



Corporate Overview

December 15, 2015



Safe Harbor Statement

This presentation contains “forward-looking statements” within the meaning of applicable securities laws, including without limitation financial projections and statements regarding WaferGen’s ability to exploit commercialization opportunities. The statements and discussions contained in this presentation that are not historical facts constitute forward-looking statements, which can be identified by the use of forward-looking words such as “expects,” “anticipates,” “plans,” “estimates” and analogous or similar expressions intended to identify forward-looking statements. Although the forward-looking statements reflect our good faith judgment, based on currently available information, they involve known and unknown risks, uncertainties and other factors that may cause actual results, or achievements to be materially different from any future results or achievements expressed or implied by these forward-looking statements. The forward-looking statements, estimates and projections herein are inherently uncertain and there can be no assurance that the projected results will be realized or that actual results will not be significantly lower than projected. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in the “Risk Factors” contained in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and other SEC filings.

In this document, we refer to information regarding potential markets for products and other industry data. We believe that all such information has been obtained from reliable sources that are customarily relied upon by companies in our industry. However, we have not independently verified any such information.

Key Investment Highlights

Validated Technology Targeting Unmet Need

- WaferGen Bio-systems (Nasdaq: WGBS) is a biotechnology company providing innovative genomic solutions for pharma, diagnostic and life science research

Fast Growing \$Multi-Billion NGS Market

- Next Generation Sequencing (NGS) market is expected to reach \$8.8 billion in 2018 from \$2.5 Billion in 2014 (CAGR of 23.1%)⁽¹⁾

Attractive Valuation

- Market Cap \$8M; Public comparable has a market cap. > \$300 million

Successful Turnaround

- Revenues from \$1.3M in 2012 to \$6M in 2014; Est. 2015 \$7.8M - \$8.2M

Single Cell Analysis Opportunity















- Targeting \$800 million market by 2020
- Early access program has demonstrated excellent results
- Company plans commercial product launch in Q'4 2015

Experienced Team

- Solid track-record of successful execution in prior executive roles
-

(1)Source: Next Generation Sequencing (NGS) Market, Markets and Markets 2014

WaferGen's Experienced Leadership Team

Team	Prior Company	Company Status
Rollie Carlson <i>President and CEO</i>	  	Leading Pharma & Diagnostics Companies
Maithreyan Srinivasan <i>Chief Technology Officer</i>	 Agilent Technologies 	Former Head of R&D at Agilent
Jude Dunne <i>Vice President, Product Development</i>		Acquired by Perkin Elmer
Syed Husain <i>Senior Vice President, Engineering</i>		Acquired by Perkin Elmer
Mike Henighan <i>CFO</i>	 	Former CFO, acquired by ProteinSimple
Yong Yi <i>Vice President, Marketing</i>	 Agilent Technologies  FLUIDIGM	NGS and Microfluidic leaders
Andy Moyer <i>Vice President, Sales</i>	  	Successful Clinical Testing Labs

Broad NGS Product Portfolio Expanding to Single-Cell Analysis

Discovery

Clinical Research

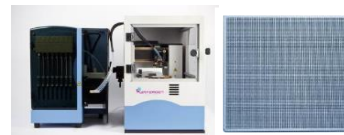
Diagnostics

SmartChip Applications



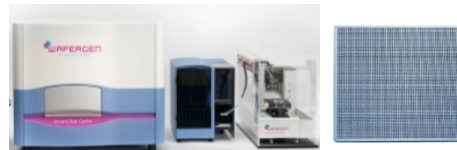
ICELL8™ Single Cell

High Throughput, Flexible Sample Prep for Single Cell NGS Analysis



SmartChip™ TE

Targeted Panels for Clinical NGS



SmartChip™ Real-Time PCR

High Throughput qPCR and SNP Typing

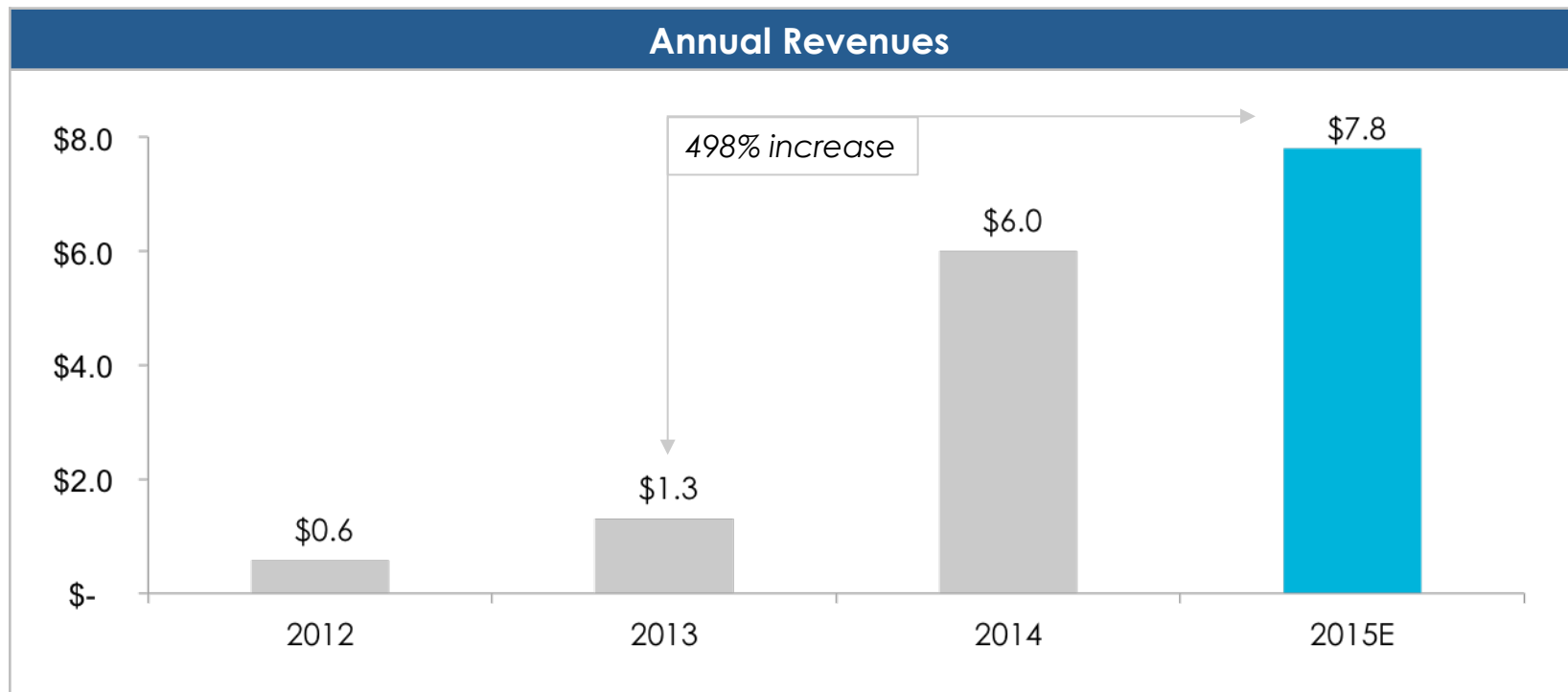


Apollo 324™

Automated Sample Preparation for NGS

Apollo

Strong Revenue Growth



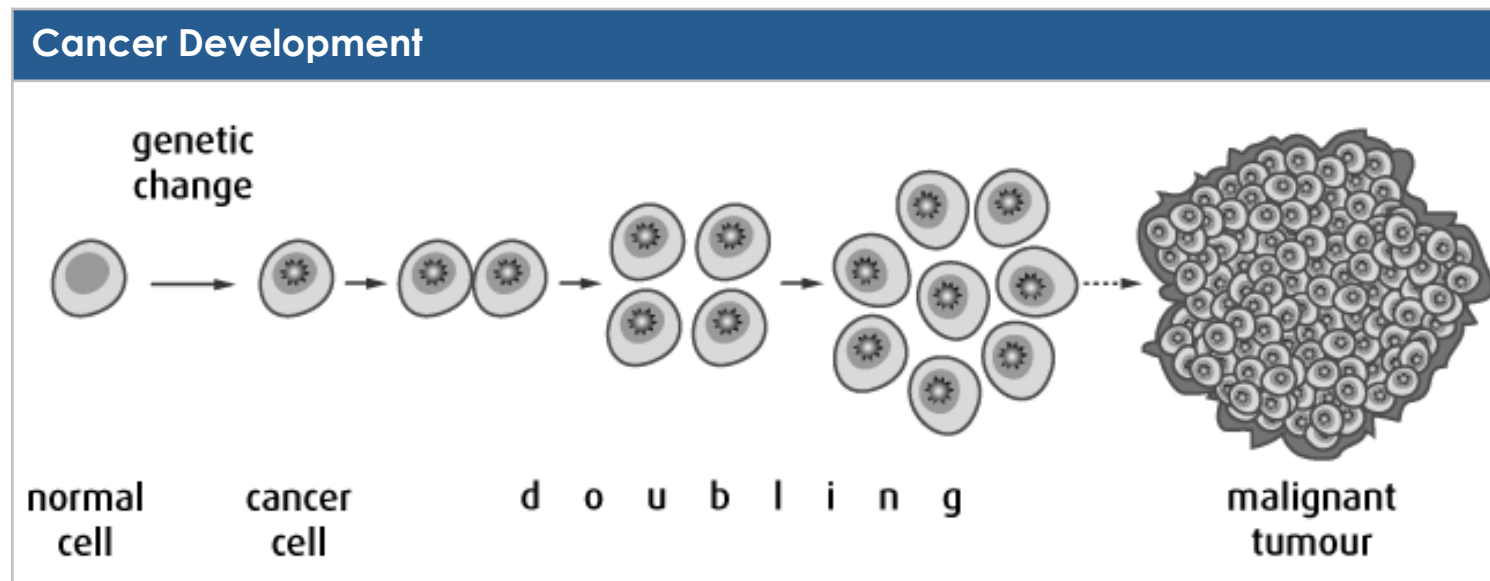
- During Q1-2014, WaferGen saw significant revenue growth in its core operations and has begun to capitalize on its Apollo platform acquisition (Jan 2014)
- Over 100 instruments installed base
- Revenue for FY 2014 is \$6M
- FY 2015 Guidance \$7.8-\$8.2M
 - Q1-2015 was \$1.1M
 - Q2-2015 was \$1.6M
 - Q3-2015 was \$2.0M

(1) Apollo was acquired in January 2014

Why Single-Cell Analysis Matters

Most current diagnostic tests give a result of an average of thousands of cells. However, diseases such as cancer or diabetes start from a single mutant cell.

- Therefore, these tests might lack the ability to identify critical events occurring at an individual cell level, and hence, might report false or misleading results.



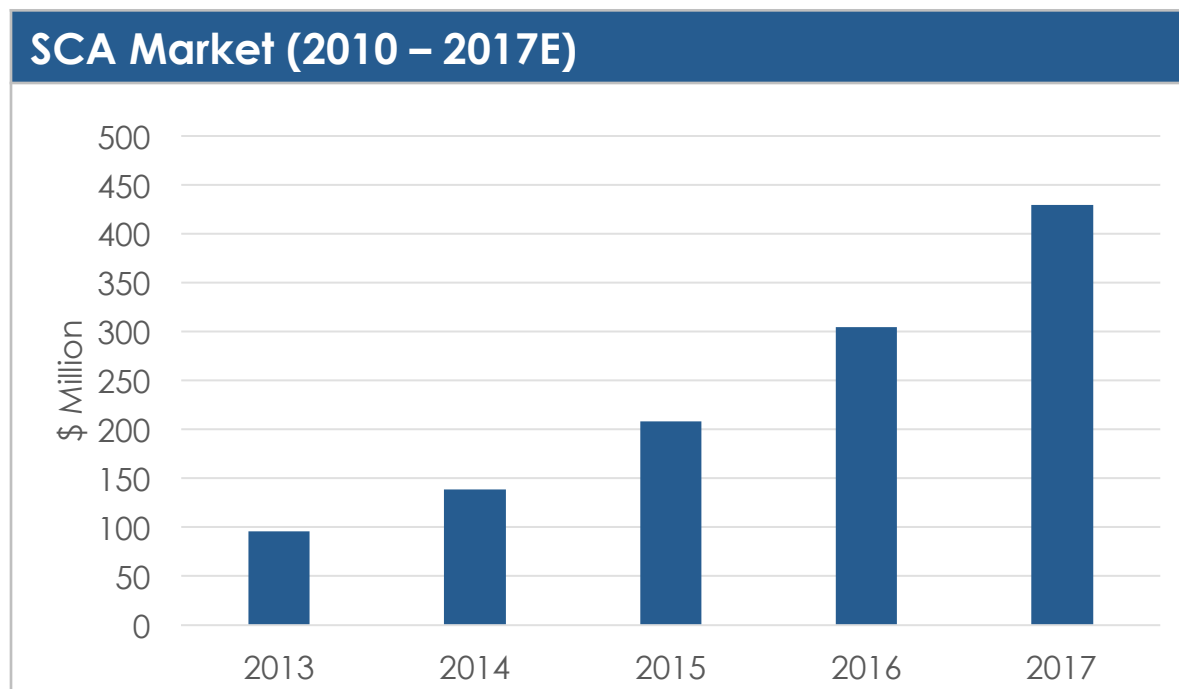
Source: Canadian Cancer Society

- The SmartChip-based Single-Cell System aims to identify and understand such rare events at the single cell level
- Single Cell Genomics Applications leads in the number of publications – indicates potential for discoveries

Single-Cell Analysis Market Opportunity

Single cell analysis presents an attractive opportunity for providers of genomic solutions

- SCA market is expected to be over \$400 million in 2017 at a 44% CAGR



Source: Single Cell Omic Trends 2014

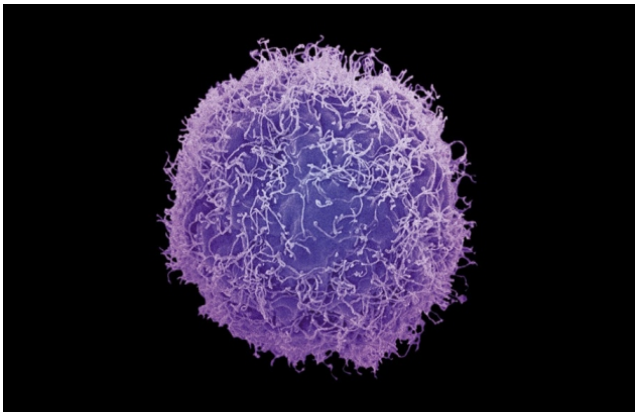
Main Competitor

- *Est. 60% of revenue from single cell analysis products*

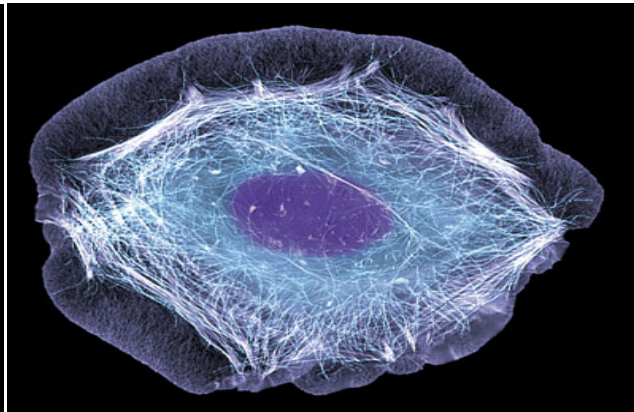
Power, Control and Insight make the ICELL8 System the choice for single-cell applications

ICELL8 system can handle multiple different cell sizes and shapes including nuclei

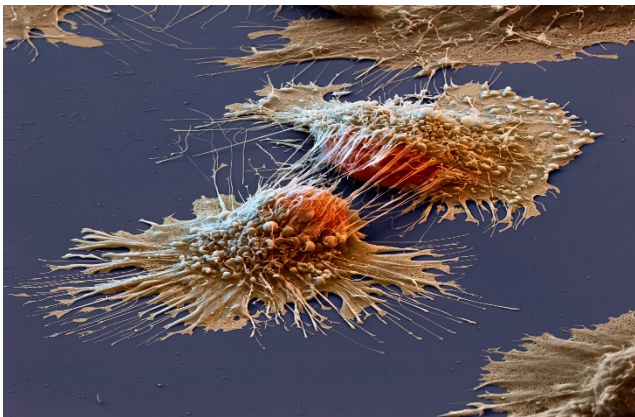
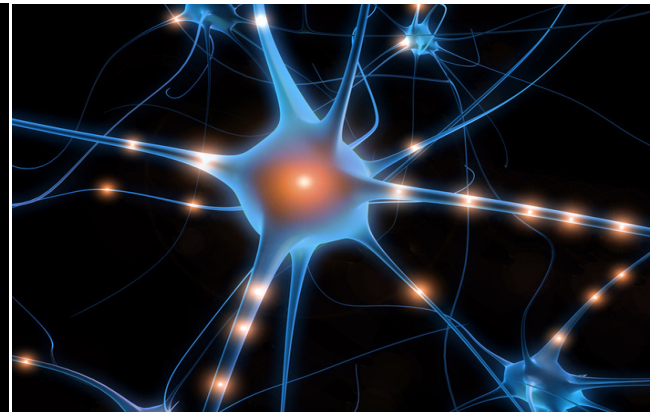
Tumor cell



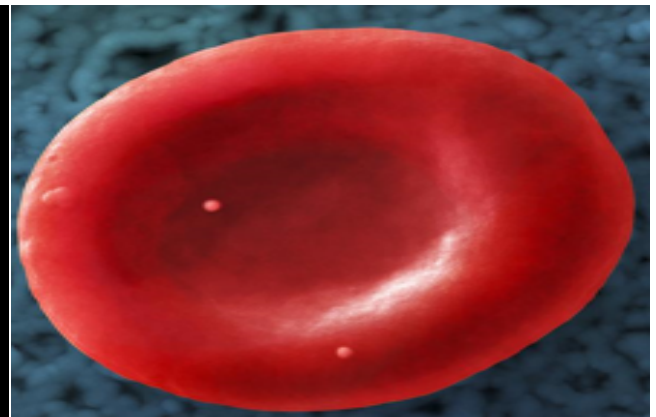
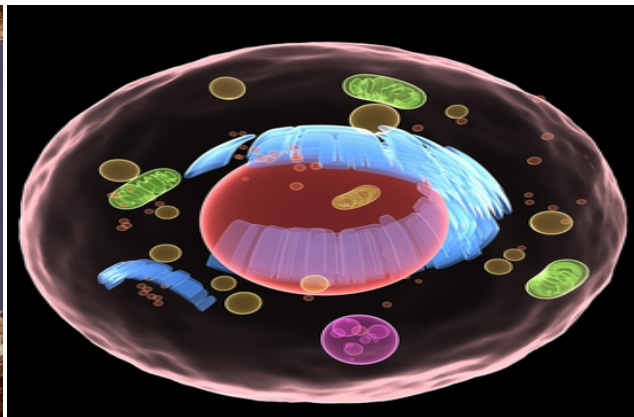
Human skin cell



Neuron



Lung cancer cell





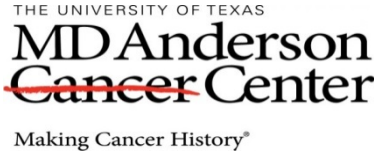

Red Blood Cell

WaferGen's Single-Cell Analysis Partnerships

WaferGen launched the Early Access Program for its ICELL8 single cell analysis technology to ensure it is ready for launch before the end of 2015.

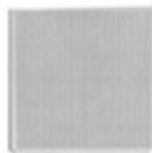
- The program serves to evaluate the role of ICELL8 in its single cell sequencing and analysis operation and builds on the proof-of-concept studies with the Broad Institute and BGI.

Early Access Program Partners

	<ul style="list-style-type: none">▪ Subsidiary of Roche Holding AG (SWX:ROG), a \$235 billion global blue-chip pharmaceutical company primarily focused on cancer therapeutics▪ Dr. S. Seshagiri, Director of Molecular Biology
	<ul style="list-style-type: none">▪ Consistently ranked in the Top 50 of global academic institutions⁽¹⁾▪ Ranked #14 in the world among Clinical, Pre-Clinical and Health Universities⁽¹⁾▪ Dr. Sten Linnarsson – Neurobiology Single Cell Researcher
	<ul style="list-style-type: none">▪ Ranked #1 for cancer care by U.S. News & World Report and is widely regarded as among the best cancer hospital in the U.S.▪ One of the original three comprehensive cancer centers established by the U.S. National Cancer Act of 1971▪ Dr. Nicholas Navin – Cancer Single Cell researcher and NIH Grant recipient
	<ul style="list-style-type: none">▪ Considered one of the world's best medical research and treatment centers for respiratory, cardiac, immune and allergic disorders▪ Dr. Max Seibold, Associate Professor

(1) Karolinska Institutet website; "Ranking and Karolinska Institutet"

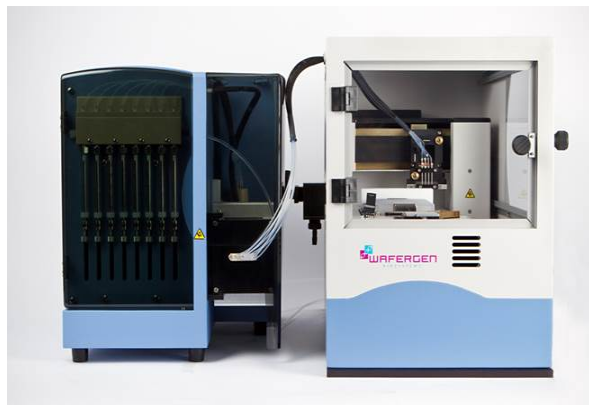
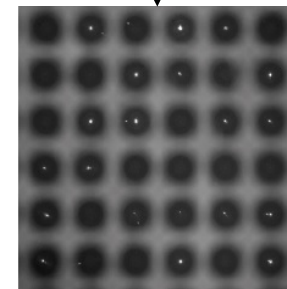
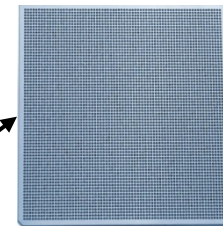
ICELL8 Single-Cell System



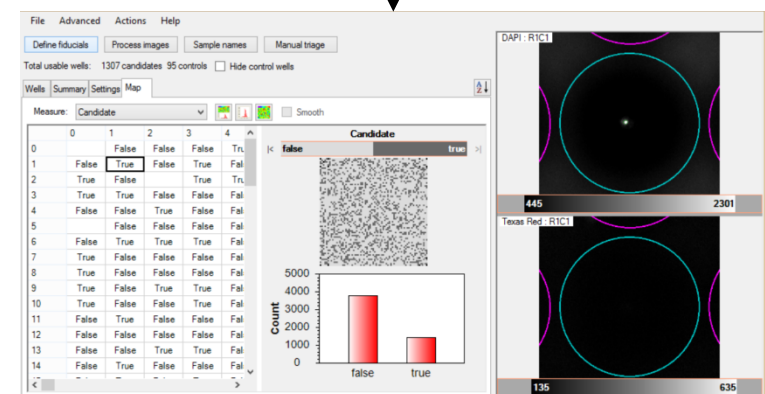
ICELL8 Chips and Reagents
Pre-dispensed with 5,184 barcodes



Imaging Station
Fast Scanning of Cells

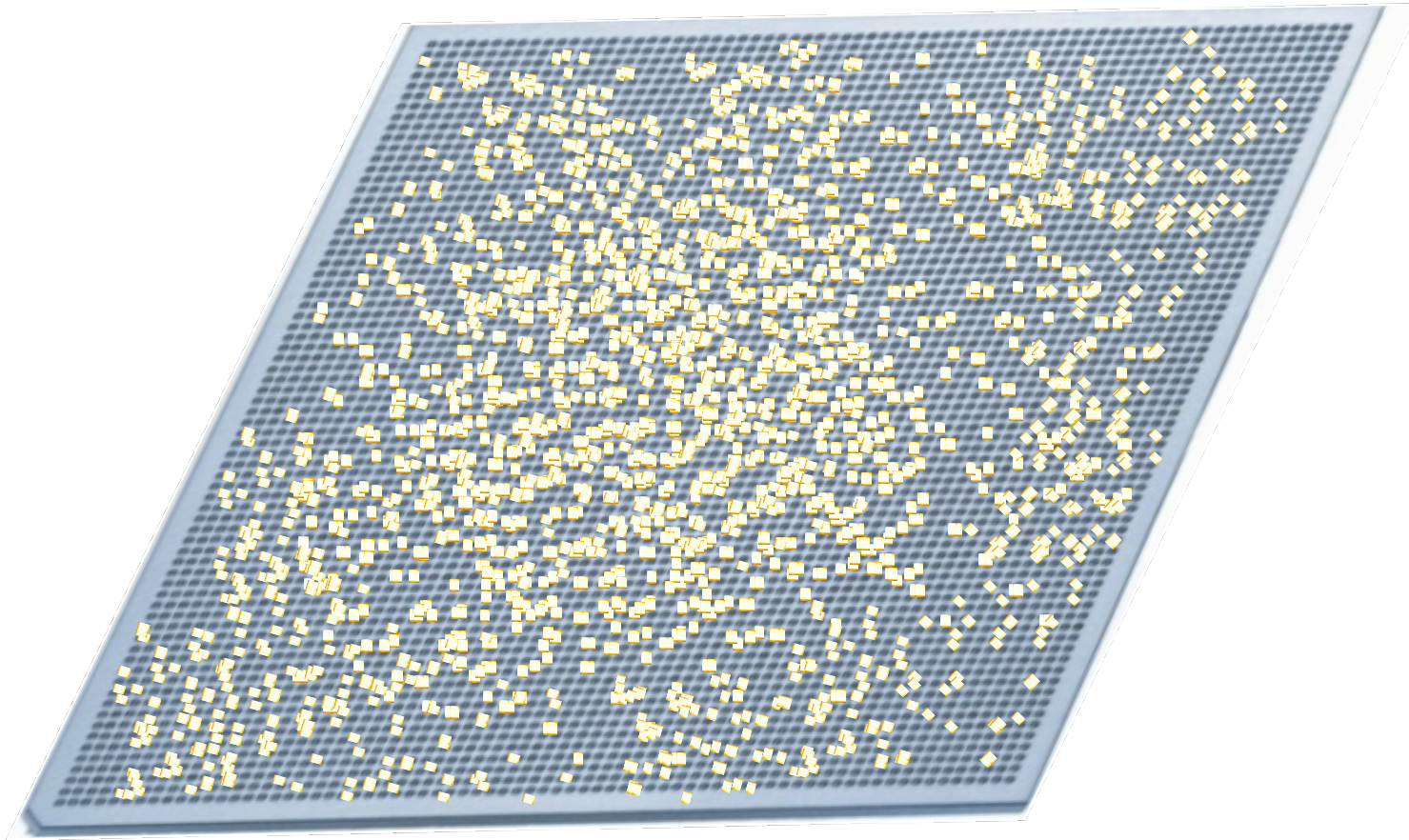


MultiSample NanoDispenser
Rapid Dispensing of Cells and Reagents



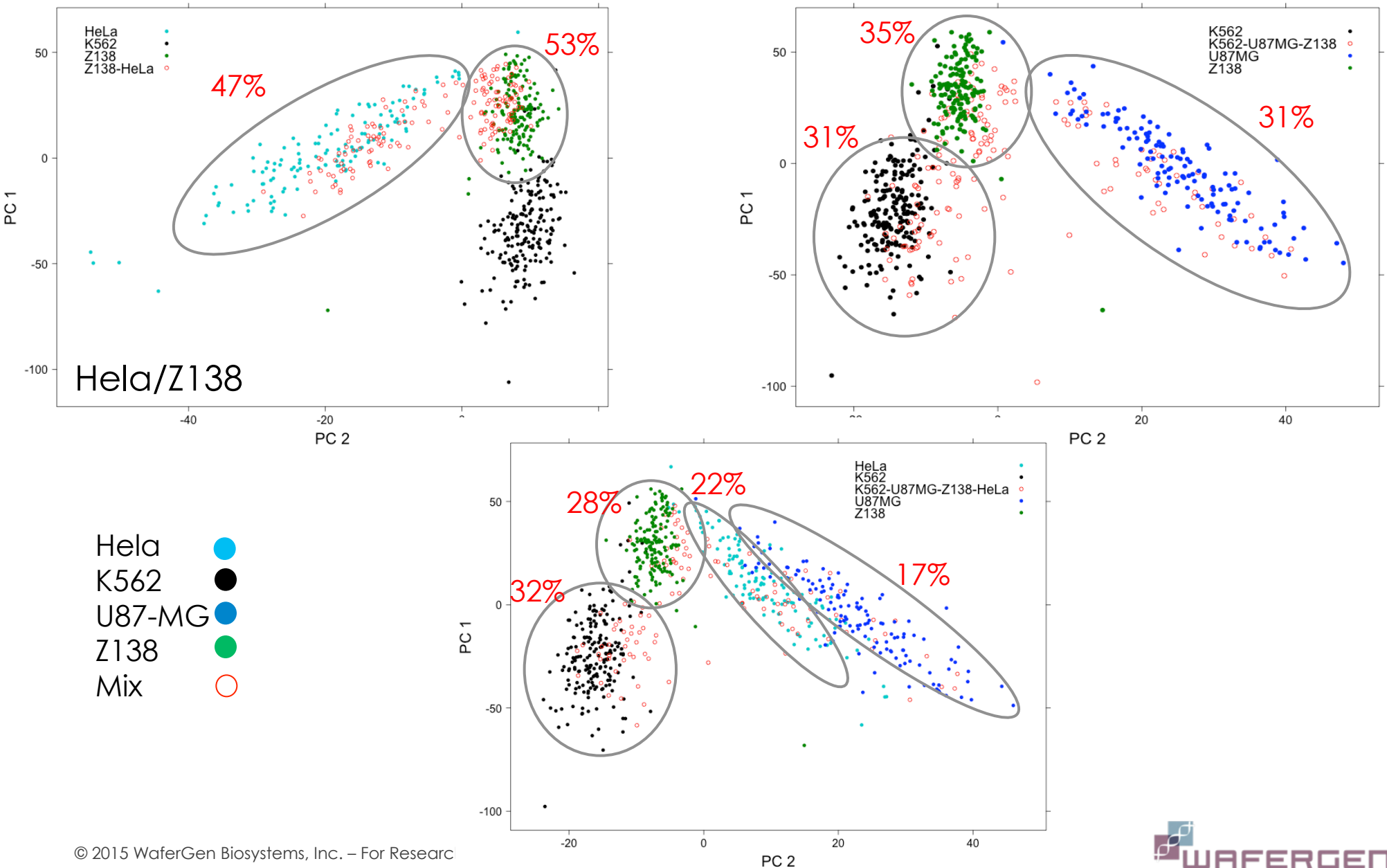
CellSelect™ Software
Choose Specific Cells of Interest

The Power of 1,800 Cells of Any Type



- Isolate more single cells per run than any other platform
- Maximize throughput with rapid dispensing and imaging
- Analyze cells of any size with unbiased cell isolation

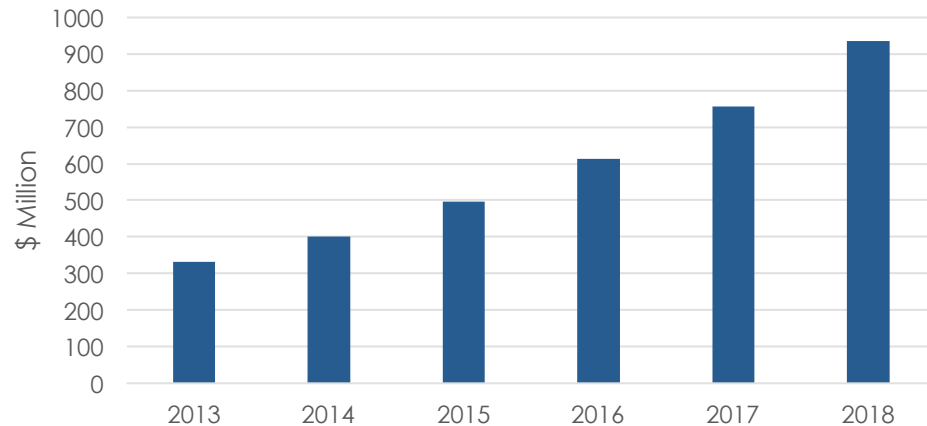
Insights That Matter – ICELL8 Separates Four Different Cell Types



NGS Sample Prep & Clinical NGS Markets

The fastest-growing new segment of Next Generation Sequencing (NGS) is Clinical

Market for all Workflow Prior to Sequencing

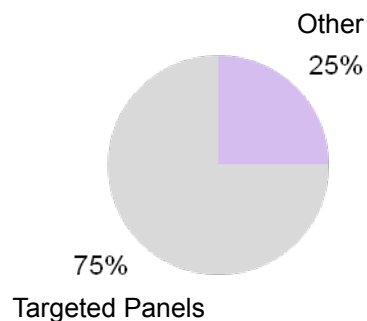


Source: Next Generation Sequencing (NGS) Market, Markets and Markets, 2014, Internal estimates

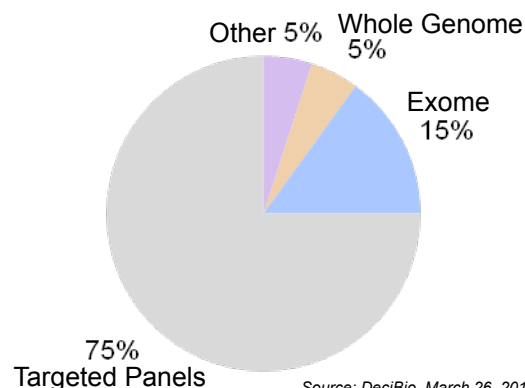
- The SmartChip TE System and Apollo 324 Platform address the rapidly growing Library Prep market
- The pre-sequencing market is expected to grow on average 23.1% per year to over \$934M by 2018

Clinical Sequencing

2012 - \$100M



2015E: >\$1,000M



Source: DeciBio, March 26, 2013

- Applications of Next Generation Sequencing to the clinical market will exceed \$1 billion by 2016
- Targeted panels are projected to dominate the clinical NGS market → WaferGen's technology will be used in this targeted panel segment

SmartChip Real-Time PCR System

SmartChip Real-Time PCR System performs direct PCR measurement of mutations (“typos” in genes) and quantitative gene expression (level of activity of genes)

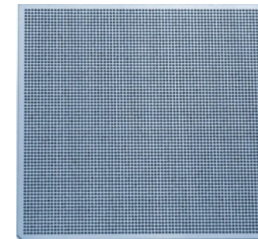
- “PCR chemistry” is an effective “copy machine” for genetic information, making millions of copies of particular genes (strings of DNA sequences), thereby allowing them to be more easily analyzed

5,184 nanowell SmartChip

- Flexible
- Cost-Effective
- Patented 100 nanoliter reaction “smart volume” provides optimum performance
- Proprietary liquid dispensing know-how makes the SmartChip possible

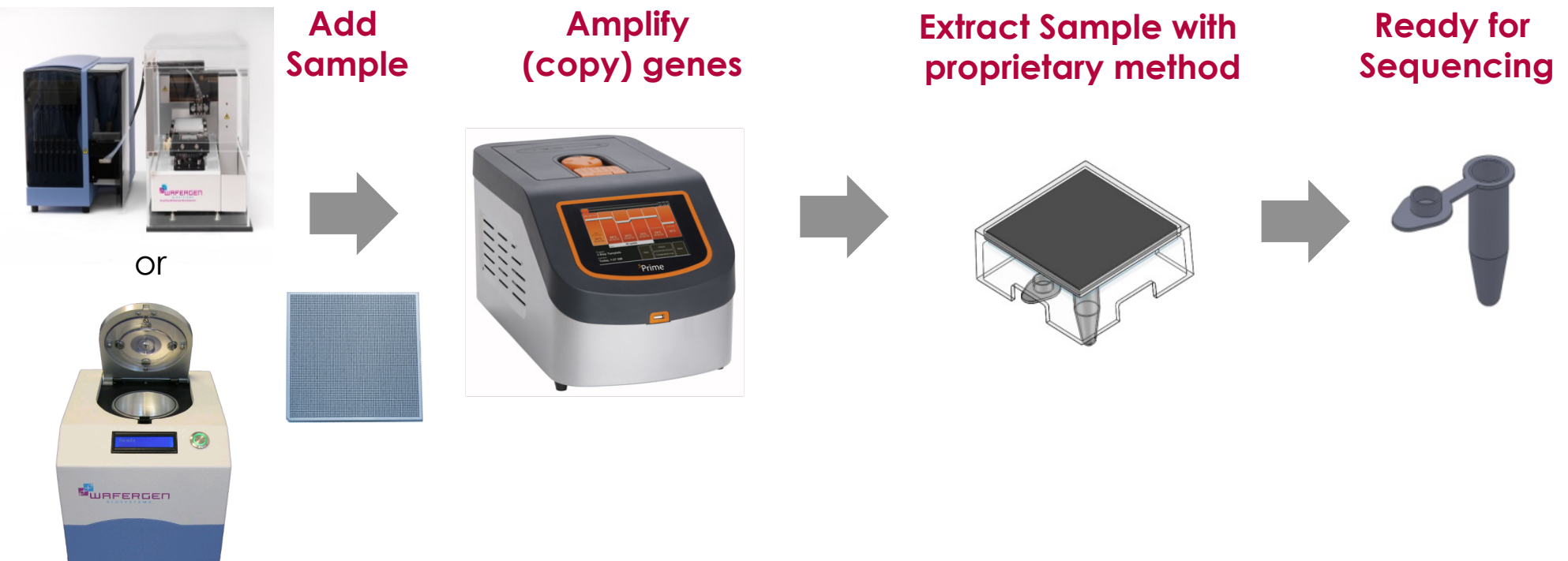
SmartChip MultiSample NanoDispenser (MSND) & Real-Time PCR Cycler

- Can analyze thousands of genes or samples at a time
- PCR chemistry well established and understood
- Flexibility allows for a rapid experiment design and content modification in an optimal and cost-effective way



SmartChip TE and Seq-Ready TE

- SmartChip TE System (for Target Enrichment) prepares the sample for sequencing by copying only relevant genes, thus separating them from the vast rest of the genome
- Offers a unique advantage in terms of accuracy and clinical development speed
 - Clean chemical reaction in each well, which enhances accuracy
 - Allows for changing content (assays) rapidly
 - Proven superior performance vs. competition in head-to-head studies
 - High throughput configuration – Seq-Ready enables use in large clinical labs



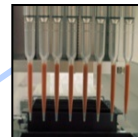
Apollo 324 Platform

The Apollo 324 platform is a compact, walk-away automation platform offering library preparation kits for analysis on popular NGS platforms

System Advantages:	<ul style="list-style-type: none">▪ Ideal for clinical labs market: targets clinical “sweet spot” throughput of 1-48 samples and automation significantly lowers risk of sample contamination▪ Faster turnaround time, less hands-on-time▪ Very low sample input needed
Sales Success in Key Accounts:	<ul style="list-style-type: none">▪ Significant total installed base (>50 systems)
Utilization:	<ul style="list-style-type: none">▪ Strong sales of reagents and consumables



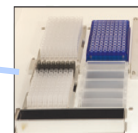
Intuitive user interface with step-by-step instructions



Robotic arm with eight-nozzle pipette head and built-in magnetic particle separation



Two 96-well Peltier temperature control units



Reagent plate, racks for disposable tips and waste bin



Optimized, simple-to-use reagent kits for DNA, RNA and ChIP-Seq

Recent Achievements & Upcoming Milestones

RECENT ACHIEVEMENTS

Single Cell Development

- Achieved proof-of-concept single cell analysis in collaboration with the renowned Broad Institute and presented data at #1 genomics conference AGBT Feb. 2015
- Developed an automated imaging workflow that provided the ability to selectively process ONLY single cell containing wells, presented performance metrics at ESHG 2015
- Successful early access program with Genentech, Inc.; National Jewish Hospital ; Karolinska Institute in Sweden; and MD Anderson Cancer Center
- Final Product performance demonstrated with early access collaborator, MD Anderson Cancer Center, at the SCG Sept. 2015 conference
 - >1500 cells per SmartChip & > 10,000 cells per SmartChip in 8 hours
 - Spike-in experiments suggest identification of cell types present at < 1%
 - Showed the ability to dispense nuclei (has not been successful with other technologies)

UPCOMING MILESTONES

Single Cell & Base Business

- Q'4 Launch of Single-Cell Analysis System
- 2015 Launch of commercial SmartChip My Design by top clinical genotyping lab
- 2015 Launch of commercial NGS library prep by top clinical specialty lab
- 2015 Launch of a commercial cancer-related NGS test by a top-tier clinical reference lab

Growth Strategy

Single Cell Genomics is major growth opportunity for WaferGen

- #1 New life science area in 2013 and growing rapidly
- The ICELL8 Single-Cell System has unique advantages vs. microfluidic chips, there is a high barrier to entry without a technology platform
- Scalable technology that can meet future demands for throughput

Successful launch and penetration into the single cell genomics market

- Target launch in early Q'4 2015
- Leverage early access partners and drive recognition and presence of WaferGen as a leader in single-cell analysis
- Develop additional downstream RNA, DNA and proteomics applications for single-cell analysis

Establish Smart Chip and Apollo as the solutions of choice for clinical NGS

- Focus on early adopter clinical labs, translational research centers and game-changing customers
- Leverage synergies between Apollo and SmartChip for the clinical space
- Incorporate scalable methods from Single Cell to increase throughput