
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 12, 2016

OpGen, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-37367
(Commission
File Number)

06-1614015
(I.R.S. Employer
Identification No.)

708 Quince Orchard Road, Suite 205
Gaithersburg, MD 20878
(Address of principal executive offices, including zip code)

(240) 813-1260
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure.

On January 12, 2016, OpGen, Inc. (the “Company”) is making corporate presentations that provide an overview about the Company. The information provided during such corporate presentations is attached as an exhibit to this Form 8-K.

The information in this Form 8-K and the Exhibit attached hereto shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit</u>	<u>Description</u>
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99.1	Corporation Presentation of OpGen, Inc., January 2016
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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

OpGen, Inc.

By: /s/ Timothy C. Dec
Name: Timothy C. Dec

Title: Chief Financial Officer

Date: January 12, 2016

EXHIBIT INDEX

Exhibit No.

Document

99.1 Corporation Presentation of OpGen, Inc., January 2016



*"Precision Medicine Solutions for
Combatting Infectious Disease"*

**Corporate Presentation
January 2016**

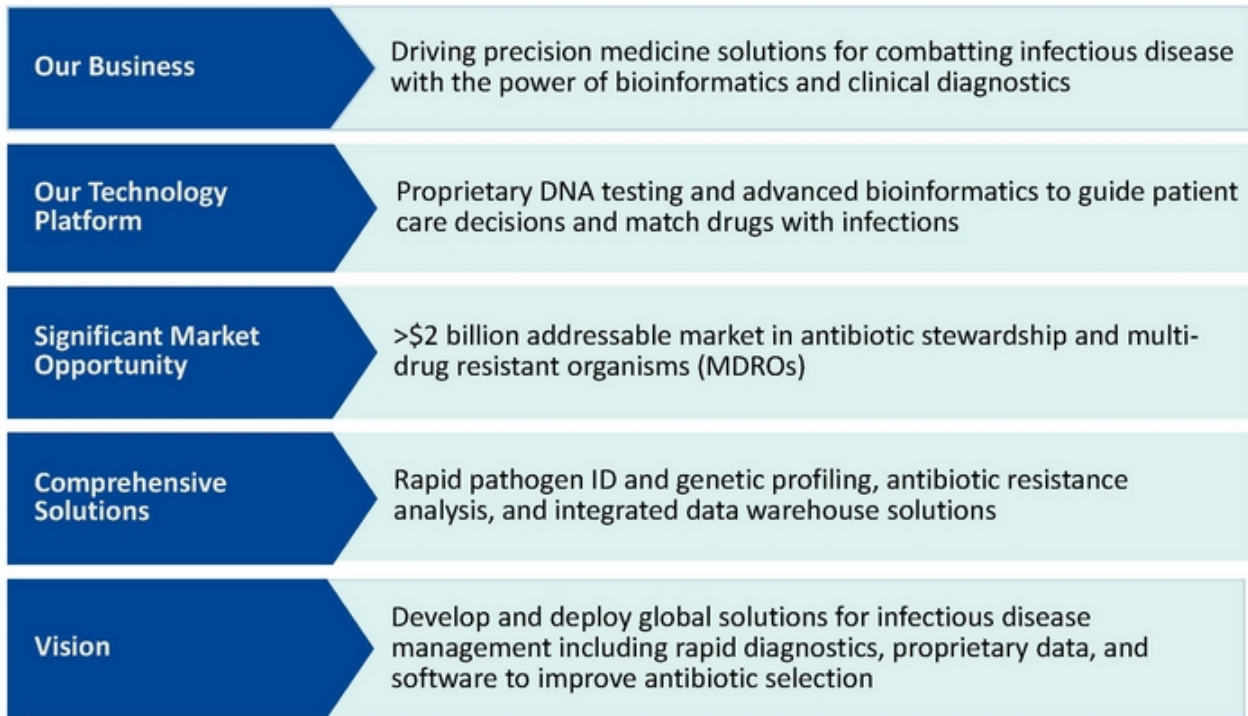
Forward-Looking Statement

This presentation contains forward-looking statements that are subject to many risks and uncertainties. Forward looking statements appear in a number of places throughout this presentation and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned product development; the timing of, and our ability to make, regulatory filings and obtain and maintain regulatory approvals for our product candidates; our intellectual property position; the degree of clinical utility of our products; our ability to develop commercial functions; expectations regarding product launch and revenue; our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies; the industry in which we operate; and the trends that may affect the industry or us.

We may, in some cases, use terms such as "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation.

You should also read carefully the factors described in the "Risk Factors" section of our Quarterly Reports on Form 10-Q for the periods ended March 31, 2015 and September 30, 2015 filed with the U.S. Securities and Exchange Commission on June 18, 2015 and November 13, 2015, respectively, in order to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this presentation will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all. Any forward-looking statements that we make in this presentation speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events.

Company Overview



Antibiotic Resistance – A Growing Concern

2
million

Illnesses and 23,000 deaths are caused annually in the United States alone¹

\$20
billion

In excess direct health care costs²

300
million

People are expected to die prematurely because of drug resistance over the next 35 years if antimicrobial drug resistance is not tackled²



42
states

Reported carbapenem-resistant enterobacteriaceae (CRE) infections in major medical facilities during the last 10 years³



¹ "Antibiotic Resistance Threats in the United States." Prepared by the CDC (2013)

² O'Neill, Jim. "Antimicrobial Resistance: Tackling a Crisis for the Health and Wealth of Nations." Review on Antimicrobial Resistance (December 2014)

³ "Detect and Protect." Prepared by the CDC. http://www.cdc.gov/hai/pdfs/cre/CDC_DetectProtect.pdf

Policy Makers are Taking Decisive Action

FY 2016 budget includes \$1B to combat drug resistant infections



Rapid Diagnostics

ID, Resistance & Susceptibility to Enable Appropriate Use of Current Drugs

Surveillance

Enable Effective Response to Resistant Organisms and Control Outbreaks

New Antibiotics

Accelerate Discovery & Development

OpGen Suite of Solutions

Actionable, precise diagnostics powered by surveillance data

Rapid Diagnostics

What **pathogen** is causing the infection?

QuickFISH™
Powered by PNA Technology
Rapid Pathogen ID

Which **antibiotics** are appropriate to treat the infection?

ACUITAS®
1 Hour Antibiotic Resistance¹

Surveillance

What **pathogens** are colonizing the patient?

Based on genetic profile & colonization patterns, what **antibiotics** are useful?

ACUITAS LIGHTHOUSE™
Data Warehouse
Resistance & Susceptibility

12X
Faster

\$760K
Annual savings per hospital

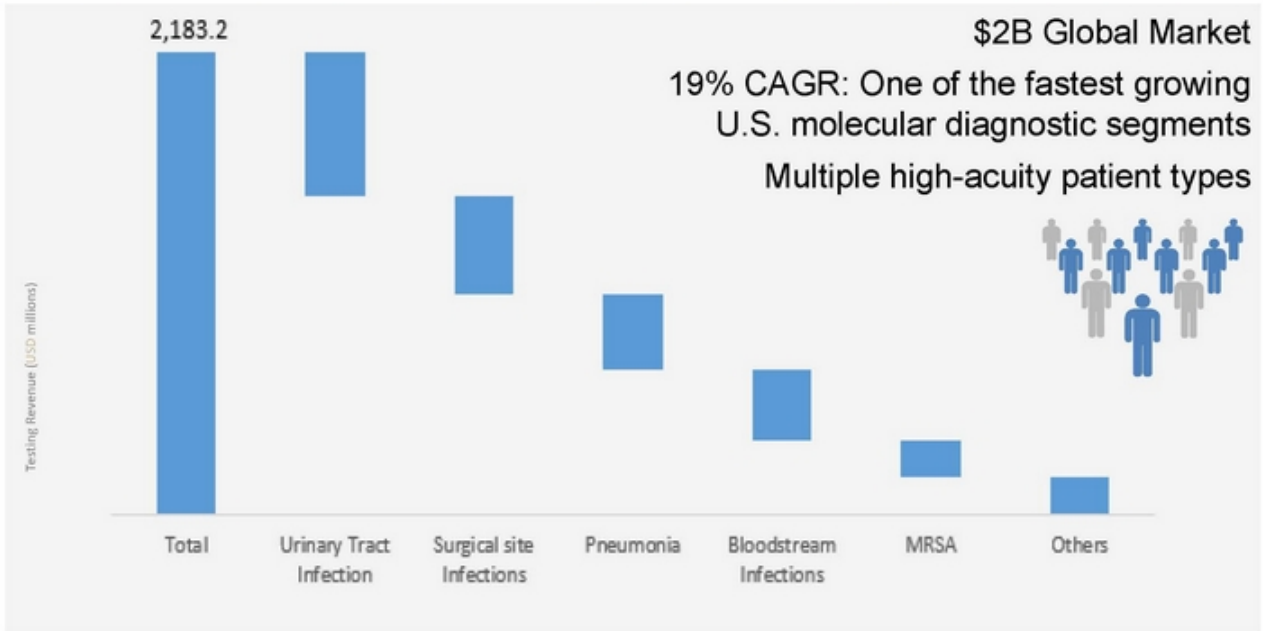
30%
Fewer days in hospital

Source: Winter Haven Case Study, Slide 21

¹ 1 Hour test in development

Large Precision Medicine Opportunity

Global Hospital Acquired Infection Testing Revenue 2012



Source: Hospital Acquired Infection Testing Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 - 2019

Experienced Management Team

<p>Evan Jones Chairman & Chief Executive Officer</p>	
<p>Kevin Krenitsky, M.D. President</p>	
<p>Timothy Dec Chief Financial Officer</p>	
<p>Robert McG. Lilley Chief Commercial Officer</p>	
<p>Vadim Sapiro Chief Information Officer</p>	
<p>Geoff McKinley, Ph.D. SVP, R&D, Business Development</p>	
<p>Terry Walker, Ph.D. SVP, R&D</p>	

Merck GHI Investment

- Merck Global Health Investment Fund
 - Invests where Merck expertise can accelerate revenue growth and enhance value creation
 - GHI often invests in disease areas where Merck is a major global market leader such as hospital acquired infections
- \$6 million investment
- Pro rata participation rights in future financings





Precision solutions transforming a 50 year old treatment paradigm

Introducing Precision Medicine for Combatting Infectious Disease

1 Hour

The Golden Hour for antibiotic decision-making

- **1 hour tests** needed to impact initial therapy decision
- **MDRO rates** amplify empiric use of "Big Gun" antibiotics
- **Critical need** for clinical decision support tools to aid antibiotic selection
- **High resolution tracking** of microbes is critical for hospital/patient protection



Analog

Conventional microbiology largely unchanged in 50 years

- **Organism growth** in selective media
- **1-3 days** for growth and phenotypic analysis with variable results
- **~4 hours** for image guided growth analysis

VS.



Digital

DNA analysis revolutionizing microbiology

- **30 minute tests** – highly accurate
- **6 million base pair** analysis capability
- **Digital data** enables antibiotic decision and microbe tracking software
- **Highly robust** – rapid, reproducible, scalable

Rapid DNA Methods will save lives and stabilize antibiotic effectiveness

Breaking the Acute Care Treatment Paradigm



Actual Case Study: MDRO infected patient

Antibiotic

Coverage at Admission:

- Gram Positive
- Gram Negative
- Anaerobe

Gram Negative Rods Detected

Fluoroquinolone Added

Patient Died

17 Hours

4 Hours

22 Hours

48 Hours

17 Hours

K. Pneumonia (MALDI)

Resistant to Imipenem

CRE Confirmed

No Infection Control Measures Implemented

1 hr

New Acute Care Paradigm (Illustrative)

1 hr test guides pathogen-susceptible treatment and infection control

Rapid Antibiotic Resistance Information

One Hour Disruptive Paradigm In Development

- OpGen's proprietary technology
- Powers pathogen identification and resistance gene profiling
- Informed by smart cloud-based clinical database that learns new molecular profiles to aid initial antibiotic selection and clinical decision-making.



- Bedside sample collection



- Send sample to lab



- One hour test
- Acuitas Lighthouse cloud-based query



- Lab report with antibiotic-specific treatment guidance

Lighthouse Profile	Organism	Antibiotic Resistance Genes	% of Isolates in Database That are Resistant			
			Cefepime	Imipenem	Gentamicin	Tigecycline
K1:KPC1_SHV4_TEM7	<i>K. pneumoniae</i>	KPC, SHV ESBL, TEM7	83	95	48	0

Acuitas Lighthouse – “Evergreen” Database

Continual global sample pathogen feed from OpGen laboratory clients and hospital customers

ACUITAS®
Surveillance data

QuickFISH™
Rapid ID samples



Comprehensive testing and bioinformatics analysis

- Resistome genotyping
- Whole genome sequencing
- Pathogen ID
- Phenotypic testing

Rapid IVD Platform¹

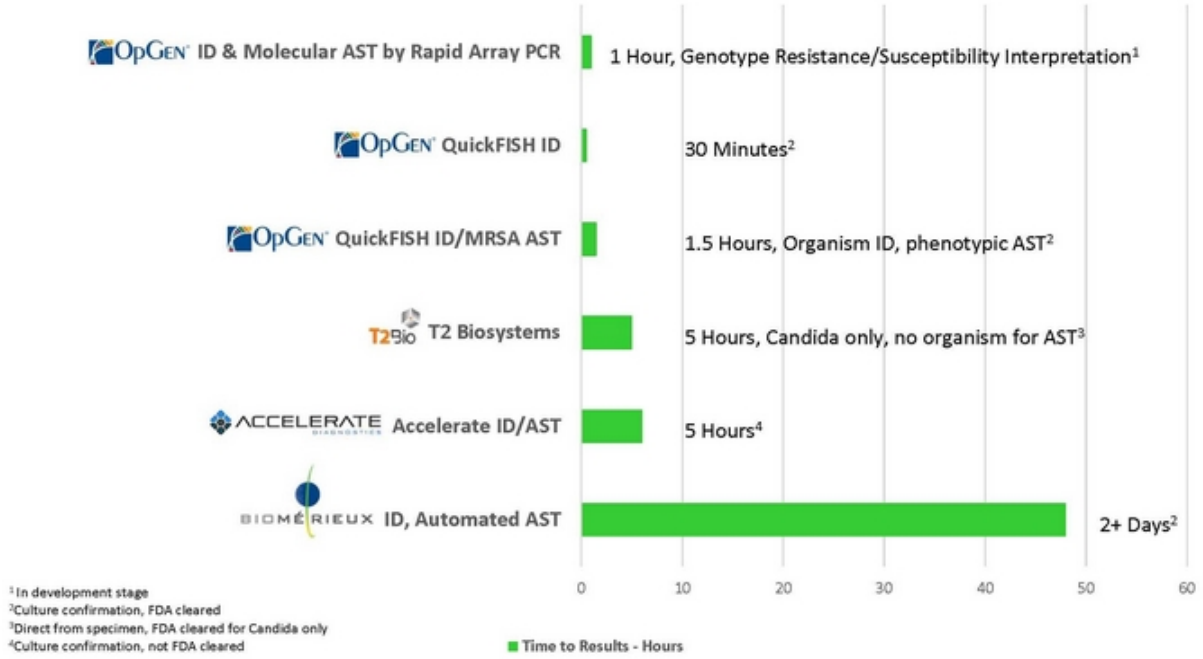
- Pathogen & resistance gene arrays
- Keeps pace with rapidly mutating genes
- Molecular AST informed by database
- Decision support for initial therapy

¹ In development stage

Competitive Landscape

Rapid organism ID & AST methods

Analytical method time to results



Acuitas Lighthouse™ Data Opportunities



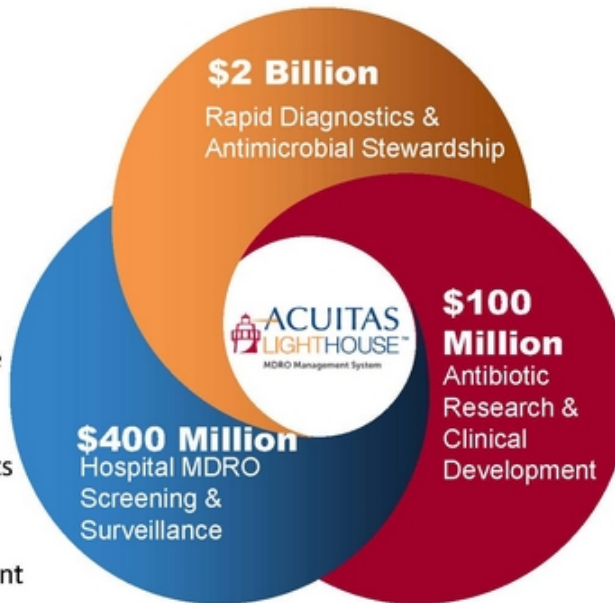
Powering a 1-hour diagnosis

- Molecular susceptibility testing data at scale
- Smart cloud-based system learns new molecular profiles
- Powers Acuitas® antibiotic selection/decision making tool



Hospital biome protection

- MDRO screening & surveillance to identify pathogen and resistance profiles
- Proactive colonization management for patients with MDRO infections
- Aligned with quality metrics and CMS payment

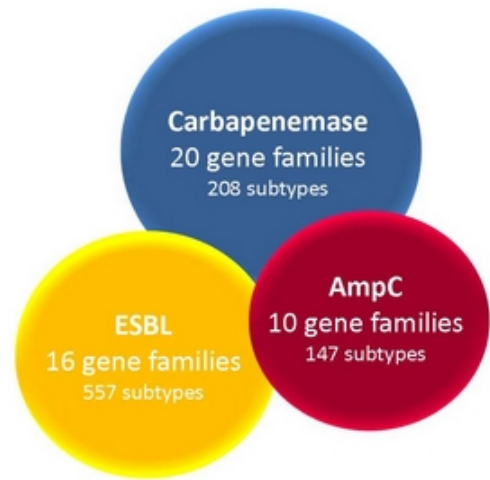
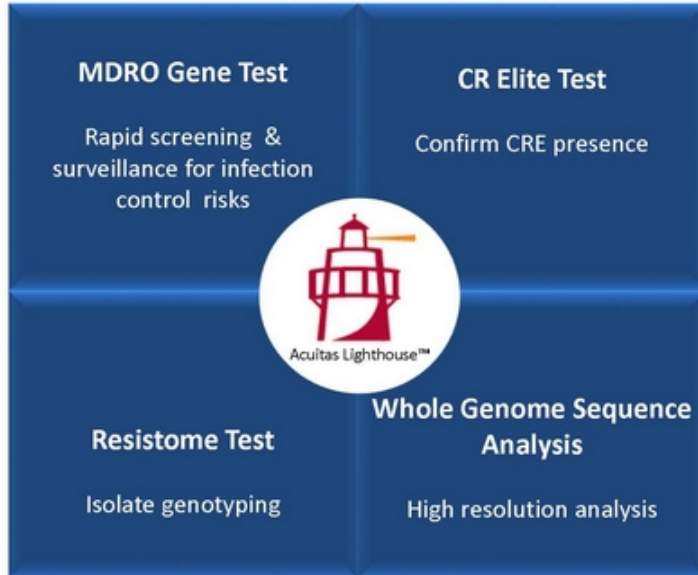


Accelerating new antibiotic development

- Genetic resistance patterns direct drug discovery & development
- Illuminating resistance patterns over time to predict antibiotic durability
- Geographic data guide pharma marketing & sales decisions

Acuitas Lighthouse™ MDRO Screening & Surveillance

Providing high resolution organism ID and matching drugs to infections



Acuitas Lighthouse Used in HARP-DC MDRO Surveillance Initiative in Collaboration with CDC

Individual hospital & patient reporting, geospatial analysis

Advanced analytics engine

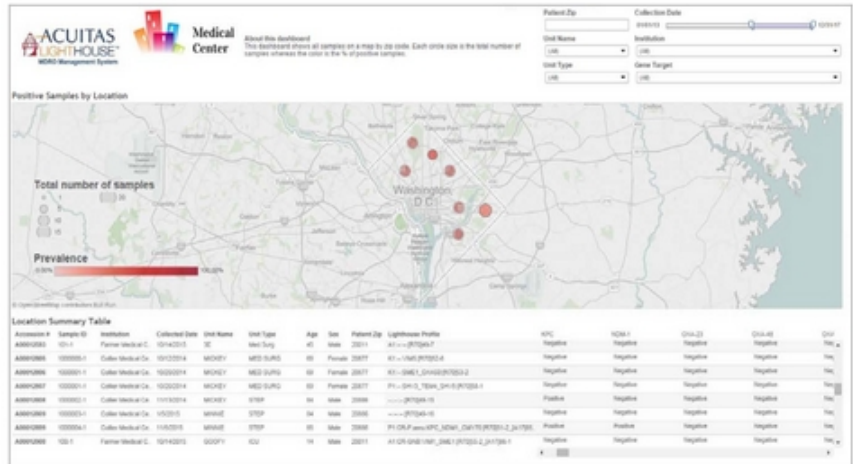
Direct connection to LIMS database

Cloud-based

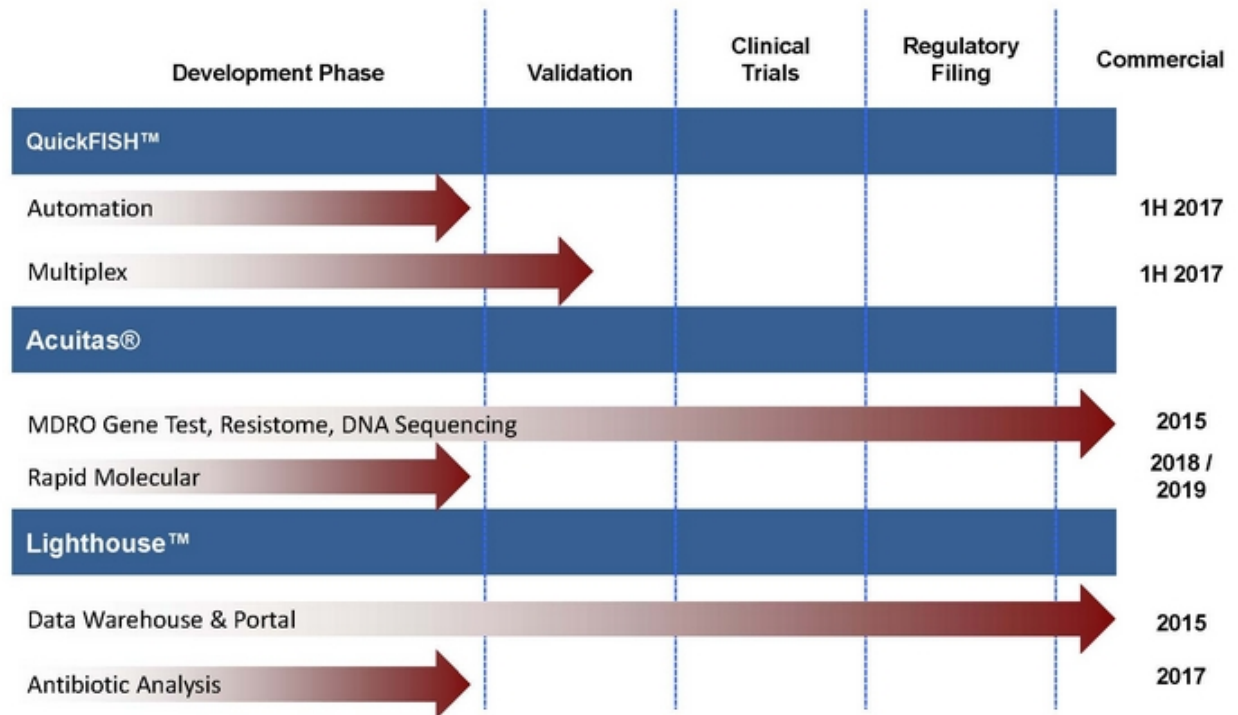
HIPAA compliant

Security

- End-to-end encryption (database, connectors, browser SSL)
- Federated access permissions



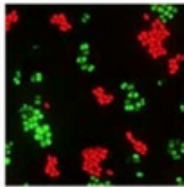
Deep Pipeline of Current and Future Products



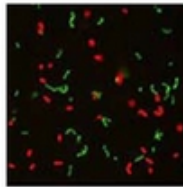
QuickFISH™ Rapid Molecular Pathogen ID

- Established, market leading Rapid ID products
- AdvanDx QuickFISH™ family of products
 - Rapid blood culture ID tests
 - FDA cleared, CE marked
- Staphylococcus, Enterococcus, Gram-negative bacteria, Candida
- Rapid MRSA antibiotic susceptibility test
- Over 100 U.S. hospital accounts, 10 countries with antibiotic stewardship projects
- >70% gross margin consumable business
- Automated multiplex test anticipated 2017
 - 18 tests in one automated assay
 - Reduces reliance on lab technician

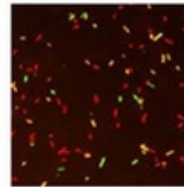
20-Minute Pathogen Identification



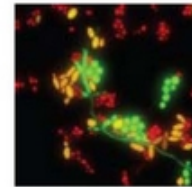
Staphylococcus



Enterococcus



Gram-Negative



Candida

Case Study: Winter Haven Hospital

Demonstrated Clinical Utility and Cost Effectiveness

Rapid Staph ID Application via QuickFISH Resulted in:

- \$764K annual savings
- 30% reduction in length of stay
- 65% decrease in days on Vancomycin (2.5 days to 0.9 days)
- 90% reduction in pathogen ID reporting (1.4 hours vs. 17.2 hours)



Source: The Impact of Implementation of Rapid QuickFISH Testing for Detection of Coagulase Negative Staphylococci at a Community-Based Hospital, American Journal of Clinical Pathology, January 2016

Building a Leading Molecular Information Business

Customer Focus

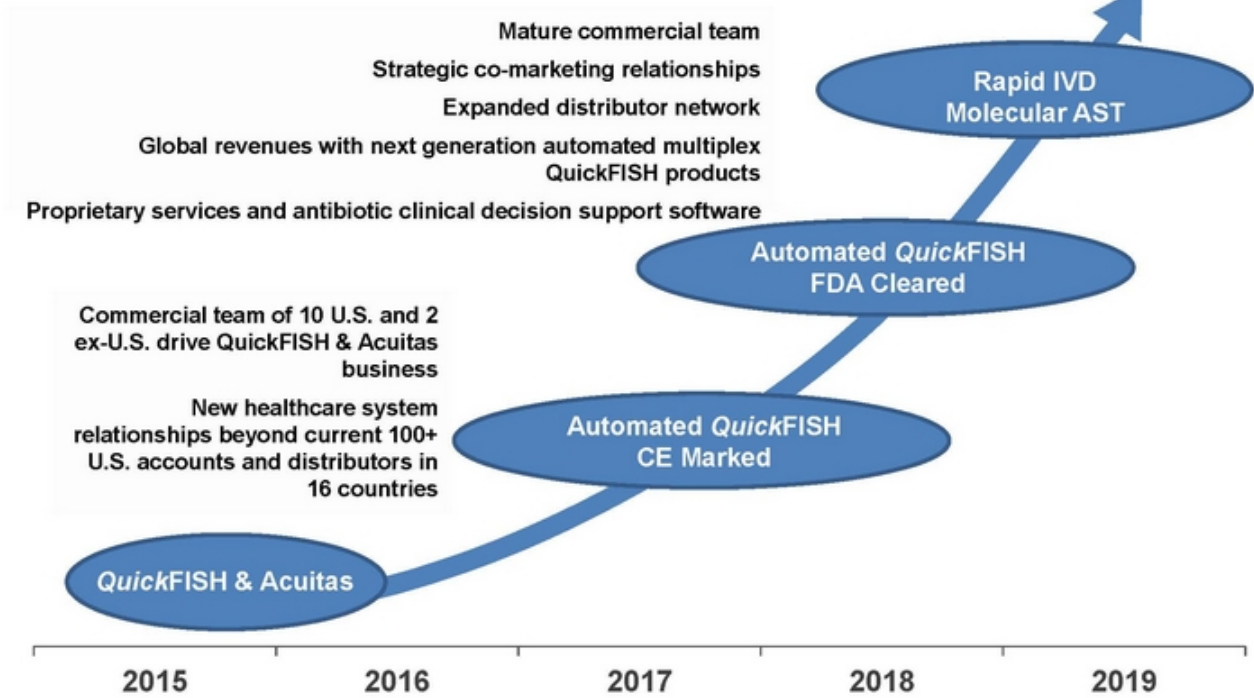
- Healthcare providers
- Physicians
- Patients
- Pharma partners



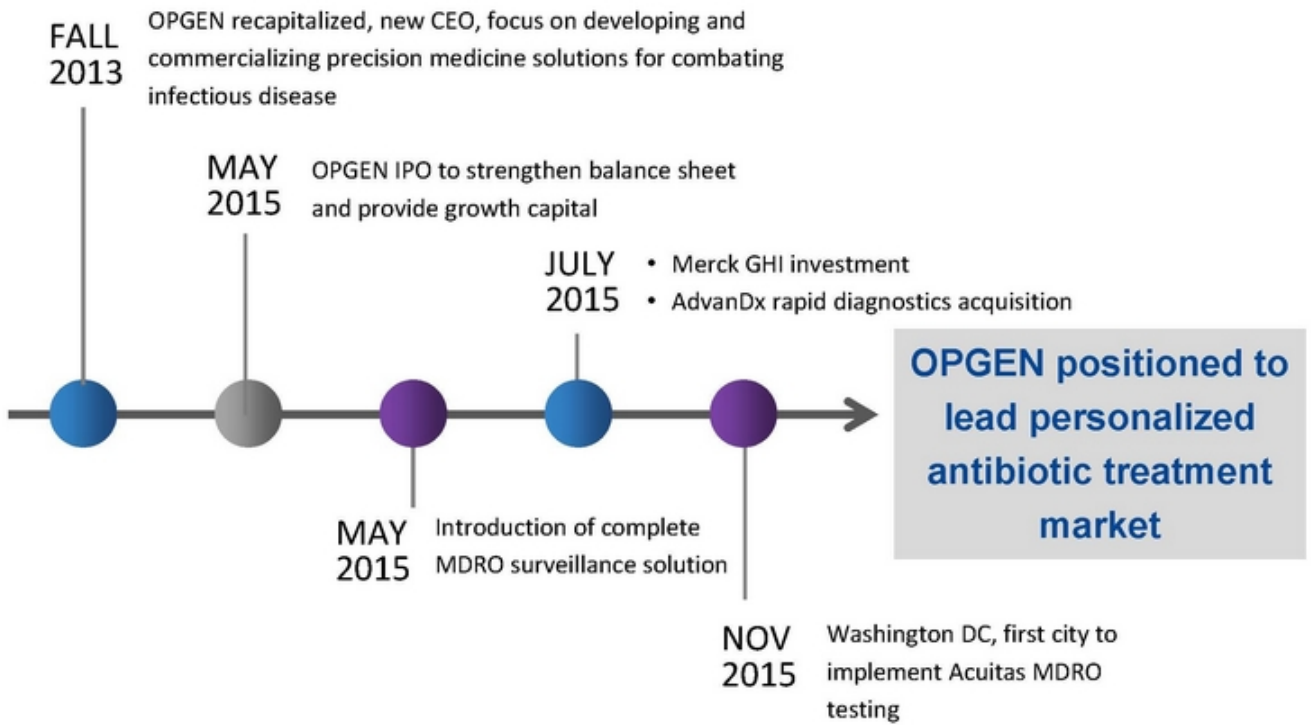
Commercial Launch Plans

Driving Value in 2016 and Beyond

First global molecular diagnostics company providing pathogen and resistance data to inform critical antibiotic treatment decisions



Company Timeline



Q3 FY 2015 Highlights

Select income statement data

(000's)	Q3 2015	Q3 2014	YOY% Change
Product sales	\$ 953	\$ 356	166.9%
Collaboration revenue	\$ 28	\$ 478	(94.1%)
Total revenue	\$ 981	\$ 834	17.6%
Gross margin ⁽¹⁾	31%	70%	(39.0%)
Operating expense ⁽²⁾	\$ 4,962	\$2,163	129.3%
Operating loss ⁽²⁾	(\$4,654)	(\$1,581)	194.4%

Select balance sheet data

(000's)	9/30/15	12/31/14
Cash and equivalents	\$ 11,187	\$ 749
Total assets	\$ 16,997	\$ 2,655
Total long-term liabilities	\$ 1,318	\$ 134
Shares outstanding	12,539	493

(1) Q3 gross profit adversely impacted by 20% due to short term purchase accounting items

(2) Includes approximately \$1M of M&A related expenses

Next Steps



DNA analysis revolutionizing microbiology

- 30-60 minute rapid tests
- 6 million base pair DNA analysis
- Data analysis software
- Highly robust scalable solutions

- Expand pharma and health system relationships
- Strengthen global distribution network
- Accelerate development of Acuitas Lighthouse™ database and rapid molecular tests
- Complete development and launch next generation QuickFISH products
- Access enabling products, services, and technologies
- Continue strengthening balance sheet

Company Highlights

Nasdaq:OPGN

World-class team developing one of the largest hospital diagnostic and informatics markets

Rapid molecular information to inform management of patients with bacterial infections

- Global health crisis of antibiotic resistance
- Large and growing market opportunity
- Merck GHI strategic investment
- FDA-cleared rapid diagnostics
- Established customer base
- High margin recurring revenue business model
- Clearly defined growth strategy
- Proven management team



*"Precision Medicine Solutions for
Combatting Infectious Disease"*

Corporate Presentation January 2016