

Unique Insight, Better Outcomes

CombiMatrix Corporation is a family health molecular diagnostics company specializing in DNA-based reproductive health and pediatric testing services. Its genetic testing utilizes a variety of advanced cytogenomic techniques including chromosomal microarray, next generation sequencing (NGS), standardized and customized fluorescence *in situ* hybridization (FISH) and high-resolution karyotyping. CombiMatrix provides high-level clinical support for healthcare professionals to help them incorporate the results of complex genetic testing into patient-centered medical decision-making. In 1Q17, CombiMatrix reported Y/Y increases of 28% in total revenues, 32% in reproductive health revenues and 8% in billable customers. CombiMatrix is targeting positive cash flow from operations by 4Q17.

Investment Highlights

- **Large opportunity in the \$725M U.S. reproductive health market:** Increasing demand created by late-in-life pregnancies; support from clinical data and industry association; growth in miscarriage analysis testing supported by 25 payors revising medical policy decisions to reimburse for recurrent pregnancy loss testing since early 2016
- **Established player in \$100M U.S. postnatal diagnostics market:** Leading expertise in microarray testing for diagnosis of pediatric developmental disorders
- **Value-added service model:** Rapid turnaround with meaningful results, complemented by high-touch services and counseling
- **Expanding product portfolio:** 6 tests launched in past 2 years are accretive and gaining market traction, with plans to introduce new tests
- **Effective execution of commercial plan:**
 - A direct sales force that understands the market and is expanding the customer base
 - High cash reimbursement collection rate (90% of revenues in 1Q17)
- **Strong 1Q17 financial performance:** Reproductive health diagnostic tests revenues increased 32% Y/Y; gross margin improved to 59.9% from 51.6% in the prior year; cash used in operations decreased 70% Y/Y to \$0.5M

Growing Market Opportunities

Postnatal Genetic Testing

American College of Medical Genetics¹, American Academy of Pediatrics² and American Academy of Neurology³ recommend testing for one or more:

- Developmental delays or intellectual disability
- Birth defects
- Unusual physical features
- Autism spectrum disorders

CombiMatrix Advantages

- Leading expertise/well published in postnatal microarray
- Rapid 8-day turnaround time
- Testing with blood or buccal cheek swabs for ease of use

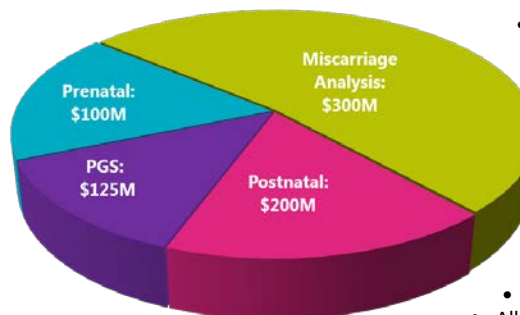
Pre-Implantation Testing

- High-resolution screening for aneuploidy in IVF-derived embryos prior to implantation
- Avoid multiple embryo implantations; decreased multiple rate⁵
- Increased implantation rates; decreased miscarriage rates
- \$125M market with growth fueled by new technologies⁶
- Recently launched CombiPGD test for single gene disorders and chromosomal translocations

CombiMatrix Advantages

- 3-day turnaround time
- Barcoded samples for quality assurance
- Genetic counseling services
- Ready access to medical staff

Potential Annual U.S. Market:
\$725 Million
(company estimates)



Miscarriage Analysis

- High-resolution diagnosis of genetic disorders that account for 50% of miscarriages before 20 weeks gestation
- Avoids costly evaluations if chromosomal etiology is uncovered (saving >\$3K per patient⁴)
- Allows informed decisions on future pregnancies

CombiMatrix Advantages

- Leading expertise in analyzing FFPE samples
- Rapid 10-day turnaround time
- All tests performed in one location
- High-yield success rates: 92% for fresh & 86% for FFPE

Prenatal Diagnostic Testing

- High-resolution diagnosis of cytogenetic disorders
- Allows parents to make informed decisions
- Support for microarrays over karyotyping from published NICHD study and ACOG Committee Opinion
- Comprehensive reflex to confirm NIPS results

CombiMatrix Advantages

- Pioneer of microarray analysis of amniotic fluid & CVS
- Rapid 7-day turnaround time
- CombiCounsel™ Genetic Counseling Program
- Unique counseling and physician summary reports

Focus on Reproductive Health

Reproductive health consists of:

- Pre-implantation genetic screening
- Miscarriage analysis
- Prenatal diagnostics

Potential to become a major player in IVF market:

- Strong uptake with CombiPGS product for pre-implantation genetic screening
- Private-pay market eliminates reimbursement risk

Miscarriage analysis market is growing:

- Historically covered by third-party payors, not Medicare
- Microarray technology is ideal as it does not depend on growth of a cell culture, unlike karyotyping

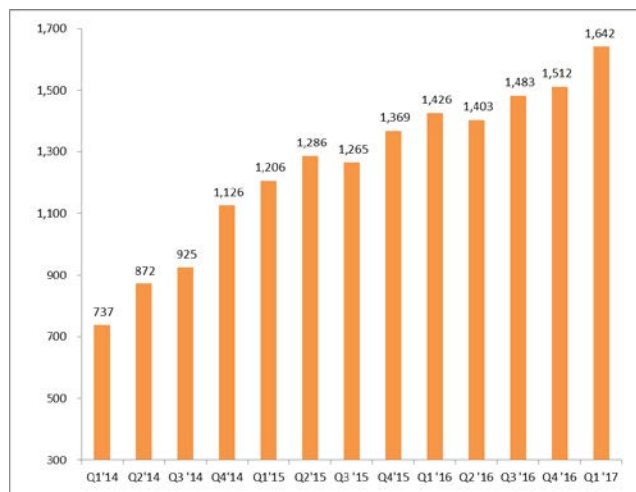
Prenatal diagnostics suitable for microarray testing:

- Test of choice following invasive procedure
- Confirmatory to non-invasive prenatal screening (NIPS)
- High false-positive rate is a concern for NIPS⁶

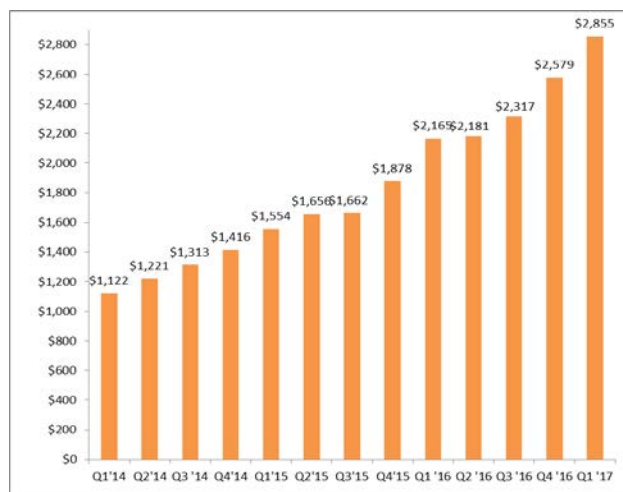
Source: 6. NIHCD Study, Dec. 2012 NEJM.

Positive Reproductive Health Business Trends

Volumes



Revenues (\$ in '000s)



Strategies Driving Growth

Capitalizing on favorable market trends by:

Growing the product portfolio to leverage the sales channel

- 6 tests launched in past two years are gaining market traction
- Plan to enhance current portfolio and expand NGS offering

Adding new customers and increasing the productivity of our sales force

Promoting physician adoption by providing additional clinical validation with guidance from our Scientific Advisory Board

Pursuing additional reimbursement contracts with third-party payors

Reaping the benefits from investments made in our billing organization to maintain high collection rates

- Experienced team developing initiatives
- Multi-pronged strategy including thought-leader involvement, patient advocacy-initiated call-to-action plan and pricing integrity in payor contracts

Financial/Operating Highlights

Quarter ended March 31, 2017

| | |
|--|------------------------------|
| Revenue: | \$3.8M, +28% Y/Y |
| Reproductive health diagnostic test revenue: | \$2.9M, +32% Y/Y |
| Gross margin: | 59.9% -up from 51.6% in 1Q16 |
| Net operating loss | \$0.5M down 70% Y/Y |
| Net loss to common stockholders per share: | \$0.19 |
| Cash, cash equivalents and short-term investments: | \$3.2M |
| 1Q17 Billable Customers: | 262, +8% Y/Y |
| 1Q17 Cash Collections: | 90% of revenues |

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