Forward-Looking Statement

These slides may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements pertaining to future financial and/or operating results, future growth in revenues, margins, research, technology, clinical development and potential opportunities for Cancer Genetics, Inc. tests 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, risks of cancellation of customer contracts or discontinuance of trials, risks that anticipated benefits from acquisitions will not be realized, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, maintenance of intellectual property rights and other risks discussed in the Cancer Genetics, Inc. Form 10-K for the year ended December 31, 2016 and the Form 10-Q for the Quarter ended September 30, 2017 along with other filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Cancer Genetics, Inc. disclaims any obligation to update these forward-looking statements.
Our Mission: Become The Global Precision Oncology Partner of Choice from Bench to Bedside

- RESEARCH - DISCOVERY -
- PROVIDING UNPARALLELED EXPERTISE TO BIOPHARMA COMPANIES FOR IMPROVED THERAPEUTIC DEVELOPMENT
- PARTNERING WITH LEADING RESEARCH INSTITUTIONS TO DRIVE INNOVATION AND DEVELOP NEW INSIGHTS

- CLINICAL TRIALS - DEVELOPMENT -
- DELIVERING GENOMIC INSIGHTS TO PHYSICIANS TO PERSONALIZE TREATMENT & IMPROVE OUTCOMES
- INNOVATION & EXECUTION

- PATIENT CARE - DIAGNOSTICS -
- PARTNERING WITH LEADING RESEARCH INSTITUTIONS TO DRIVE INNOVATION AND DEVELOP NEW INSIGHTS
CANCER GENETICS IS POSITIONED TO LEAD THE EVOLUTION OF ONCOLOGY TOWARD COMPREHENSIVE AND PERSONALIZED MOLECULAR PROFILING

Leveraging a Comprehensive, Multi-Platform Approach

Molecular Diagnostics Including NGS & IHC
- Guiding drug discovery, drug development & clinical trial design
- 21 proprietary, commercially-launched tests

Immuno-Oncology
- Leading capabilities for biopharma, clinical and discovery services

Intellectual Property
- 80 U.S. and international patents

Model Validated by Increasing Global Market Traction

Biopharma Contracts
- Contracts with 9 of the top 10 biopharma companies

Research Collaborations
- 15+ active research collaborations with leading academic institutions

History of Continued Revenue Growth
- 42% 4-year revenue CAGR
- 61% EBITDA increase (non-GAAP) year over year to end of Q3 2017
Global Oncology Marketplace is Expected To Exceed $150 Bn & Nearly $22 Bn Spent on Genomic & Biomarker Testing

GLOBAL ONCOLOGY COSTS EXPECTED TO EXCEED $150 BN BY 2021

2011 2016 2021

$90 Bn $113 Bn $147- $177 Bn

GLOBAL ADDRESSABLE MARKET FOR CGIX

CLINICAL $11.2 BN
BIOPHARMA $9 BN
DISCOVERY $2 BN

• These markets require and share many of the same technologies, tests and similar regulatory oversight.

• CGI has a unique business model that has been developed to address all 3 synergistic end-markets

Source: QuintilesIMS, MIDAS, Q4 2016, QuintilesIMS Institute, Mar 2017
CGI Is Uniquely Positioned Across The Oncology Lifecycle – A Global Market of Over $20 BN

- Timeline from Discovery to Market Entry Is Shrinking
- Increased Pressure to Find Combinations & Repurpose Compounds
- Comprehensive Genomic & Immune Marker Strategies Are Required for Oncology Success
- Finding and Monitoring Patients Is Central To Commercial Success
Cancer has been progressively redefined in the last 20 years driven by both genomic technology in clinical trials and patient care & the paradigm of targeted drug discovery.

**Biomarker-based Segmentation in Select Tumor Types is Centered to Patient Management & Therapy Selection**

**NSCLC**
- Non Segmented Lung Cancer
- ALK
- Squamous
- ROS
- BRAF
- EGFR

**Breast**
- HER2- HR+, Premenopausal
- TNBC, Pre
- HER2+HR+, Pre
- HER2+ HR-, Pre
- HER2- HR+, Post
- HER+ HR+, Post

**Melanoma**
- Non Segmented Melanoma
- Melanoma BRAF-Mu
- Melanoma BRAF-WT
- NRAS

**Colorectal**
- Non Segmented CRC
- KRAS-WT
- BRAF
- KRAS-MUT

Source: FDA.gov and Drugs@FDA, Mar 2017; QuintilesIMS, ARK R&D Intelligence, Feb 2017; QuintilesIMS Institute, Mar 2017
Therapy Options for Multiple Tumor Types Have Increased Adding to Treatment Complexity & Need for Monitoring

APPROXIMATE NUMBER OF TREATMENT OPTIONS FOR SELECT TUMORS (1996-2017)

Source: Drugs@FDA, Feb 2017; QuintilesIMS, ARK R&D Intelligence, Feb 2017; QuintilesIMS Institute, Mar 2017

2018 Cancer Genetics, Inc. | www.cancergenetics.com | @Cancer_Genetics
Significant & Growing Relationships with Leading Pharmaceutical and Biotech Companies

CONTRACTS WITH
9 OF 10
TOP BIOPHARMA COMPANIES

200
CLINICAL TRIALS SUPPORTED
WITH TESTING, GENOMIC
SERVICES AND BIOMARKER
CAPABILITIES

BIOPHARMA AND TOTAL REVENUE

= Total Revenue
= Biopharma Revenue

2012 2013 2014 2015 2016 2017
$4.3M $6.6M $10.2M $18.0M $15.3M $27.0M
$2.7M $5.6M $11.6M $11.2M
$2.7M $5.6M $11.6M $11.2M
$2.7M $5.6M $11.6M $11.2M
$2.7M $5.6M $11.6M $11.2M

$15.3M $27.0M
$11.2M $21.6M
$11.6M $27.0M
$11.2M $21.6M
$11.6M $27.0M
$11.2M $21.6M

first 9 mos.
CGI is Ideally Positioned To Add Value & Generate Revenue From Translating Drug Development into Companion Dx & Patient Therapies

START: BIOPHARMA SERVICES

CGI SUPPORTS

200 CLINICAL TRIALS & STUDIES

GOAL: CLINICAL CARE

15% APPROVAL RATE
TRANSLATES TO

30+ COMMERCIALIZED PRODUCTS

6 POTENTIAL COMPANION DX
TO ACCELERATE CLINICAL GROWTH
CGI Developed a Unique Multi-Platform Solution for Residual Disease Monitoring For an Innovative CAR-T Biotech’s Global Clinical Trial

WHO IS THE CLIENT

• Clinical-stage biopharma company developing autologous cellular biologics as a method for overcoming tumor immune system evasion, and potentially eradicating cancer cells

WHAT WAS THE OPPORTUNITY

• Validated and established assay for minimal residual disease surveillance in chronic lymphocytic leukemia (CLL)
• CLL residual disease monitoring assay utilized to detect biomarkers during and following client CAR-T (chimeric T cell receptor) therapy

CGI TARGETED SOLUTION

• CGI performed a pilot project for the client on whole blood samples
• Measured select, critical biomarkers in CLL samples with various concentrations of CAR-T
• Leveraged CGI's expertise in flow cytometry, next generation sequencing and immunohistochemistry and deep experience in CLL and B-Cell malignancies

FACTORS FOR SUCCESS

✓ CGI’s ability to execute custom client assay protocols, including custom cell preparation and integration of client biomarkers and therapeutic agents
✓ Access to qualified commercial sources of fresh whole blood CLL samples
✓ Ability to expand protocols to additional specimen types
## Proprietary Portfolio of Molecular Tests and NGS Panels

<table>
<thead>
<tr>
<th>RESEARCH &amp; DISCOVERY</th>
<th>CLINICAL DEVELOPMENT</th>
<th>COMMERCIAL DEVELOPMENT</th>
<th>MARKET ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLOOD</strong></td>
<td><strong>SOLID TUMORS</strong></td>
<td><strong>HEREDITARY</strong></td>
<td></td>
</tr>
<tr>
<td>MATBA® FOR B-CELL Cancers [CLL &amp; SLL; DLBCL; FL; MCL]</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td>LYMPHOMA NGS PANELS [CLL; DLBCL &amp; FL; MCL; OTHER LYMPHOMAS]</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td>MYELOID NGS PANELS [AML; MDS; MPN; OTHER MYELOID MALIGNANCIES]</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td>MULTIPLE MYELOMA [ONCOSPIRE GENOMICS, JOINT VENTURE WITH THE MAYO CLINIC]</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td><strong>FOCUS::RENAL®</strong></td>
<td><strong>FHACT® CERVICAL</strong></td>
<td><strong>TISSUE OF ORIGIN®</strong> [FDA-CLEARED]</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td><strong>FOCUS::ONCOMINE™ [SOLID TUMORS]</strong></td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td><strong>COMPLETE::IO™</strong></td>
<td><strong>LIQUID::LUNG-cfDNA™</strong></td>
<td><strong>LUNG CANCER</strong> [ONCOSPIRE GENOMICS, JV WITH MAYO CLINIC]</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td><strong>FOCUS::HERSITE® [HEREDITARY BREAST &amp; OVARIAN CANCER]</strong></td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
<tr>
<td><strong>COMPREHENSIVE PHARMACOGENOMICS PANEL</strong></td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
<td>TEST IN MARKET</td>
</tr>
</tbody>
</table>
Our Four Pillars of Innovation

1. **UNIQUE CONTENT VIA PARTNERSHIPS & COLLABORATIONS**
   - Mayo Clinic
     Oncospire Genomics joint venture targeting hematological cancers
   - Columbia University
     Genomic signatures for myelodysplastic syndromes and AML
   - Huntsman Cancer Center
     Patient response to kidney cancer frontline therapies

2. **IMMUNO-ONCOLOGY INDUSTRY-LEADING CAPABILITIES**
   - HTG Collaboration
     Expression of genes implicated in patient immune responses to tumors
   - Dako / Ventana CDx
     Dako 22C3 and Ventana SP263 CDx test for KEYTRUDA®
   - Unique Immuno-Oncology Panel via Flow Cytometry
     Commercialization of Comprehensive IO Panel Flow Cytometry

3. **HIGH SENSITIVITY LIQUID BIOPSY AND CELL-FREE ANALYSIS**
   - Portfolio Updates
     Anticipated launch of focused, multi-gene liquid biopsy tests for lung and renal cancer in upcoming quarters
   - Oncomine™ Lung cfDNA Assay
     Detection levels down to 0.1% with 90% sensitivity & >98% specificity for point mutations and indels using only a single blood sample

4. **FOCUS ON EARLY DISCOVERY AND DEVELOPMENT**
   - Integration of vivoPharm & Development of Humanized vivoModels™
     Utilizing vivoPharm’s 90+ efficacy models
   - Leveraging AntigenID™ for drug repurposing
     Launched initial model in Q4 2017
   - Launch of Bioinformatics Center of Excellence
     Consolidating and developing capabilities in Hyderabad, India
Collaborations with World-Renowned Research Institutions Gives Us Access To Innovation & Revenue

<table>
<thead>
<tr>
<th>Institution</th>
<th>Disease Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beth Israel Deaconess Medical Center</td>
<td>DLBCL (Diffuse Large B-Cell Lymphoma)</td>
</tr>
<tr>
<td>Cleveland Clinic</td>
<td>Kidney Cancer</td>
</tr>
<tr>
<td>Columbia University</td>
<td>AML, MDS, and Myeloid Cancers (Acute Myeloid Leukemia, Myelodysplastic Syndromes)</td>
</tr>
<tr>
<td>Groupe Hospitalier Pitié Salpétrière, Paris</td>
<td>Kidney Cancer</td>
</tr>
<tr>
<td>Huntsman Cancer Institute, University of Utah</td>
<td>Kidney Cancer</td>
</tr>
<tr>
<td>Kamineni Hospital, India</td>
<td>Cervical Cancer</td>
</tr>
<tr>
<td>Keck Medicine of USC</td>
<td>DLBCL and FL (Diffuse Large B-Cell Lymphoma and Follicular Lymphoma)</td>
</tr>
<tr>
<td>Memorial Sloan-Kettering Cancer Center</td>
<td>Kidney Cancer</td>
</tr>
<tr>
<td>Moffitt Cancer Center</td>
<td>CINV and PGx</td>
</tr>
<tr>
<td>National Cancer Institute</td>
<td>Cervical Cancer</td>
</tr>
<tr>
<td>North Shore LIJ Health System</td>
<td>CLL/SLL</td>
</tr>
<tr>
<td>University of Alabama</td>
<td>Central Nervous System Lymphoma</td>
</tr>
<tr>
<td>University of Iowa Cancer Center</td>
<td>DLBCL, Lymphoma</td>
</tr>
<tr>
<td>Westchester Medical Center</td>
<td>Central Nervous System Lymphoma</td>
</tr>
</tbody>
</table>
• **Multiple myeloma (MM)** is the **second most common hematological malignancy** in the U.S. (after non-Hodgkin lymphoma)

• MM constitutes **1% of all cancers** and **15% of hematological malignancies**

• **30,280 new cases** of MM and **12,590 deaths** in 2017 in US alone

• Identification of mutations, copy number and structural changes in MM allows **better risk assessment** and **prognostication**, resulting in **better selection of appropriate and more effective therapy**

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**GENE LIST (89 GENES)**

<table>
<thead>
<tr>
<th>ACTG1</th>
<th>BRAF</th>
<th>CDKN2A</th>
<th>EGFR</th>
<th>IGF1R</th>
<th>KRAS</th>
<th>NRAS</th>
<th>PIM3</th>
<th>RIPK1</th>
<th>TNFRSF13B</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKT1</td>
<td>BTG1</td>
<td>CDKN2C</td>
<td>EGR1</td>
<td>IKZF1</td>
<td>MAF</td>
<td>NR3C1</td>
<td>PSMA1</td>
<td>RIPK4</td>
<td>TNFRSF21</td>
</tr>
<tr>
<td>AKT2</td>
<td>CARD11</td>
<td>CRBN</td>
<td>FAM46C</td>
<td>IKZF3</td>
<td>MAFB</td>
<td>PRDM1</td>
<td>PSMB5</td>
<td>SHC1</td>
<td>TRAF2</td>
</tr>
<tr>
<td>AKT3</td>
<td>CCND1</td>
<td>CUL4A</td>
<td>FGFR3</td>
<td>IL6</td>
<td>MAX</td>
<td>PIK3CA</td>
<td>PSMC6</td>
<td>SP140</td>
<td>TRAF3</td>
</tr>
<tr>
<td>ATM</td>
<td>CCNT1</td>
<td>CUL4B</td>
<td>GRB2</td>
<td>IL6R</td>
<td>MYC</td>
<td>PIK3CG</td>
<td>PSMD1</td>
<td>STAT3</td>
<td>TRAF3IP1</td>
</tr>
<tr>
<td>ATR</td>
<td>CD38</td>
<td>CXCR4</td>
<td>IDH1</td>
<td>IL6ST</td>
<td>MYD88</td>
<td>PIK3R1</td>
<td>PSMG2</td>
<td>TET2</td>
<td>WHSC1</td>
</tr>
<tr>
<td>B2M</td>
<td>CDK4</td>
<td>CYLD</td>
<td>IDH2</td>
<td>IRF4</td>
<td>NFKB2</td>
<td>PIK3R2</td>
<td>PTPN11</td>
<td>TGFBR2</td>
<td>XBP1</td>
</tr>
<tr>
<td>BIRC2</td>
<td>CDK7</td>
<td>DIS3</td>
<td>IDH3A</td>
<td>JAK2</td>
<td>NFKBIA</td>
<td>PIM1</td>
<td>RASA2</td>
<td>TP53</td>
<td>ZFHX4</td>
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<tr>
<td>BIRC3</td>
<td>CDKN1B</td>
<td>DUSP2</td>
<td>IFNGR2</td>
<td>KDM6A</td>
<td>NFKBIB</td>
<td>PIM2</td>
<td>RB1</td>
<td>TLR4</td>
<td></td>
</tr>
</tbody>
</table>

Source: American Cancer Society
Combination I-O Therapies Improve Outcomes and Drive Biomarker Testing

**POTENTIAL IMPROVED O/S FROM COMBINATION THERAPY**

**PROJECTED COMBINATION REGIMEN LAUNCHES**

80+ EXPECTED OVER NEXT 4 YEARS

Source: CenterWatch, FDA, clinicaltrials.gov, IMS R&D LifeCycle, IMSCG Analysis, Cell 161 April 9, 2015 Elsevier Inc.
PD-1/PD-L1 Inhibitors Have Seen the Fastest Development Across Tumors...but, I-O Efforts Are Rapidly Progressing

NEXT GENERATION I-O THERAPIES PRESENT SIGNIFICANT UPSIDE FOR CGI

4-1BB Agonist
Anti-CSF-1R
Anti-KIR
Anti-LAG-3 mAb
Anti-M-CSF mAb
Anti-PD1
Anti-PD-L1
Anti-TIM3 mAb
CAR-T Cell Therapy
IDO-1 Inhibitor

Source: Clinicaltrials.gov, Feb 2017; QuintilesIMS Institute, Mar 2017
IMMUNO-ONCOLOGY DRUGS HAVE THE POTENTIAL TO IMPACT UP TO 60% OF ALL CANCER PATIENTS

IMMUNOHISTOCHEMISTRY (IHC)
to detect critical biomarkers such as PD-L1 [FDA-APPROVED]

IMMUNOPHENOTYPING & FLOW CYTOMETRY
to assess immune response against cancers

TRANSCRIPTOME PROFILING & SEQUENCING VIA NGS
to measure expression levels of drug targets

ANTIGEN & NEOEPITOPE SELECTION – ANTIGENID™
to gauge the effectiveness of IO therapies & patient response

CGI Well Positioned to Benefit From The Expanding IO & Immune Therapy Landscape

IMMUNO-ONCOLOGY DRUG SALES EXPECTED TO REACH $50 BN BY 2025

CGI’S EXTENSIVE APPROACH FOR I-O SPANS FROM BENCH TO BEDSIDE:

CGI OFFERS ALL PD-L1 COMPANION DIAGNOSTIC TESTS AVAILABLE ON THE MARKET FOR IMMUNO-ONCOLOGY THERAPIES

CGI LISTED BY MERCK AS NATIONAL REFERENCE LAB FOR KEYTRUDA® EXPECTED SALES OF $7.8 BN BY 2025
### Complete::IO™
Immuno-Oncology Flow Cytometry Panel

- **10-color flow cytometry panel** that determines precise details of anti-tumor immunity

- Enables **simultaneous detection of multiple markers** on an individual cell

- Allows query of both **circulating cell populations and tumor microenvironment**

#### CGI I-O Panel

<table>
<thead>
<tr>
<th>CGI I-O Panel</th>
<th>Pac Blue</th>
<th>KrO</th>
<th>FITC</th>
<th>PE</th>
<th>ECD</th>
<th>PC5.5</th>
<th>PC7</th>
<th>APC</th>
<th>APC700</th>
<th>APC750</th>
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</thead>
<tbody>
<tr>
<td><strong>C1</strong> T cell subsets</td>
<td>HLA-DR</td>
<td>CD45</td>
<td>CCR7 (CD197)</td>
<td>CCR6 (CD196)</td>
<td>CD45RA</td>
<td>CD3</td>
<td>CD38</td>
<td>CXCR3 (CD183)</td>
<td>CD4</td>
<td>CD8</td>
</tr>
<tr>
<td><strong>C2</strong> Bregs</td>
<td>X</td>
<td>CD45</td>
<td>IgM</td>
<td>CD24</td>
<td>CD38</td>
<td>CD20</td>
<td>CD27</td>
<td>CD1d</td>
<td>CD5</td>
<td>CD19</td>
</tr>
<tr>
<td><strong>C4</strong> Tcell subsets- Tregs w/cFoxP3</td>
<td>CD3</td>
<td>CD45</td>
<td>CD25</td>
<td>CCR4 (CD194)</td>
<td>HLA-DR</td>
<td>CD45RO</td>
<td>CD127</td>
<td>cFoxP3</td>
<td>CD4</td>
<td>CD8</td>
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#### Populations Identified

<table>
<thead>
<tr>
<th>CD4+ Tcells</th>
<th>CD8+ Tcells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central memory (CD4+)**</td>
<td>Central memory (CD8+)**</td>
</tr>
<tr>
<td>Effector (CD4+)**</td>
<td>Effector (CD8+)**</td>
</tr>
<tr>
<td>Effector memory (CD4+)**</td>
<td>Effector memory (CD8+)**</td>
</tr>
<tr>
<td>Naïve (CD4+)**</td>
<td>Naïve (CD8+)**</td>
</tr>
</tbody>
</table>

**Tregs** (CD3/CD4/CD25/CD127+)

Bregs

**NK cells** (CD3-/CD56/CD16+)

**Plasmacytoid dendritic** (CD11c/CD123+)
## Expanding Field of I-O Therapy and Drug Development & Drug Repurposing

### NEW SERVICE OFFERING

**AntigenID™**

- Based on neoantigen identification technology utilizing **unique & comprehensive sequencing combinations** and sophisticated bioinformatics algorithms and computational workflows

- **Identification** of potent neoantigens that **generate** a robust **response** will significantly increase effectiveness of I-O therapies

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<table>
<thead>
<tr>
<th>Pathology Histology</th>
<th>DNA Analysis</th>
<th>Bioinformatic Analysis</th>
<th>RNA Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGS: Exome / Oncology Panel</td>
<td>Identify Somatic Mutations, TMB &amp; MSI</td>
<td>Confirm Expressed Somatic Mutations</td>
<td>Epitope Prediction</td>
</tr>
<tr>
<td></td>
<td>NGS: Whole Transcriptome</td>
<td>Immune Repertoire PMBCs</td>
<td>Neoantigen Validation</td>
</tr>
</tbody>
</table>
Uniquely Positioned and Actively Engaged in the Expanding Liquid Biopsy Space

7 AGREEMENTS TO DEVELOP AND VALIDATE MULTI-MARKER LIQUID BIOPSIES FOR BROAD RANGE OF SOLID TUMORS

- Platform Agnostic
- Funded by Leading Biotech & Pharmaceutical Companies
- Targeted, Disease-Specific Panels
  - Including breast, lung, renal, prostate, gastric
  - Mitigates false positives

LIQUID BIOPSY INVESTMENT TREND
YOY TOTAL FUNDING (IN MILLIONS)

Source: Tracxn Diagnostics Report January 2017
Actively Engaged in the Expanding Liquid Biopsy Space With Liquid::Lung in Market

NEW SERVICE OFFERING  LIQUID BIOPSY

LAUNCHED CGI’S FIRST BREAKTHROUGH NGS-BASED LIQUID BIOPSY TEST, LIQUID::LUNG-\textit{cfDNA}™

- Provides comprehensive coverage of \textbf{11 critical genes} and \textbf{150+ hotspots} related to lung cancer
- \textbf{Superior sensitivity} achieving a limit of detection down to \textbf{0.05%}

GENE LIST (11 GENES)

\begin{tabular}{|c|c|c|c|c|c|}
\hline
ALK & EGFR & KRAS & MET & MET & TP53 \\
\hline
BRAF & ERBB2 & MAP2K1 & NRAS & NRAS & \\
\hline
\end{tabular}

SOLID TUMOR BIOPSY CHALLENGES

- Tissue sampling is invasive
- Tissue sampling may be limited
- Solid tumor may not be accessible
- Tissue biopsy doesn’t capture tumor heterogeneity

LIQUID BIOPSY ADVANTAGES

- Noninvasive - samples can be taken at multiple time points
- Less expensive and faster turn around time
- Better indicator of tumor heterogeneity
- Potential to monitor both treatment and resistance
Compelling IP Portfolio with over 80 Disease-Focused Patents in Multiple Geographies

SELECT SIGNIFICANT PATENTS INCLUDE:

- **HPV-Associated Cancers**
  - 3 US Patents | PCT
  - Term Through 2031

- **Mature B-Cell Neoplasms**
  - 2 US Patents | India | Canada
  - Term Through 2030

- **Tissue of Origin**
  - 4 US Patents
  - Term Through 2030

- **Renal Cortical Neoplasms**
  - 2 US Patents | EU
  - Term Through 2027

- **Gene Expression**
  - 15 US Patents | PCT | AU | CA | China | Japan
  - Term Through 2023

- **Chromosomal Analysis Using FISH**
  - 2 US Patents | Canada
  - Term Through 2022

- **Gynecological Cancers & Precancers**
  - 2 US Applications Filed | PCT
  - Application Submitted
CGIX Revenue & Growth Highlights (numbers in $ millions)

**3rd Quarter Revenue**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$3.3M</td>
<td>$4.0M</td>
<td>$7.0M</td>
<td>$8.0M</td>
</tr>
</tbody>
</table>

4-Year CAGR: **26%**

**Full Year Revenue**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td>Revenue</td>
<td>$6.6M</td>
<td>$8.6M</td>
<td>$18.0M</td>
<td>$27.0M</td>
</tr>
</tbody>
</table>

4-Year CAGR: **42%**
Revenues By Market Category Through 9/30/2017

NEARLY 60% OF CGIX REVENUE IS DERIVED FROM SUPPORTING ONCOLOGY DISCOVERY AND DEVELOPMENT EFFORTS OF BIOTECH AND PHARMA COMPANIES GLOBALLY

- **$21.7M**
  - thru 9/30/2017
  - 52%

- **$11.2M**
  - **BIOPHARMA SERVICES**
  - CGI is now supporting over 200+ clinical trials and studies focused on Solid Tumor and Blood Cancers, including 52 for immuno-oncology indications

- **$8.9M**
  - **CLINICAL SERVICES**
  - 11% Q3 increase in clinical test volume over Q3 2016 due to enhanced portfolio in both immuno-oncology, and liquid biopsies.

- **$1.6M**
  - **DISCOVERY SERVICES**
  - [INCLUDES PARTIAL QUARTER OF VIVO PHARM REVENUE]
  - Significant progress in the integration of *vivo* Pharm, driving support for molecular testing and bioinformatics for pre-clinical initiatives and therapeutic discovery

NEARLY 60% OF CGIX REVENUE IS DERIVED FROM SUPPORTING ONCOLOGY DISCOVERY AND DEVELOPMENT EFFORTS OF BIOTECH AND PHARMA COMPANIES GLOBALLY
Clinical Reimbursement Mix & Payer Coverage

CLINICAL PAYER MIX – THRU 9/30/2017

$8.9M CLINICAL REVENUE
9 mos 2017

34% MEDICARE
52% COMMERCIAL PAYERS
14% DIRECT BILL

CLINICAL REVENUE ACCOUNTS FOR 41% OF TOTAL REVENUE YTD 2017
[9 mos 2017]

• Added 30 new Z-code modifiers from Medicare in 2017
• Experienced leadership team from G.E., Quest, Clarient focused on commercial contracting
• Medicare mix of collections expected to increase in 2018
• 2018 improved Medicare NGS expect reimbursement up to $2,900/test
Testing Volume Increasing Year After Year Driven By Need For Personalizing Oncology Treatment & Emergence of Precision Therapeutics

DELIVERING GENOMIC & BIOMARKER INSIGHTS TO PHYSICIANS TO PERSONALIZE TREATMENT & IMPROVE OUTCOMES

Indicates through 9 months for that year
## Key Performance Metrics in Biopharma Business Shows Potential For Significant Future Growth

<table>
<thead>
<tr>
<th>TOTAL ACTIVE PROJECTS</th>
<th>ACTIVE I/O PROJECTS</th>
<th>BOOKINGS TO BILLING RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 2016</td>
<td>Q3 2016</td>
<td>Q3 2016</td>
</tr>
<tr>
<td>120</td>
<td>28</td>
<td>0.9</td>
</tr>
<tr>
<td>Q2 2017</td>
<td>Q2 2017</td>
<td>Q2 2017</td>
</tr>
<tr>
<td>170</td>
<td>39</td>
<td>2.2</td>
</tr>
<tr>
<td>Q3 2017</td>
<td>Q3 2017</td>
<td>Q3 2017</td>
</tr>
<tr>
<td>191</td>
<td>52</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### ANNUAL PROGRESS

- **59% increase in biopharma projects**

### QUARTERLY PROGRESS

- **12% increase in biopharma projects**
- **86% increase in immuno-oncology projects**

### Key Metrics

- **Biopharma bookings to billing ratio of 1.6 on $8.2M of Q3 2017 bookings**
- **13 additional immuno-oncology projects with biopharma partners, many with combination trials**
- **Record quarterly biopharma bookings of $8.2M, up 134% year over year expected to drive future revenue increases**
### Our Markets & Field Based Sales Teams

<table>
<thead>
<tr>
<th>DEDICATED SALES FORCE</th>
<th>POTENTIAL BUYING CENTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12</strong></td>
<td>4,000+</td>
</tr>
<tr>
<td><strong>8</strong></td>
<td>85%</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>280+</td>
</tr>
<tr>
<td>U.S CLINICAL SALES FORCE</td>
<td>U.S HOSPITALS</td>
</tr>
<tr>
<td>U.S BIOPHARMA &amp; CLINICAL TRIALS SALES FORCE</td>
<td>U.S ONCOLOGY PATIENTS</td>
</tr>
<tr>
<td>INDIA SALES FORCE</td>
<td>GLOBAL CANCER RESEARCH CENTERS.</td>
</tr>
<tr>
<td></td>
<td>GLOBAL CLINICAL TRIALS FOR ALL CANCER TYPES</td>
</tr>
<tr>
<td>21,000+</td>
<td>Pharmaceutical &amp; Biotechnology Companies</td>
</tr>
</tbody>
</table>

Driving Increased Operational Efficiency and a Clear Path to Profitability & Improving Margins

**Q3 OPERATING EXPENSES COMPARISON** (Amounts in $ millions)

<table>
<thead>
<tr>
<th></th>
<th>Q3 2016</th>
<th>Q3 2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research &amp; Development</td>
<td>$1.6</td>
<td>$1.0</td>
<td>-38%</td>
</tr>
<tr>
<td>Sales &amp; Marketing</td>
<td>$1.0</td>
<td>$1.3</td>
<td>23%</td>
</tr>
<tr>
<td>General &amp; Administrative</td>
<td>$3.7</td>
<td>$4.3</td>
<td>17%</td>
</tr>
<tr>
<td><strong>TOTAL OP. EXPENSES</strong></td>
<td>$6.3</td>
<td>$6.6</td>
<td>4%</td>
</tr>
</tbody>
</table>

- Operating expenses **reduced by $2.3 million** for the first 9 months of 2017 over the same period in 2016 based on streamlining operations.
- ~$200k of G&A expense increase due to one-time costs related to vivoPharm acquisition.
- Expect **ongoing improvements in top line**, with incremental improvements in operating expenses during 2017 to continue margin expansion.
# CGI Income Statement Showcases Meaningful Operational Advances

## Income Statement Items ($ in Thousands)

<table>
<thead>
<tr>
<th>Item</th>
<th>Q3 2016</th>
<th>Q3 2017</th>
<th>9 mos 2016</th>
<th>9 mos 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$6,750</td>
<td>$8,028</td>
<td>$19,819</td>
<td>$21,598</td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>2,306</td>
<td>3,440</td>
<td>6,987</td>
<td>8,767</td>
</tr>
<tr>
<td><strong>Gross Margin (%)</strong></td>
<td>34%</td>
<td>43%</td>
<td>35%</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Research &amp; Development (R&amp;D)</strong></td>
<td>1,594</td>
<td>981</td>
<td>4,806</td>
<td>3,080</td>
</tr>
<tr>
<td><strong>Sales &amp; Marketing (S&amp;M)</strong></td>
<td>1,054</td>
<td>1,301</td>
<td>3,731</td>
<td>3,437</td>
</tr>
<tr>
<td><strong>General &amp; Administrative (G&amp;A)</strong></td>
<td>3,701</td>
<td>4,346</td>
<td>11,677</td>
<td>11,352</td>
</tr>
<tr>
<td><strong>Operating Profit (Loss)</strong></td>
<td>($4,043)</td>
<td>($3,188)</td>
<td>($13,227)</td>
<td>($9,102)</td>
</tr>
<tr>
<td><strong>Net (Loss) GAAP</strong></td>
<td>($3,745)</td>
<td>($633)</td>
<td>($13,027)</td>
<td>($12,979)</td>
</tr>
<tr>
<td><strong>Change in Fair Value of Derivative Securities</strong></td>
<td>-730</td>
<td>-2,895</td>
<td>-848</td>
<td>4,087</td>
</tr>
<tr>
<td><strong>Depreciation and Amortization</strong></td>
<td>513</td>
<td>547</td>
<td>1,538</td>
<td>1,738</td>
</tr>
<tr>
<td><strong>One-time non-cash Expenses</strong></td>
<td>8</td>
<td>656</td>
<td>8</td>
<td>814</td>
</tr>
<tr>
<td><strong>Stock-based Compensation</strong></td>
<td>513</td>
<td>519</td>
<td>1,538</td>
<td>1,399</td>
</tr>
<tr>
<td><strong>Interest Expense</strong></td>
<td>112</td>
<td>350</td>
<td>344</td>
<td>797</td>
</tr>
<tr>
<td><strong>Adjusted Net (Loss) (non GAAP)+</strong></td>
<td>(3,329)</td>
<td>(1,456)</td>
<td>(10,447)</td>
<td>(4,117)</td>
</tr>
</tbody>
</table>

*This is non GAAP measure.* The above table represents non-GAAP measures that management believes, given its magnitude, represents its earnings per share as unaffected by non-operating valuation adjustments to derivative instruments resulting from the Company’s change in its share price, among other related factors.

## Capitalization

CGIX had 27,753,831 common shares; 10,248,998 warrants; and 2,816,091 options outstanding at December 31, 2017.
## CGIX Capitalization Table Highlights

<table>
<thead>
<tr>
<th>CGIX Capitalization</th>
<th>Shares</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Stock</strong></td>
<td>27,753,831</td>
<td>68.0%</td>
</tr>
<tr>
<td>Held by Insiders</td>
<td>4,807,017</td>
<td>11.8%</td>
</tr>
<tr>
<td>Held by Institutional and Retail Holders</td>
<td>22,946,814</td>
<td>56.2%</td>
</tr>
<tr>
<td><strong>Warrants</strong></td>
<td>10,248,998</td>
<td>25.1%</td>
</tr>
<tr>
<td>Strike Price &gt; $5.00</td>
<td>712,898</td>
<td>1.7%</td>
</tr>
<tr>
<td>Strike Price = $5.00</td>
<td>3,450,000</td>
<td>8.5%</td>
</tr>
<tr>
<td>Strike Price &gt; $2.25</td>
<td>6,086,100</td>
<td>14.9%</td>
</tr>
<tr>
<td><strong>Incentive Stock Options - (All Insiders)</strong></td>
<td>2,816,091</td>
<td>6.9%</td>
</tr>
<tr>
<td><strong>Totally Fully Diluted Shares Outstanding</strong></td>
<td>40,818,920</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Recent Achievements and Future Growth Catalysts

- Hereditary Cancer Testing Panels
- Artificial Intelligence Engine to Improve Clinical Trial Matching [CGI Match]
- Liquid Biopsy for Lung Cancer
- Immuno-Oncology NGS Panel
- Multiple Myeloma NGS Panel [Mayo]
- Integration of vivoPharm
- Launch I-O Capabilities for Drug Discovery & Repurposing
  - Launch of AntigenID & Enhanced IO Offering
  - Further Expansion and Partnership in China
  - Partnerships for Test Distribution
  - Expand Hereditary Service Offering
  - Expand Liquid Biopsy Franchise into Additional Cancers
  - Bioinformatics Center of Excellence in India
Experienced Leadership Team

Panna Sharma
CHIEF EXECUTIVE OFFICER & PRESIDENT, BOARD MEMBER
15+ years as advisor to global life science & healthcare companies

John A (Jay) Roberts, MBA
CHIEF OPERATING OFFICER & EXECUTIVE VP, FINANCE
25+ years operational and finance experience

Rita Shaknovich, MD, PhD
GROUP MEDICAL DIRECTOR & VP, HEMATOPATHOLOGY SERVICES
15+ years in clinical and research capacities

Ralf Brandt, PhD
PRESIDENT, DISCOVERY & EARLY DEVELOPMENT SERVICES
25+ years in biochemistry and cell biology
CGIX: The Precision Oncology Company

CANCER GENETICS IS POSITIONED TO LEAD THE EVOLUTION OF ONCOLOGY TOWARD COMPREHENSIVE AND PERSONALIZED MOLECULAR PROFILING

Leveraging a Comprehensive, Multi-Platform Approach

- Guiding drug discovery, drug development & clinical trial design
- 21 proprietary, commercially-launched tests

Molecular Diagnostics
Including NGS & IHC

- Leading capabilities for biopharma, clinical and discovery services

Immuno-Oncology

- 80 U.S. and international patents

Intellectual Property

Model Validated by Increasing Global Market Traction

- Contracts with 9 of the top 10 biopharma companies

Biopharma Contracts

- 15+ active research collaborations with leading academic institutions

Research Collaborations

- 42% 4-year revenue CAGR

History of Continued Revenue Growth

- 61% EBITDA increase (non-GAAP) year over year to end of Q3 2017
APPENDIX

- Board of Directors
- Portfolio Highlights
- Acquisition History
- vivoPharm Acquisition

Nasdaq
(CGIX)
### Board of Directors

<table>
<thead>
<tr>
<th>John Pappajohn</th>
<th>Non-Executive Chairman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involved in 100+ start-up companies</td>
<td></td>
</tr>
<tr>
<td>Served as director of 40+ public companies</td>
<td></td>
</tr>
<tr>
<td>Currently on boards of: American CareSource Holdings; ConMed Healthcare Mgmt; CNS Response</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Edmund Cannon</th>
<th>a, c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founder &amp; President of the Clinical Research Center of Cape Cod</td>
<td></td>
</tr>
<tr>
<td>Previously at Franey Medical Labs; Pharmacia Diagnostics; Alletess</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raju S.K. Chaganti, PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founded CGI &amp; served as Chairman until 2014</td>
</tr>
<tr>
<td>Internationally recognized leader in molecular genetics</td>
</tr>
<tr>
<td>Co-discovered lymphoma &amp; kidney cancer patents</td>
</tr>
<tr>
<td>Incumbent of the William Snee E. Chair at MSKCC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geoffrey Harris, CFA</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>30+ years experience as healthcare analyst &amp; portfolio manager for biotech/life science companies</td>
<td></td>
</tr>
<tr>
<td>Portfolio manager/managing partner at c7 Advisors</td>
<td></td>
</tr>
<tr>
<td>Previously: Cantor Fitzgerald; Gleacher &amp; Company</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Howard McLeod, PharmD</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalized Medicine Medical Director at Moffitt</td>
<td></td>
</tr>
<tr>
<td>Founding Director of the Univ. of NC Institute for Pharmacogenomics (PGx) &amp; Individualized Therapy</td>
<td></td>
</tr>
<tr>
<td>475+ peer-reviewed papers (PGx, applied therapeutics)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Franklyn Prendergast, MD, PhD</th>
<th>a, c, g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of Mayo Clinic for Individualized Medicine (Retired)</td>
<td></td>
</tr>
<tr>
<td>Currently on boards of: Translational Genomics Research Inst.; Infectious Disease Research Inst.; DemeRx, Inc.; Ativa; Eli Lilly &amp; Co.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panna Sharma</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO &amp; president of Cancer Genetics</td>
</tr>
<tr>
<td>General Manager of Oncaspire Genomics</td>
</tr>
<tr>
<td>Previously managing partner/founder of TSG Partners</td>
</tr>
<tr>
<td>70+ buy &amp; sell-side transactions (healthcare companies)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Michael J. Welsh, MD</th>
<th>c, g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigator at the Howard Hughes Medical Inst.</td>
<td></td>
</tr>
<tr>
<td>Roy J. Carver Biomed Research Chair in Internal Medicine &amp; Molecular Physiology &amp; Biophysics</td>
<td></td>
</tr>
<tr>
<td>Director of Univ. of Iowa Inst. for Biomed Discovery</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thomas F. Widmann, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-founded Actelion Pharmaceuticals Ltd.</td>
</tr>
<tr>
<td>Chairman of F. Hoffmann-La Roche's cardiovascular strategy team.</td>
</tr>
<tr>
<td>Assistant Professor of Medicine and Cardiovascular Associate at University of California, San Diego</td>
</tr>
</tbody>
</table>

---

a: Audit Committee  c: Compensation Committee  g: Governance and Nominating Committee
**Focus::Lymphoma™**

The Most Comprehensive & Clinically Actionable NGS Panel in Precision Medicine

- **72,240 new cases** of lymphoma and **20,140 deaths** in 2017

- Powering **several clinical trials** with biotech and pharma companies.

- Available for use in the **clinical setting**.

- Personalized report on **clinically actionable gene mutations** present in the most common lymphoma types.

- Applicable to **~300,000 patients** in the US.

---

**GENE LIST (220 GENES)**

<table>
<thead>
<tr>
<th>ABCA13</th>
<th>BIRC3</th>
<th>CDKN2B</th>
<th>EPHA7</th>
<th>HIST1H1C</th>
<th>JAK2</th>
<th>NFKBIB</th>
<th>PIK3CG</th>
<th>RAF1</th>
<th>SYK</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCA3</td>
<td>BLK</td>
<td>CIITA</td>
<td>ERBB3</td>
<td>HIST1H1E</td>
<td>KDM6B</td>
<td>NLGN2</td>
<td>PIK3R1</td>
<td>RAPGEF1</td>
<td>SYNJ2</td>
</tr>
<tr>
<td>ABCB4</td>
<td>BLNK</td>
<td>CNOT6L</td>
<td>ETS1</td>
<td>HIST1H2BC</td>
<td>KDR</td>
<td>NLK</td>
<td>PIK3R2</td>
<td>RB1</td>
<td>TBL1XR1</td>
</tr>
<tr>
<td>ABCC9</td>
<td>BAF</td>
<td>COL16A1</td>
<td>EZH2</td>
<td>HIST1H3B</td>
<td>KIT</td>
<td>NOTCH1</td>
<td>PIKFKVY</td>
<td>RG54</td>
<td>TCF4</td>
</tr>
<tr>
<td>ABL1</td>
<td>BRD4</td>
<td>CREBBP</td>
<td>FAS</td>
<td>HIST1H4I</td>
<td>KLHL6</td>
<td>NOTCH2</td>
<td>PIM1</td>
<td>RHOD</td>
<td>TEC</td>
</tr>
<tr>
<td>ACTB</td>
<td>BTG1</td>
<td>CSMD3</td>
<td>FAT2</td>
<td>HIST2H2BE</td>
<td>KRAS</td>
<td>NOX4</td>
<td>PLCB1</td>
<td>ROBO2</td>
<td>TET2</td>
</tr>
<tr>
<td>ACTN1</td>
<td>BTG2</td>
<td>CSNK1D</td>
<td>FAT4</td>
<td>HRAS</td>
<td>LRP1</td>
<td>NR3C1</td>
<td>PLCB4</td>
<td>ROCK2</td>
<td>TLR2</td>
</tr>
<tr>
<td>ADAM10</td>
<td>BTK</td>
<td>CTBP2</td>
<td>FBXO11</td>
<td>ID3</td>
<td>LRP6</td>
<td>NRAS</td>
<td>PLCD1</td>
<td>ROS1</td>
<td>TMEM30A</td>
</tr>
<tr>
<td>AHR</td>
<td>CARD10</td>
<td>CTTN1A</td>
<td>FGFR1</td>
<td>IGSF1</td>
<td>LRRC7</td>
<td>NTRK1</td>
<td>PLCD3</td>
<td>RARCC</td>
<td>TNF</td>
</tr>
<tr>
<td>AKT</td>
<td>CARD11</td>
<td>DCC</td>
<td>FLT1</td>
<td>IKKB</td>
<td>LYST</td>
<td>TENM4</td>
<td>PLCE1</td>
<td>S1PR2</td>
<td>TNAIP3</td>
</tr>
<tr>
<td>APC</td>
<td>CARM1</td>
<td>DCP1B</td>
<td>FOXO1</td>
<td>IKZF1</td>
<td>MALT1</td>
<td>OGDH</td>
<td>PLCG2</td>
<td>SALL3</td>
<td>TNFRSF11A</td>
</tr>
<tr>
<td>APC2</td>
<td>CCND1</td>
<td>DDX21</td>
<td>FOXP1</td>
<td>IKZF3</td>
<td>MAP2K1</td>
<td>P2RX5</td>
<td>PLCZ1</td>
<td>SEMA6C</td>
<td>TNFRSF14</td>
</tr>
<tr>
<td>AQR</td>
<td>CCND3</td>
<td>DGKZ</td>
<td>FYN</td>
<td>INPP5B</td>
<td>MED12</td>
<td>P2RY8</td>
<td>POT1</td>
<td>SF3B1</td>
<td>TNK</td>
</tr>
<tr>
<td>ARID1A</td>
<td>CD22</td>
<td>DHDH</td>
<td>GCC2</td>
<td>IRF4</td>
<td>MEF2B</td>
<td>PARP1</td>
<td>POU2AF</td>
<td>SGK1</td>
<td>TNRC6B</td>
</tr>
<tr>
<td>ATM</td>
<td>CD36</td>
<td>DLC1</td>
<td>GNA13</td>
<td>IRF8</td>
<td>MLL2</td>
<td>PDCD1</td>
<td>POU2F2</td>
<td>SI</td>
<td>TP53</td>
</tr>
<tr>
<td>ATP11C</td>
<td>CD58</td>
<td>DSEL</td>
<td>GNA2</td>
<td>ITGB3</td>
<td>MLL3</td>
<td>PDGFRD</td>
<td>PRDM1</td>
<td>SLC17A6</td>
<td>TRAF2</td>
</tr>
<tr>
<td>ATP6AP1</td>
<td>CD70</td>
<td>DTX1</td>
<td>GPR112</td>
<td>ITPK1</td>
<td>MLLT6</td>
<td>PDK1</td>
<td>PRKCA</td>
<td>SLC30A4</td>
<td>TRIM8</td>
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<tr>
<td>B2M</td>
<td>CD79A</td>
<td>DUSP2</td>
<td>GRB2</td>
<td>ITPKB</td>
<td>MRRGPRF</td>
<td>PIK3AP1</td>
<td>PRKCB</td>
<td>SMARCA4</td>
<td>UBR5</td>
</tr>
<tr>
<td>BAP1</td>
<td>CD79B</td>
<td>DUSP27</td>
<td>GRIN2A</td>
<td>ITPR1</td>
<td>MTRK1</td>
<td>PIK3C2A</td>
<td>PRKDC</td>
<td>SOCS1</td>
<td>VAV1</td>
</tr>
<tr>
<td>BCL10</td>
<td>CDIPT</td>
<td>EBF1</td>
<td>GSK3B</td>
<td>ITPR1</td>
<td>MYC</td>
<td>PIK3C2G</td>
<td>PTEN</td>
<td>SP140</td>
<td>WHSC1</td>
</tr>
<tr>
<td>BCL2</td>
<td>CDK4</td>
<td>EIF2AK4</td>
<td>HCK</td>
<td>ITPR2</td>
<td>MYD88</td>
<td>PIK3C3</td>
<td>PTPN13</td>
<td>STAT3</td>
<td>XPO1</td>
</tr>
<tr>
<td>BCL6</td>
<td>CDKN2A</td>
<td>EP300</td>
<td>HIST1H1B</td>
<td>JAK1</td>
<td>NFKBIA</td>
<td>PIK3CD</td>
<td>PYHIN1</td>
<td>STAT6</td>
<td>ZYM3</td>
</tr>
</tbody>
</table>

---

**Clinical Targets**

- Located within Aberration (DLBCL)
- Risk / Outcome & Cell of Origin
- Associated with Drug Pathways **BCR/P3K/WNT**

Source: American Cancer Society
Focus::Myeloma™ - Created with Mayo Clinic
Next-Generation Sequencing for Multiple Myeloma – Creating The Gold Standard

- **Multiple myeloma (MM)** is the **second most common hematological malignancy** in the U.S. (after non-Hodgkin lymphoma)
- MM constitutes **1% of all cancers** and **15% of hematological malignancies**
- **30,280 new cases** of MM and **12,590 deaths** in 2017
- Identification of mutations, copy number and structural changes in MM allows **better risk assessment** and **prognostication**, resulting in **better selection of appropriate and more effective therapy**

Source: American Cancer Society

<table>
<thead>
<tr>
<th>GENE LIST (89 GENES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTG1</td>
</tr>
<tr>
<td>AKT1</td>
</tr>
<tr>
<td>AKT2</td>
</tr>
<tr>
<td>AKT3</td>
</tr>
<tr>
<td>ATM</td>
</tr>
<tr>
<td>ATR</td>
</tr>
<tr>
<td>B2M</td>
</tr>
<tr>
<td>BIRC2</td>
</tr>
<tr>
<td>BIRC3</td>
</tr>
</tbody>
</table>

2018 Cancer Genetics, Inc. | www.cancergenetics.com | @Cancer_Genetics
Focus::Renal®
A Comprehensive & Highly Sensitive NGS Panel for Enabling Precision Medicine

- Developed as the result of multiple independent validations and collaborations with leading cancer centers and academic institutions: MSKCC, Cleveland Clinic, Huntsman Cancer Center at University of Utah, and University of Paris

- **63,990 new cases** of kidney cancer and **14,400 deaths** in 2017

- Growing evidence shows certain mutations correlate with patient survival outcome and therapy response → can be critical in enabling precision medicine

- **200+ open clinical trials** enrolling patients with renal cancers

---

FOCUS::RENALE GENE LIST (32 GENES)

<table>
<thead>
<tr>
<th>ABL1</th>
<th>ARID1A</th>
<th>EGFR</th>
<th>FLT3</th>
<th>MET</th>
<th>PIK3CA</th>
<th>RHEB</th>
<th>TP53</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKT1</td>
<td>AXL</td>
<td>EPHB4</td>
<td>HIF1A</td>
<td>MTOR</td>
<td>PTCH1</td>
<td>ROS1</td>
<td>TSC1</td>
</tr>
<tr>
<td>AKT2</td>
<td>BAP1</td>
<td>ERBB2</td>
<td>KDM5C</td>
<td>PBRM1</td>
<td>PTEN</td>
<td>SETD2</td>
<td>TSC2</td>
</tr>
<tr>
<td>ALK</td>
<td>BRAF</td>
<td>FGFR1</td>
<td>KIT</td>
<td>PDGFRB</td>
<td>RAF1</td>
<td>SMO</td>
<td>VHL</td>
</tr>
</tbody>
</table>

**Frequently Mutated Genes**

**FDA-Approved Drug Targets**

Source: American Cancer Society
Tissue of Origin® (TOO®)
The Only FDA-Cleared Molecular Diagnostic Test of it’s Type for Difficult to Classify Tumors

• Knowing a tumor’s site of origin helps direct evidence-based treatment

• Over 22,300 data points, analyzing 2,000+ genes, covering 15 of the most common tumor types (90% of all solid tumors):
  Thyroid, breast, non-small cell lung, pancreas, gastric, colorectal, liver, bladder, kidney, non-Hodgkin’s lymphoma, melanoma, ovarian, sarcoma, testicular germ cell, and prostate

• For poorly differentiated cancers, TOO® was found to be substantially more accurate than non-molecular diagnostic methods

• Data from robust, multi-centered clinical studies showed TOO® led to a change in treatment 65% of the time for patients with difficult to diagnose cancers

• FDA-cleared and reimbursed by Medicare

FHACT® Fits Directly In Today’s Cervical Screening Workflow

PROBLEM

- Today, all HPV+ women with abnormal Pap results are referred for colposcopy
- Several cervical cancer tests are available but the need for less invasive and better informed treatment exists

SOLUTION

- FHACT® helps triage before colposcopy
- Non-invasive test performed on remnant liquid cytology – no resampling is necessary which means no additional doctor visit
- Fewer women referred for colposcopy reducing healthcare costs & patient anxiety
- Measured 94% Sensitivity & Specificity in 199 patient study presented at HPV 2015

55.0M PAP SMEARS

3.5M UNCLEAR/ABNORMAL

2.0M PROCEDURES

13K CASES OF CANCER

Today, all these women are referred for colposcopy

FHACT® Results: Normal

FHACT® Results: Abnormal

HPV+ women with abnormal or unclear liquid-based cytology

~90% REGRESS within 2 years of the infection

~10% PROGRESS to a higher grade and increased risk for cancer within 10-30 years of the infection

HPV 2015 UPDATE

Results from 2 independent cervical cancer-related studies during the 30th International Papillomavirus Conference & Clinical & Public Health Workshops

1. "Chromosomal Gains Measured by Fluorescence in situ Hybridization in Cytology Samples" was conducted in collaboration with the National Cancer Institute (NCI)
2. "Evaluation of Gain of Four Chromosomal Loci by Fluorescence in-situ Hybridization on Pap Smears of Women in India" in collab with Kamineni Hospital, Hyderabad

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Hereditary Cancer Testing Will Accelerate Our Market Share and Growth in Both Clinical and Biopharma Customers

THE DEMAND FOR HIGH QUALITY, CLINICALLY VALIDATED HEREDITARY CANCER TESTING CONTINUES TO RISE...

BY THE AGE OF 70, OF WOMEN WITH BRCA1 & BRCA2 MUTATIONS:

>50% WILL DEVELOP BREAST CANCER

~30% WILL DEVELOP OVARIAN CANCER

HEREDITARY BREAST & OVARIAN CANCER TESTING MARKET:

$2.5B TODAY IN THE U.S. 7% GROWING ANNUALLY

FOCUS::HERSITE™ NGS PANEL GENE LIST WITH ESTIMATED LIFETIME CANCER RISK:

<table>
<thead>
<tr>
<th>BREAST CANCER</th>
<th>OVARIAN CANCER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>No Increased Risk</td>
</tr>
<tr>
<td>BRCA1</td>
<td>10-40%</td>
</tr>
<tr>
<td>BRCA2</td>
<td>10-40%</td>
</tr>
<tr>
<td>BRIP1</td>
<td>8%</td>
</tr>
<tr>
<td>CDH1</td>
<td>No Increased Risk</td>
</tr>
<tr>
<td>CHEK2</td>
<td>No Increased Risk</td>
</tr>
<tr>
<td>MLH1</td>
<td>5-10%</td>
</tr>
<tr>
<td>MSH2</td>
<td>5-10%</td>
</tr>
<tr>
<td>MSH6</td>
<td>Elevated Risk</td>
</tr>
<tr>
<td>PALB2</td>
<td>No Increased Risk</td>
</tr>
<tr>
<td>PMS2</td>
<td>Elevated Risk</td>
</tr>
<tr>
<td>PTEN</td>
<td>No Increased Risk</td>
</tr>
<tr>
<td>RAD51C</td>
<td>Slightly Increased Risk</td>
</tr>
<tr>
<td>RAD51D</td>
<td>7%</td>
</tr>
<tr>
<td>STK11</td>
<td>~20%</td>
</tr>
<tr>
<td>TP53</td>
<td>Slightly Increased Risk</td>
</tr>
</tbody>
</table>

FOCUS::HERSITE™ © 2018 | CANCER GENETICS, INC.
### Actively Engaged in the Expanding Liquid Biopsy Space

**NEW SERVICE OFFERING** LIQUID BIOPSY

**LAUNCHED CGI’S FIRST BREAKTHROUGH NGS-BASED LIQUID BIOPSY TEST, LIQUID::LUNG-cfDNA™**

- Provides comprehensive coverage of **11 critical genes** and **150+ hotspots** related to lung cancer
- **Superior sensitivity** achieving a limit of detection down to **0.05%**

**GENE LIST (11 GENES)**

<table>
<thead>
<tr>
<th>Gene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ALK</td>
<td>EGFR</td>
</tr>
<tr>
<td>KRAS</td>
<td>MET</td>
</tr>
<tr>
<td>MET</td>
<td>MET</td>
</tr>
<tr>
<td>TP53</td>
<td>BRAF</td>
</tr>
<tr>
<td>ERBB2</td>
<td>MAP2K1</td>
</tr>
<tr>
<td>NRAS</td>
<td>NRAS</td>
</tr>
</tbody>
</table>

**SOLID TUMOR BIOPSY CHALLENGES**

- Tissue sampling is invasive
- Tissue sampling may be limited
- Solid tumor may not be accessible
- Tissue biopsy doesn’t capture tumor heterogeneity

**LIQUID BIOPSY ADVANTAGES**

- Noninvasive - samples can be taken at multiple time points
- Less expensive and faster turn around time
- Better indicator of tumor heterogeneity
- Potential to monitor both treatment and resistance
PROBLEM
Risk stratification by FISH, classifies patients into only two groups:
- Favorable/Intermediate (no distinction)
- Unfavorable

SOLUTION
MatBA®-CLL/SLL is both CLIA & NYS licensed to stratify patients into three distinct risk groups:
- Favorable
- Intermediate
- Unfavorable

FISH
![FISH Diagram](image)

MatBA®-CLL/SLL
![MatBA Diagram](image)
Active and Successful M&A Strategy Focused on Growth, Capabilities, and Global Footprint

**KEY M&A CRITERIA**

1. Access to Differentiated Oncology Testing Capabilities & Content
2. Ability to Expand Geographic Footprint Into Key, High Growth Markets
4. Ability to Realize Commercial & Operational Synergies
5. Shared Cultural Values Based on Innovation & Teamwork

**TARGETED ACQUISITIONS**

**Response Genetics, Inc. (October 2015)**
- Leading solid tumor testing franchise with content in lung, colorectal, skin and brain cancers as well as FDA-cleared Tissue of Origin Test®
- Strong commercial presence in the Western & Southeastern US with 3,000+ customers.
- Established community oncologists & pathologists sales channel

**BioServe Biotechnologies, India (August 2014)**
- First company to provide DNA synthesis, DNA sequencing & related services in India
- Customers include leading cancer research institutes (ICMR, CSIR) as well as major pharmaceutical and biotechnology companies

**Gentris, Corp. (July 2014)**
- Leading global provider of biopharma, discovery, pharmacogenomics, next-generation sequencing, genotyping, and biorepository services
- US FDA-compliant lab in Zhanjiang Hi-Tech Park, Shanghai, China

**vivoPharm. (August 2017)**
- Over a decade of experience in delivering a wide range of discovery and preclinical services to support drug development, target validation and biomarker analysis.
- Supported over 200 IND submissions for innovative therapies, with a significant focus on immuno-oncology.

**90,000 SQ. FT. GLOBAL FOOTPRINT**

- CALIFORNIA
  - RESPONSE GENETICS
  - LOS ANGELES, CA
- INDIA
  - BIOSERVE
  - HYDERABAD
- NORTH CAROLINA
  - GENTRIS
  - RTP
- CHINA
  - GENTRIS
  - SHANGHAI
- PENNSYLVANIA
  - VIVOPHARM
  - HERSEY
- AUSTRALIA
  - VIVOPHARM
  - MELBOURNE
Powerful Drivers Support vivoPharm Acquisition

- Significant Customer Synergies
- Capabilities Beyond Genomics
- Meaningful Market Expansion
- Financially Accretive in Year 1
vivoPharm: Solid & Highly Scalable Platform for Early Discovery, Pre-Clinical & Pharmacology

- **200** INDs supported across **20+** indications
- **$5-6 M** additional **accretive** discovery services revenue projected in Year One
- **30+** Immuno-Oncology Studies & Trials
- **2** state-of-the-art GLP discovery & early development labs in Pennsylvania & Australia
- **~14%** 4 Yr. Revenue CAGR
CGI’s Services & Capabilities Across The Development Lifecycle of Oncology

DISCOVERY
- Target selection and validation
- Lead ID & optimization
- Pre-IND package
- in vivo models
- Imaging studies
- Tumor - microenvironment

PRECLINICAL STUDIES
- PK - PD
- Efficacy
- Pharmacological profiling
- Toxicology
- Formulation
- IND-enabling studies

CLINICAL TRIALS
- Phase 1, 2, 3 trials
- Phase 4, post-marketing studies
- Tolerability, efficacy, dosage
- Drug repurpose and rescue
- Patient stratification
- Progress monitoring

MARKET ENTRY
- Validation studies
- Regulatory filing and application preparation
- Companion Dx development
- Indication expansion studies
- LDT development

PATIENT MONITORING
- Monitor drug adverse events
- Patient therapy selection & management
- Follow-on monitoring
- Liquid biopsy
- LDT and FDA testing
Targeted Client Solution: Multiple Custom Flow Assay Addressing FDA Inquiries and Comprehensive Patient Samples

WHO IS THE CLIENT

- Biopharma company developing cellular immunotherapies with an antibody that recognizes a target on the surface of tumor cells

WHAT WAS THE OPPORTUNITY

- Expertise in multiple myeloma diagnosis, characterization and testing
- Client need for PGx, flow, IHC, and commercial test offerings
- Multiple custom flow assays required for the unique client platform, addressing FDA inquiries and deep evaluation of patient samples

CGI TARGETED SOLUTION

- CGI’s Multiple Myeloma Complete™ flow assay for custom flow validations implementing client validation specifications
- PGx testing and customized IHC validation
- Procurement of bone marrow biopsies and bone marrow aspirate for multiple validations

FACTORS FOR SUCCESS

- Targeted pipeline and exposure at CGI-sponsored seminar and contact with CGI experts
- Depth of multiple myeloma clinical knowledge and experience
- Early engagement, relationship building and client-designed validation plans