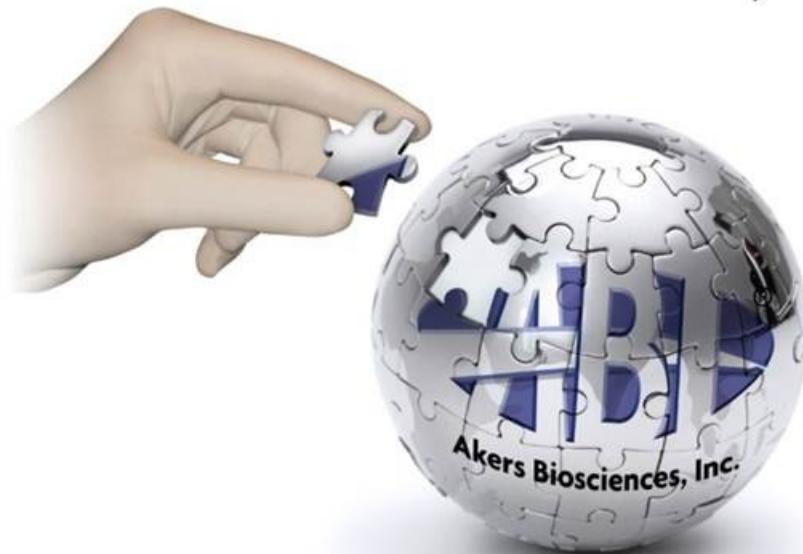


# Akers Biosciences, Inc.



**Diagnostic Technologies  
Meeting the Global Demand for  
Rapid Testing Solutions**

**January, 2014**

---

## Forward Looking Statements

*All statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for Akers Biosciences, Inc. (ABI or the Company) products and services, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements.*

*Any statements that are not historical fact (including, but not limited, to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements.*

*Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights and other risks discussed in the Company's registration statement on Form S-1 and other reports filed with the Securities and Exchange Commission which is available for review at [www.sec.gov](http://www.sec.gov).*

*Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the Company's business.*

*The Company disclaims any intent or obligation to update these forward-looking statements.*



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR

## Free Writing Prospectus Statement

This presentation highlights basic information about us and the offering. Because it is a summary, it does not contain all of the information that you should consider before investing.

We have filed a registration statement (including a prospectus) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the prospectus in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and the offering.

You may obtain these documents for free by visiting EDGAR on the SEC Web site at [www.sec.gov](http://www.sec.gov). The preliminary prospectus, dated December 30, 2013, is available on the SEC Web site at: <http://www.sec.gov>. Alternatively, we or any underwriter participating in the offering will arrange to send you the prospectus if you contact Aegis Capital Corp., Prospectus Department, 810 Seventh Avenue, 18th Floor, New York, NY 10019, telephone: 212-813-1010, e-mail: [prospectus@aegiscap.com](mailto:prospectus@aegiscap.com).



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR

3

# Offering Summary

**Issuer**

Akers Biosciences, Inc.

**Exchange / Ticker**

LSE AIM: AKR  
NASDAQ: AKER

**Offering Size**

\$15,000,000 of Common Stock (100 % Primary)

**Over-allotment**

15% (100% Primary)

**Use of Proceeds**

General corporate purposes, including working capital, product development, marketing activities, expanding internal sales organization & further developing sales channels & other capital expenditures

**Sole Book-Runner**

Aegis Capital Corp.



**Akers Biosciences, Inc.**

COPYRIGHT\* 2013 | NASDAQ: AKER | LSE: AKR

# Experienced, Focused Management and Board

## Officers & Key Management Team

### Raymond F. Akers, Jr. Ph.D.

#### Founder, Executive Chairman of the Board (Director)

- 30+ years in medical diagnostics; founded ABI in 1989
- Invented most of ABI's products and technologies; numerous patents
- Ph.D. in Neurochemistry, Northwestern University

### Thomas A. Nicolette

#### President, Chief Executive Officer (Director)

- Principle of Nicolette Consulting Group Ltd since 2000; President of ABI since 2007, named CEO in 2008
- CEO of several public companies, largest KNOGO Corporation
- Officer and/or director of companies in USA, Canada, Mexico, UK, France and Germany

### Gary M. Rauch

#### Controller, Treasurer

- 35+ years in accounting, information systems, and operations consulting, joined ABI in 2010
- Engagements in healthcare, manufacturing and distribution

### Patrice Laterra McMorow

#### Vice President Marketing

- 20+ years in sales and marketing in diagnostics, pharmaceutical, and ophthalmic industries; joined ABI in 2004
- Competencies: new product launches, sales operations, and distribution management

## Non-Executive Directors

### Thomas J. Knox

#### Appointed July 2013

- Expertise in health care and finance
- Former CEO of United Healthcare of Pennsylvania; Former Chairman of the Board and Chief Executive Officer of Fidelity Insurance Group, Inc.
- Currently Chief Executive Officer of Knox Consulting Group, Chairman of ORB Automotive Corporation, Ltd.

### Gavin E.D. Moran

#### Appointed July 2013

- Extensive experience in trading, finance and marketing
- Trading roles at Shell International, Trafigura Ltd, and since April 2010, beneficial shareholder at Sono International Ltd

### Brandon T. Knox

#### Appointment Pending NASDAQ Registration

- Experience incorporate finance and financial management
- Currently wealth advisor at Raymond James



## Overview

- ABI develops, manufactures and supplies rapid diagnostic tests for hospital laboratories, government, military, law enforcement, on-the-job safety, doctors' offices and home use
- Four of ABI's six proprietary platform technologies have led to the development of 11 core products, each with mass market potential
- Sales and distribution through blue chip medical products companies
- Core Strategy: Identify high margin market segments with inadequate testing solutions and introduce ABI's rapid alternative
- Underpinned by valuable proprietary platform technology base
  - 10 patents in effect, 3 patents pending
- Manufacturing facility approved by FDA (GMP), LNE (French NF X20-720 Standard), SAI Global (Australian AS 3547-1997 Standard)
- Registered US Government Contractor (GSA contract GS-07F-0140W)
- Q1-Q3 2013 Revenues: \$2,974,220 (2012: \$1,157,990)



**Akers Biosciences, Inc.**

COPYRIGHT© 2013 | NASDAQ: AKER | LSE: AKR

## Global IVD Market Estimated at \$45 Billion; Expected to Reach \$64 Billion in 2017

June 6, 2013 - Frost & Sullivan

*"Global In Vitro Diagnostics Markets Outpace Pharma Industry Growth"*

New healthcare environment drives cost-containment and the need for rapid, point-of-care diagnostic testing solutions that are...

- Fast
- Affordable
- Accurate
- Flexible
- Simple-to-perform
- Early diagnosis



**Akers Biosciences, Inc.**

COPYRIGHT© 2013 | NASDAQ: AKER | LSE: AKR

7

# Global Target Market Statistics by Technology Platform

## MPC™

### CHUBE

Annual growth of global  
breathalyzer market ≈ 26%

Breath  
Ketone 

28.5 million Type-1 diabetics

Breath  
PulmoHealth 

Asthma: > 300 m living with / year

COPD: 1 b smokers at risk

Lung Cancer: >1.6 m diagnosed / year

METRON  **VIVO**

Health and wellness segment  
“emerging trillion dollar market”

## PIFA®

**PIFA PLUSS** 

Infectious diseases account for more than  
15 million deaths/year;  
25 million patients receive heparin/year

## REA®

**Tri-Cholesterol** 

Cardiovascular disease: >17 m deaths/year  
WHO estimates 80% in emerging countries



Akers Biosciences, Inc.

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR



# Foundation: Platform Technologies

## Micro Particle Catalyzed (MPC™) Biosensor

*Permits the rapid determination of biomarkers in breath condensate*

## Particle ImmunoFiltration Assay (PIFA®)

*Based on the 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*

## Rapid Enzymatic Assay (REA™)

*Detection of blood and urine metabolites through enzymatic chemistries in quantitative or semi-quantitative formats*

## Synthetic Macrocycle Complex (SMC™)


*Novel organic macrocyclic compounds and electronic readers determine quantitative levels of therapeutic drugs*

## minDNA

*Allows for the analysis of DNA in one minute using a hand-held reader*

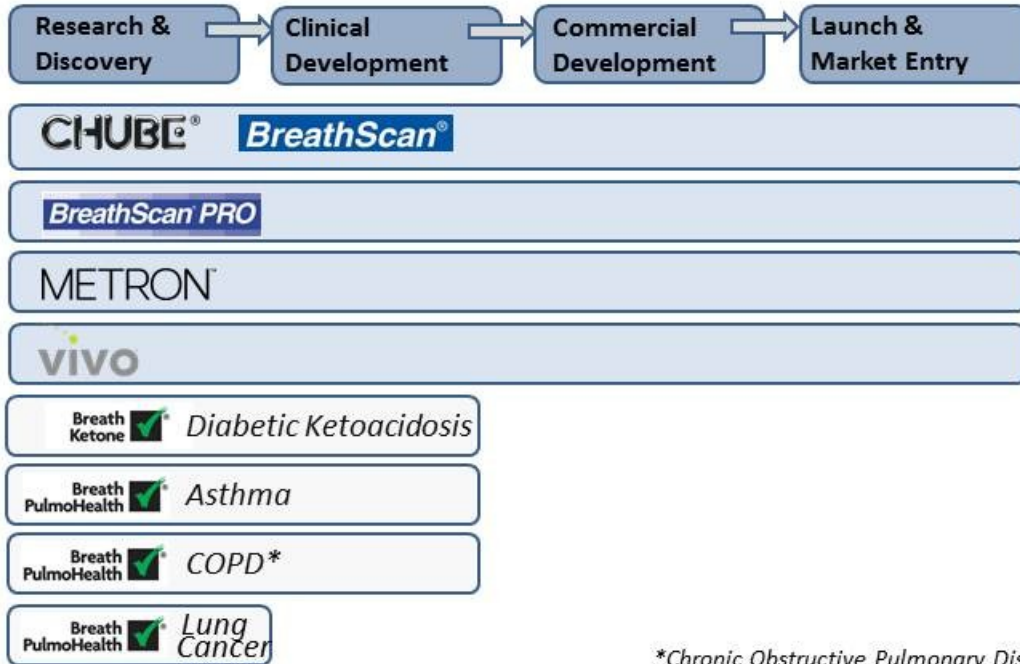


**Akers Biosciences, Inc.**

 : Technology currently utilized in commercialized products

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR

# 5 MPC™ Products Commercialized and 4 in Clinical/Commercial Development



*\*Chronic Obstructive Pulmonary Disorder*



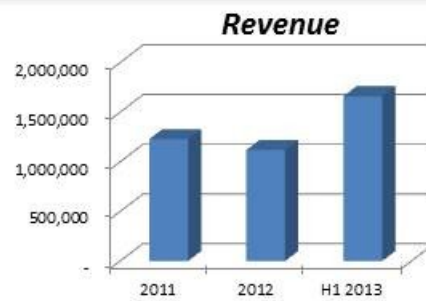
**Akers Biosciences, Inc.**

COPYRIGHT\* 2013 | NASDAQ: AKER | LSE: AKR

## Disposable Alcohol Breathalyzers

Cut-off levels: .02%; .04%; .05%; .08%

# CHUBE



**Certifications: FDA-cleared, French (NF X 20-702), Australian (AS 3547:1997)**

- Only known US manufacturer and one of two manufacturers worldwide to hold certifications
- 2013 French law mandates two NF-marked alcohol breathalyzers in each vehicle:
  - 34 million vehicles registered in France; 15 million entering the country annually; 3 million rentals; 6.5 million commercial vehicles
- Heightened awareness throughout EU – Italy, Netherlands
- Next Steps:
  - Co-branding with Industrial, Transportation, and Alcoholic Beverage companies
  - BE CHUBE Programs related to personal and “buddy” alcohol safety: Sporting Events; Colleges/Universities; Military safety, DUI-prevention programs



**Akers Biosciences, Inc.**

COPYRIGHT\* 2013 | NASDAQ: AKER | LSE: AKR

**Breath  
Ketone** 



***Monitoring of Ketones (acid) for diabetic health***

- Type 1, and some Type 2, diabetics are at risk for developing ketoacidosis
- Ketoacidosis is suspected when glucose levels exceed 250mg/dl, or if flu-like symptoms are observed, and can lead to organ failure or loss of life
- Product Benefits: non-invasive, immediate result, cost-effective, better alternative to invasive blood tests and inconvenient urine tests
- 28.5 million Type 1 diabetics, 1+ tests/week
- Reduces healthcare costs by decreasing the need for hospital visits and expensive lab testing
- Next Steps:
  - Submit 510(k) filing for FDA clearance
  - Initial distribution into teaching hospitals, centers of excellence and diabetes centers



**Akers Biosciences, Inc.**


COPYRIGHT\* 2013 | NASDAQ: AKER | LSE: AKR

**Significant correlation between Breath Ketone levels and Blood Ketone levels**

*Clinical Data*

Forty (40) human subjects previously diagnosed with diabetes evaluated by the qualitative Breath Ketone “Check” test and the quantitative **Precision Xtra** meter and test strips for blood ketones. Breath Ketone “Check” test turns positive if blood ketone level  $\geq 1.5\text{mmol/L}$ ; negative  $< 1.5\text{mmol/L}$ .

Distribution of all corresponding paired measurement values for both testing methodologies:

		<i>Precision Xtra</i>	
		$\geq 1.5 \text{ mmol/L}$	$< 1.5 \text{ mmol/L}$
Breath Ketone 	Positive	34	0
	Negative	0	6

Source: Date on File

**Findings:**

The Detection Success Rate between **Precision Xtra** and **Breath Ketone “Check”** was 100%.



***Non-medical measurement of ketone production associated with desired fat-burning due to weight loss or an increase in exercise***

- Immediate market entry as not FDA-regulated
- Assists in developing targeted interventions aimed at weight loss and fitness
- Maximum convenience with real-time result
- Next Steps:
  - Distribution opportunities with health and wellness companies specializing in mass distribution
    - Diet plans – Atkins, Nutrisystem, South Beach
    - Nutritional supplement suppliers – GNC, Vitamin Shoppe, The Vitamin Company
    - Multi-level Marketing – Amway, Isagenix, Arbonne
    - Weight Loss regimens / bariatric surgery patients





***Non-invasive, quantitative measurement of biological markers  
for oxidative stress that relates to cellular damage***

- Only non-invasive breath test with disposable reagents and photometric device
- Immediate result indicates current levels of free radicals in system
- Companion test to nutritional supplementation and exercise regimens targeted to control free radicals and oxidative stress
- Oxidative stress implicated in several disease processes (e.g. cardiovascular disease, cancer, arthritis)
- Next Steps:
  - Distribution through health-related multilevel marketing organizations and nutritional supplement suppliers





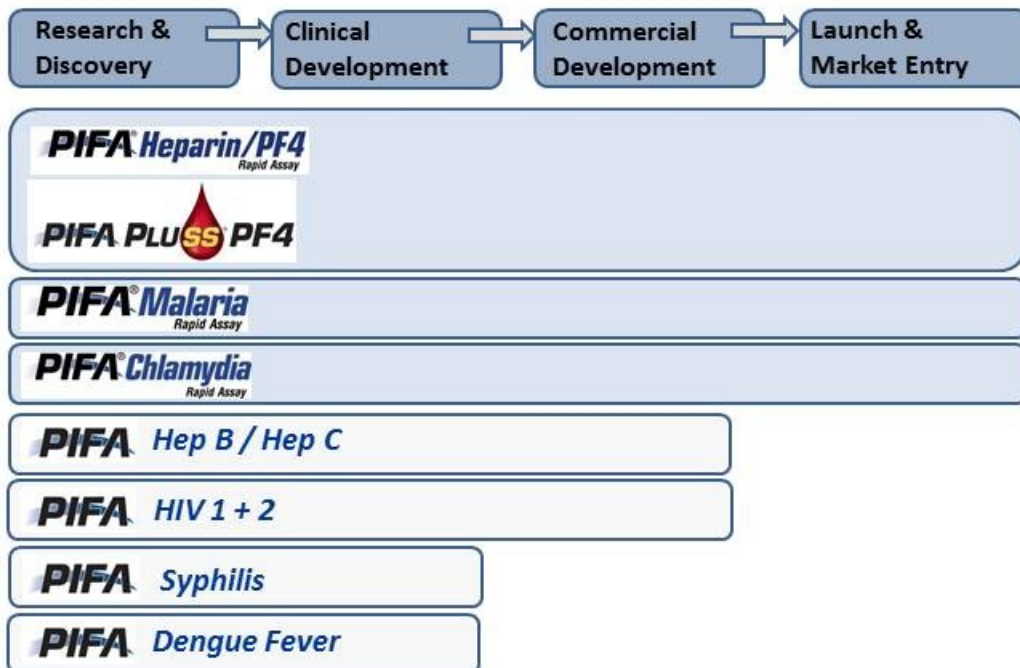
*Breath tests for biomarkers indicating Asthma, COPD, & Lung Cancer*

- Only single-use, non-invasive device for pulmonary health screenings
  - ASTHMA: Up to 15% of a country's population may have Asthma
  - COPD: 1 billion smokers at risk for COPD
  - LUNG CANCER: > 1.6 million people diagnosed each year
- Reduces costs associated with diagnostic imaging and pulmonary function tests
- Companion diagnostic tests to assess compliance / effectiveness of therapeutic agents
- Next Steps:
  - File 510(k) for FDA clearance, in order of filing: Asthma, COPD, Lung Cancer
  - Seek distribution as companion diagnostics with prescription medicines; partner with primary care-based diagnostic sales organizations and distributors that market to retail health clinics



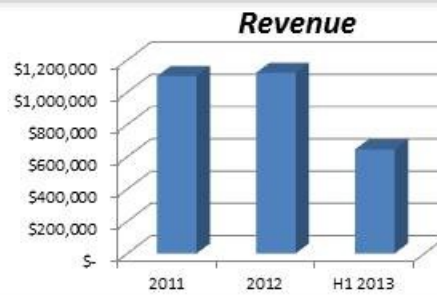


## 4 PIFA® Products Commercialized and 5 in Clinical/Commercial Development



**PIFA Heparin/PF4**  
Rapid Assay

**PIFA PLUSS PF4**



- Rapid Tests for Heparin/PF4 antibodies to detect a potential allergy (HIT) to the blood thinner, Heparin
- Heparin is the most widely used anticoagulant; indicated for most surgeries, dissolution of blood clots
- HIT is a life- and limb-threatening “allergy” to heparin; 1-5% HIT incidence in cardiac surgery patients; Subsequent risks: Mortality: 30%, Limb Amputation: 20%
- Only FDA cleared rapid antibody tests for HIT-antibody assessment; competes with expensive, slow turn-around laboratory tests
- Next Steps:
  - Complete clinical trial for SFDA in China
  - Build international distribution; expand North American sales support



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR



**Prospective observational evaluation of the particle immunofiltration anti-platelet factor 4 rapid assay in MICU patients with thrombocytopenia**

David M Andrews, Galo F Cubillos, Sartia K Paulino, Daniel L Seckinger and Daniel H Kett  
*Critical Care* 2013, 17:R143

**>99% Negative Predictive Value (NPV)**

	Confirmatory SRA	
	Positive	Negative
PIFA Positive	2	26
PIFA Negative	0	62

**Conclusion:** *PIFA = Rapid HIT-Antibody Rule-Out Test*

NEGATIVE PIFA result correlates >99% with a NEGATIVE SRA on acceptable samples



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR

**PIFA PLUS**  **Infectious Disease Rapid Assays**  
*Chlamydia, Malaria, Dengue Fever, Hep B, Hep C, HIV 1 + 2, Syphilis*



***Rapid tests for STDs,  
Blood borne pathogens,  
Tropical Diseases***

- Integrates sample processing into test procedure
- Conducive to screenings in non-traditional or remote locations
- Infectious disease market large and growing in developing world
- Chlamydia test will be the first test to use finger stick whole blood as specimen; current tests used genital swabs and DNA-based assays
- Next Steps:
  - File 510(k) for Chlamydia test
  - Expand distribution into developing world, including international aid organizations





 **SeraSTAT**<sup>®</sup>  
BLOOD CELL SEPARATOR

*Prepares whole blood specimen for introduction into an assay device in minutes to facilitate immediate testing anytime, anywhere.*

- Rapid blood cell separator facilitates immediate testing with a small volume of fresh whole blood
- Procedure can be initiated by finger stick blood sample
- FDA-Cleared
- Already integrated into PIFA PLUSS PF4 device and in emerging PIFA Infectious Disease products
- Next Step: Market as a stand-alone, OEM device to outside IVD manufacturers



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR



## Tri-Cholesterol

*Only combined rapid test for Total and HDL cholesterol and estimates LDL*

- Semi-quantitative
- Rapid results from convenient finger stick sample
- Useful for home testing, mass screenings, remote locations
- 3 Minute test
- Next Step: Penetrate developing world market where laboratory infrastructure not yet established



**Akers Biosciences, Inc.**

COPYRIGHT © 2013 | NASDAQ: AKER | LSE: AKR

# Committed to Growth of Shareholder Value

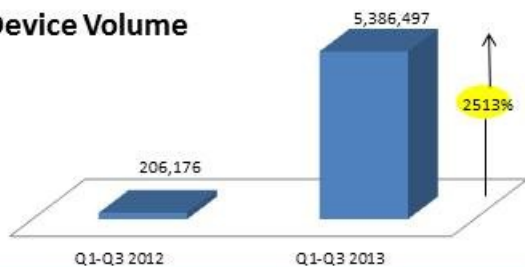
## Recent

- ✓ Q1-Q3 2013 - Financial Highlights:  
Revenues ↑: \$2,974,220 (Q1-Q3 2012: \$1,157,990)  
Net Loss ↓: \$745,215 (Q1-Q3 2012: \$1,897,044)
- ✓ CHUBE *NF Marque-certified* providing market clearance in and around France
- ✓ Extended Chubeworkx license & supply agreement for exclusive rights to market CHUBE worldwide
- ✓ Introduced PIFA/PF-4 Rapid Assay into China

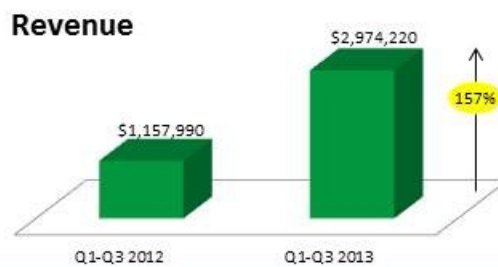
## Future

- Drive international sales and marketing of CHUBE
- Expand domestic and international distribution of PIFA PF4 rapid assays
- Grow US distribution of METRON and VIVO
- *Product launches*: Breath Ketone "Check", PIFA Infectious Disease assays, Breath PulmoHealth "Check" - Asthma

### Device Volume



### Revenue



**Akers Biosciences, Inc.**

23

## Profit and Loss

	Nine Months Ending Sep 30		Fiscal Year Ending Dec 31	
	2013	2012	2012	2011
<b>Revenue</b>	\$ 2,974,220	\$ 1,157,990	\$ 1,522,363	\$ 1,785,068
<b>Gross Profit</b>	1,470,917	466,362	514,412	828,448
<b>Administrative Expenses</b>	1,046,426	1,033,310	1,493,707	3,188,137
<b>Sales &amp; Marketing Expenses</b>	536,631	498,531	638,732	707,790
<b>Research &amp; Development Expenses</b>	755,981	689,481	900,380	888,976
<b>Operating Profit</b>	(1,062,050)	(1,936,612)	(2,776,979)	(4,212,315)
<b>Net Profit</b>	(745,215)	(1,897,044)	(2,557,820)	(3,626,944)





## Balance Sheet Overview

	As of	
	<u>Sep 30, 2013</u>	<u>Dec 31, 2012</u>
<b>Cash &amp; Cash Equivalents</b>	\$ 681,237	\$ 633,022
<b>Other Assets</b>	5,110,774	4,784,269
<b>Total Liabilities</b>	1,633,203	2,113,268
<b>Total Equity</b>	4,158,808	3,304,023



## Capitalization Structure

	As of Dec 30, 2013
	Shares
<b>Common Stock</b>	2,167,837
<i>Warrants – Average Exercise Price of \$71.76</i>	1,989
<b>Total - Fully Diluted</b>	<b>2,169,826</b>



## Comp Set

Company	Symbol	Company Overview	Market Cap As of 12/30/13
Meridian BioScience Inc.	VIVO	manufactures, markets and distributes diagnostic test kits, purified reagents and biopharmaceuticals	\$ 1,105M
Quidel Corporation	QDEL	develops, manufactures and markets rapid diagnostic testing solutions	\$ 972M
ChemBio Diagnostics, Inc.	CEMI	develops, manufactures, licenses and markets point-of-care (POC) diagnostic tests	\$ 31M
OraSure Technologies, Inc.	OSUR	develops, manufactures, and markets oral fluid diagnostic products and specimen collection devices	\$ 336M
TrovaGene, Inc.	TROV	develops rapid, non-invasive molecular diagnostic assays	\$ 109M
Venaxis, Inc.	APPY	develops and commercializes <i>in vitro</i> diagnostic multi-biomarker diagnostic test	\$ 45M



**Akers Biosciences, Inc.**

COPYRIGHT© 2013 | NASDAQ: AKER | LSE: AKR

# Product Summary

Clinical Development → Commercial Development → Launch & Market Entry

<b>CHUBE</b> <sup>®</sup>	<b>BreathScan</b> <sup>®</sup>	<b>BreathScan PRO</b>
METRON		
VIVO		
<b>PIFA Heparin/PF4</b> <small>Rapid Assay</small>	<b>PIFA PLUS PF4</b>	
<b>PIFA Malaria</b> <small>Rapid Assay</small>	<b>PIFA Chlamydia</b> <small>Rapid Assay</small>	
<b>seraSTAT</b> <small>BLOOD CELL SEPARATOR</small>		
Tri-Cholesterol <input checked="" type="checkbox"/>		
Breath Ketone <input checked="" type="checkbox"/>	Diabetic Ketoacidosis	
Breath PulmoHealth <input checked="" type="checkbox"/>	Asthma	
Breath PulmoHealth <input checked="" type="checkbox"/>	COPD*	
<b>PIFA Hep B / Hep C</b>		
<b>PIFA HIV 1 + 2</b>		
Breath PulmoHealth <input checked="" type="checkbox"/>	Lung Cancer	
<b>PIFA Syphilis</b>		
<b>PIFA Dengue Fever</b>		

\*Chronic Obstructive Pulmonary Disorder



## Summary

- New healthcare environment drives cost-containment and the need for point-of-care diagnostic solutions
- Six proprietary platform technologies enable rapid, cost-efficient new product launches
- Multiple products already commercialized
- Robust new product pipeline
- Accelerating growth drives value proposition for investors

