

Corporate Overview

January 2021

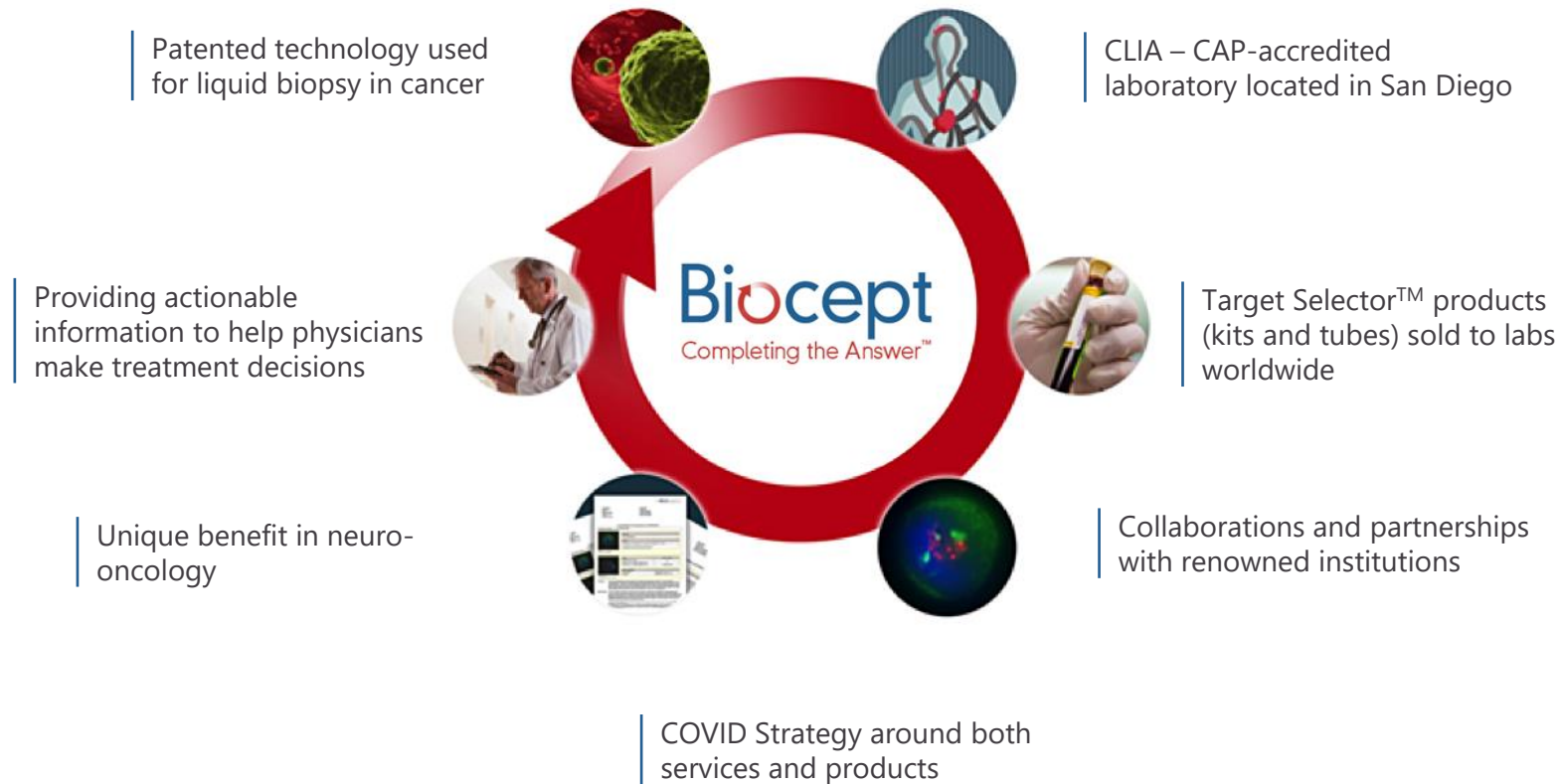
Forward-Looking Statements

This presentation contains, and any accompanying oral presentation would no doubt contain, forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, regarding Biocept, Inc. and our business. Forward-looking statements include all statements that are not historical facts and generally can be identified by terms such as anticipates, believes, could, estimates, expects, intends, may, plans, potential, predicts, projects, should, will, would, or the negative of those terms and similar expressions.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. For details about these risks, please see our SEC filings.

All forward-looking statements contained in this presentation speak only as of the date hereof, and except as required by law, we assume no obligation to update these forward-looking statements whether as a result of any new information, future events, changed circumstances or otherwise.

Corporate Profile



Investment Highlights

Established Cancer Diagnostics Company with Patented Liquid Biopsy Testing also Providing COVID-19 testing

- *San Diego-based CLIA-certified, CAP-accredited, high-complexity lab*
- *Established business and strong balance sheet position company to weather pandemic*

Liquid Biopsy Market Forecast to Reach in the Billions

- Commercial organization, improving cancer patient outcomes
- Advantages of a simple blood test vs. tissue biopsy (high sensitivity, actionable, rapid results, non-invasive, cost effective)
- Can also be performed on cerebrospinal fluid

Test Menu Focused on Actionable Information

- Unique CTC and ctDNA testing platform
- Enables detection and monitoring of clinically validated biomarkers listed in NCCN Guidelines
- Favorable reimbursement – cost-effective liquid biopsy testing, fits with healthcare reform goals

Industry-Leading Test Performance

- Multiple clinical studies, publications, and presentations support Biocept's proprietary Target Selector™ platform
- High concordance tissue biopsy

Opportunities for Value-Creating Strategic Partnerships

- Current partnerships with industry leading companies
- Potential for U.S. and global transactions
- Commercial and technology partnerships

Achieved Target Selector™ Global Sales

- Actively growing Oncology Services business
- Distributed kits and blood collection tubes

Biocept COVID-19 Testing

200,000+ COVID-19 Samples Received for SARS-CoV-2 Testing

- RT-PCR EUA molecular diagnostic platform
- Testing performed in high-complexity, CLIA and BSL-2 safety level lab by licensed molecular lab staff trained to perform COVID-19 testing
- Testing volume ramping up monthly since launch in late June
- Average reimbursement of ~\$100 per sample

Fast Turnaround Times with Vast Majority of Results Reported in 48 Hours

Significant Opportunity for COVID-19 Testing

- Developing agreements for COVID-19 testing (i.e., expanded agreement with MultiPlan, large skilled nursing chain)

Ramp Capacity to Meet Demand

- Increased staffing and implemented automation to process additional tests
- Current capacity of 2,000 per day with ability to ramp to more than 10,000 based on demand

Manufacturing PCR COVID-19 Specimen Kits for Distribution

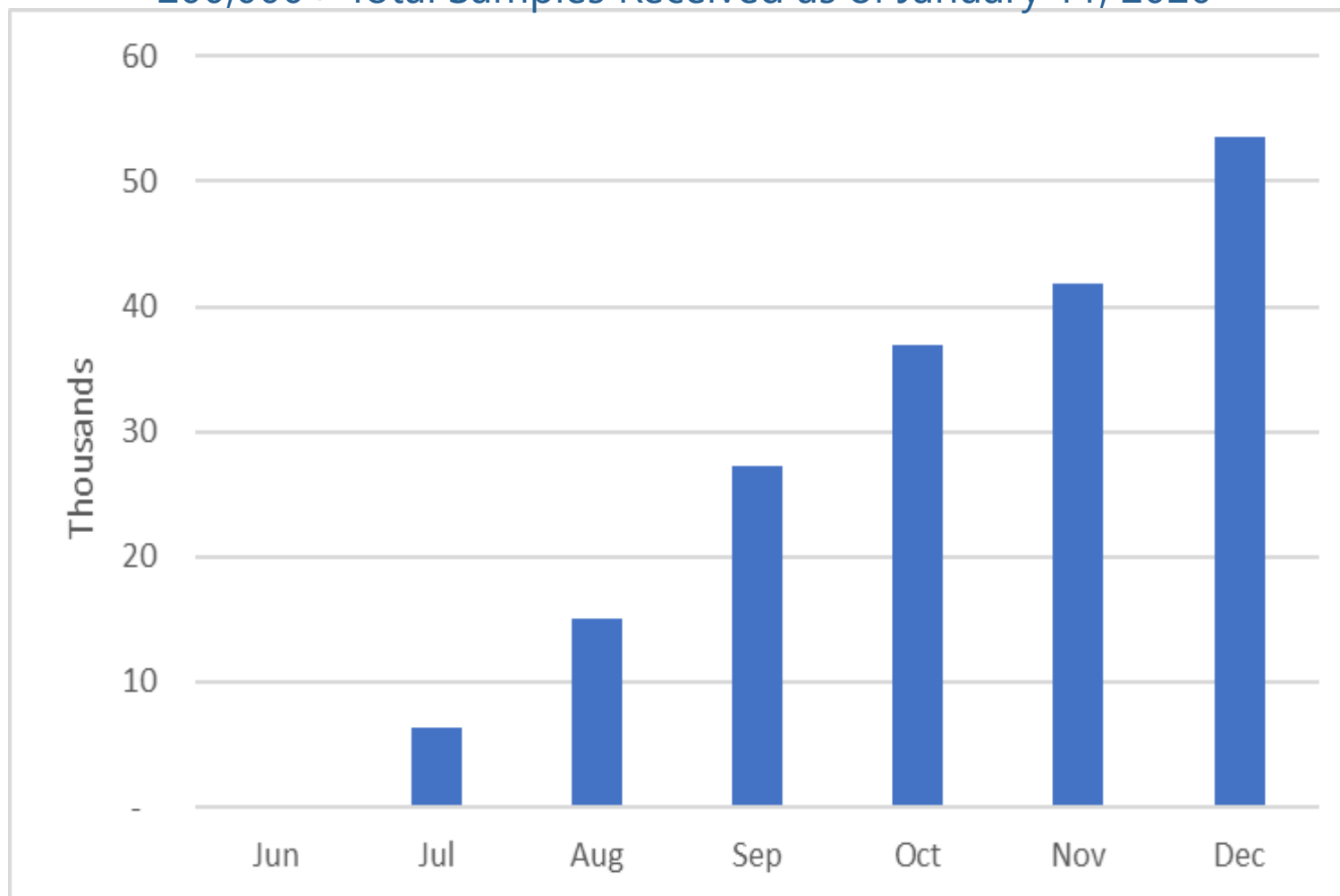
- In-house capability for kit production due to routinely manufacturing materials for oncology testing
- Proactively addressing the specimen collection kit shortage by purchasing materials and assembling in house
- Proprietary collection media being validated with expected availability in 1Q21

Agreement with Aegea Biotechnologies to Develop Ultra-high Sensitivity COVID-19 Assay

- Utilize patented Switch-Blocker technology
- Could provide superior specificity in detecting asymptomatic patients and identify different strains

COVID-19 Testing Volume

Samples Received by Month
200,000+ Total Samples Received as of January 11, 2020

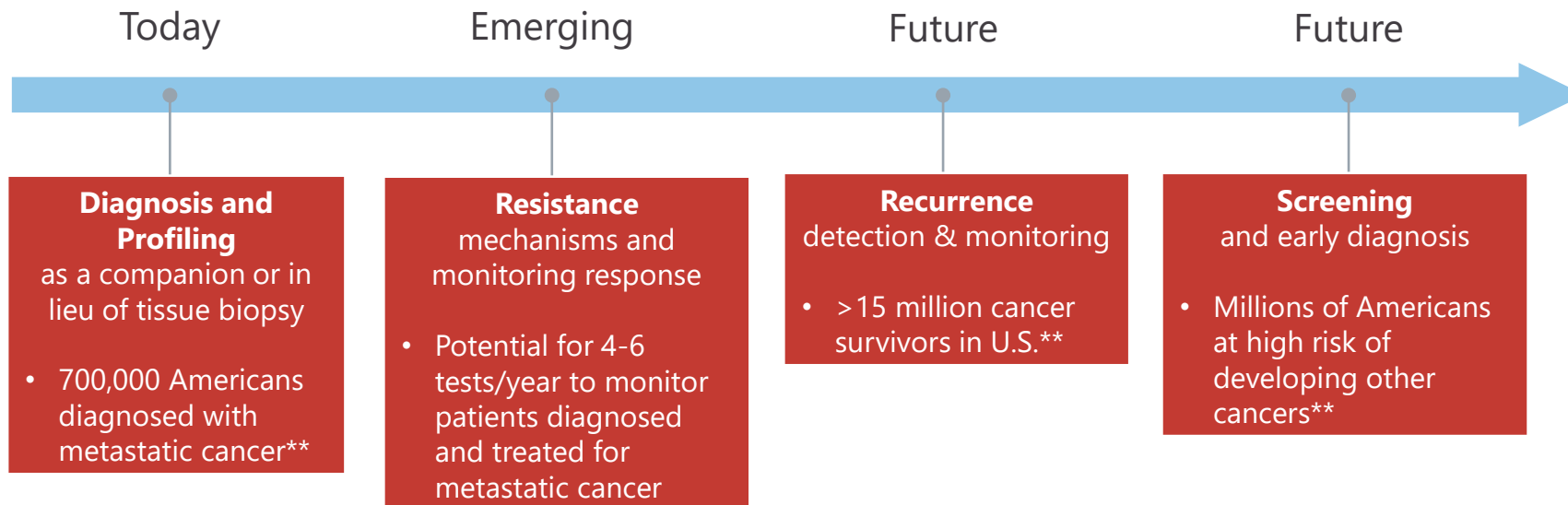


Medicare reimbursement
~\$100 per test

Liquid Biopsy Market for Oncology



Estimated \$17 billion market by 2023*



Biocept focuses on patients with lung, breast, prostate & colorectal cancers (>45% of all metastatic cancers)**

*International Liquid Biopsy Market Report, Market Research Future, August 18, 2018

**American Cancer Society: Cancer Treatment and Survivorship 2016-2017

Investment Continues to Build in Liquid Biopsy & Cancer Diagnostics

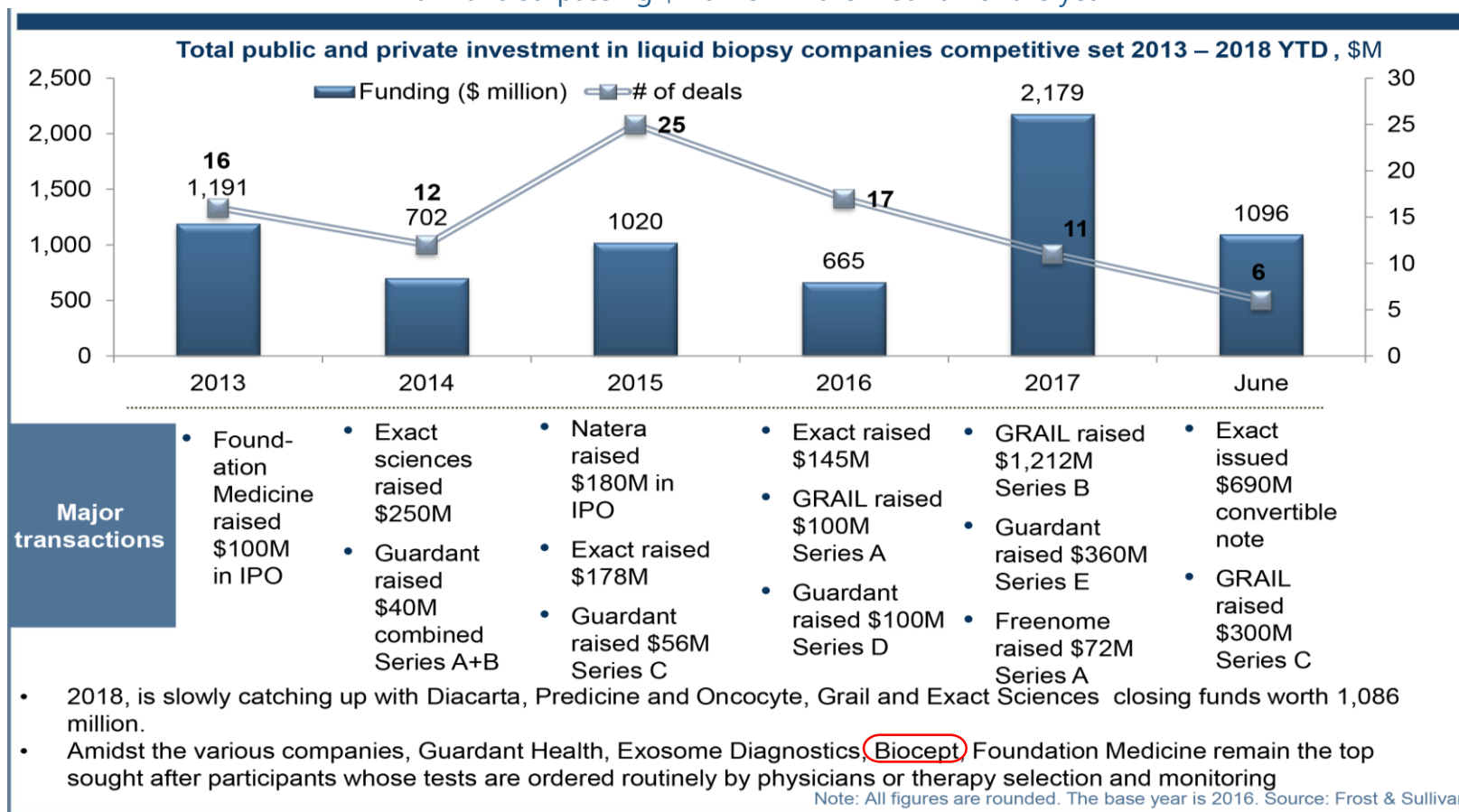
• Strong investor interest in liquid biopsy field

• Growing investments over time (Frost & Sullivan)

• >\$2 billion invested in 2017

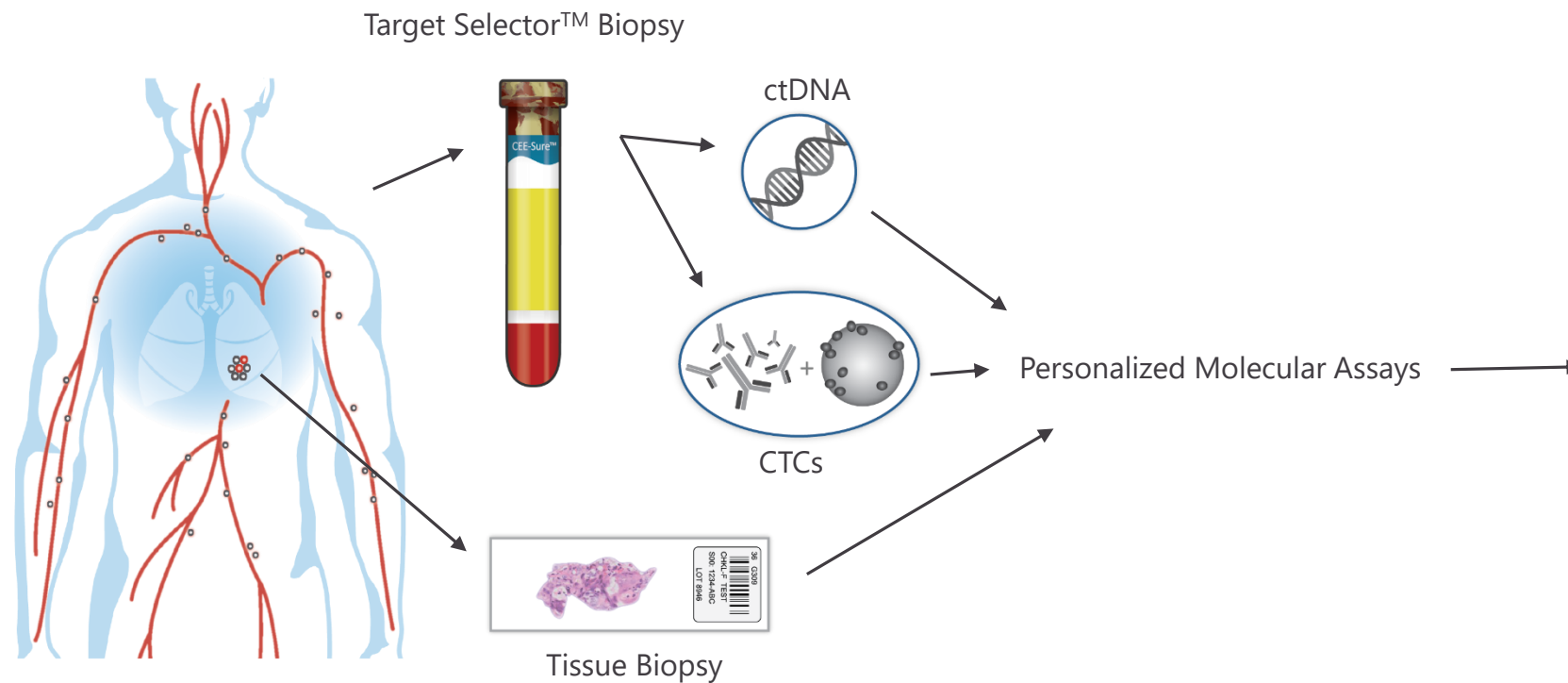
Market Landscape – Investments

Investor interest based on overall capital raised has remained strong with 2018 surpassing \$1 billion in the first half of the year



Precision Treatment

Molecular Profiling Cancer Biomarkers



Identification of Molecular Biomarkers Required to Qualify Patients for Targeted Therapy

Biocept
Completing the Answer™

OncoCEE-BR™ Circulating Tumor Cell (CTC) Test

18110 Nancy Ridge Drive, Suite 100, San Diego, CA 92121
Client Service: 858-555-1729 FAX: 858-555-1701 • www.biocept.com

PATIENT INFORMATION		CLIENT INFORMATION	
Patient Name:	Patient, 10001234	Ordering Physician:	Sam Smith, MD
Patient ID#:	C100024	Order Location:	Dana-Farber Cancer Institute
Address:	400 Brookline Avenue Boston, MA 02215	Address:	400 Brookline Avenue Boston, MA 02215
Date of Birth:	12/13/1918	Account Number:	00000101
Sex:	F	Phone:	617-555-5555
		Fax:	617-555-5555

SPECIMEN INFORMATION	
Accession #:	DFW-0010
Client Account #:	1218-KX-KX
Specimen Type:	Peripheral
Waiver (Yes):	18
Collected Date:	5/7/2014 6:30 PM
Received Date/Time:	1/9/2014 9:45 AM
Reported Date/Time:	5/8/2014 12:31 PM
Test(s) Ordered:	HER2 OncoCEE-BR™

RESULTS	
Diagnosis:	History of Breast Cancer
CTCs:	Present
HER2:	Amplified (Positive)

RESULTS: Blue light image, Green light image, Red light image

SUPPORTING DATA:

Enumeration of Circulating Tumor Cells by OncoCEE™, 179
HER2 Analysis of CTCs by OncoCEE™, 180 Amplified (Positive)

Parameter	Value
Number of CTCs	180
Number of CTCs, HER2 amplified	179
Number of CTCs, HER2 amplified (CTCs)	179

CTC image: Blue light image, Green light image, Red light image

HER2 image: Blue light image, Green light image, Red light image

OncoCEE-BR™ Circulating Tumor Cell (CTC) Test

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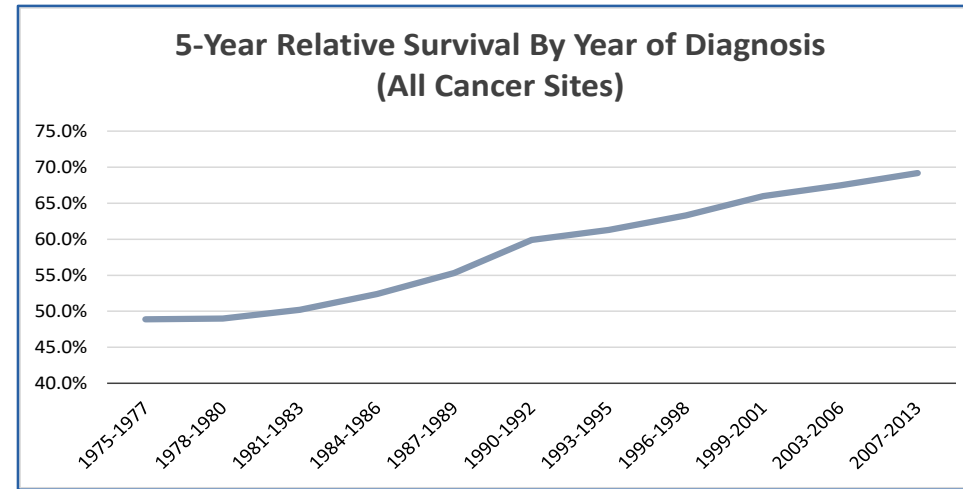
Laboratory Director: Sam Smith, MD, FACMG, PPSC (BCP)
CLIA ID Number: 00000101

Accession # DFW-0010
Page 1 of 2

Precision Treatment Improved Outcomes

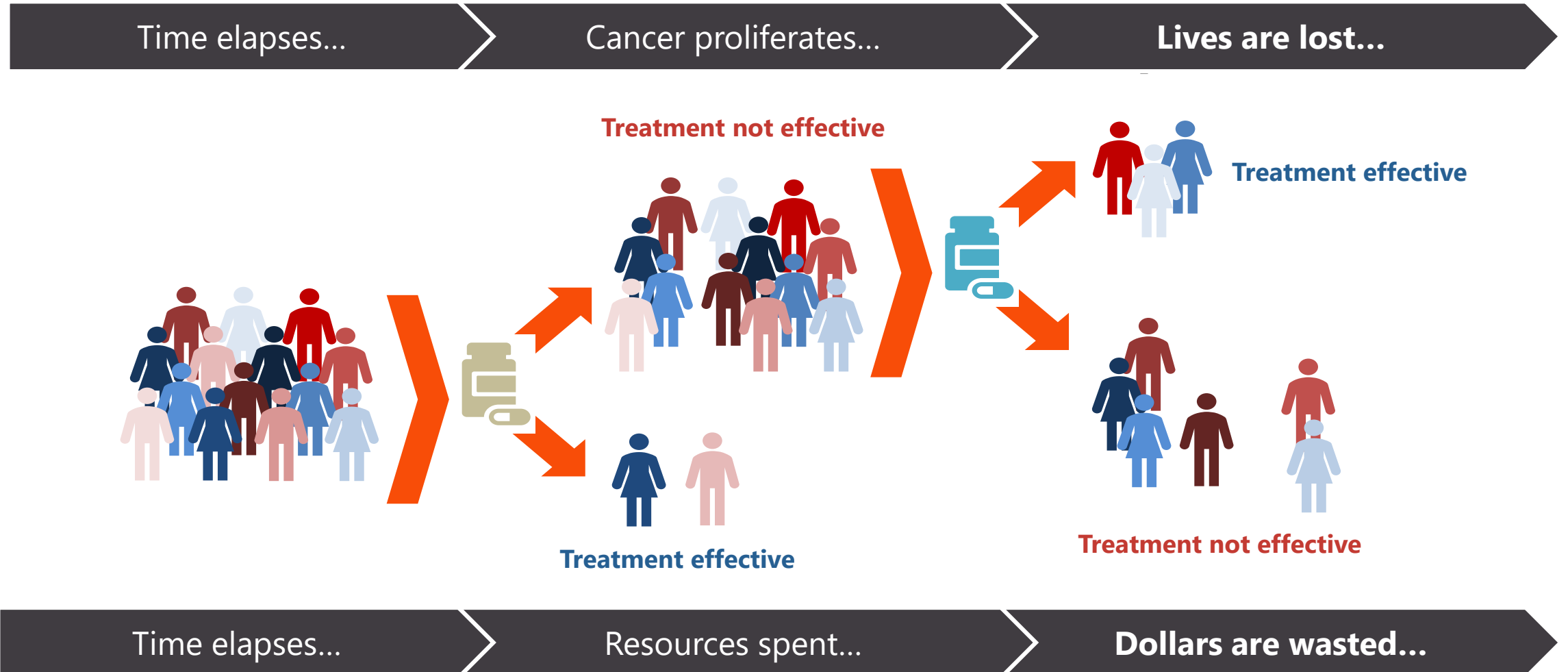


Source: SEER Cancer Statistics Review 1975-2013
cancer.gov



*NCI Cancer Statistics https://seer.cancer.gov/csr/1975_2014/browse_csr.php?sectionSEL=2&pageSEL=sect_02_table.08.html

Matching Cancer Patients to Personalized Therapy Remains Challenging



Legacy Cancer Diagnostic Tools Do Not Complete The Answer

	Advantages	Disadvantages	Cost
Traditional Surgical Biopsy	<ul style="list-style-type: none"> ▪ Required for diagnosis ▪ Considered standard of care ▪ Source of cancer (histology) ▪ Results for all known oncogenic alterations ▪ Analysis of whole cells 	<ul style="list-style-type: none"> ▪ Invasive – not appropriate for monitoring ▪ Risk of adverse events ▪ Expensive ▪ Often inadequate for complete molecular profiling ▪ Only 57% of tissue biopsies have sufficient tissue for analysis ▪ Can take as much as 30 days for results ▪ Heterogeneity of tumor can lead to false negatives ▪ Does not account for evolving cancer over time – snapshot view 	\$15,000 to \$45,000

Target Selector™ Assays Advantage

■ Specialty Areas of Focus :

- Neuro-Oncology
- Lung Cancer
- Urology—Prostate Cancer
- Breast Oncology

■ Clinical Application:

- Diagnosis and Recurrence
- Monitoring for Disease Progression
- Monitoring for Therapy Effectiveness and Resistance

High Sensitivity

- Combined results from CTCs and ctDNA from single blood sample
- CSF for patients with brain metastases
- Industry-leading sensitivity – delivers high concordance with tissue
- Addresses challenges of tumor heterogeneity

Actionable Results

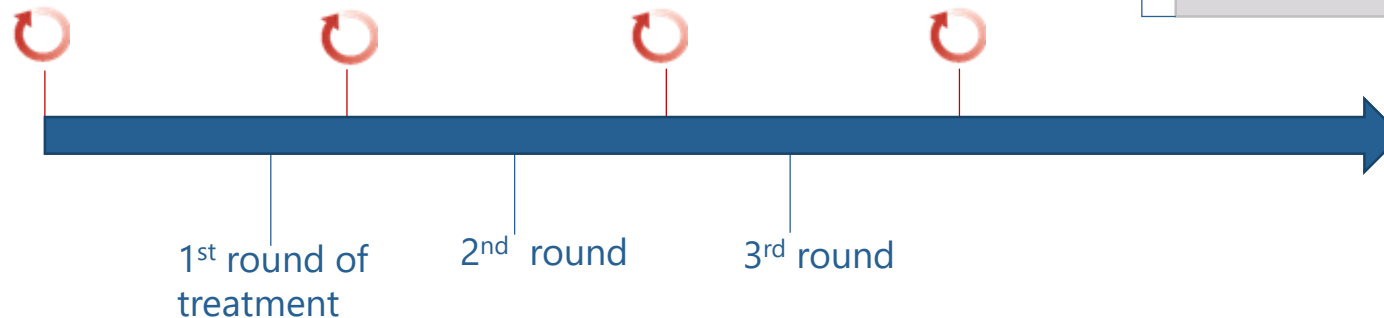
- Results for all types of oncogenic alterations leading to therapy decision making
- Target markets – neuro-oncology, medical oncology, urology, and pathology

Rapid, Non-Invasive,
Cost Effective

- Turnaround in 3-7 days enables targeted and immuno-therapy options
- Reimbursement advantages – pay for individual / actionable alterations
- Non-invasive - appropriate for both profiling and monitoring

~\$1,000 per sample on average – delivers more value for today's limited healthcare dollars

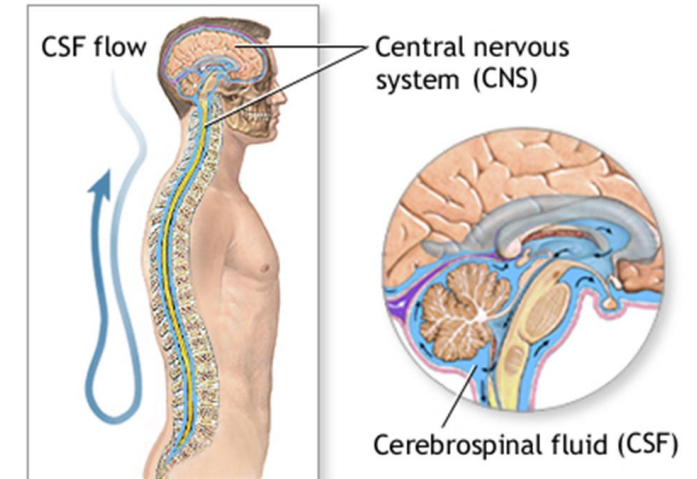
When to
Order
Biocept



Neuro-Oncology: Biocept Can Now Isolate and Analyze both CTCs and ctDNA from Cerebral Spinal Fluid (CSF)

First-in-Class Liquid Biopsy for Diagnosis of Brain Metastases

- 23% of breast cancer patients have metastasis to the brain; 25% of lung cancer patients have metastasis to the brain
- Identifying markers from a single CSF draw prevents multiple biopsies and provides insight into potential markers for metastases following CNS symptoms from these patients
- Biomarker identification potentially helps guide therapy
- Utilizes Biocept's core technology and expertise to identify CTCs in CFS to diagnose brain metastasis
- Early data shows 75% improvement vs standard of care – cytopathology review for diagnosis of brain metastases and other brain tumors
- Strategy for high-value reimbursement from CMS once data is generated
- Clinical study road map
 - Phase I - Analytical performance study
 - Phase II – Prospective multi-center non-interventional trial



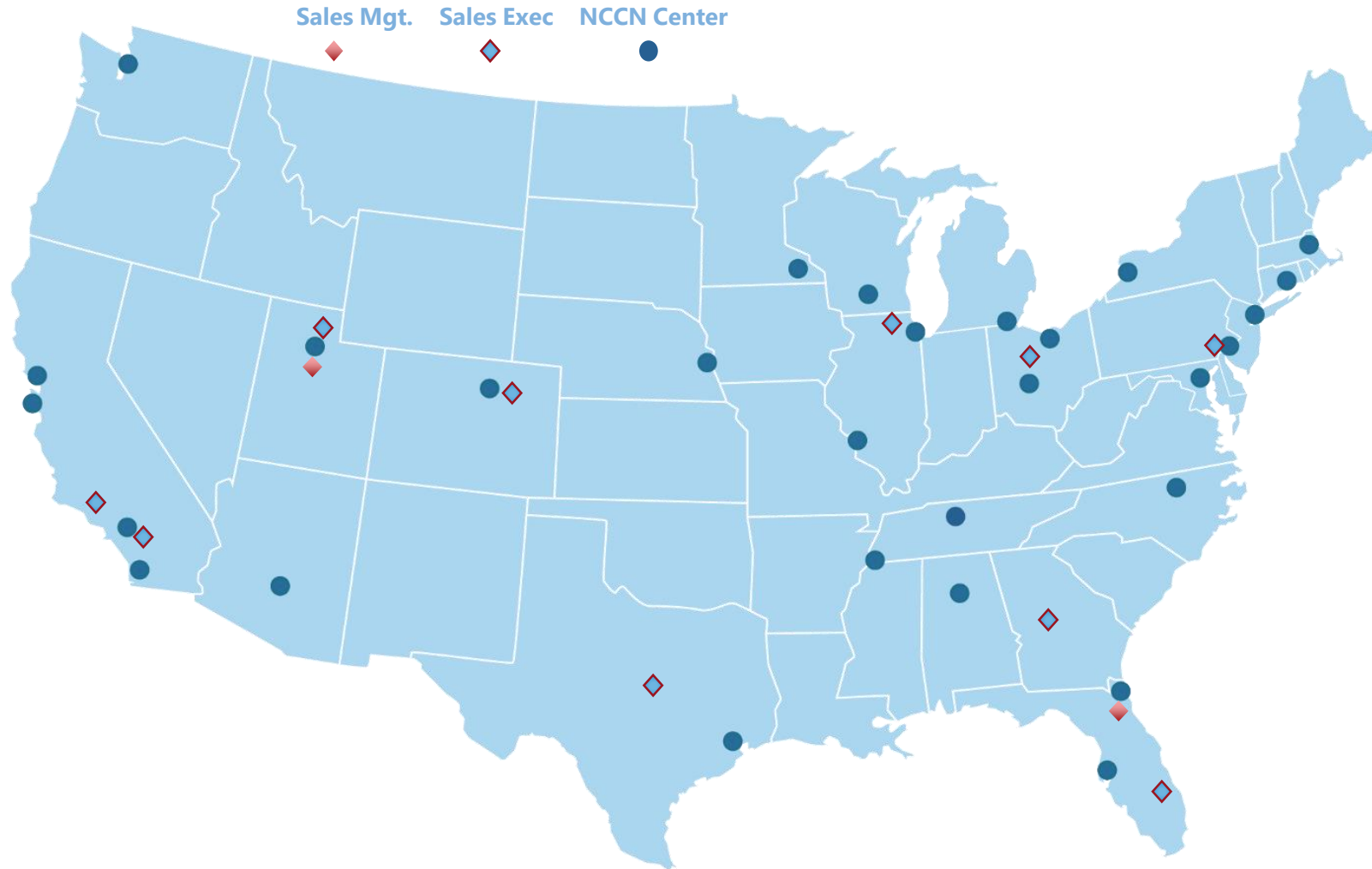
Health Plan Access Continues to Expand with Third-Party Contracts



- Managed Care agreements in place covering >200 million lives
- Dedicated managed care leadership with years of experience from GE, LabCorp and others
- Payors have positive coverage for biomarkers listed in guidelines
- Aligns with goals of healthcare reform
- Improved outcomes while reducing costs
- Utilize established CPT codes

Commercial Strategy – “Team Liquid”

Current Salesforce Coverage



Highly Experienced Commercial Team:

- Small-company Growth Focus
- Neuro-oncology Expertise
- Deep Market Knowledge
- Urology
- Breast Cancer Focus
- Pathology Partnerships
- Contracting and CMS Coverage

Skill Sets:

- Managed Care
- Marketing
- Sales and Sales Management
- Field Product Managers

10 Clinical Biomarker Specialists (CBS), VP of Sales, Marketing Leadership and Reimbursement Experience

Profiling at Diagnosis and Recurrence: Real-World Lung Cancer Treatment Initiative Leads to Agreement with Highmark Health Network

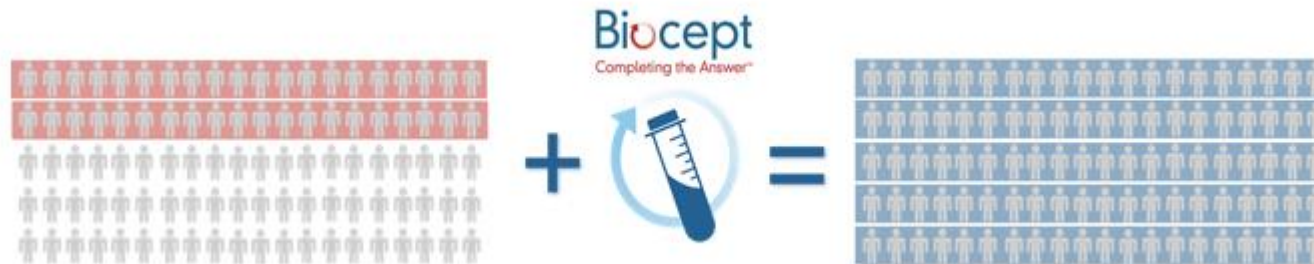


40% not tested for guideline tests

27% of patients not enough tissue



QI Project – Tested all newly diagnosed and patients progressing with Tissue and Liquid



Increased detection of biomarkers, Improved outcomes, Reduced costs

Highmark Health's VITAL Innovation Program identified benefits of Biocept's liquid biopsy platform for improving outcomes and lowering costs of treatment for patients with non-small cell lung cancer

Allegheny Health Network's Cancer Institute spearheading the evaluation

<https://www.highmarkhealth.org/hmk/newsroom/pr/pressreleases.shtml>



Commercial Collaborations



- Executing on strategy to contract with major cancer treatment institutions, GPOs, and distributors
- Increasing patient access
- Accelerating adoption of liquid biopsy
- Leveraging sales and marketing resources by increasing awareness of Biocept's liquid biopsy platform within large health systems
- Roll out new tests and service offerings including molecular pathology partnering model (i.e., Empower TC™)
- Gaining value from data

Biocept IP Portfolio – 41 Patents Issued Worldwide

Family 1

MicroChannel for CTC Capture

- Patent 1 – Recovery of Rare Cells using Microchannel
- Patent 2 – Device for Cell Separation

1) Issued in US (2), China (3), Korea, France, Germany, Great Britain, Italy, Spain, Hong Kong (3), Japan, and Canada

- Pending in Australia

2) Issued in US

Expire
2025

Family 2

CTC Capture With Antibody Cocktail

- Patent 1 – Devices & Methods of Cell Capture Analysis
- Patent 2 – Method and Reagents for Signal Amplification

1) Issued in US (2), Australia, France, Germany, Great Britain, Spain, Italy, Hong Kong, Japan (3), and China

- Pending in Canada

2) Issued in US, EU, Canada, Japan, and China

- Pending in Hong Kong, Korea

Expire
2030

Family 3

Collection Tube

Patent 1 – Use of DU for Anti-Clumping of Biological Sample

1) Issued in US

Expire
2031

Family 4

Switch-Blockers for ctDNA Analysis

Patent 1 – Methods for Detecting Nucleic Acid Sequence Variants

Primer-Switch for Nucleic Acid Analysis

Patent 2 – Methods for Rare Genetic Variant Detection and PCR Amplification Improvements

1) Issued in US, Australia, China, France, Germany, Italy, Great Britain, Belgium, Ireland, Japan, Brazil, and Switzerland

- Pending in Hong Kong, Korea, Canada

2) Issued in Australia and US

- Pending in Japan, China, Korea, Canada, Hong Kong,, Brazil, and EU

Expire
2033

Extensive IP portfolio expected to allow Biocept to monetize IP through out-licensing and moving to distributed model based on developing diagnostic kits

Leadership Team

Michael Nall

President & CEO

- 25+ years in healthcare sales, marketing and commercial operations
- 20 years in cancer diagnostics and genomics
- 7 years as Biocept CEO
- Most recently General Manager N. American Sales and Marketing for Clariant — a GE Healthcare Company

Tim Kennedy

CFO, SVP of Operations

- 30+ years of financial experience, 25+ years in the clinical diagnostics industry
- Instrumental in 2.1B restructuring of Millennium Health, a privately-held urine drug lab
- Numerous senior management positions – helped transform PLUS Diagnostics into largest independent U.S pathology lab; merged National Health Labs and Roche Biomedical Labs to form LabCorp

Michael Dugan, MD

CMO and Medical Director

- Board certified Pathologist
- Univ of AZ, Yale, UCLA
- Numerous publications, serves on CAP committees
- Leadership positions at Exact Sciences, Clinical Genomics, Quest, Genzyme and others

Lyle Arnold, PhD

SVP, Chief Scientist

- Senior R&D leadership at Gen-Probe, Incyte Genomics, Genta
- Founder/ Co-founder Oasis Biosciences, Molecular Biosystems, Aegea Biotechnologies
- Former faculty member, UCSD School of Medicine and member, UCSD Cancer Center
- 47 issued US and more than 140 issued and pending patents worldwide

Michael Terry

SVP, Corporate Development

- 25+ years commercial leadership experience in molecular diagnostics and med-tech companies
- Former GE Healthcare executive, certified in Six Sigma
- Recent experience in liquid biopsy field; EVP commercial operations at both Sequenom and Trovagene



Biocept is Guided by a Board of Visionaries & Scientific Influencers

Board of Directors

M. Faye Wilson, CPA, MBA

Lead Independent Director and Interim Chair, Chair of Audit Committee, Member of Compensation Committee, Member of Nominating and Governance Committee

David F. Hale

Director

Marsha A. Chandler, PhD

Director, Chair of Nominating and Governance Committee, Member of Science and Technology Committee

Michael W. Nall

Director, President & CEO

Ivor Royston, MD

Director, Chair of Science and Technology Committee, Member of Nominating and Governance Committee

Bruce E. Gerhardt, CPA

Director, Member of Audit Committee

Bruce A. Huebner

Director, Chair of Compensation Committee, Member of Science and Technology Committee, Member of Audit Committee

Samuel D. Riccitelli

Director, Member of Audit Committee, Member of Science and Technology Committee

Clinical Advisory Board

Lee Schwartzberg, MD

Chief, Division of Hematology Oncology; Professor of Medicine, University of Tennessee

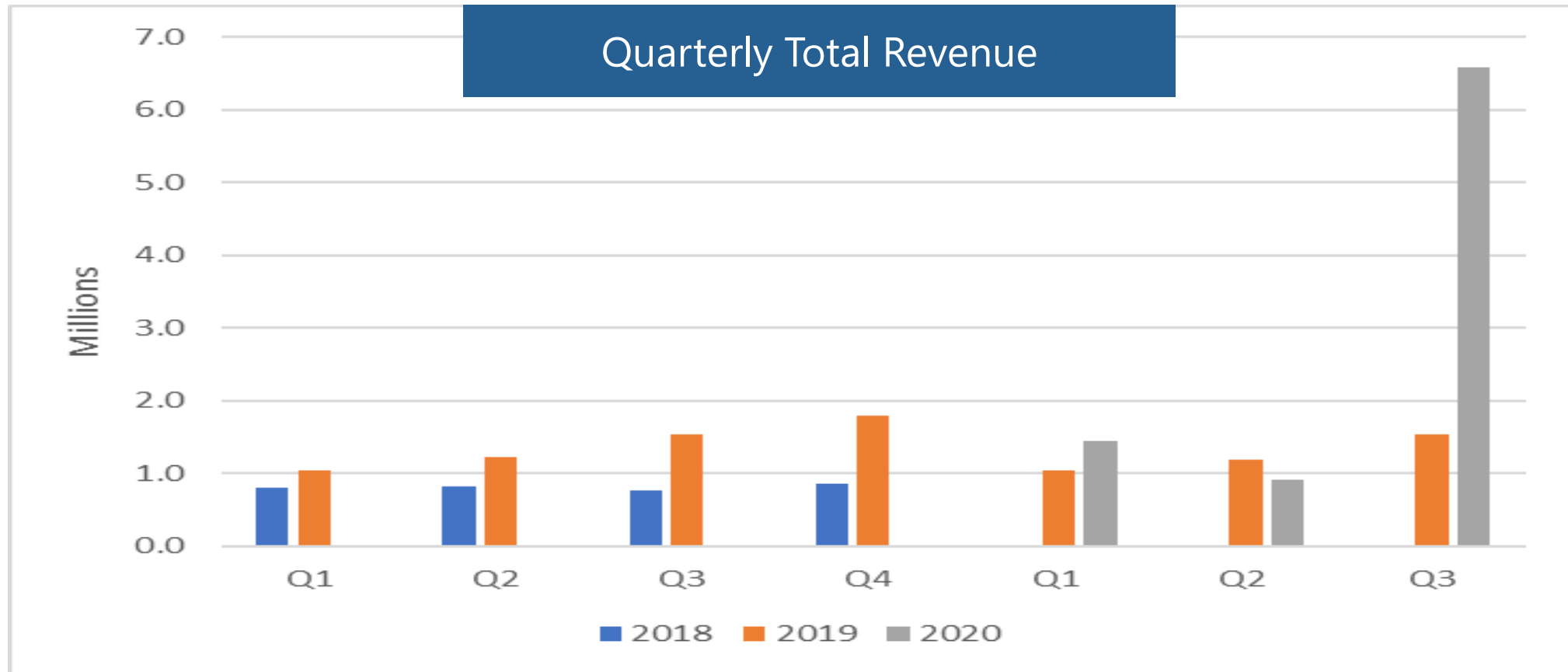
David Berz, MD, PhD

Beverly Hills Cancer Center
Chief Medical Officer – Valkyrie Pharmaceuticals
Beverly Hills, California

Santosh Kesari, MD, PhD

Chair, Dept. of Translational Neuro-oncology and Neurotherapeutics, John Wayne Cancer Institute, Santa Monica, California

Deploying Capital To Fuel Growth



1Q & 2Q 2020 revenues reflect the impact of COVID-19

3Q 2020 revenues reflect the ramp-up of COVID-19 test

\$16.9 million in cash and equivalents at 9/30/20

Corporate Priorities

- ✓ Increase market penetration into emerging liquid biopsy segment with a focus on neuro-oncology, urology, breast, and lung cancer treatment segments
- ✓ Grow sales of Target Selector™ liquid biopsy kits and CEE-Sure™ blood collection tubes
- ✓ Secure Medicare coverage for Target Selector™ Lung NGS Panel developed under Thermo Fisher Collaboration
- ✓ Enter into additional strategic commercial and technology partnerships – Global and U.S.
- ✓ Sign new third-party health plan agreements and expand relationship with BCBS
- ✓ Initiate pivotal clinical studies and present results at industry conferences
- ✓ Launch COVID-19 collection kits and complete development of high-sensitivity COVID-19 kit with Aegea Biotechnologies

Investment Highlights

Liquid Biopsy Market Forecast to Reach in the Billions

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- Validated on blood or CSF
- Enables detection and monitoring of clinically validated biomarkers listed in NCCN Guidelines

Industry-Leading Test Performance

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- Favorable reimbursement – cost-effective liquid biopsy testing, fits with health care reform goals

Opportunities for Value-Creating Strategic Partnerships

- Current partnerships with industry leading companies
- Potential for U.S. and global transactions
- Commercial and technology partnerships

Deploying Global Distribution Model

- Target Selector™ kits
- Blood collection tubes
- Agreement with VWR

Strong balance sheet and COVID-19 testing to weather the pandemic while making progress on multiple aspects of our core business to build for a strong future

Biocept Growth Drivers

Broad Technology Expertise

- CTC Analysis
- ctDNA Testing
- NGS Panels

New Customer Markets

- Urology
- Neuro-oncology (CSF)
- Integrative Oncology
- Pathology Partnerships

New Clinical Application

- Monitoring for Disease Progression and Treatment Efficacy

Monetizing Intellectual Property

- CEE Sure Blood Collection Tubes
- Molecular Test Kits

Monetizing Database

- >20,000 Patients
- >80,000 Laboratory Tests Performed

Single Cell Analysis

- Pharma
- Drug Discovery

