



Microarray Instrumentation, Products, and Services

OTCQB: ARYC

INVESTOR PRESENTATION
DECEMBER 2013

We have identified forward-looking statements by using words such as "expect," "believe," and "should." Although we believe our expectations are reasonable, our operations involve a number of risks and uncertainties that are beyond our control, and these statements may turn out not to be true. Risk factors associated with our business, including some of the facts set forth herein, are detailed in the Company's Form 10-K for the fiscal year ended December 31, 2012 and in Form 10-Q for the quarterly period ended June 30, 2013.

Microarray Tools & Integrated Systems

Develop, manufacture and market comprehensive line of microarray life science tools and integrated systems for the large-scale analysis of genetic variation and biological function

Diagnostic

Developing a wide range of diagnostic testing solutions and preparing to submit FDA 510(k) application for Ovarian cancer monitoring test

Additional tests in pipeline

Trend toward Personalized Medicine

- Arrayit stands at the center of this trend which is revolutionizing modern medicine by customizing treatment to a patient's molecular and genetic profile
- Tools and diagnostics business both stand to benefit

Attractive Business Model

- Opportunity for sustained profitability (GAAP profitable for first nine months of 2013)
- 30+% of revenues are high margin consumables
- Large NOL from reverse merger

Large and Growing Microarray Market

- Microarray market forecasted by ResearchMoz to grow 18.6% CAGR
- US \$11.4B market by 2018

Microarray Pioneer and Innovator

- Dr. Mark Schena is a leading talent in scientific and technological innovation and the originator of Microarray Technology
- Patented and proprietary technology platform

Opportunity to Grow Diagnostic Testing Business

- Leverages core microarray business
- Preparing to submit FDA 510(k) application for OvaDx® Ovarian Cancer Monitoring Test

We Are Here



2013 +
Beyond

1997-2003

2003-2006

2006-2012

Growth

Patent Defense

Stability & Regain Profitability

Growth

- Grew to \$12.4 million in sales
- Inc. 500 Magazine
- Silicon Valley Top 50

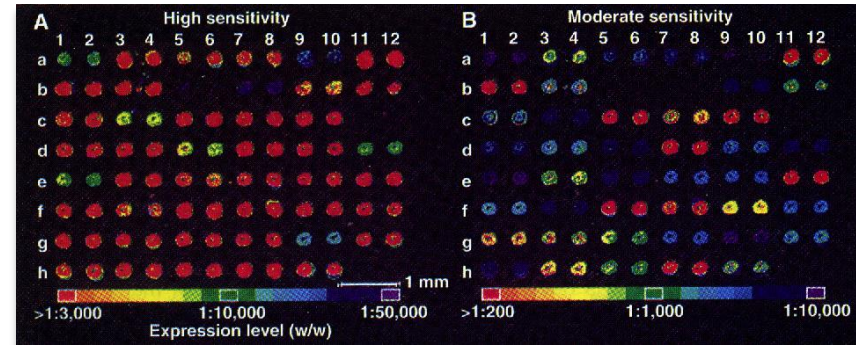
- Spent considerable time and resources defending patents
- Lost bank line
- Sales contracted
- Obtained freedom to operate in microarray industry
 - Illumina settled with Affymetrix for \$90M for this right
- Continued R&D and product development

- Focused on core business and regained profitability
- Platform technology enhancement
- Developed diagnostic strategy
- Private to public company (ARYC)

- Recapitalize business
- Tools business has strong backlog
- Submitting diagnostics for FDA 510(k) approval
 - OvaDx®
 - Parkinson's Disease (PDx™)
 - Genotyping tests

MICROARRAY TOOLS & INTEGRATED SYSTEMS

- A DNA microarray is an ordered collection of microscopic DNA elements on a planar surface that enables specific target-probe binding events.
- Scientists use DNA, protein and many other types of microarrays to measure the expression levels of large numbers of genes simultaneously, to genotype multiple regions of a genome, and to analyze serum biomarkers.



- Growth Drivers include:
 - Growing patient population (aging, lifestyle impacts)
 - Increasing understanding of cancer markers and pathways
 - Greater access to healthcare in emerging markets
 - Companion diagnostics customize diagnostic and treatment solutions to enable personalized medicine
 - Improved molecular diagnostic approaches

- Microarray market expected to reach \$11.4 billion by 2018

- CAGR of 18.6%

- Most growth in Asia-Pacific, Europe, North America

- PhD in Biochemistry (1990) from the University of California at San Francisco.
- In 1995, as a postdoctoral fellow at Stanford University, authored the first paper on microarrays in the premier scientific journal, *Science*, introducing microarrays to the world as a new scientific technology.
- This paper provided the blueprint for the modern microarray industry.

Microarrays are currently used in more than 100,000 laboratories around the world.

Who Uses Microarray Tools for Research?

Genomic Research Centers
Academic Institutions
Government and Private Labs

Pharmaceutical Companies
Diagnostic Companies
Biotech Companies

Arrayit Customers Include:

Genentech
A Member of the Roche Group

The Pfizer logo, consisting of the word "Pfizer" in a white, sans-serif font inside a blue oval.The logo for the University of California, featuring the letters "UC" in a large, bold, yellow font, followed by "University of California" in a smaller, blue font.The Google logo, with the word "Google" in its characteristic multi-colored font.The Stanford University logo, featuring the word "STANFORD" in a white, serif font above the word "UNIVERSITY" in a smaller, white, serif font, all contained within a dark red rectangular box.The Illumina logo, with the word "illumina" in a lowercase, grey, sans-serif font, where the "i" is lowercase and the rest are lowercase.

More Than 5,000 Scientific Papers Have Been Published Using Arrayit's Technology

- Utilizes proprietary contact printing technology– durable, high speed, precise and versatile
 - Contact printing patent U.S. 6,101,946
- Detects all 6,000 known human diseases
- Analyzes wide array of samples, including: DNA, RNA, antibodies, peptides, carbohydrates, antigens, et. al.
- Affordable
- Most results processed in several hours
- Very high sensitivity and accuracy

Arrayit's technology addresses the need for a low-cost, mass producible, accurate product, particularly for the Diagnostics and Personalized Medicine markets

Custom Printing Equipment



- Patented, high speed
- Proprietary contact printing technology
- Print all sample types

Slides/Reagents (Consumables)



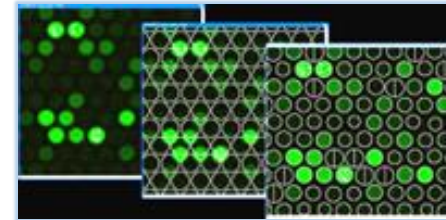
- High margin
- 30%+ of revenues
- Optimized for use with Arrayit instruments

Detection (Scanners)



- Colorimetric and fluorescence detection
- Highest speed and resolution on market

Analysis (Software)



- Advanced quantification and analysis software
- Large number of patient samples
- Oncology, neurodegenerative disease and lifestyle

Distributors

- 55 distributors around the world
 - US
 - Europe
 - South America
 - Asia
 - Africa
 - Australia

Direct Distribution

- Comprehensive eCommerce site: entire suite of 1,100+ products available for purchase
- Arrayit catalogue received 200,000+ downloads within the first 10 months of 2013

DIAGNOSTICS

- Microarray is a core technology for many diagnostic tests
- Large market opportunity: underserved and widespread applications
- Extensive pre-application testing
Company well-positioned for 510(k) applications

Diagnostics is a Natural Next Step in Our Growth Strategy

OVADx[®] OVARIAN CANCER MONITORING AND SCREENING TEST

- Ovarian cancer is the 5th leading cause of cancer death among American women
 - 22,280 were diagnosed with and 15,500 women died from ovarian cancer in 2012
- Symptoms are subtle and ambiguous; difficult to detect
- Early detection is the key for increased survival rate

Currently No Monitoring and Screening Test Available for Ovarian Cancer; Creates Significant Demand for an Early Detection Method

How it Works:

- Blood sample taken at doctor's office or clinic and mailed to Arrayit
- Testing completed in 2.5 hours at Arrayit with proprietary equipment
- Definitive yes/no result

Benefit to Patients:

- Improved monitoring and early detection
- 5-year survival rate could improve from 20% to 80%
- Preventative procedure typically does not require chemotherapy or radiation therapy
- Affordable cost



Tumor Histology	Stage I	Stage II	Stage III	Stage IV	Total
Borderline serous ovarian cancer	2/3	0	1/1	0	3/4
Clear cell ovarian cancer	4/5	0	1/1	0	5/6
Endometrioid ovarian cancer	4/6	0	2/2	1/1	7/9
Mixed epithelial ovarian cancer	2/2	2/2	2/3	0	6/7
Mucinous ovarian cancer	2/2	0	0	1/1	3/3
Serous ovarian cancer	1/2	0	23/29	3/4	27/35
Ovarian adenocarcinoma	2/3	0	0	2/2	4/5
Total sample sensitivity	17/23	2/2	29/36	7/8	55/69
Total sensitivity percentages	73.9%	100%	80.6%	87.5%	79.7%

Specificity was determined using a total of 188 serum samples, 178 sera from healthy females and 10 from females with benign gynecologic diseases. 188/188 tested negative in the study for 100% specificity.

Current Sensitivity at 79.7%; 100% Specificity

Enhancements Include:

- Additional proprietary biomarkers
- Improved positive and negative controls
- Class 100 clean room manufacturing and screening
- Manufacturing improvements
- Surface chemistry improvements
- Proprietary kit formulation
- Enhanced analysis software



Expect to be at 90% Sensitivity and 100% Specificity When We Submit 510(k) Application

LIFESTYLE DIAGNOSTICS TEST

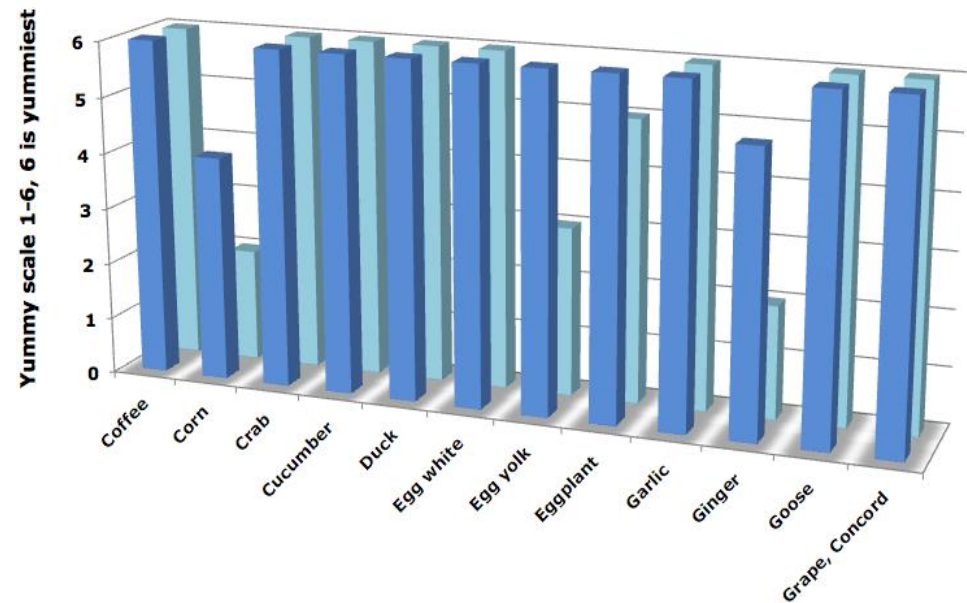
Product: Yummy![™] Test analyzes allergic reactions to common foods using a simple 1-6 scale.

Health Benefits:

- Allows patients to identify incompatible foods and then harmonize their diets with their genes, lifestyle and the environment for improved health and well-being.

Economic Benefits:

- Distributed cheaply and efficiently via doctors' offices
- Able to test thousands of patients in a single day



Tools and Integrated Systems

- Continue to **drive product innovation** utilizing patented contact printing technology
- **Broaden international distribution** base
- Increase direct sales through **ecommerce** expertise
- Focus on **increasing sales of consumables** to installed instruments customer base
- Strategic M&A

Diagnostics

- Submit 510(k) application for OvaDx[®]
- Pursue additional longer term opportunities in the diagnostics space that leverage company's technology

Benefit from Long-Term Growth in Personalized Medicine

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