**" and, collectively, the "**Subsidiaries**"), has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (c) there has not been any change in the capital stock of the Company or any of its Subsidiaries, or, other than in the course of business, any grants under any stock compensation plan, and (d) there has not been any material adverse change in the Company's long-term or short-term debt.

2.9 Authorized Capital; Options, etc. The Company had, at the date or dates indicated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the duly authorized, issued and outstanding capitalization as set forth therein. Based on the assumptions stated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company will have on the Closing Date the adjusted stock capitalization set forth therein. Except as set forth in, or contemplated by, the Registration Statement, the Pricing Disclosure Package and the Prospectus, on the Effective Date, as of the Applicable Time and on the Closing Date and any Option Closing Date, there will be no stock options, warrants, or other rights to purchase or otherwise acquire any authorized, but unissued shares of Common Stock of the Company or any security convertible or exercisable into shares of Common Stock of the Company, or any contracts or commitments to issue or sell shares of Common Stock or any such options, warrants, rights or convertible securities.

2.10 Valid Issuance of Securities, etc.

2.10.1. Outstanding Securities. All issued and outstanding securities of the Company issued prior to the transactions contemplated by this Agreement have been duly authorized and validly issued and are fully paid and non-assessable; the holders thereof have no rights of rescission with respect thereto, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. The authorized shares of Common Stock conform in all material respects to all statements relating thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The offers and sales of the outstanding shares of Common Stock were at all relevant times either registered under the Securities Act and the applicable state securities or "blue sky" laws or, based in part on the representations and warranties of the purchasers of such shares, exempt from such registration requirements. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, accurately and fairly present, in all material respects, the information required to be shown with respect to such plans, arrangements, options and rights.

2.10.2. Securities Sold Pursuant to this Agreement. The Public Securities and Representative's Securities have been duly authorized for issuance and sale and, when issued and paid for, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Public Securities and Representative's Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company; and all corporate action required to be taken for the authorization, issuance and sale of the Public Securities and Representative's Securities has been duly and validly taken (or, with respect to the Preferred Stock, will have been taken prior to the Closing Date). The Public Securities and Representative's Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. All corporate action required to be taken for the authorization, issuance and sale of the Representative's Warrant Agreement has been duly and validly taken; the Preferred Conversion Shares, the Warrant Shares and the shares of Common Stock issuable upon exercise of the Representative's Warrant have been duly authorized and reserved for issuance by all necessary corporate action on the part of the Company and when paid for and issued in accordance with the Representative's Warrant and the Representative's Warrant Agreement or in accordance with the certificate of designation for the Preferred Stock or the terms of the Warrants, as applicable, the Preferred Conversion Shares and the Warrant Shares and shares of Common Stock, as applicable, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; and such shares of Common Stock, Preferred Conversion Shares and Warrant Shares are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company.

2.11 Registration Rights of Third Parties. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no holders of any securities of the Company or any rights exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in a registration statement to be filed by the Company.

2.12 Validity and Binding Effect of Agreements. This Agreement has been duly and validly authorized by the Company and constitutes the valid and binding agreements of the Company, enforceable against the Company in accordance with its terms, and the Warrants and the Representative's Warrant Agreement have been duly and validly authorized by the Company, and when executed and delivered, will constitute, the valid and binding agreements of the Company, enforceable against the Company in accordance with their respective terms, except in each case: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

2.13 No Conflicts, etc. The execution, delivery and performance by the Company of this Agreement, the Representative's Warrant Agreement, the Warrants and all ancillary documents, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms hereof and thereof do not and will not, with or without the giving of notice or the lapse of time or both: (i) result in a material breach of, or conflict with any of the terms and provisions of, or constitute a material default under, or result in the creation, modification, termination or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any agreement or instrument to which the Company is a party; (ii) result in any violation of the provisions of the Company's Certificate of Incorporation (as the same may be amended or restated from time to time, the "**Charter**") or the by-laws of the Company; or (iii) violate any existing applicable law, rule, regulation, judgment, order or decree of any Governmental Entity as of the date hereof (including, without limitation, those promulgated and/or enforced by the Food and Drug Administration of the U.S. Department of Health and Human Services (the "**FDA**"), by the U.S. Department of Health and Human Services (the '**HHS**") on behalf of the Medicare and Medicaid programs, or by any foreign, federal, state or local regulatory authority performing functions similar to those performed by the FDA or HHS).

2.14 No Defaults; Violations. No material default exists in the due performance and observance of any term, covenant or condition of any material license, contract, indenture, mortgage, deed of trust, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other material agreement or instrument to which the Company is a party or by which the Company may be bound or to which any of the properties or assets of the Company is subject. The Company is not in violation of any term or provision of its Charter or by-laws, or in violation of any franchise, license, permit, applicable law, rule, regulation, judgment or decree of any Governmental Entity.

2.15 Corporate Power; Licenses; Consents.

2.15.1. Conduct of Business. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has all requisite corporate power and authority, and has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.15.2. Transactions Contemplated Herein. The Company has all corporate power and authority to enter into this Agreement and to carry out the provisions and conditions hereof, and all consents, authorizations, approvals and orders required in connection therewith have been obtained. No consent, authorization or order of, and no filing with, any court, government agency or other body is required for the valid issuance, sale and delivery of the Public Securities and the consummation of the transactions and agreements contemplated by this Agreement and the Representative's Warrant Agreement and as contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, except with respect to applicable federal and state securities laws and the rules and regulations of the Financial Industry Regulatory Authority, Inc. ("**FINRA**").

2.16 D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires (the "**Questionnaires**") completed by each of the Company's directors and officers immediately prior to the Offering (the "**Insiders**") as supplemented by all information concerning the Company's directors, officers and principal shareholders as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, as well as in the Lock-Up Agreement (as defined in Section 2.26 below), provided to the Underwriters, is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the Questionnaires to become materially inaccurate and incorrect.

2.17 Litigation; Governmental Proceedings. There is no action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company's knowledge, threatened against, or involving the Company or, to the Company's knowledge, any executive officer or director which has not been disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus or in connection with the Company's listing application for the listing of the Public Securities on the Exchange.

2.18 Good Standing. The Company has been duly organized and is validly existing as a corporation and is in good standing under the laws of the State of New Jersey as of the date hereof, and is duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably be expected to result in a Material Adverse Change.

2.19 Insurance. The Company carries or is entitled to the benefits of insurance, with reputable insurers, in such amounts and covering such risks which the Company believes are adequate, including, but not limited to, directors and officers insurance coverage at least equal to $5,000,000 and the Company has included each Underwriter as an additional insured party to the directors and officers insurance coverage and all such insurance is in full force and effect. The Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change.

2.20 Transactions Affecting Disclosure to FINRA.

2.20.1. Finder's Fees. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or any Insider with respect to the sale of the Public Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its shareholders that may affect the Underwriters' compensation, as determined by FINRA.

2.20.2. Payments Within Twelve (12) Months. With the exception of Maxim Group and except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the twelve (12) months prior to the Effective Date, other than the payment to the Underwriters as provided hereunder in connection with the Offering.

2.20.3. Use of Proceeds. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

2.20.4. FINRA Affiliation. There is no (i) officer or director of the Company, (ii) beneficial owner of 5% or more of any class of the Company's securities or (iii) beneficial owner of the Company's unregistered equity securities which were acquired during the 180-day period immediately preceding the filing of the Registration Statement that is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

2.20.5. Information. All information provided by the Company in its FINRA questionnaire to Representative Counsel specifically for use by Representative Counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

2.21 Foreign Corrupt Practices Act. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, has, directly or indirectly, given or agreed to give any money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist it in connection with any actual or proposed transaction) that (i) might subject the Company to any damage or penalty in any civil, criminal or governmental litigation or proceeding, (ii) if not given in the past, might have had a Material Adverse Change or (iii) if not continued in the future, might adversely affect the assets, business, operations or prospects of the Company. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the Foreign Corrupt Practices Act of 1977, as amended.

2.22 Compliance with OFAC. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("**OFAC**"), and the Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

2.23 Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "**Money Laundering Laws**"); and no action, suit or proceeding by or before any Governmental Entity involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

2.24 Regulatory. All nonclinical studies and clinical trials conducted by or on behalf of the Company that are material to the Company and its Subsidiaries, taken as a whole, are or have been adequately described in the Registration Statement, the Pricing Disclosure Package and the Prospectus in all material respects. The clinical trials and nonclinical studies conducted by or on behalf of the Company and its Subsidiaries that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus were and, if still ongoing, are being conducted in material compliance with all laws and regulations applicable thereto in the jurisdictions in which they are being conducted and with all laws and regulations applicable to nonclinical studies and clinical trials from which data will be submitted to support marketing approval. The descriptions in the Registration Statement, the Pricing Disclosure Package and the Prospectus of the results of such studies and clinical trials are accurate and complete in all material respects and fairly present the data derived from such studies and clinical trials, and the Company has no knowledge of, or reason to believe that, any large well-controlled clinical trial or any nonclinical study the aggregate results of which are inconsistent with or otherwise call into question the results of any clinical trial or nonclinical study conducted by or on behalf of the Company that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received any written notices or statements from the FDA, the European Medicines Agency ("**EMA**") or any other governmental agency or authority imposing, requiring, requesting or suggesting a clinical hold, termination, suspension or material modification for or of any clinical trial or nonclinical studies that are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received any written notices or statements from the FDA, the EMA or any other governmental agency, and otherwise has no knowledge of, or reason to believe that any marketing authorization request for a potential product of the Company is or has been rejected or determined to be non-approvable or conditionally approvable; and (ii) any license, approval, permit or authorization to conduct any clinical trial of any potential product of the Company has been, will be or may be suspended, revoked, modified or limited.

2.25 Compliance with Healthcare Laws. The Company and its subsidiaries have been in compliance in all material respects with all applicable healthcare laws, rules and regulations, to the extent they apply to the Company and its current activities, including, without limitation, (i) all applicable foreign, federal, state and local healthcare related fraud and abuse laws, including, without limitation, the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), the civil monetary penalties law (42 U.S.C. § 1320a-7a), the exclusion laws (42 U.S.C. § 1320a-7), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), all criminal laws relating to healthcare fraud and abuse, including but not limited to 18 U.S.C. Sections 286, 287, 1035, 1347 and 1349, the healthcare fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 ("HIPAA") (42 U.S.C. §§1320d et seq.), the Medicare statute (Title XVIII of the Social Security Act), and the Medicaid statute (Title XIX of the Social Security Act); (ii) the patient privacy, data security and beach notification provisions under HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (42 U.S.C. §§17921 et seq.); (iii) comparable state and local laws; and (iv) the regulations promulgated pursuant to such laws (collectively, the "Healthcare Laws"). Neither the Company nor any of its subsidiaries, nor their officers, directors, employees, agents, have engaged in activities that are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal healthcare program. Neither the Company nor any of its subsidiaries has received notice or other correspondence of any claim, action, suit, audit, survey, proceeding, hearing, enforcement, investigation, arbitration or other action ("Action") from any court, arbitrator or governmental entity or third party alleging that any product, operation or activity is in violation of any Healthcare Laws, and, to the Company's knowledge, no such Action is threatened. Neither the Company nor any of its subsidiaries is a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement with or imposed by any governmental entity. Additionally, neither the Company nor any of its subsidiaries, nor any of their employees, officers or directors, or to the Company's knowledge, agents, is or has been excluded, suspended or debarred from participation in any U.S. state or federal healthcare program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

2.26 Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to you or to Representative Counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

2.27 Lock-Up Agreements. Schedule 3 hereto contains a complete and accurate list of the Company's officers and directors (collectively, the "**Lock-Up Parties**"). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Exhibit B (the "**Lock-Up Agreement**"), prior to the execution of this Agreement.

2.28 Subsidiaries. All direct and indirect Subsidiaries of the Company are duly organized and in good standing under the laws of the place of organization or incorporation, and each Subsidiary is in good standing in each jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify would not have a material adverse effect on the assets, business or operations of the Company taken as a whole. The Company's ownership and control of each Subsidiary is as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.29 Related Party Transactions.

2.28.1 Business Relationships. There are no business relationships or related party transactions involving the Company or any of its Subsidiaries or any other person required to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that have not been described as required.

2.28.2 No Relationships with Customers and Suppliers. No relationship, direct or indirect, exists between or among the Company or any of its Subsidiaries, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, its Subsidiaries or any of the Company's affiliates, on the other hand, which is required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

2.28.3 No Unconsolidated Entities. There are no transactions, arrangements or other relationships between and/or among the Company, any of its Subsidiaries or affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's liquidity or the availability of or requirements for its capital resources required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

2.28.4 No Loans or Advances to Affiliates. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.30 Board of Directors. The Board of Directors of the Company is comprised of the persons set forth under the heading of the Pricing Prospectus and the Prospectus captioned "Management." The qualifications of the persons serving as board members and the overall composition of the board comply with the Exchange Act, the Exchange Act Regulations, the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder (the "**Sarbanes-Oxley Act**") applicable to the Company and the listing rules of the Exchange. At least one member of the Audit Committee of the Board of Directors of the Company qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the Exchange. In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent," as defined under the listing rules of the Exchange.

2.31 Sarbanes-Oxley Compliance.

2.31.1. Disclosure Controls. The Company has developed and currently maintains disclosure controls and procedures that will comply with Rule 13a-15 or 15d-15 under the Exchange Act Regulations, and such controls and procedures are effective to ensure that all material information concerning the Company will be made known on a timely basis to the individuals responsible for the preparation of the Company's Exchange Act filings and other public disclosure documents.

2.31.2. Compliance. The Company is, or at the Applicable Time and on the Closing Date will be, in material compliance with the provisions of the Sarbanes-Oxley Act applicable to it, and has implemented or will implement such programs and taken reasonable steps to ensure the Company's future compliance (not later than the relevant statutory and regulatory deadlines therefor) with all of the material provisions of the Sarbanes-Oxley Act.

2.32 Accounting Controls. The Company and its Subsidiaries maintain systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act Regulations) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company is not aware of any material weaknesses in its internal controls. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are known to the Company's management and that have adversely affected or are reasonably likely to adversely affect the Company' ability to record, process, summarize and report financial information; and (ii) any fraud known to the Company's management, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

2.33 No Investment Company Status. The Company is not and, after giving effect to the Offering and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be, required to register as an "investment company," as defined in the Investment Company Act of 1940, as amended.

2.34 No Labor Disputes. No labor dispute with the employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is imminent. The Company is not aware that any key employee or significant group of employees of the Company or any of its Subsidiaries plans to terminate employment with the Company or any of its Subsidiaries.

2.35 Intellectual Property Rights. The Company and each of its Subsidiaries owns or possesses or has valid rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets and similar rights ("**Intellectual Property Rights**") necessary for the conduct of the business of the Company and its Subsidiaries as currently carried on and as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. To the knowledge of the Company, no action or use by the Company or any of its Subsidiaries necessary for the conduct of its business as currently carried on and as described in the Registration Statement and the Prospectus will involve or give rise to any infringement of, or license or similar fees for, any Intellectual Property Rights of others. Neither the Company nor any of its Subsidiaries has received any notice alleging any such infringement, fee or conflict with asserted Intellectual Property Rights of others. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights owned by the Company; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the rights of the Company in or to any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim, that would, individually or in the aggregate, together with any other claims in this Section 2.34, reasonably be expected to result in a Material Adverse Change; (C) the Intellectual Property Rights owned by the Company and, to the knowledge of the Company, the Intellectual Property Rights licensed to the Company have not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.34, reasonably be expected to result in a Material Adverse Change; (D) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other proprietary rights of others, the Company has not received any written notice of such claim and the Company is unaware of any other facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.34, reasonably be expected to result in a Material Adverse Change; and (E) to the Company's knowledge, no employee of the Company is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company, or actions undertaken by the employee while employed with the Company and could reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. To the Company's knowledge, all material technical information developed by and belonging to the Company which has not been patented has been kept confidential. The Company is not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus and are not described therein. The Registration Statement, the Pricing Disclosure Package and the Prospectus contain in all material respects the same description of the matters set forth in the preceding sentence. None of the technology employed by the Company has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company or, to the Company's knowledge, any of its officers, directors or employees, or otherwise in violation of the rights of any persons..

2.36 Taxes. Each of the Company and its Subsidiaries has filed all returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. Each of the Company and its Subsidiaries has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective Subsidiary. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as disclosed in writing to the Underwriters, (i) no issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its Subsidiaries, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its Subsidiaries. There are no tax liens against the assets, properties or business of the Company. The term "taxes" means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

2.37 ERISA Compliance. The Company and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "**ERISA**")) established or maintained by the Company or its "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "**ERISA Affiliate**" means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "**Code**") of which the Company is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates. No "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). Neither the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "employee benefit plan" or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the knowledge of the Company, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

2.38 Compliance with Laws. The Company: (A) is and at all times has been in compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company ("**Applicable Laws**"), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (B) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the U.S. Food and Drug Administration or any other governmental authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ("**Authorizations**");(C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (D) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such governmental authority is considering such action; (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (G) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, "dear doctor" letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company's knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

2.39 Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Securities Act Regulations) of the Public Securities and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

2.40 Environmental Laws. The Company and its Subsidiaries are in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses ("**Environmental Laws**"), except where the failure to comply would not, singularly or in the aggregate, result in a Material Adverse Change. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company or any of its Subsidiaries (or, to the Company's knowledge, any other entity for whose acts or omissions the Company or any of its Subsidiaries is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any of its Subsidiaries, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which would not have, singularly or in the aggregate with all such violations and liabilities, a Material Adverse Change; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company has knowledge, except for any such disposal, discharge, emission, or other release of any kind which would not have, singularly or in the aggregate with all such discharges and other releases, a Material Adverse Change. In the ordinary course of business, the Company and its Subsidiaries conduct periodic reviews of the effect of Environmental Laws on their business and assets, in the course of which they identify and evaluate associated costs and liabilities (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or governmental permits issued thereunder, any related constraints on operating activities and any potential liabilities to third parties). On the basis of such reviews, the Company and its Subsidiaries have reasonably concluded that such associated costs and liabilities would not have, singularly or in the aggregate, a Material Adverse Change.

2.41 Real Property. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and each of its Subsidiaries have good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and its Subsidiaries taken as a whole, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its Subsidiaries; and all of the leases and subleases material to the business of the Company and its Subsidiaries, considered as one enterprise, and under which the Company or any of its Subsidiaries holds properties described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any Subsidiary has received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

2.42 Contracts Affecting Capital. There are no transactions, arrangements or other relationships between and/or among the Company, any of its affiliates (as such term is defined in Rule 405 of the Securities Act Regulations) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's or any of its Subsidiaries' liquidity or the availability of or requirements for their capital resources required to be described or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus which have not been described or incorporated by reference as required.

2.43 Loans to Directors or Officers. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or any of its Subsidiaries to or for the benefit of any of the officers or directors of the Company, any of its Subsidiaries or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.44 Smaller Reporting Company. As of the time of filing of the Registration Statement, the Company was a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act Regulations.

2.45 Industry Data. The statistical and market-related data included in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources.

2.46 Emerging Growth Company. From the time of the initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly in or through any Person authorized to act on its behalf in any Testing-the Waters Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "**Emerging Growth Company**"). "Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act.

2.47 Testing-the-Waters Communications. The Company has not (i) alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the written consent of the Representative and with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (ii) authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company confirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule 2-C hereto. "Written Testing-the-Waters Communication" means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

2.48 Exchange Act Reports. The Company has filed in a timely manner all reports required to be filed pursuant to Sections 13(a), 13(e), 14 and 15(d) of the Exchange Act during the preceding 12 months (except to the extent that Section 15(d) requires reports to be filed pursuant to Sections 13(d) and 13(g) of the Exchange Act, which shall be governed by the next clause of this sentence); and the Company has filed in a timely manner all reports required to be filed pursuant to Sections 13(d) and 13(g) of the Exchange Act since January 23, 2014, except where the failure to timely file could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

2.49 Margin Securities. The Company owns no "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the "**Federal Reserve Board**"), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the shares of Common Stock to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

2.50 Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

2.51 Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

2.52 Confidentiality and Non-Competitions. To the Company's knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer or prior employer that could reasonably be expected to materially affect his ability to be and act in his respective capacity of the Company or be expected to result in a Material Adverse Change.

2.53 Minute Books. The minute books of the Company have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain a complete summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company (or analogous governing bodies and interest holders, as applicable), and each of its Subsidiaries since the time of its respective incorporation or organization through the date of the latest meeting and action, and (ii) accurately in all material respects reflect all transactions referred to in such minutes. There are no material transactions, agreements, dispositions or other actions of the Company that are not properly approved and/or accurately and fairly recorded in the minute books of the Company, as applicable.

2.54 Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or stockholders (without the consent of the Representative) has taken, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

2.55 Diligence Materials. The Company has provided to the Representative and to the legal counsel of the Representative all materials in response to the diligence request submitted to the Company or its counsel by the Representative.

3. Covenants of the Company. The Company covenants and agrees as follows:

3.1 Amendments to Registration Statement. The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement or Prospectus proposed to be filed after the Effective Date and not file any such amendment or supplement to which the Representative shall reasonably object in writing.

3.2 Federal Securities Laws.

3.2.1. Compliance. The Company, subject to Section 3.2.2, shall comply with the requirements of Rule 430A of the Securities Act Regulations, and will notify the Representative promptly, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed; (ii) of the receipt of any comments from the Commission; (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information; (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus, or of the suspension of the qualification of the Public Securities and Representative's Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the Securities Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities and Representative's Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company shall use its best efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

3.2.2. Continued Compliance. The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations ("**Rule 172**"), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; (ii) amend or supplement the Pricing Disclosure Package or the Prospectus in order that the Pricing Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities Act Regulations, the Company will promptly (A) give the Representative notice of such event; (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the Pricing Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Underwriters shall reasonably object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1.2 hereof and will furnish the Representative with copies of the related document(s) a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Representative or counsel for the Underwriters shall reasonably object.

3.2.3. Exchange Act Registration. For a period of three (3) years after the date of this Agreement, the Company shall use its best efforts to maintain the registration of the shares of Common Stock under the Exchange Act. The Company shall not deregister the shares of Common Stock under the Exchange Act without the prior written consent of the Representative.

3.2.4. Free Writing Prospectuses. The Company agrees that, unless it obtains the prior written consent of the Representative, it shall not make any offer relating to the Public Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus," or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representative shall be deemed to have consented to each Issuer General Use Free Writing Prospectus hereto and any "road show that is a written communication" within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representative. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Underwriters as an "issuer free writing prospectus," as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Underwriters and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

3.2.5. Testing-the-Waters Communications. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company shall promptly notify the Representative and shall promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

3.3 Delivery to the Underwriters of Registration Statements. The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.4 Delivery to the Underwriters of Prospectuses. The Company has delivered or made available or will deliver or make available to each Underwriter, without charge, as many copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.5 Effectiveness and Events Requiring Notice to the Representative. The Company shall use its best efforts to cause the Registration Statement to remain effective with a current prospectus for at least nine (9) months after the Applicable Time, and shall notify the Representative immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 3.5 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in (a) the Registration Statement in order to make the statements therein not misleading, or (b) in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall make every reasonable effort to obtain promptly the lifting of such order.

3.6 Review of Financial Statements. For a period of five (5) years after the date of this Agreement, the Company, at its expense, shall cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company's financial statements for each of the three fiscal quarters immediately preceding the announcement of any quarterly financial information.

3.7 Listing. The Company shall use its best efforts to maintain the listing of the shares of Common Stock (including the Shares of Common Stock included in the Public Securities, the Preferred Conversion Shares, the Warrant Shares and the shares of Common Stock underlying the Representative's Warrant) on the Exchange for at least three years from the date of this Agreement.

3.8 Financial Public Relations Firm. As of the Effective Date, the Company shall have retained a financial public relations firm reasonably acceptable to the Representative and the Company, which shall initially be VIGO Communications, which firm shall be experienced in assisting issuers in initial public offerings of securities and in their relations with their security holders, and shall retain such firm or another firm reasonably acceptable to the Representative for a period of not less than two (2) years after the Effective Date.

3.9 Reports to the Representative.

3.9.1. Periodic Reports, etc. For a period of three (3) years after the date of this Agreement, the Company shall furnish or make available to the Representative copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Representative: (i) a copy of each periodic report the Company shall be required to file with the Commission under the Exchange Act and the Exchange Act Regulations; (ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) five copies of each registration statement filed by the Company under the Securities Act; and (v) such additional documents and information with respect to the Company and the affairs of any future subsidiaries of the Company as the Representative may from time to time reasonably request; provided the Representative shall sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative and Representative Counsel in connection with the Representative's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Representative pursuant to this Section 3.9.1.

3.9.2. Transfer Agent; Transfer Sheets. For a period of three (3) years after the date of this Agreement, the Company shall retain a transfer agent and registrar acceptable to the Representative (the "**Transfer Agent**") and shall furnish to the Representative at the Company's sole cost and expense such transfer sheets of the Company's securities as the Representative may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and DTC. VStock Transfer LLC is acceptable to the Representative to act as Transfer Agent for the shares of Common Stock.

3.9.3. Trading Reports. During such time as the shares of Common Stock included in the Public Securities, the Preferred Conversion Shares, the Warrant Shares and the shares of Common Stock issuable upon exercise of the Representative's Warrant are listed on the Exchange, the Company shall provide to the Representative, at the Company's expense, such reports published by Exchange relating to price trading of the Common Stock , as the Representative shall reasonably request.

3.10 Payment of Expenses

3.10.1. General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date and the Option Closing Date, if any, to the extent not paid at the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the shares of Common Stock to be sold in the Offering (including the Option Shares) with the Commission; (b) all Public Filing System filing fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Public Securities on the Exchange and such other stock exchanges as the Company and the Representative together determine; (d) all fees, expenses and disbursements relating to background checks of the Company's officers and directors in an amount not to exceed $5,000 per individual and $15,000 in the aggregate; (e) all fees, expenses and disbursements relating to the registration or qualification of the Public Securities under the "blue sky" securities laws of such states and other jurisdictions as the Representative may reasonably designate (including, without limitation, all filing and registration fees, it being agreed that if the Offering is commenced on The Nasdaq Global Market, The Nasdaq Global Select Market or the NYSE, the Company shall make a payment of $5,000 to such counsel at Closing, or if the Offering is commenced on the Exchange, the NYSE American or on the Over-the-Counter Bulletin Board, the Company shall make a payment of $15,000 to such counsel upon the commencement of "blue sky" work by such counsel and an additional $5,000 at Closing); (f) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Public Securities under the securities laws of such foreign jurisdictions as the Representative may reasonably designate; (g) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (h) the costs and expenses of a public relations firm; (i) the costs of preparing, printing and delivering certificates representing the Public Securities; (j) fees and expenses of the transfer agent for the shares of Common Stock and the Preferred Stock; (k) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriters; (l) to the extent approved by the Company in writing, the costs associated with post-Closing advertising the Offering in the national editions of the Wall Street Journal and New York Times; (m) the costs associated with one set of bound volumes of the public offering materials as well as commemorative mementos and lucite tombstones, each of which the Company or its designee shall provide within a reasonable time after the Closing Date in such quantities as the Representative may reasonably request; (n) the fees and expenses of the Company's accountants; (o) the fees and expenses of the Company's legal counsel and other agents and representatives; (p) fees and expenses of the Representative's legal counsel not to exceed $75,000; (q) the $29,500 cost associated with the Underwriter's use of Ipreo's book-building, prospectus tracking and compliance software for the Offering; and (r) up to $20,000 of the Underwriters' actual accountable "road show" expenses for the Offering. The Representative may deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or the Option Closing Date, if any, the expenses set forth herein to be paid by the Company to the Underwriters, less the Advance (as such term is defined in Section 8.3 hereof).

3.10.2. Non-accountable Expenses. The Company further agrees that, in addition to the expenses payable pursuant to Section 3.10.1, on the Closing Date it shall pay to the Representative, by deduction from the net proceeds of the Offering contemplated herein, a non-accountable expense allowance equal to one percent (1%) of the gross proceeds received by the Company from the sale of the Firm Securities (excluding the Option Securities), provided, however, that in the event that the Offering is terminated, the Company agrees to reimburse the Underwriters pursuant to Section 8.3 hereof.

3.11 Application of Net Proceeds. The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

3.12 Delivery of Earnings Statements to Security Holders. The Company shall make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth ($15^{th}$) full calendar month following the date of this Agreement, an earnings statement (which need not be certified by independent registered public accounting firm unless required by the Securities Act or the Securities Act Regulations, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve (12) consecutive months beginning after the date of this Agreement.

3.13 Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities or Representative's Securities.

3.14 Internal Controls. The Company shall maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.15 Accountants. As of the date of this Agreement, the Company shall retain an independent registered public accounting firm reasonably acceptable to the Representative, and the Company shall continue to retain a nationally recognized independent registered public accounting firm for a period of at least three (3) years after the date of this Agreement. The Representative acknowledges that the Auditor is acceptable to the Representative.

3.16 FINRA. The Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it is or becomes aware that (i) any officer or director of the Company, (ii) any beneficial owner of 5% or more of any class of the Company's securities or (iii) any beneficial owner of the Company's unregistered equity securities which were acquired during the 180 days immediately preceding the filing of the Registration Statement is or becomes an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

3.17 No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

3.18 Company Lock-Up Agreements.

3.18.1. Restriction on Sales of Capital Stock. The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 180 days after the date of this Agreement (the "**Lock-Up Period**"), (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or cause to be filed any registration statement with the Commission relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (iii) complete any offering of debt securities of the Company, other than entering into a line of credit with a traditional bank or (iv) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii), (iii) or (iv) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise.

The restrictions contained in this Section 3.18.1 shall not apply to (i) the Public Securities to be sold hereunder, the Preferred Conversion Shares, the Warrant Shares and the Representative's Securities, (ii) the issuance by the Company of shares of Common Stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof, of which the Representative has been advised in writing or (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company approved by the Company's Board of Directors, or (iv) the issuance by the Company of up to 500,000 shares of Common Stock to an executive officer or director of the Company in a transaction approved by the Company's Board of Directors, provided that in each of (ii) (iii), and (iv) above, the underlying shares shall be restricted from sale during the entire Lock-Up Period.

3.18.2. Restriction on Continuous Offerings. Notwithstanding the restrictions contained in Section 3.18.1, the Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 12 months after the date of this Agreement, directly or indirectly in any "at-the-market" or continuous equity transaction, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company.

3.19 Release of D&O Lock-up Period. If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreements described in Section 2.26 hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three (3) Business Days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit C hereto through a major news service at least two (2) Business Days before the effective date of the release or waiver.

3.20 Blue Sky Qualifications. The Company shall use its best efforts, in cooperation with the Underwriters, if necessary, to qualify the Public Securities and Representative's Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Public Securities and Representative's Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

3.21 Reporting Requirements. The Company, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and Exchange Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Public Securities as may be required under Rule 463 under the Securities Act Regulations.

3.22 Emerging Growth Company Status. The Company shall promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Public Securities within the meaning of the Securities Act and (ii) fifteen (15) days following the completion of the Lock-Up Period.

3.23 Press Releases. Prior to the Closing Date and any Option Closing Date, the Company shall not issue any press release or other communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company and of which the Representative is notified), without the prior written consent of the Representative, which consent shall not be unreasonably withheld, unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law.

3.24 Sarbanes-Oxley. The Company shall at all times comply with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time.

3.25 IRS Forms. The Company shall deliver to each Underwriter (or its agent), prior to or at the Closing Date, a properly completed and executed Internal Revenue Service ("**IRS**") Form W-9 or an IRS Form W-8, as appropriate, together with all required attachments to such form.

4. Conditions of Underwriters' Obligations. The obligations of the Underwriters to purchase and pay for the Public Securities, as provided herein, shall be subject to (i) the continuing accuracy of the representations and warranties of the Company as of the date hereof and as of each of the Closing Date and the Option Closing Date, if any; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company of its obligations hereunder; and (iv) the following conditions:

4.1 Regulatory Matters.

4.1.1. Effectiveness of Registration Statement; Rule 430A Information. The Registration Statement has become effective not later than 5:00 p.m., Eastern time, on the date of this Agreement or such later date and time as shall be consented to in writing by you, and, at each of the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities Act, no order preventing or suspending the use of any Preliminary Prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

4.1.2. FINRA Clearance. On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

4.1.3. Exchange Stock Market Clearance. On the Closing Date, the shares of Common Stock included in the Class A Units and the Class B Units included in the Firm Securities, the Preferred Conversion Shares underlying the Class B Preferred included in the Firm Securities, the Warrant Shares underlying the Warrants included in the Class A Units and the Class B Units included in the Firm Securities, and the Common Stock issuable upon conversion of the Representative's Warrant shall have been approved for listing on the Exchange, subject only to official notice of issuance. On the first Option Closing Date (if any), the Option Shares and the Warrant Shares underlying the Option Warrants shall have been approved for listing on the Exchange, subject only to official notice of issuance.

4.2 Company Counsel Matters.

4.2.1. Closing Date Opinion of Counsel. On the Closing Date, the Representative shall have received the favorable opinion of Lucosky Brookman LLP, counsel to the Company, dated the Closing Date and addressed to the Representative, substantially in the form of Exhibit D attached hereto.

4.2.2. Opinion of Special Intellectual Property Counsel for the Company. On the Closing Date, the Representative shall have received the opinion of Panitch Schwarze Belisario & Nadel LLP, special intellectual property counsel for the Company, dated the Closing Date, addressed to the Representative, in form and substance reasonably satisfactory to the Representative

4.2.3. Option Closing Date Opinions of Counsel. On the Option Closing Date, if any, the Representative shall have received the favorable opinions of each counsel listed in Sections 4.2.1 and 4.2.2, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsels in their respective opinions delivered on the Closing Date.

4.2.4. Reliance. In rendering such opinions, such counsel may rely: (i) as to matters involving the application of laws other than the laws of the United States and jurisdictions in which they are admitted, to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to the Representative) of other counsel reasonably acceptable to the Representative, familiar with the applicable laws; and (ii) as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company, provided that copies of any such statements or certificates shall be delivered to Representative Counsel if requested. The opinion of Lucosky Brookman LLP and any opinion relied upon by Lucosky Brookman LLP shall include a statement to the effect that it may be relied upon by Representative Counsel in its opinion delivered to the Underwriters.

4.2.5. Certificate of Designation. On the Closing Date, the Representative shall have received evidence of the filing and acceptance of the Certificate of Designation of the Preferred Stock from the Secretary of State of New Jersey.

4.3 Comfort Letters.

4.3.1. Cold Comfort Letter. At the time this Agreement is executed the Representative shall have received a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to the Representative and to the Auditor, dated as of the date of this Agreement.

4.3.2. Bring-down Comfort Letter. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4.3.1, except that the specified date referred to shall be a date not more than three (3) business days prior to the Closing Date or the Option Closing Date, as applicable.

4.4 Officers' Certificates.

4.4.1. Officers' Certificate. The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), of its Chief Executive Officer, its President and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), any Issuer Free Writing Prospectus as of its date and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date (or any Option Closing Date if such date is other than the Closing Date), and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Pricing Disclosure Package, any Material Adverse Change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Change or a prospective Material Adverse Change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company, except as set forth in the Prospectus.

4.4.2. Secretary's Certificate. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and the Commission; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

4.5 No Material Changes. Prior to and on each of the Closing Date and each Option Closing Date, if any: (i) there shall have been no Material Adverse Change or development involving a prospective Material Adverse Change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Insider before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

4.6 No Material Misstatement or Omission. The Underwriters shall not have discovered and disclosed to the Company on or prior to the Closing Date and any Option Closing Date that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Underwriters, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading.

4.7 Corporate Proceedings. All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Representative's Warrant Agreement, the Registration Statement, the Pricing Disclosure Package, each Issuer Free Writing Prospectus, if any, and the Prospectus and all other legal matters relating to this Agreement, the Representative's Warrant Agreement and the transactions contemplated hereby and thereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

4.8 Delivery of Agreements.

4.8.1. Lock-Up Agreements. On or before the date of this Agreement, the Company shall have delivered to the Representative executed copies of the Lock-Up Agreements from each of the persons listed in Schedule 3 hereto.

4.8.2. Warrants. On the Closing Date, the Company shall have delivered to the Representative executed copies of the Warrants contained in Class A Units and Class B Units.

4.8.3. Representative's Warrant Agreement . On the Closing Date, the Company shall have delivered to the Representative executed copies of the Representative's Warrant Agreement.

4.9 Additional Documents. At the Closing Date and at each Option Closing Date (if any) Representative Counsel shall have been furnished with such documents and opinions as they may require for the purpose of enabling Representative Counsel to deliver an opinion to the Underwriters, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Public Securities and the Representative's Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative Counsel.

5. Indemnification.

5.1 Indemnification of the Underwriters.

5.1.1. General. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each of its and their respective directors, officers, members, employees, representatives, partners, shareholders, affiliates, counsel, and agents and each person, if any, who controls any such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the "**Underwriter Indemnified Parties**," and each an "**Underwriter Indemnified Party**"), against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries (a "**Claim**"), (i) arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (A) the Registration Statement, the Pricing Disclosure Package, any Preliminary Prospectus, the Prospectus, or in any Issuer Free Writing Prospectus or in any Written Testing-the-Waters Communication (as from time to time each may be amended and supplemented); (B) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (C) any application or other document or written communication (in this Section 5, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities, the Preferred Conversion Shares, the Warrant Shares and Representative's Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, the Exchange or any other national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters' Information or (ii) otherwise arising in connection with or allegedly in connection with the Offering. The Company also agrees that it will reimburse each Underwriter Indemnified Party for all fees and expenses (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) (collectively, the "**Expenses**"), and further agrees wherever and whenever possible to advance payment of Expenses as they are incurred by an Underwriter Indemnified Party in investigating, preparing, pursuing or defending any Claim.

5.1.2. Procedure. If any action is brought against an Underwriter Indemnified Party in respect of which indemnity may be sought against the Company pursuant to Section 5.1.1, such Underwriter Indemnified Party shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the approval of such Underwriter Indemnified Party) and payment of actual expenses if an Underwriter Indemnified Party requests that the Company do so. Such Underwriter Indemnified Party shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of the Company, and shall be advanced by the Company. The Company shall not be liable for any settlement of any action effected without its consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Underwriters, settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened action in respect of which advancement, reimbursement, indemnification or contribution may be sought hereunder (whether or not such Underwriter Indemnified Party is a party thereto) unless such settlement, compromise, consent or termination (i) includes an unconditional release of each Underwriter Indemnified Party, acceptable to such Underwriter Indemnified Party, from all liabilities, expenses and claims arising out of such action for which indemnification or contribution may be sought and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any Underwriter Indemnified Party.

5.2 Indemnification of the Company. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to the several Underwriters, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters' Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5.1.2. The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, the Prospectus, or any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication.

5.3 Contribution.

5.3.1. Contribution Rights. If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5.1 or 5.2 in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the Offering of the Public Securities, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, with respect to such Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering of the Public Securities purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of the Common Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 5.3.1 were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 5.3.1 shall be deemed to include, for purposes of this Section 5.3.1, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 5.3.1 in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Offering of the Public Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

5.3.2. Contribution Procedure. Within fifteen (15) days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party ("**contributing party**"), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid 15 days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 5.3.2 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. Each Underwriter's obligations to contribute pursuant to this Section 5.3 are several and not joint.

6. Default by an Underwriter.

6.1 Default Not Exceeding 10% of Firm Securities or Option Securities If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Securities or the Option Securities, if the Over-allotment Option is exercised hereunder, and if the number of the Firm Securities or Option Securities with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Securities or Option Securities that all Underwriters have agreed to purchase hereunder, then such Firm Securities or Option Securities to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

6.2 Default Exceeding 10% of Firm Securities or Option Securities. In the event that the default addressed in Section 6.1 relates to more than 10% of the Firm Securities or Option Securities, you may in your discretion arrange for yourself or for another party or parties to purchase such Firm Securities or Option Securities to which such default relates on the terms contained herein. If, within one (1) Business Day after such default relating to more than 10% of the Firm Securities or Option Securities, you do not arrange for the purchase of such Firm Securities or Option Securities, then the Company shall be entitled to a further period of one (1) Business Day within which to procure another party or parties satisfactory to you to purchase said Firm Securities or Option Securities on such terms. In the event that neither you nor the Company arrange for the purchase of the Firm Securities or Option Securities to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by you or the Company without liability on the part of the Company (except as provided in Sections 3.9 and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided, however, that if such default occurs with respect to the Option Securities, this Agreement will not terminate as to the Firm Securities; and provided, further, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

6.3 Postponement of Closing Date. In the event that the Firm Securities or Option Securities to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, you or the Company shall have the right to postpone the Closing Date or Option Closing Date for a reasonable period, but not in any event exceeding five (5) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term "**Underwriter**" as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such shares of Common Stock.

7. Additional Covenants.

7.1 Board Composition and Board Designations. The Company shall ensure that: (i) the qualifications of the persons serving as members of the Board of Directors and the overall composition of the Board comply with the Sarbanes-Oxley Act, with the Exchange Act and with the listing rules of the Exchange or any other national securities exchange, as the case may be, in the event the Company seeks to have its Public Securities listed on another exchange or quoted on an automated quotation system, and (ii) if applicable, at least one member of the Audit Committee of the Board of Directors qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the Exchange.

7.2 Prohibition on Press Releases and Public Announcements. The Company shall not issue press releases or engage in any other publicity, without the Representative's prior written consent, for a period ending at 5:00 p.m., Eastern time, on the first ($1^{st}$) Business Day following the forty-fifth ($45^{th}$) day after the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business.

7.3 Right of First Refusal. Provided that the Firm Securities are sold in accordance with the terms of this Agreement, the Representative shall have an irrevocable right of first refusal (the "**Right of First Refusal**"), for a period of twenty-four (24) months after the Effective Date, to act as sole and exclusive investment banker, sole and exclusive book-runner, sole and exclusive financial advisor, sole and exclusive underwriter and/or sole and exclusive placement agent, at the Representative's sole and exclusive discretion, for each and every future public or private equity or debt offering, including all equity linked financings (each, a "**Subject Transaction**"), during such twenty-four (24) month period, of the Company, or any successor to or subsidiary of the Company, on terms and conditions customary to the Representative for such Subject Transactions. For the avoidance of any doubt, the Company shall not retain, engage or solicit any additional investment banker, book-runner, financial advisor, underwriter and/or placement agent in a Subject Transaction without the express written consent of the Representative.

The Company shall notify the Representative of its intention to pursue a Subject Transaction, including the material terms thereof, by providing written notice thereof by registered mail or overnight courier service addressed to the Representative. If the Representative fails to exercise its Right of First Refusal with respect to any Subject Transaction within ten (10) Business Days after the mailing of such written notice, then the Representative shall have no further claim or right with respect to the Subject Transaction. The Representative may elect, in its sole and absolute discretion, not to exercise its Right of First Refusal with respect to any Subject Transaction; provided that any such election by the Representative shall not adversely affect the Representative's Right of First Refusal with respect to any other Subject Transaction during the twenty-four (24) month period agreed to above.

8. Effective Date of this Agreement and Termination Thereof.

8.1 Effective Date. This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

8.2 Termination. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in your opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or the Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction; or (iii) if the United States shall have become involved in a new war or an increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in your opinion, make it inadvisable to proceed with the delivery of the Firm Securities or Option Securities; or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities.

8.3 Expenses. Notwithstanding anything to the contrary in this Agreement, except in the case of a default by the Underwriters, pursuant to Section 6.2 above, in the event that this Agreement shall not be carried out for any reason whatsoever, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable (including the fees and disbursements of Representative Counsel) up to $75,000, inclusive of the $10,000 advance for accountable expenses previously paid by the Company to the Representative (the "**Advance**") and upon demand the Company shall pay the full amount thereof to the Representative on behalf of the Underwriters; provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement. Notwithstanding the foregoing, any advance received by the Representative will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C).

8.4 Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

8.5 Representations, Warranties, Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company or (ii) delivery of and payment for the Public Securities.

9. Miscellaneous.

9.1 Notices. All communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be mailed (registered or certified mail, return receipt requested), personally delivered or sent by facsimile transmission and confirmed and shall be deemed given when so delivered or faxed and confirmed or if mailed, two (2) days after such mailing.

If to the Representative:

Joseph Gunnar & Co., LLC
30 Broad Street, 11th Fl
New York, NY 10004
Attn: Mr. Eric Lord, Head of Investment Banking/Underwritings
Fax No.: (646) 461-2729

with a copy (which shall not constitute notice) to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
666 Third Avenue
New York, NY 10017
Attn: Anthony J. Marsico, Esq.
Fax No.: (212) 692-6267

If to the Company:

Akers Biosciences, Inc.
201 Grove Road
Thorofare, NJ 08086
Attention: Mr. Ray Akers, Executive Chairman
Fax No: [●]

with a copy (which shall not constitute notice) to:

Lucosky Brookman LLP
101 S. Wood Ave.
Iselin, NJ 08830
Attention: [●]
Fax No: [●]

9.2 Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

9.3 Amendment. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

9.4 Entire Agreement. This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof. Notwithstanding anything to the contrary set forth herein, it is understood and agreed by the parties hereto that all other terms and conditions of that certain engagement letter between the Company and Joseph Gunnar & Co., LLC., dated November 24, 2017, shall remain in full force and effect.

9.5 Binding Effect. This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

9.6 Governing Law; Consent to Jurisdiction; Trial by Jury. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.1 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company agrees that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.7 Execution in Counterparts. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by facsimile or email/pdf transmission shall constitute valid and sufficient delivery thereof.

9.8 Waiver, etc. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

[Signature Page Follows]

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between us.

Very truly yours,

Akers Biosciences, Inc.

By: _____
Name:
Title:

Confirmed as of the date first written above mentioned, on behalf of itself and as Representative of the several Underwriters named on Schedule 1 hereto:

JOSEPH GUNNAR & CO., LLC.

By: _____
Name: Eric Lord
Title: Head of Investment Banking/Underwritings

**SCHEDULE 1**

| Underwriter | Number of Class A Units | Number of Class B Units |
|---|---|---|
| Joseph Gunnar & Co., LLC | | |

| Number of Overallotment Shares | Number of Overallotment Warrants |
|---|---|
| | |

**SCHEDULE 2-A**

**Pricing Information**

Number of Class A Units: [●]

Number of Class B Units: [●]

Number of Option Shares: [●]

Number of Option Warrants: [●]

Public Offering Price per Class A Unit: $[●]

Underwriting Discount per Class A Unit: $[●]

Public Offering Price per Class B Unit: $[●]

Underwriting Discount per Class B Unit: $[●]

**SCHEDULE 2-B**

**Issuer General Use Free Writing Prospectuses**

Issuer Free Writing Prospectus dated December 8, 2017 (Registration No. 333-221746)

**SCHEDULE 2-C**

**Written Testing-the-Waters Communications**

[None.]

**SCHEDULE 3**

**List of Lock-Up Parties**

**EXHIBIT A**

**Form of Representative's Warrant Agreement**

**EXHIBIT B**

**Form of Lock-Up Agreement**

November ___, 2017

Joseph Gunnar & Co., LLC
810 Seventh Avenue, 18th Floor
New York, New York 10019

Ladies and Gentlemen:

The undersigned understands that Joseph Gunnar & Co., LLC (the "**Representative**") proposes to enter into an Underwriting Agreement (the "**Underwriting Agreement**") with Akers Biosciences, Inc., a New Jersey corporation (the "**Company**"), providing for the public offering (the "**Public Offering**") of shares of common stock, no par value per share, of the Company (the "**Common Shares**"), shares of Series A Convertible Preferred Stock, no par value per share, of the Company (the "**Preferred Shares**") and warrants to purchase common stock (the "**Warrants**" and together with the Common Shares and Preferred Shares, the "**Securities**").

To induce the Representative to continue its efforts in connection with the Public Offering, the undersigned hereby agrees that, without the prior written consent of the Representative, the undersigned will not, during the period commencing on the date hereof and ending 180 days after the date of the final prospectus (the "**Prospectus**") relating to the Public Offering (the "**Lock-Up Period**"), (1) offer, pledge, sell, contract to sell, grant, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Shares or any securities convertible into or exercisable or exchangeable for Common Shares, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "**Lock-Up Securities**"); (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Lock-Up Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Lock-Up Securities, in cash or otherwise; (3) make any demand for or exercise any right with respect to the registration of any Lock-Up Securities; or (4) publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement relating to any Lock-Up Securities. Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer Lock-Up Securities without the prior written consent of the Representative in connection with (a) transactions relating to Lock-Up Securities acquired in open market transactions after the completion of the Public Offering; provided that no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), shall be required or shall be voluntarily made in connection with subsequent sales of Lock-Up Securities acquired in such open market transactions; (b) transfers of Lock-Up Securities as a *bona fide* gift, by will or intestacy or to a family member or trust for the benefit of a family member (for purposes of this lock-up agreement, "family member" means any relationship by blood, marriage or adoption, not more remote than first cousin); (c) transfers of Lock-Up Securities to a charity or educational institution; or (d) if the undersigned, directly or indirectly, controls a corporation, partnership, limited liability company or other business entity, any transfers of Lock-Up Securities to any shareholder, partner or member of, or owner of similar equity interests in, the undersigned, as the case may be; provided that in the case of any transfer pursuant to the foregoing clauses (b), (c) or (d), (i) any such transfer shall not involve a disposition for value, (ii) each transferee shall sign and deliver to the Representative a lock-up agreement substantially in the form of this lock-up agreement and (iii) no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's Lock-Up Securities except in compliance with this lock-up agreement.

The undersigned agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this lock-up agreement during the period from the date hereof to and including the 34th day following the expiration of the Lock-Up Period, the undersigned will give notice thereof to the Company and will not consummate any such transaction or take any such action unless it has received written confirmation from the Company that the Lock-Up Period has expired.

If the undersigned is an officer or director of the Company, (i) the undersigned agrees that the foregoing restrictions shall be equally applicable to any issuer-directed or "friends and family" Shares that the undersigned may purchase in the Public Offering; (ii) the Representative agrees that, at least three (3) business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of Lock-Up Securities, the Representative will notify the Company of the impending release or waiver; and (iii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two (2) business days before the effective date of the release or waiver. Any release or waiver granted by the Representative hereunder to any such officer or director shall only be effective two (2) business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer of Lock-Up Securities not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this lock-up agreement to the extent and for the duration that such terms remain in effect at the time of such transfer.

No provision in this agreement shall be deemed to restrict or prohibit the exercise, exchange or conversion by the undersigned of any securities exercisable or exchangeable for or convertible into Shares, as applicable; provided that the undersigned does not transfer the Shares acquired on such exercise, exchange or conversion during the Lock-Up Period, unless otherwise permitted pursuant to the terms of this lock-up agreement. In addition, no provision herein shall be deemed to restrict or prohibit the entry into or modification of a so-called "10b5-1" plan at any time (other than the entry into or modification of such a plan in such a manner as to cause the sale of any Lock-Up Securities within the Lock-Up Period).

The undersigned understands that the Company and the Representative are relying upon this lock-up agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this lock-up agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors and assigns.

The undersigned understands that, if the Underwriting Agreement is not executed by [●], 2017, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares to be sold thereunder, then this lock-up agreement shall be void and of no further force or effect.

Whether or not the Public Offering actually occurs depends on a number of factors, including market conditions. Any Public Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Representative.

Very truly yours,

(Name - Please Print)

(Signature)

(Name of Signatory, in the case of entities - Please Print)

(Title of Signatory, in the case of entities - Please Print)

Address:

**EXHIBIT C**

**Form of Press Release**

**Akers Biosciences, Inc.**

**[Date]**

Akers Biosciences, Inc. (the "Company") announced today that Joseph Gunnar & Co., LLC, acting as representative for the underwriters in the Company's recent public offering of _____ shares of the Company's common stock, shares of convertible preferred stock and warrants to purchase common stock, is [waiving] [releasing] a lock-up restriction with respect to _____ shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on _____, 20___, and the shares may be sold on or after such date.

**This press release is not an offer or sale of the securities in the United States or in any other jurisdiction where such offer or sale is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act of 1933, as amended.**

**EXHIBIT D**

**Form of Opinion of Counsel**

**Exhibit 3.7**

**AKERS BIOSCIENCES, INC.**

**CERTIFICATE OF DESIGNATION OF PREFERENCES, RIGHTS AND LIMITATIONS**
**OF**
**SERIES B CONVERTIBLE PREFERRED STOCK**

PURSUANT TO THE PROVISIONS OF N.J.S.A. 14A, THE UNDERSIGNED CORPORATION EXECUTES THE FOLLOWING CERTIFICATE OF AMENDMENT TO ITS CERTIFICATE OF INCORPORATION, AS AMENDED:

Akers Biosciences, Inc., a corporation organized and existing under the New Jersey Business Corporation Act (the "Corporation"), certifies that pursuant to the authority contained in Articles of Incorporation, as amended (the "Certificate of Incorporation") and in accordance with the provisions of N.J.S.A. 14A:7-2(2) AND (4) of the New Jersey Business Corporation Act, the board of directors of the Corporation (the "Board of Directors") at the Special Meeting of the Board of Directors on December ___, 2017 duly approved and adopted the following resolution which resolution remains in full force and effect on the date hereof:

RESOLVED, that pursuant to the authority vested in the Board of Directors by its Certificate of Incorporation, the Board of Directors does hereby designate, create, authorize and provide for the issue of Series B Convertible Preferred Stock, no par value per share (the "Series B Preferred Stock"), consisting of seven thousand (7,000) shares, having the voting powers, preferences and relative, participating, optional and other special rights, and qualifications, limitations and restrictions thereof as follows:

**TERMS OF SERIES B PREFERRED STOCK**

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

"Alternate Consideration" shall have the meaning set forth in Section 7(d).

"Beneficial Ownership Limitation" shall have the meaning set forth in Section 6(d).

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Buy-In" shall have the meaning set forth in Section 6(c)(iv).

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the Corporation's common stock, par value $0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed.

"Common Stock Equivalents" means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Conversion Amount" means the sum of the Stated Value at issue.

"Conversion Date" shall have the meaning set forth in Section 6(a).

"Conversion Price" shall have the meaning set forth in Section 6(b).

"Conversion Shares" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series B Preferred Stock in accordance with the terms hereof.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Fundamental Transaction" shall have the meaning set forth in Section 7(d).

"GAAP" means United States generally accepted accounting principles.

"Holder" shall have the meaning given such term in Section 2.

"New York Courts" shall have the meaning set forth in Section 8(d).

"Notice of Conversion" shall have the meaning set forth in Section 6(a).

"Original Issue Date" means the date of the first issuance of any shares of the Series B Preferred Stock regardless of the number of transfers of any particular shares of Series B Preferred Stock and regardless of the number of certificates which may be issued to evidence such Series B Preferred Stock.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Representative" means Joseph Gunnar & Co., LLC.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Series B Preferred Stock" shall have the meaning set forth in Section 2.

"Share Delivery Date" shall have the meaning set forth in Section 6(c).

"Stated Value" shall have the meaning set forth in Section 2, as the same may be increased pursuant to Section 3.

"Subsidiary" means any subsidiary of the Corporation and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date hereof.

"Successor Entity" shall have the meaning set forth in Section 7(d).

"Trading Day" means a day on which the principal Trading Market is open for business.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).

"Transfer Agent" means VStock Transfer LLC, the current transfer agent of the Corporation, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and a facsimile number of 646-536-3179, and any successor transfer agent of the Corporation.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as its Series B Convertible Preferred Stock (the "Series B Preferred Stock") and the number of shares so designated shall be up to seven thousand (7,000) (which shall not be subject to increase without the written consent of the holders of a majority of the outstanding Series B Preferred Stock (each, a "Holder" and collectively, the "Holders")). Each share of Series B Preferred Stock shall have no par value per share and a stated value equal to one thousand dollars ($1,000.00) (the "Stated Value").

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Series B Preferred Stock equal (on an as-if-converted-to-Common-Stock basis (without giving effect to the Beneficial Ownership Limitation)) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid on shares of the Common Stock. Other than as set forth in the previous sentence, no other dividends shall be paid on shares of Series B Preferred Stock, and the Corporation shall pay no dividends (other than dividends in the form of Common Stock) on shares of the Common Stock unless it simultaneously complies with the previous sentence.

Section 4. Voting Rights. Except as otherwise expressly provided herein or in the Certificate of Incorporation, or as provided by the New Jersey Business Corporation Act, the holders of shares of Series B Preferred Stock, the holders of shares of Common Stock and the holders of any other class or series of shares entitled to vote with the Common Stock shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation. In any such vote, each share of Series B Preferred Stock shall entitle the holder thereof to cast the number of votes equal to the number of votes which could be cast in such vote by a holder of the number of shares of Common Stock into which such share of Series B Preferred Stock would then be convertible; provided, however, that in no event will a holder of shares of Series B Preferred Stock be entitled to vote a number of shares in excess of such holder's Beneficial Ownership Limitation. However, as long as any shares of Series B Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series B Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock or alter or amend this Certificate of Designation, (b) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the Holders, (c) increase the number of authorized shares of Series B Preferred Stock, or (d) enter into any agreement with respect to any of the foregoing.

Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of Corporation, whether voluntary or involuntary (a "Liquidation"), the Holders shall be entitled to participate on an as-converted-to-Common Stock basis (without giving effect to the Beneficial Ownership Limitation) with holders of the Common Stock in any distribution of assets of the Corporation to the holders of the Common Stock.

Section 6. Conversion.

a) Conversions at Option of Holder. Each share of Series B Preferred Stock shall be convertible, at any time and from time to time from and after the Original Issue Date at the option of the Holder thereof, into that number of shares of Common Stock (subject to the limitations set forth in Section 6(d)) determined by dividing the Stated Value of such share of Series B Preferred Stock by the Conversion Price then in effect. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Series B Preferred Stock to be converted, the number of shares of Series B Preferred Stock owned prior to the conversion at issue, the number of shares of Series B Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers by facsimile or e-mail such Notice of Conversion to the Corporation (such date, the "Conversion Date"). Upon delivery of the Notice of Conversion, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Conversion Shares with respect to which the shares of Series B Preferred Stock have been converted irrespective of the date of delivery of the Conversion Shares. If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. No ink original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversion of shares of Series B Preferred Stock, a Holder shall not be required to surrender the certificate(s) representing such shares of Series B Preferred Stock to the Corporation unless and until all shares of Series B Preferred Stock represented thereby are so converted, in which case such Holder shall deliver such certificate(s) within five (5) Trading Days after delivery of the Notice of Conversion relating to the conversion of the last shares of Series B Preferred Stock. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. Shares of Series B Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and shall not be reissued.

b) Conversion Price. The conversion price for the Series B Preferred Stock shall equal **$**____, subject to adjustment herein (the "Conversion Price").

c) Mechanics of Conversion

i. Delivery of Conversion Shares Upon Conversion. Promptly after each Conversion Date but in any case within the earlier of (i) two (2) Trading Days and (ii) the Standard Settlement Period, thereof (the "Share Delivery Date"), the Corporation shall deliver, or cause to be delivered, to the converting Holder the number of Conversion Shares being acquired upon the conversion of the Series B Preferred Stock and a wire transfer of immediately available funds in the amount of accrued and unpaid dividends, if any. Conversion Shares issuable hereunder shall be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Conversion Shares to or resale of the Conversion Shares by the Holder or (B) the Conversion Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Conversion Shares to which the Holder is entitled pursuant to such conversion to the address specified by the Holder in the Notice of Conversion. The Corporation shall deliver (or cause to be delivered) to the converting Holder (A) a certificate or certificates for the number of shares of Common Stock issuable upon conversion, and (B) if less than the number of shares of Series B Preferred Stock evidenced by the surrendered certificate or certificates are being converted, a new certificate or certificates, of like tenor, for the number of shares evidenced by any surrendered Series B Preferred Stock certificate or certificates (if applicable) less the number of shares converted. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as any shares of Series B Preferred Stock remain outstanding. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, in addition to any other rights herein, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such Conversion, in which event the Corporation shall promptly return to the Holder any original Series B Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

iii. Obligation Absolute; Partial Liquidated Damages. The Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series B Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such Holder. In the event a Holder shall elect to convert any or all of the Stated Value of its Series B Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or any one associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series B Preferred Stock of such Holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the Stated Value of Series B Preferred Stock which is subject to the injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall issue Conversion Shares and, if applicable, cash, upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(c)(i) on the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Stated Value of the Series B Preferred Stock being converted, $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such damages begin to accrue) for each Trading Day after the Share Delivery Date until such Conversion Shares are delivered or Holder rescinds such conversion. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(c)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series B Preferred Stock equal to the number of shares of Series B Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy- In with respect to an attempted conversion of shares of Series B Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver the Conversion Shares upon conversion of the shares of Series B Preferred Stock as required pursuant to the terms hereof.

v. Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series B Preferred Stock as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Series B Preferred Stock), not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments and restrictions of Section 7) upon the conversion of the then outstanding shares of Series B Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Series B Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round to the next whole share, with 0.5 shares being rounded up to one whole share. Subject to the foregoing, fractional shares of Series B Preferred Stock may be issued and / or converted hereunder.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of this Series B Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon conversion in a name other than that of the Holders of such shares of Series B Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the Depository Trust Company (or another established clearing corporation preforming similar functions) required for same- day electronic delivery of the Conversion Shares.

d) Beneficial Ownership Limitation. The Corporation shall not effect any conversion of the Series B Preferred Stock, and a Holder shall not have the right to convert any portion of the Series B Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, " Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series B Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Stated Value of the Series B Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Series B Preferred Stock or the Warrants) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(d), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(d) applies, the determination of whether the Series B Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Series B Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Series B Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Series B Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such Notice of Conversion has not violated the restrictions set forth in this paragraph and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(d), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder (which may be via email), the Corporation shall within three Trading Days confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Series B Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or upon the election by a Holder prior to the issuance of any shares of Series B Preferred Stock, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series B Preferred Stock held by the applicable Holder. A Holder, upon notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6(d) applicable to its Series B Preferred Stock provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Series B Preferred Stock held by the Holder and the provisions of this Section 6(d) shall continue to apply. Any such increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(d) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of Series B Preferred Stock.

Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Series B Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, this Series B Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Series B Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Series B Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Series B Preferred Stock, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Series B Preferred Stock (without regard to any limitations on conversion hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Series B Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, exclusive license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent conversion of this Series B Preferred Stock, the Holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of this Series B Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Series B Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of this Series B Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Series B Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders' right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Certificate of Designation in accordance with the provisions of this Section 7(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the holder of this Series B Preferred Stock, deliver to the Holder in exchange for this Series B Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Series B Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of this Series B Preferred Stock (without regard to any limitations on the conversion of this Series B Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of this Series B Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation referring to the "Corporation" shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation with the same effect as if such Successor Entity had been named as the Corporation herein.

e) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

f) Notice to the Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder by facsimile or email a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of this Series B Preferred Stock, and shall cause to be delivered by facsimile or email to each Holder at its last facsimile number or email address as it shall appear upon the stock books of the Corporation, at least twenty (20) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of this Series B Preferred Stock (or any part hereof) during the 20-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, by e-mail or sent by a nationally recognized overnight courier service, addressed to the Corporation at 201 Grove Road, Thorofare, New Jersey 08086, Attention: Chief Executive Officer, email address: jgormally@akersbio.com or such other e-mail address or address as the Corporation may specify for such purposes by notice to the Holders delivered ina ccordance with this Section 8. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, by e-mail or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number or address of such Holder appearing on the books of the Corporation, or if no such facsimile number or address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided pursuant to this Certificate of Designation constitutes, or contains, material, non-public information regarding the Corporation or any Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

b) Absolute Obligation. Except as expressly provided herein, no provision of this Certificate of Designation shall alter or impair the obligation of the Corporation, which is absolute and unconditional, to pay liquidated damages and accrued dividends, as applicable, on the shares of Series B Preferred Stock at the time, place, and rate, and in the coin or currency, herein prescribed.

c) Lost or Mutilated Series B Preferred Stock Certificate. If a Holder's Series B Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, or cause to be executed and delivered, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series B Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation with the actual third-party costs of the replacement of such certificate to be borne by the Holder (but without any requirement to post an indemnity bond).

d) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of New Jersey, without regard to the principles of conflict of laws thereof. Each party agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Certificate of Designation (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "New York Courts"). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

e) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

f) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

g) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

h) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

i) Status of Converted or Redeemed Series B Preferred Stock. If any shares of Series B Preferred Stock shall be converted, redeemed or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series B Convertible Preferred Stock.

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IN WITNESS WHEREOF, the Corporation has caused this certificate to be duly executed by John J. Gormally this ___day of December, 2017.

**Akers Biosciences, Inc.**

By: _____
Name: John J. Gormally
Title: Chief Executive Officer

**ANNEX A**

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF SERIES B PREFERRED STOCK)

The undersigned hereby elects to convert the number of shares of Series B Convertible Preferred Stock indicated below into shares of common stock, no par value per share (the "Common Stock"), of Akers Biosciences, Inc., a New Jersey corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares of Common Stock are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. No fee will be charged to the Holders for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: _____
Number of shares of Series B Preferred Stock owned prior to Conversion: _____
Number of shares of Series B Preferred Stock to be Converted: _____
Stated Value of shares of Series B Preferred Stock to be Converted: _____
Number of shares of Common Stock to be Issued: _____
Applicable Conversion Price: _____
Number of shares of Series B Preferred Stock subsequent to Conversion: _____
Address for Delivery: _____

Or

DWAC Instructions:
Broker no: _____
Account no: _____

[HOLDER]

By: _____
Name:
Title:

**Exhibit 4.1**

**Form of Representative's Warrant Agreement**

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS PURCHASE WARRANT EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE HUNDRED EIGHTY DAYS FOLLOWING THE EFFECTIVE DATE (DEFINED BELOW) TO ANYONE OTHER THAN (I) JOSEPH GUNNAR & CO., LLC OR AN UNDERWRITER OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING, OR (II) A BONA FIDE OFFICER OR PARTNER OF JOSEPH GUNNAR & CO., LLC OR OF ANY SUCH UNDERWRITER OR SELECTED DEALER.

THIS PURCHASE WARRANT IS NOT EXERCISABLE PRIOR TO [_____] [**DATE THAT IS ONE YEAR FROM THE EFFECTIVE DATE OF THE OFFERING**]. VOID AFTER 5:00 P.M., EASTERN TIME, [_____] [**DATE THAT IS FIVE YEARS FROM THE EFFECTIVE DATE OF THE OFFERING**].

**WARRANT TO PURCHASE COMMON STOCK**

**AKERS BIOSCIENCES, INC.**

Warrant Shares: _____

Initial Exercise Date: _____, 2018

THIS WARRANT TO PURCHASE COMMON STOCK (the "Warrant") certifies that, for value received, Joseph Gunnar & Co., LLC or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after _____, 2018 **[DATE THAT IS ONE YEAR FROM THE EFFECTIVE DATE OF THE OFFERING**] (the "Initial Exercise Date") and, in accordance with FINRA Rule 5110(f)(2)(G)(i), prior to at 5:00 p.m. (New York time) on the date that is five (5) years following the Effective Date (the "Termination Date") but not thereafter, to subscribe for and purchase from Akers Biosciences, Inc., a New Jersey corporation (the "Company"), up to _____ shares of Common Stock, no par value per share, of the Company (the "Warrant Shares"), as subject to adjustment hereunder. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Commission" means the United States Securities and Exchange Commission.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Trading Day" means a day on which the New York Stock Exchange is open for trading.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of a share of Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable, (c) if Common Stock is not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Common Stock are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of the Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise Form annexed hereto. Within two (2) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within five (5) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise Form within two (2) Business Days of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be **$**_____[1], subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at any time after the 6 month anniversary of the Initial Exercise Date, there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the VWAP on the Trading Day immediately preceding the date on which Holder elects to exercise this Warrant by means of a "cashless exercise," as set forth in the applicable Notice of Exercise;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a "cashless exercise," the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

[1] 125% of the public offering price per share of common stock and warrant in the offering.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by its transfer agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder, or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 and, in either case, the Warrant Shares have been sold by the Holder prior to the Warrant Share Delivery Date (as defined below), and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is two (2) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). If the Warrant Shares can be delivered via DWAC, the transfer agent shall have received from the Company any legal opinions or other documentation required by it to deliver such Warrant Shares without legend (subject to receipt by the Company of reasonable back up documentation from the Holder, including with respect to affiliate status) and, if applicable and requested by the Company prior to the Warrant Share Delivery Date, the transfer agent shall have received from the Holder a confirmation of sale of the Warrant Shares (provided the requirement of the Holder to provide a confirmation as to the sale of Warrant Shares shall not be applicable to the issuance of unlegended Warrant Shares upon a cashless exercise of this Warrant if the Warrant Shares are then eligible for resale pursuant to Rule 144(b)(1)). The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the second Trading Day following the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause its transfer agent to deliver to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise; provided, however, that the Holder shall be required to return any Warrant Shares or Common Stock subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause its transfer agent to transmit to the Holder the Warrant Shares pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all transfer agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

viii. Signature. This Section 2 and the exercise form attached hereto set forth the totality of the procedures required of the Holder in order to exercise this Purchase Warrant. Without limiting the preceding sentences, no ink-original exercise form shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any exercise form be required in order to exercise this Purchase Warrant. No additional legal opinion, other information or instructions shall be required of the Holder to exercise this Purchase Warrant. The Company shall honor exercises of this Purchase Warrant and shall deliver Shares underlying this Purchase Warrant in accordance with the terms, conditions and time periods set forth herein.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Company's transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61$^{st}$ day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification. For the purposes of clarification, the Exercise Price of this Warrant will not be adjusted in the event that the Company or any Subsidiary thereof, as applicable, sells or grants any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect.

b) [RESERVED]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash dividends) or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e ) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable by holders of Common Stock as a result of such Fundamental Transaction for each share of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly mail to the Holder a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed a notice to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to provide such notice or any defect therein shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to FINRA Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

i. by operation of law or by reason of reorganization of the Company;

ii. to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;

iii. if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;

iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction, any applicable securities laws and the conditions set forth in Section 4(d), this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then, such action may be taken or such right may be exercised on the next succeeding Trading Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the underwriting agreement, dated _____, 2017, by and between the Company and Joseph Gunnar, LLC as representatives of the underwriters set forth therein (the "Underwriting Agreement").

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h ) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Underwriting Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j ) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

**********

*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**AKERS BIOSCIENCES, INC.**

By: _____
Name:
Title:

**NOTICE OF EXERCISE**

TO: AKERS BIOSCIENCES, INC.

_____

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please register and issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

_____

_____

_____

( 4 ) Accredited Investor. If the Warrant is being exercised via cash exercise, the undersigned is an "accredited investor" as defined in Regulation D promulgated under the Securities Act of 1933, as amended

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

*Signature of Authorized Signatory of Investing Entity*: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

**ASSIGNMENT FORM**

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [____] all of or [_____] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

_____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

_____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

**Exhibit 5.1**

LUCOSKY BROOKMAN LLP

101 Wood Avenue South
5th Floor
Woodbridge, NJ 08830

T – (732) 395-4400
F – (732) 395-4401

www.lucbro.com

45 Rockefeller Plaza
Suite 2000
New York, NY 10111

December 14, 2017

Akers Biosciences, Inc.
201 Grove Street,
Thorofare, NJ 08086

**RE: Amendment No. 3 to Registration Statement on Form S-1**

Gentlemen:

We have acted as counsel to you, Akers Biosciences, Inc., a New Jersey corporation (the "Company"), in connection with the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act") (File No. 333-221746) (the "Registration Statement") with respect to (i) 7,692,308 Class A Units (the "Class A Units"), with each Class A Unit consisting of one share of the Company's common stock, no par value per share (the "Common Stock"), and one warrant to purchase one share of Common Stock ("Warrant") at an exercise price equal to 125% of the public offering price of the Class A Units per whole share of common stock; (ii) 3,000 Class B Units (the "Class B Units"), with each Class B Unit consisting of one share of Series B Convertible Preferred Stock, no par value per share (the "Series B Convertible Preferred Stock"), together with the equivalent number of Warrants as would have been issued to such purchaser of Class B Units if they had purchased Class A Units based on the public offering price for the Class A Units; (iii) Common Stock issuable upon conversion of the Series B Convertible Preferred Stock (the "Conversion Shares") as set forth in the Certificate of Designation for the Series B Convertible Preferred Stock, the form of which is filed as an exhibit to the Registration Statement; (iv) Common Stock issuable upon exercise of the Warrants (the "Warrant Shares"); and (v) up to 769,231 shares of the Company's common stock, no par value per share, underlying the Underwriter's Warrants (the "Underlying Shares"). This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

In connection with this opinion, we have examined the originals or copies certified or otherwise identified to our satisfaction of the following: (a) Articles of Incorporation of the Company, as amended to date, (b) Bylaws of the Company, as amended to date, and (c) the Registration Statement and all exhibits thereto. In addition to the foregoing, we also have relied as to matters of fact upon the representations made by the Company and its representatives and we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity to original documents of all documents submitted to us certified or photostatic copies.

Based upon the foregoing and in reliance thereon, and subject to the qualifications, limitations, exceptions and assumptions set forth herein, we are of the opinion that: (i) the shares of Common Stock included in the Class A Units, when issued against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable; (ii) the shares of Series B Convertible Preferred Stock included in the Class B Units, when issued against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable; (iii) the Conversion Shares, when issued upon exercise of the Series B Convertible Preferred Stock, will be validly issued, fully paid and non-assessable; (iv) the Warrant Shares, when issued upon exercise of the Warrants against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable; (v) the Series B Convertible Preferred Stock and Warrants, when issued as set forth in the Registration Statement, will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms; (vi) the Class A Units, when issued against payment thereof as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable , and will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms; (vii) the Class B Units, when issued against payment thereof as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable, and will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms; (viii) the Underwriter Warrants, when issued as set forth in the Registration Statement, will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms; and (ix) the Underlying Shares, when issued upon exercise of the Underwriter Warrants against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the laws of the State of New Jersey, including the Constitution of the State of New Jersey, all applicable provisions of the statutory provisions, and reported judicial decisions interpreting those laws. We are members of the Bar of the State of New York and the State of New Jersey. We do not hold ourselves out as being conversant with, or expressing any opinion with respect to, the laws of any jurisdiction other than the Federal laws of the United States of America, the laws of the State of New York and the New Jersey Statutes ("NJS"). This opinion is limited to the laws in effect as of the date the Registration Statement is declared effective by the Commission and is provided exclusively in connection with the public offering contemplated by the Registration Statement.

This opinion letter speaks only as of the date hereof and we assume no obligation to update or supplement this opinion letter if any applicable laws change after the date of this opinion letter or if we become aware after the date of this opinion letter of any facts, whether existing before or arising after the date hereof, that might change the opinions expressed above.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement and to the use of our name as it appears in the Prospectus included in the Registration Statement. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws.

Very truly yours,

/s/ Lucosky Brookman LLP

Lucosky Brookman LLP

**Exhibit 23.1**

**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated April 11, 2017, contained in the Annual Report on Form 10-K for Akers Biosciences, Inc., in the Registration Statement (S-1/A) dated December 14, 2017 and the related prospectus of Akers Biosciences, Inc. included therein.

*/s/ Morison Cogen LLP*

Blue Bell, Pennsylvania
December 14, 2017