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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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**CURRENT REPORT**  
Pursuant to Section 13 or 15(d)  
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 2, 2016

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**BIOCEPT, INC.**  
(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-36284**  
(Commission  
File Number)

**80-0943522**  
(I.R.S. Employer  
Identification No.)

**5810 Nancy Ridge Drive, San Diego, CA**  
(Address of principal executive offices)

**92121**  
(Zip Code)

Registrant's telephone number, including area code: (858) 320-8200

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7.01 Regulation FD Disclosure.**

On August 2, 2016, Biocept, Inc. released a presentation on its corporate website providing a corporate overview. The presentation is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

The information contained in Item 7.01 and in Item 9.01 and in Exhibit 99.1 attached to this report is being furnished to the Securities and Exchange Commission and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), or otherwise subject to the liability of that Section, or incorporated by reference in any filing under the Exchange Act or the Securities Act of 1933, as amended, regardless of any general incorporation language contained in such filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

99.1 Presentation of Biocept, Inc.

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: August 2, 2016

**BIOCEPT, INC.**

By: /s/ Michael W. Nall

Name: Michael W. Nall

Title: Chief Executive Officer

Corporate Overview  
August 2016



NASDAQ: BIOC  
[www.biocept.com](http://www.biocept.com)

# 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.

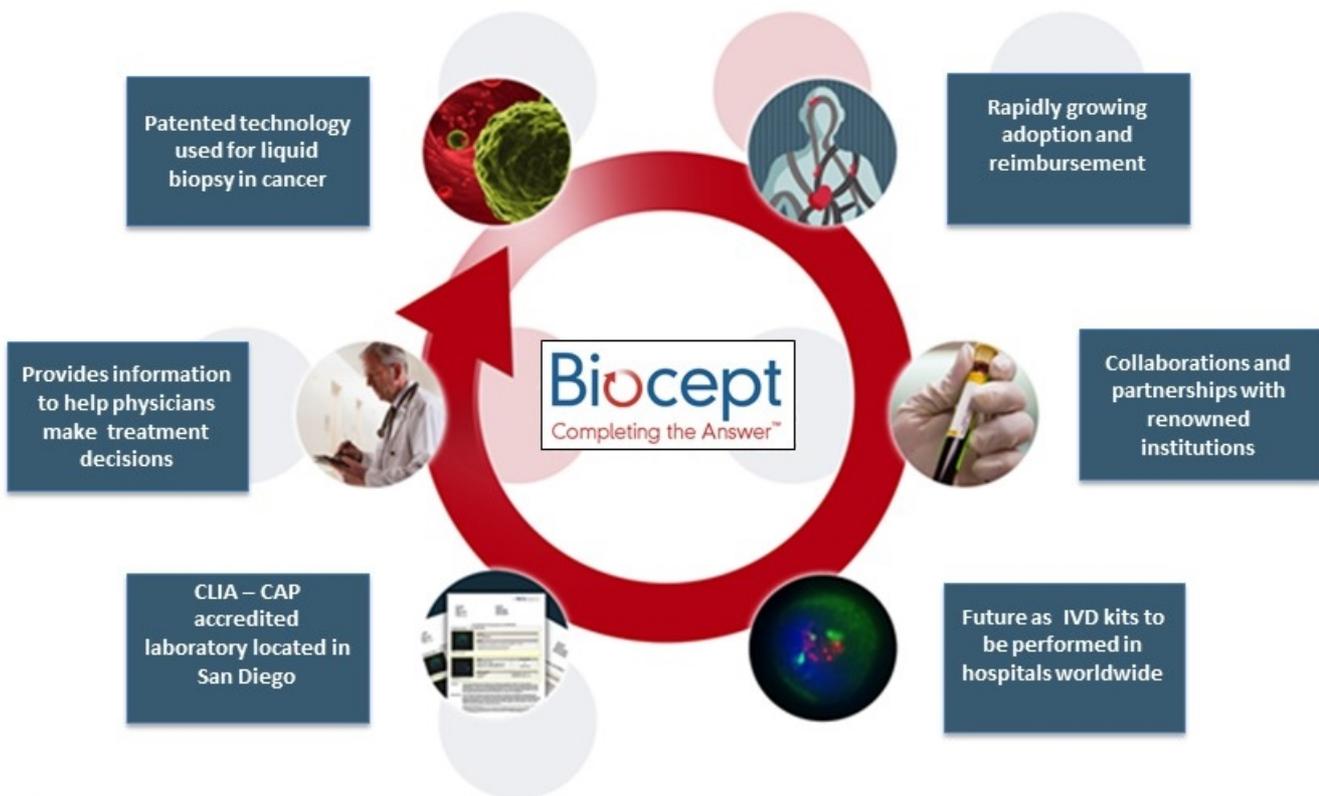
All forward-looking statements contained in this presentation speak only as of the date hereof, and except as required by law, we assume no obligation to update these forward-looking statements whether as a result of any new information, future events, changed circumstances or otherwise.

# Investment Highlights

- **Dual platform for liquid biopsy in oncology** – unique high-performance CTC and ctDNA assays enable detection and monitoring of actionable NCCN markers
- **Multiple clinical studies, publications and poster presentations support platform**
- **Strong ramp of test volume and health plan reimbursement** – indicative of platform validation and potential market
- **Liquid biopsy market estimated at more than \$10 billion** – potential to improve cancer patient outcomes due to advantages of a simple blood test (convenience, repeatability, feasibility benefits, reduced cost and complications vs. tissue biopsy)
- **Potential cost leader in liquid biopsy segment for oncology applications**
- **Opportunities for value-creating strategic partnerships**
- **Business evolution to high-scale Target Selector™ IVD Kit model**

# Corporate Profile

NASDAQ: BIOC, Listed 2014  
Market Cap: +/- \$15M  
Shares Out: Approx. 25M  
ATV: 344K



# The Executive Team

<p><b>Michael Nall</b> <i>President &amp; CEO</i></p>	<ul style="list-style-type: none"> <li>• 25+ years in healthcare sales, marketing and commercial operations</li> <li>• 16 years in cancer diagnostics and genomics</li> <li>• Most recently General Manager N. American Sales and Marketing for Clariant—a GE Healthcare Company</li> </ul>
<p><b>Tim Kennedy</b> <i>CFO &amp; SVP of Operations</i></p>	<ul style="list-style-type: none"> <li>• 30+ years of financial experience, 25+ years in the clinical diagnostics industry</li> <li>• Instrumental in 2.1B restructuring of Millennium Health, a privately-held urine drug lab</li> <li>• 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</li> </ul>
<p><b>Lyle Arnold, Ph.D.</b> <i>SVP, R&amp;D &amp; CSO</i></p>	<ul style="list-style-type: none"> <li>• Senior R&amp;D Leadership at Gen-Probe, Incyte Genomics, Genta</li> <li>• Founder/ Co-founder Oasis Biosciences, Molecular Biosystems, Aegea Biotechnologies</li> <li>• Former faculty member, UCSD School of Medicine and member, UCSD Cancer Center</li> <li>• 45 issued US and more than 140 issued and pending patents worldwide</li> </ul>
<p><b>Veena Singh, MD</b> <i>SVP &amp; Sr. Medical Director</i></p>	<ul style="list-style-type: none"> <li>• Board certified AP/CP and Molecular Pathology, UCSD, Cedars Sinai trained</li> <li>• Numerous publications, serves on CAP committees</li> <li>• Most recently Medical Director – bioTheranostics</li> </ul>
<p><b>David Moskowitz, RPh</b> <i>VP Strategy &amp; Corporate Communications</i></p>	<ul style="list-style-type: none"> <li>• 16-year Wall Street professional - sell-side equity analyst and research director</li> <li>• 25+years of healthcare industry experience; #1 biotech stock-picker 2011 (Starmine)</li> <li>• Strategic consultant to numerous companies in pharma, biotech, and diagnostics sectors</li> </ul>



# Board of Directors, Clinical & Scientific Advisors

## Board of Directors

**David F. Hale**  
Chairman

**M. Faye Wilson, CPA, MBA**  
Lead Independent Director,  
Chair Audit Committee,  
Member Compensation  
Committee

**Michael W. Nall**  
Director, President & CEO

**Marsha A. Chandler, PhD**  
Director, Chair - Nominating  
and Governance Committee

**Bruce E. Gerhardt, CPA**  
Director, Member Audit  
Committee

**Ivor Royston, MD**  
Director, Chair -  
Compensation  
Committee and Member  
Nominating and  
Governance Committee

**Ed Neff**  
Director, Member Audit,  
Committee

**Bruce A. Huebner**  
Director, Member Compensation  
Committee

## Clinical Advisory Board

**David Carbone, MD**  
Director, James Thoracic Center,  
James Cancer Hospital and  
Solove Research Institute, Ohio  
State University

**Lee Schwartzberg, MD**  
Chief, Division of Hematology  
Oncology; Professor of Medicine,  
University of Tennessee

**Jenny Chang, MD**  
Director, Methodist Hospital  
Cancer Center, Houston, Texas

**Michael Kosty, MD**  
Scripps Clinic Torrey Pines, San  
Diego California

**Edgardo Santos, MD**  
Medical Director, Lynn Cancer  
Institute, Boca Raton, Florida

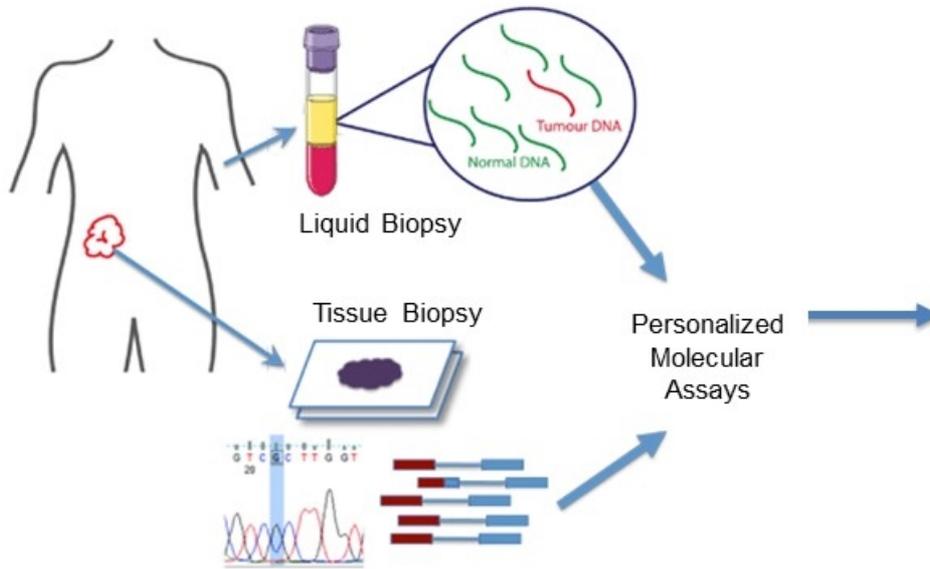
**Daniel Rubin, ND, FABNO**  
Medical Director, Naturopathic  
Specialists, Scottsdale, Arizona

## Scientific Advisory Board

**David Rimm, MD, PhD**  
Professor of Pathology and  
Medicine (Oncology) Yale  
University School of Medicine

**Marileila Garcia, PhD**  
Professor, University of Colorado  
Division of Medical Oncology

# Molecular Testing: The New Standard of Care in Personalized Cancer Medicine



Results from molecular analysis for treatment decisions

**Biocept**  
Completing the Answer™

OncoSEE-BR™ Circulating Tumor Cell (CTC) Test  
© 2014 Veritas Health Systems, Inc. Veritas Health Systems, Inc. 1000  
 West Avenue, Suite 200, Fort Lauderdale, FL 33304-1000

PATIENT INFORMATION		CLIENT INFORMATION	
Patient Name	Patient, JOHN DOE	Ordering Physician	Dr. John Doe, MD
Patient MRN	12345678	Order Location	John Doe Cancer Institute
Address	456 Main Street Boston, MA 02115	Address	456 Main Street Boston, MA 02115
Date of Birth	12/12/1978	Account Number	456-789-010
Sex	M	Phone	617-555-1234
		Fax	617-555-5678

SPECIMEN INFORMATION		RESULTS	
Accession #	01234567	Collection Date	07/20/14 08:00 AM
Specimen Type	Peripheral Blood	Reported Date/Time	08/19/14 08:00 AM
Material	EDTA	Reported Date/Time	07/20/14 12:30 PM
		Specimen Reference	MR01 OncoSEE-BR 08/19

**RESULTS**

Category	History of Breast Cancer	HER2	Amplified Protein
HER2	Present	HER2	Amplified Protein

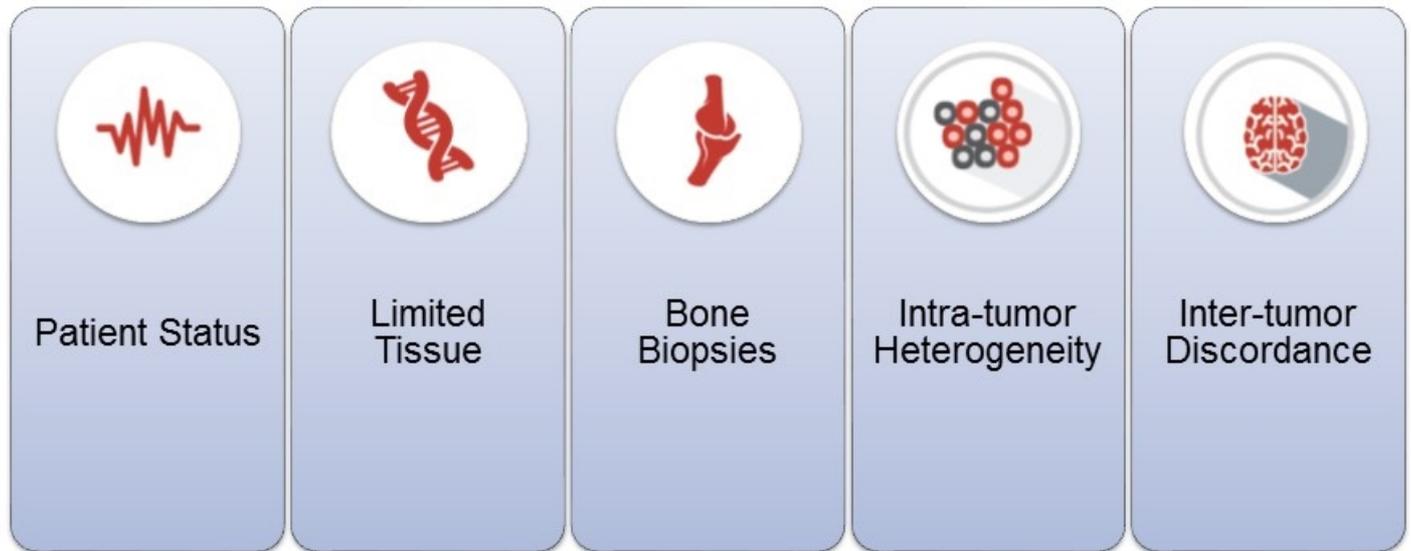
**SUPPORTING DATA**

Number of circulating tumor cells (CTCs) was detected in peripheral blood collected in less than 100 mL blood. This result is consistent with the presence of circulating tumor cells (CTCs) in blood and is indicative of metastatic disease. Metastatic disease is a complex entity which may include multiple metastatic foci. This result is consistent with the presence of circulating tumor cells (CTCs) in blood and is indicative of metastatic disease. Metastatic disease is a complex entity which may include multiple metastatic foci. This result is consistent with the presence of circulating tumor cells (CTCs) in blood and is indicative of metastatic disease.

**LABORATORY REPORT**  
 Date: 08/19/14 08:00 AM  
 Order Number: 12345678

Accession # 01234567  
Page 1/1

# Liquid Biopsy Addressing Unmet Medical Needs



***Reduced Healthcare Costs and Patient Complications***

***Target Selector = \$1,200 vs. Tissue Biopsy = \$5,000-\$15,000***

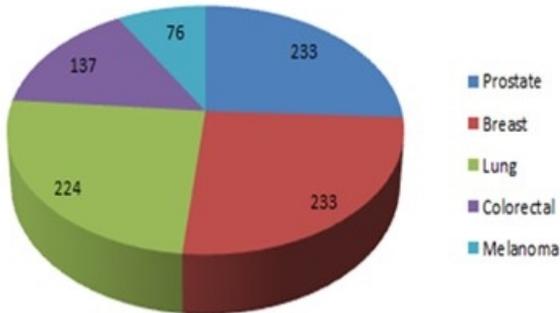
# Today – Profiling and Monitoring

## Profiling

**925,030**

Newly diagnosed cancer cases in the U.S.

**13,000,000** worldwide



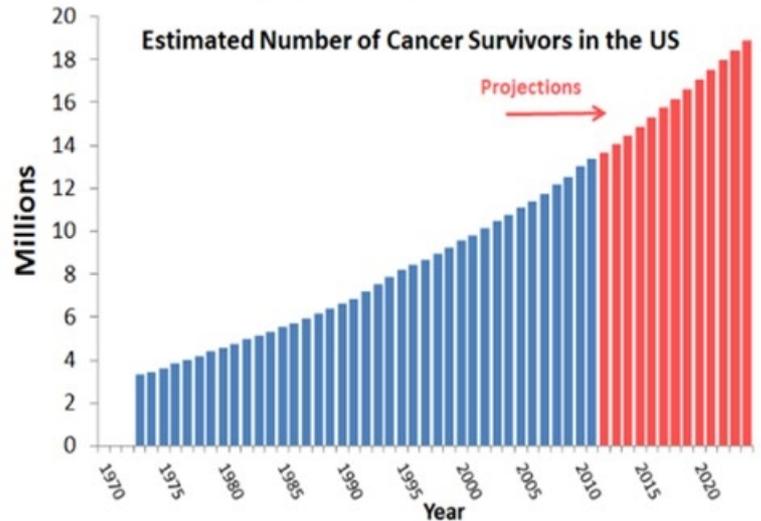
In thousands

## Monitoring

**14,000,000**

People living with cancer in the U.S.

**32,000,000** worldwide



*Incidence data for 2014 and prevalence data for 2010 of breast, lung, colon, prostate, melanoma, gastric and deaths data provided by National Cancer Institute: <http://seer.cancer.gov/statfacts/>*

# Large Market Opportunity

## Personalized Medicine from a Liquid Biopsy

### Profiling

~\$7B worldwide market by 2020\*

### Monitoring

~\$5B worldwide market by 2020\*

### Companion diagnostics

~\$2B worldwide market by 2020\*

### Screening

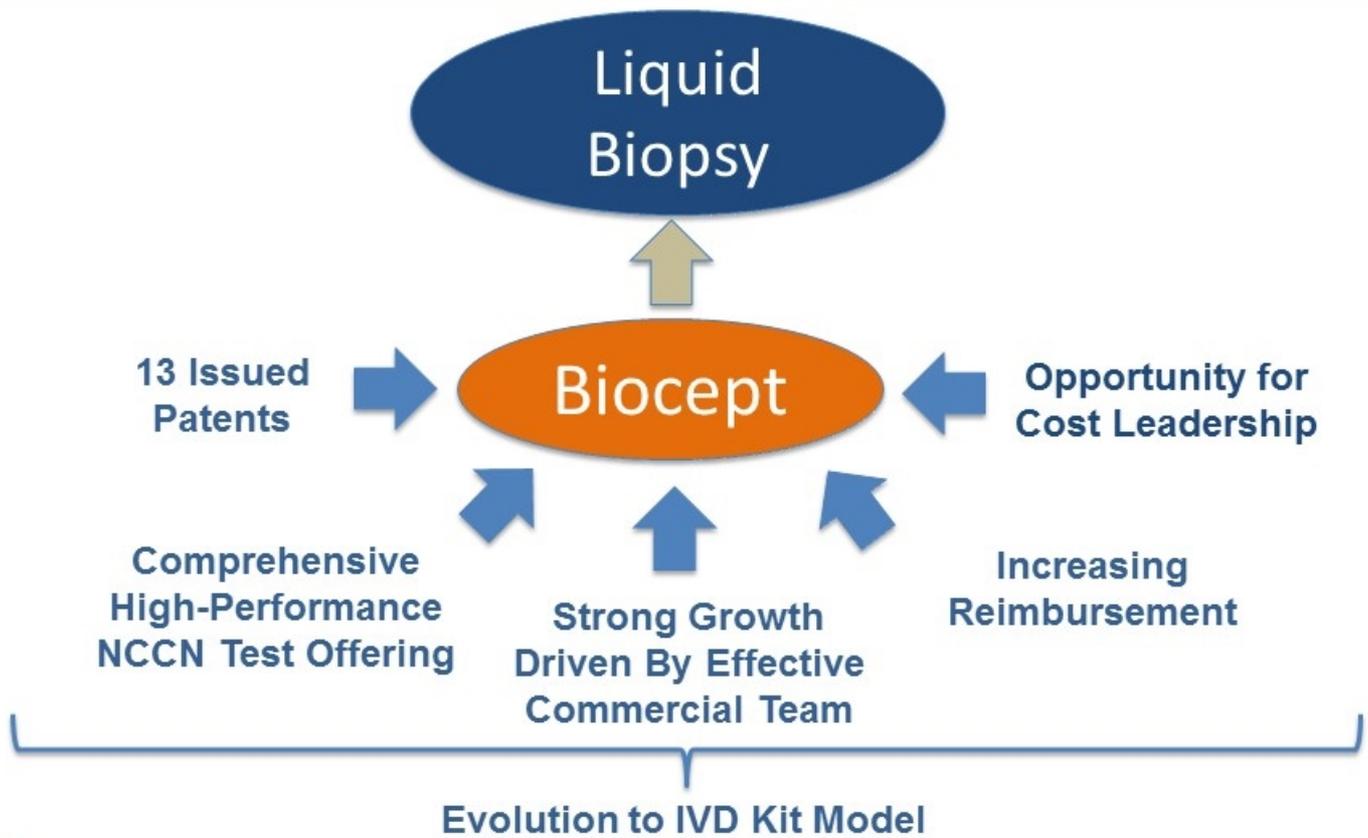
Including detection of asymptomatic patients  
~\$9B worldwide market by 2020\*



*“We sized the [global] market opportunity for liquid biopsy as \$22B by 2020...”*

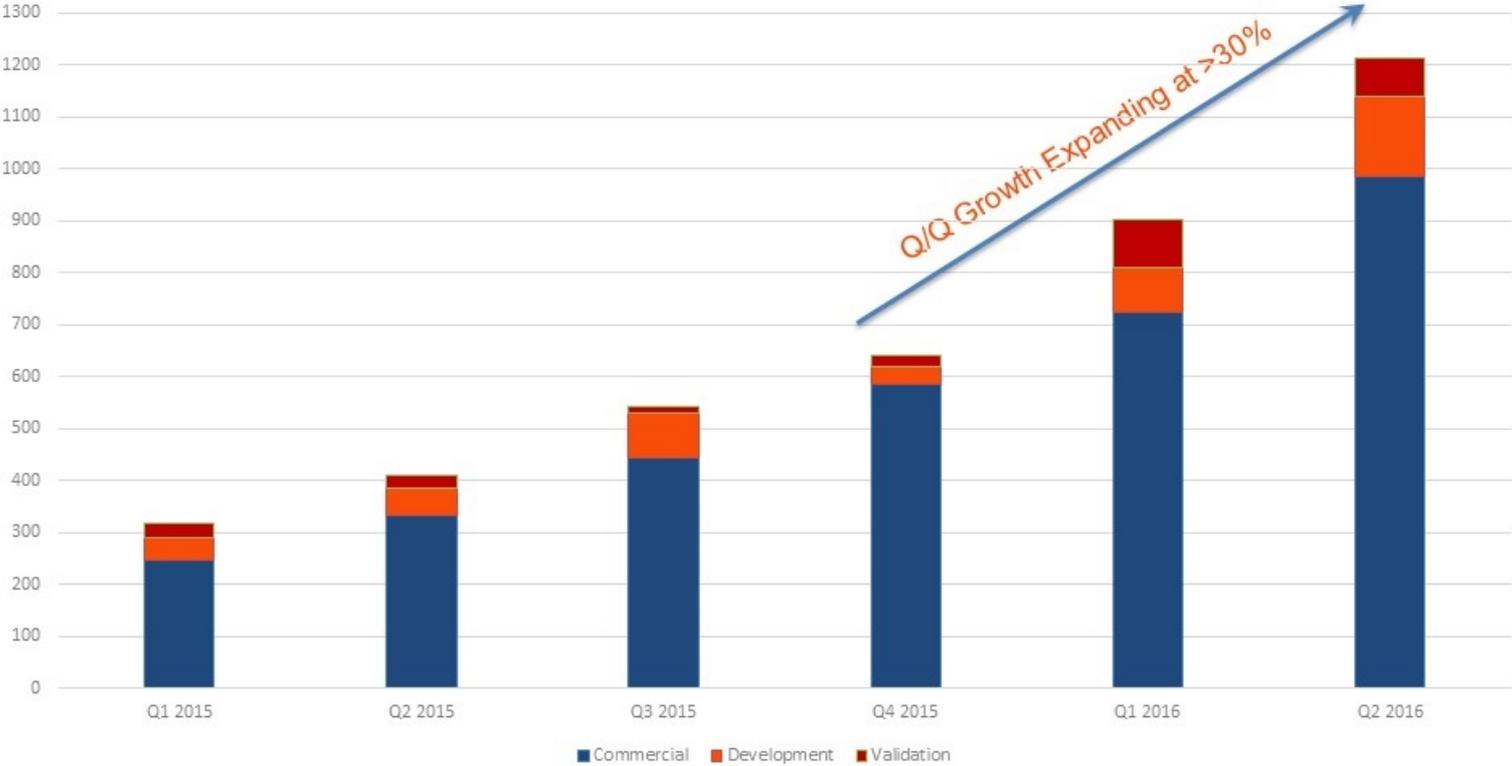
*\*J.P. Morgan Industry Report – May 27, 2015*

# Premier Commercial Platform in Liquid Biopsy



# Biocept at an Inflection Point

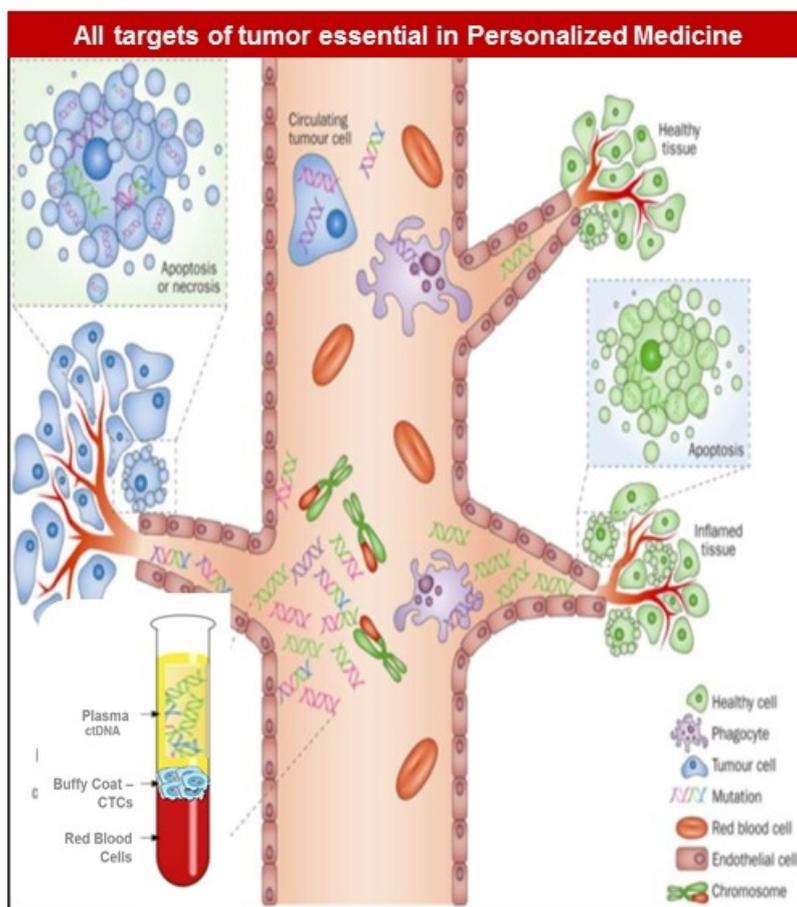
Accessions by Quarter



# CTCs and ctDNA: Important Molecular Information Sources for Treatment Decisions

- Both are essential for comprehensive profiling for treatment purposes as well as for monitoring patients on therapy
- CTCs are whole cells containing intact genomic material shed from tumors including DNA, RNA and protein (PD-L1, ER)
- ctDNA is fragmented DNA shed into the blood as cells die
- CTCs are essential for certain types of testing (protein i.e. PD-L1, ER, amplifications i.e. HER2, MET)
- ctDNA appropriate for mutations that are rarely seen in normal cells (EGFR, BRAF, KRAS)

Crowley et. al.,  
*Nature Reviews*, 2013



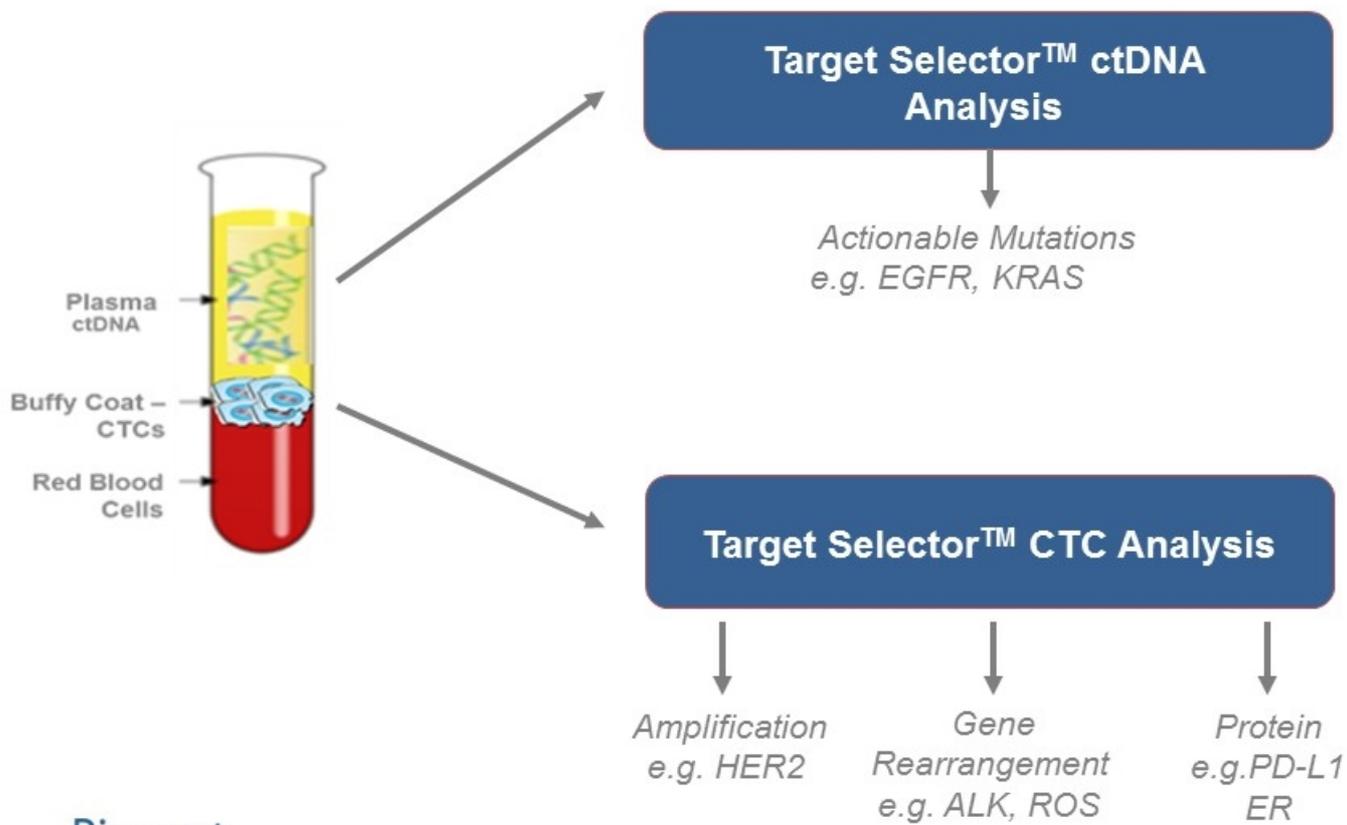
# Biocept: Completing the Answer...

Company	CTCs / Whole Cells	ctDNA / DNA Fragments
Genomic Health (GHI)		X
Epic Sciences (private)	X	
Foundation Medicine (FMI)		X
Guardant Health (private)		X
Trovogene (TROV)		X
<b>Biocept (BIOC)</b>	<b>X</b>	<b>X</b>

## Biocept advantage

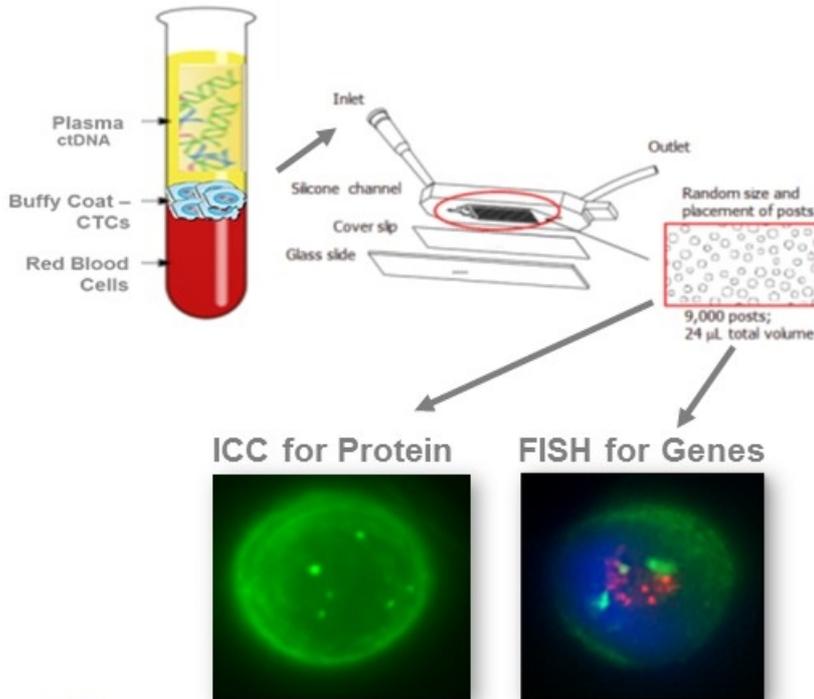
- Only company commercializing both CTCs and ctDNA from a single blood sample
- Demonstrated high concordance with tissue
- Assays for most appropriate tumor target from blood for each biomarker
- Blood more likely to contain intact cells and is less fragmented than other fluids such as urine
- Broad, international patent coverage
- Cost and reimbursement advantages

# Target Selector™ Platform Enables both CTC and ctDNA Analysis



# Target Selector™ CTC Testing for Whole Cell Analysis

Detection, enumeration and biomarker analysis all within the patented channel



## Industry-leading accuracy

- >99% specificity and sensitivity

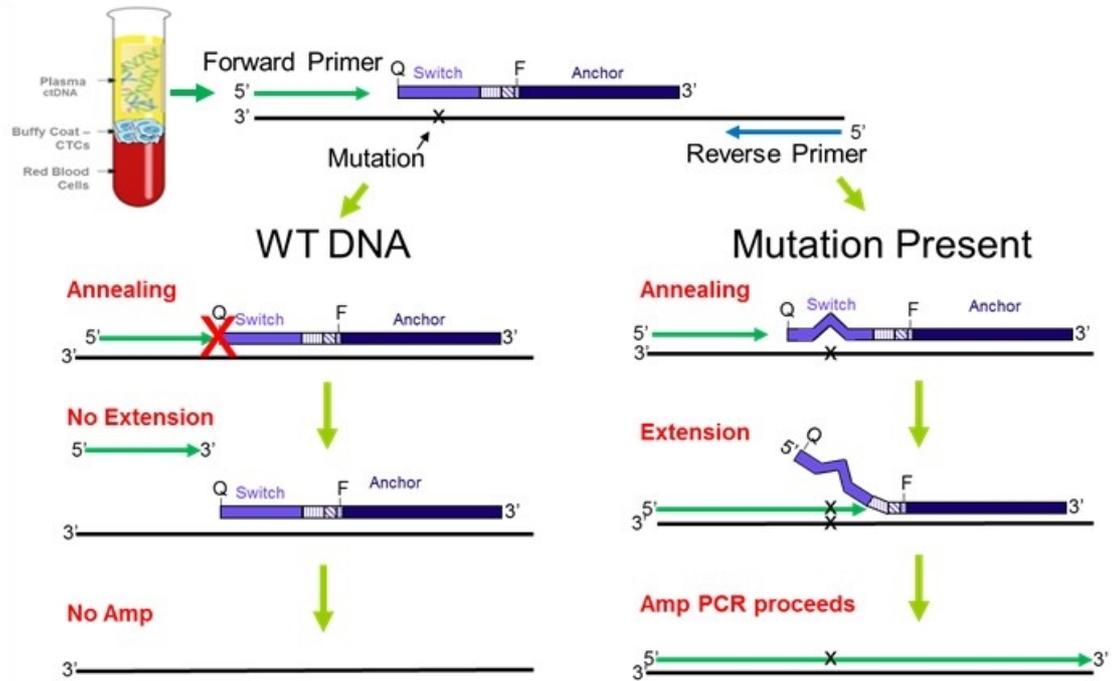
## Cells captured in patented, clear microfluidic channel

- Same specimen can be microscopically analyzed for DNA and protein targets
- Cells can be released for further molecular analysis such as Next Generation Sequencing
- Conducive to partnerships with Pathology practice and hospitals (TC/PC model)

# Target Selector™ ctDNA Testing for Oncogene Mutation Analysis

Industry-leading accuracy with >99% specificity, >95% sensitivity\*

- Superior enrichment of mutant DNA targets vs. wild-type (normal) DNA
- Complete suppression of wild-type DNA amplification
- Quantitatively detects cancer-associated mutations present at low levels in plasma
- Multiple mutations within a single genomic region detected and confirmed by sequencing
- Multiplexing expected to drive cost leadership – enables profitable testing at NGS reimbursement rates



# Broad IP Coverage – 13 Patents Issued

**Patented**  
Blood  
Transport Tube



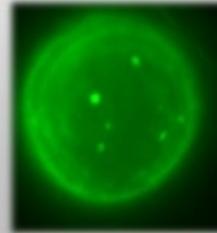
*U.S. patent. Additional patents pending.*

**Patented**  
Microfluidic Channel



*Multiple patents in U.S.(3), EU, China, Korea, Japan, Hong Kong. Additional patents pending world-wide.*

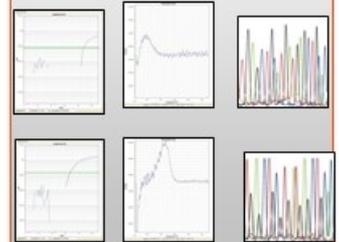
**Patented**  
OncoCEE™  
Chemistry: Antibody  
Cocktails for capture  
and detection



*U.S., Japan and EU patents using antibody cocktail for capture. Additional patents pending world-wide.*

*U.S. patent for detection. Associated foreign patents pending for detection world-wide.*

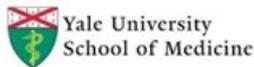
**Patent pending**  
Target Selector™  
Mutation Analysis



*U.S. and associated foreign patents pending*

# Partners in Establishing Clinical Utility

UC San Diego  
MOORES CANCER CENTER

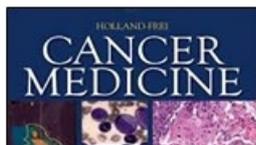


- Collaborations with major cancer centers
- Participating in medical meetings and symposia
- Engaging KOL Advisors
- Building relationships with patient advocacy groups
- Expanding strategic partnerships with pharma and biotech for personalized diagnostics



# Clinical Validation – Published Data

*Clinical & Translational*  
**Oncology**  
Official publication of the Federation of Surgical Oncology Societies



- Demonstrated that patients with ER+ metastatic showed correlation of ER status using OncoCEE-BR with metastatic and primary biopsy – in collaboration with Columbia University – published *Clinical and Translational Oncology* - Feb 2015
- Reported 85% of CTC and 72% of DTCs have HER2 concordance with primary tumor in recently diagnosed breast cancer patients – MD Anderson Cancer Center – published in *Cancer Medicine* - April 2013
- Demonstration that the OncoCEE platform was able to capture and detect a broad range of CTCs including those that have undergone EMT – MD Anderson Cancer Center – published in *Cancer Discovery* - Nov 2011
- Proved that OncoCEE platform could be used to reproducibly detect HER2 status by FISH on CTCs – published in *Cancer Genetics* - Nov 2011

# Clinical Validation – Posters and Abstracts



- 88% of patients in study with metastatic breast cancer showing HER2 - primary tissue biopsy were HER2 - on CTCs as detected with OncoCEE-BR – Dana Farber Cancer Institute, sponsored by Genentech and Komen Foundation. Poster presented at **San Antonio Breast Conference** – Dec. 2014
- Demonstration of correlation and clinical utility of biomarkers in CTC and ctDNA from NSCLC using OncoCEE-LU platform and CEE-Selector – University of California, San Diego Moores Cancer Center. Poster presented at **ASCO** – May 2015
- Further demonstration of correlation and clinical utility of biomarkers in ctDNA from NSCLC using CEE-Selector – University of California, San Diego Moores Cancer Center. Poster presented at **IASLC (World Lung)** – September 2015
- Demonstration of the ability to gain results from RNA based ALK mutation assay following capture and release of CTCs – Insight Genetics. Poster presented at **IASLC (World Lung)** – September 2015
- Demonstration of high sensitivity of Biocept's Target-Selector Assays in detecting EGFR mutation in plasma with 93% concordance with tissue biopsy. Poster presented at **AMP** – November 2015
- Extended Circulating Tumor cell capture and detection capability both cytokeratin positive as well as cytokeratin negative cells. **ASCO Abstract 2016**
- Further demonstration of concordance in the detection of EGFR mutations in plasma with tissue biopsy. **ASCO Abstract 2016**

*\*Additional publications, posters and abstracts validating our technology – all available at [www.biocept.com](http://www.biocept.com)*

# Industry-Leading Assay Performance

## **Controlled Validation Concordance (standard criteria) – 99.3%**

CTC Biomarkers + ctDNA Analytical Validation	CTC Biomarkers + ctDNA Analytical Combined
Data Size (N)	4641
Accuracy	4610/4641 (99.3%)
Sensitivity	99.2%
Specificity	99.6%

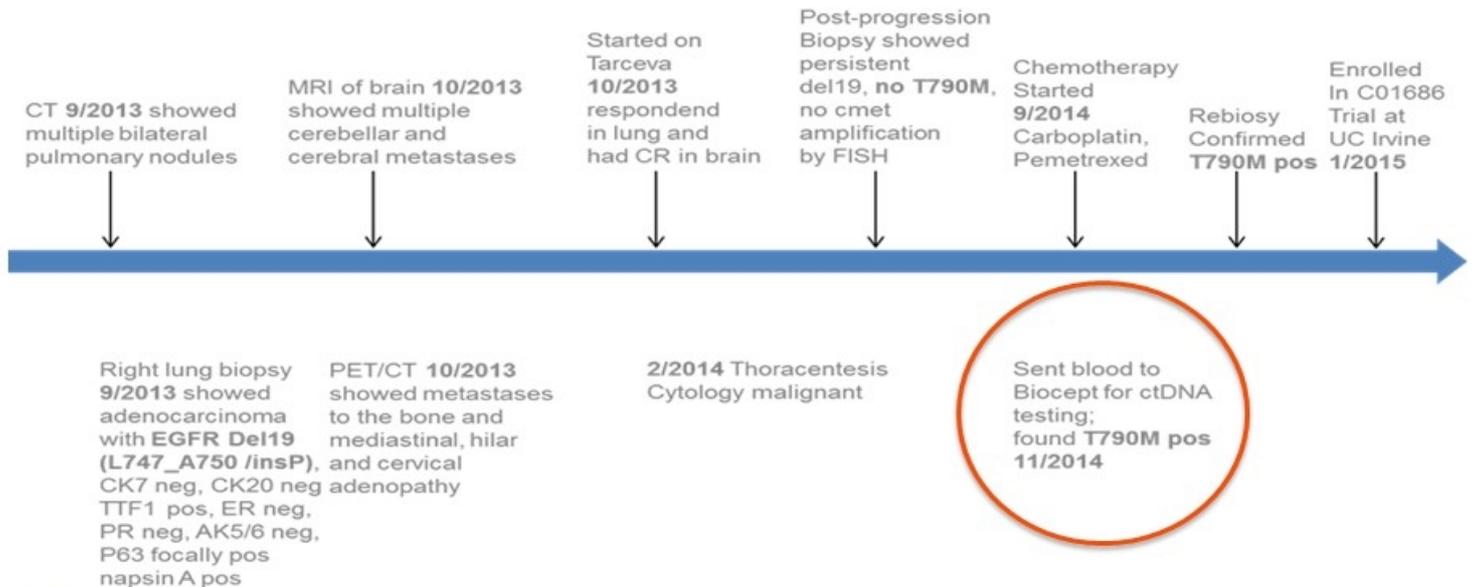
## **Concordance to Tissue (real world experience) - 87%**

CTC Biomarkers + ctDNA Clinical Validation	CTC Biomarkers + ctDNA Clinical Combined
Data Size (N)	407
Accuracy	354/407 (87%)
Sensitivity	74%
Specificity	94.6%

# Real-World Patient Case Example

*"The results obtained from patients with metastatic lung cancer suggest that the utility of non-invasive Target Selector™ aids the clinical management of my patients. This was demonstrated in a patient who was correctly identified to have an emerging T790M resistance prior to tissue biopsy and placed on a next-generation tyrosine kinase inhibitor with demonstrated radiographic response, due to this change in treatment."*

- Lyudmila Bazehnova, MD, Associate Clinical Professor UCSD



# Highly Relevant Test Menu: 13 ctionable Biomarkers Found in NCCN Guidelines

Cancer	Target Selector CTC	Target Selector ctDNA
Breast	HER2*, ER*, FGFR1, AR, PDL1, PR*	ESR1 mutations
Gastric	HER2*, FGFR1	EGFR*, KRAS*, BRAF* mutations, ALK mutations
Lung	ALK*, ROS1*, MET*, FGFR1, PDL1*, RET	KRAS*, BRAF* mutations
Colon	EGFR amplification	BRAF*, NRAS* mutations
Prostate	AR, PTEN deletion	
Melanoma		

1st to Market Launched June '16

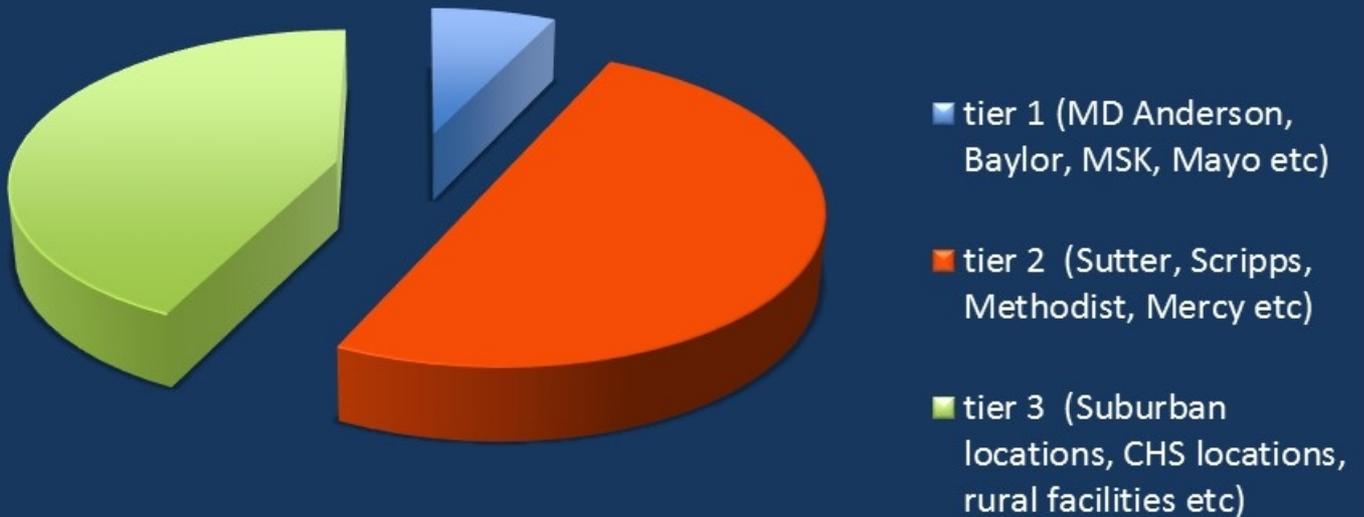
\* In NCCN guidelines

■ Biomarkers currently available for clinical use

■ Biomarkers under development

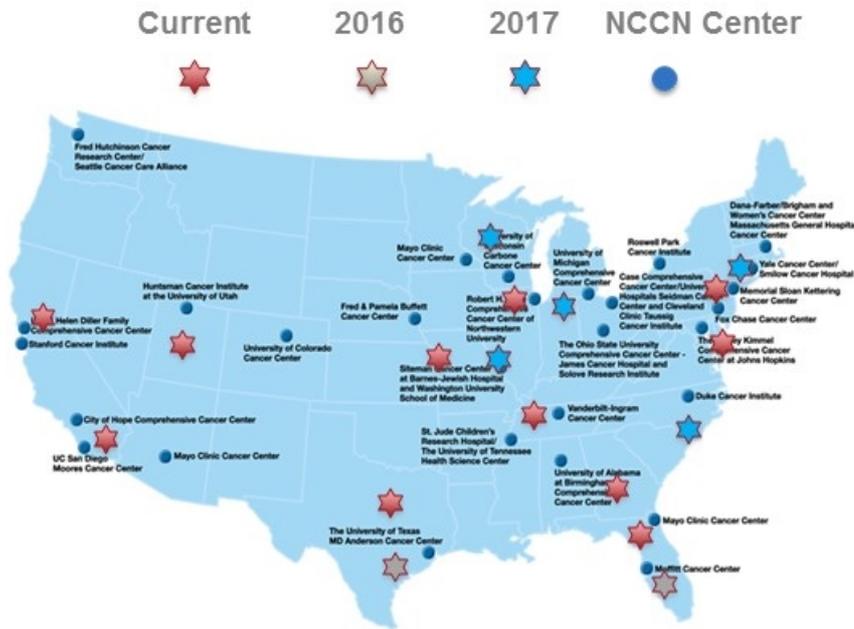
# The U.S. Oncology Market

- Approximately 3,000 Oncologists in U.S.
- 1,500 hospital systems have a cancer center
- 27 are NCCN designated centers
- 69 are NCI cancer centers
- 80% of cancer care is delivered in the community setting



# Market Development and Expansion

## Salesforce Plan



Expand from 11 direct sales reps currently to 15-18 by 2017

## Go-to-market strategy

- Clinical oncology segment
- Target regional cancer centers
- Partner with pharma/biotech

## Commercial team in place

- Experienced leadership
- Regionally based sales team each with >5 years of experience in oncology
- Dedicated pharma team
- Expertise in managed care
- Support from inside sales

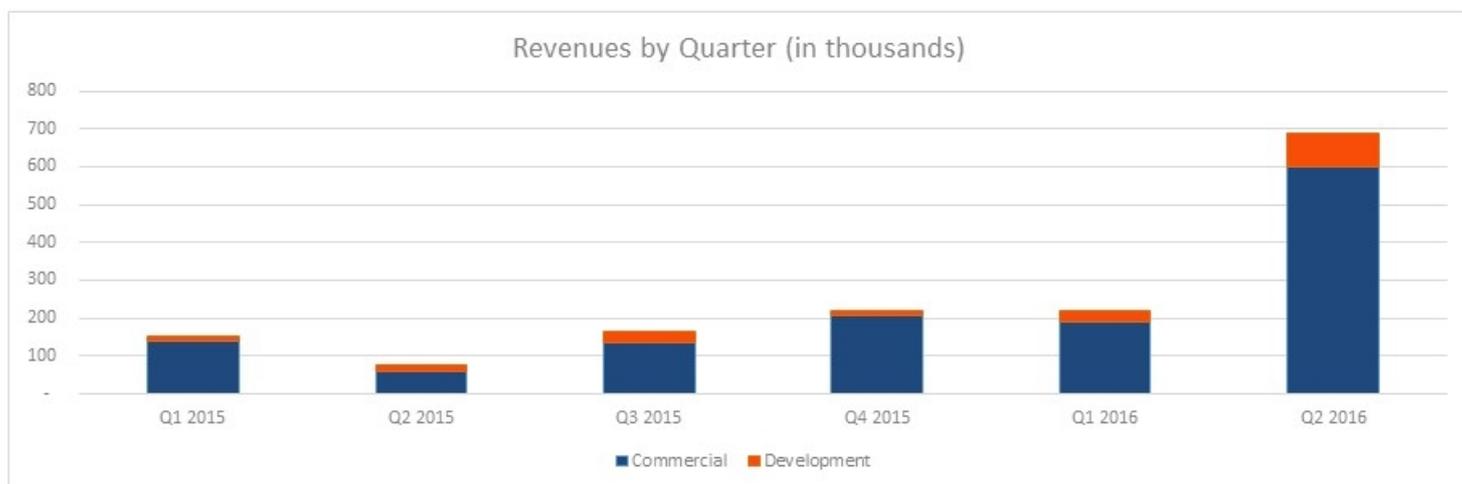
# Favorable Health Plan Access



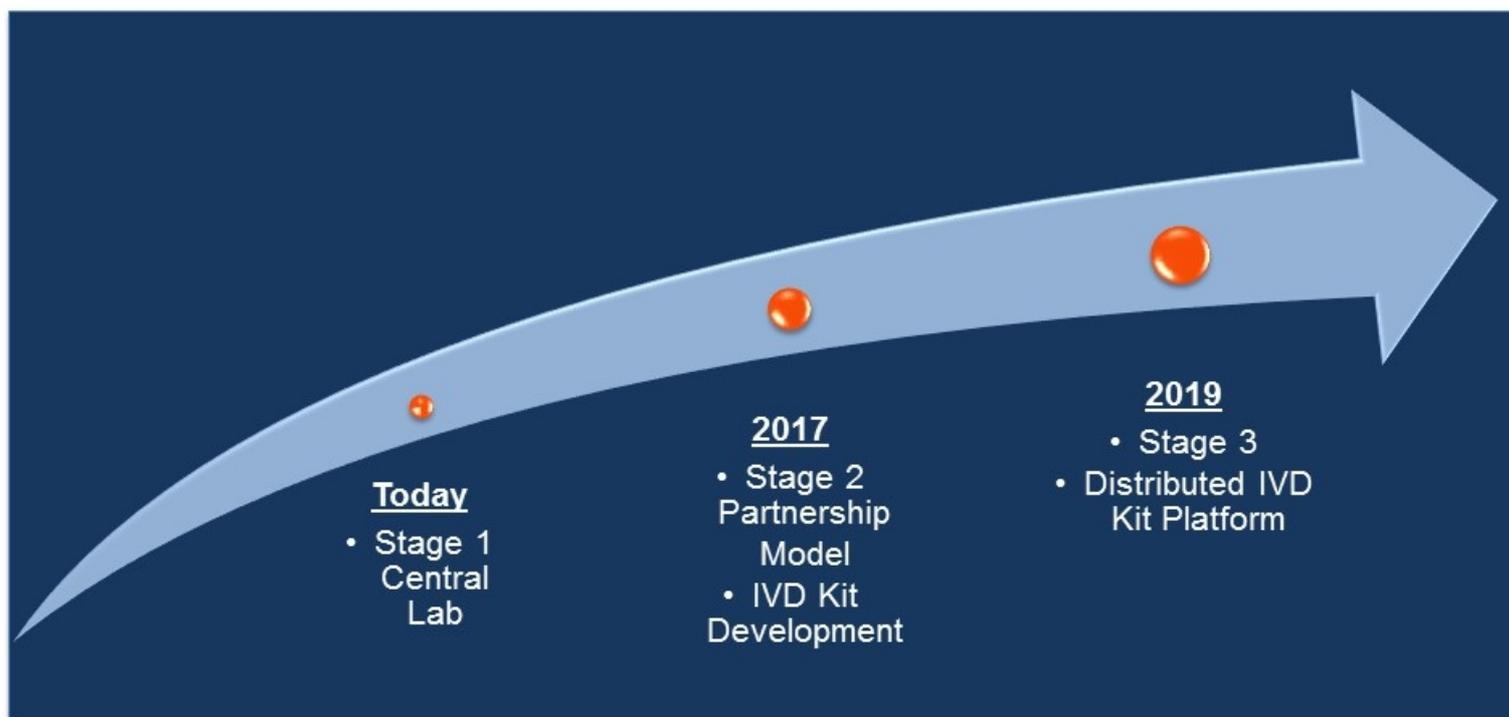
- Managed Care agreements in place covering >180M lives
- Dedicated managed care leadership with years of experience from GE, LabCorp and Quest
- Payors have positive coverage for biomarkers listed in guidelines
- Aligns with goals of healthcare reform
- Improved outcomes while reducing costs
- Utilize established CPT codes

# Reimbursement Gaining Traction

- Bill approved CPT codes for cancer cell detection and biomarker staining (in our microchannel)
- Payments received from Medicare, UHC, Aetna, and BCBS
- Average of \$1,200 per claim at Medicare rate
- Billing processes recently refined
- Cash accounting; plans to move to accrual accounting in 2017
- Key clinical study planned to gain additional reimbursement for proprietary CTC microchannel capture



# Long-Term Growth Strategy



# Stage 1: Central Lab



*Patient visits cancer center and physician orders Target Selector test*



*Biocept generates Target Selector test results and send to physicians*



*Physician utilizes Biocept testing to make a treatment decision*



*Biocept bills patients health plan or responsible party*

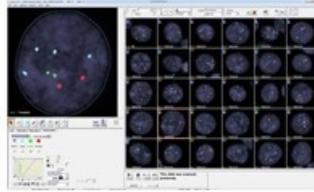


*Biocept collects money from health plan or responsible party*

# Stage 2: Central Lab with Partnership with Hospitals and Pathology



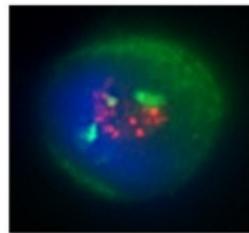
*Patient visits cancer center and physician orders Target Selector test*



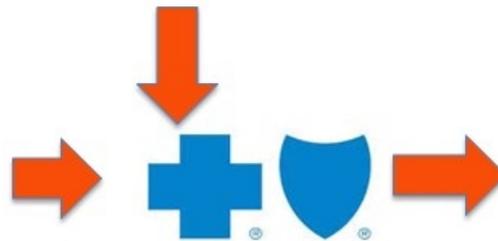
*Local Pathologist interprets via internet, reports patient result, and bills patients health plan or responsible party for physician part of testing.*



*Physician utilizes Biocept testing, reported by his hospital pathologist to make a treatment decision*



*Biocept processes sample and uploads raw data to internet for interpretation and reporting by local pathologist*

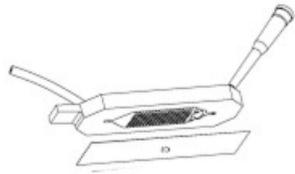


*Biocept bills patients health plan or responsible party for sample processing part of the testing - majority of revenue*



*Biocept and Pathologist collect money from health plan or responsible party*

# Stage 3: Distributed IVD Kit Platform



*Biocept manufactures Target Selector kits with patented technology*



*Biocept sells kits to hospital and core labs in U.S. and World*



*Biocept collects money from core labs*



*Core Lab issues report and bills health plan or responsible party*

# Multi-Purpose Pivotal Clinical Trial

## Clinical Utility of CTCs

## Reimbursement Expansion

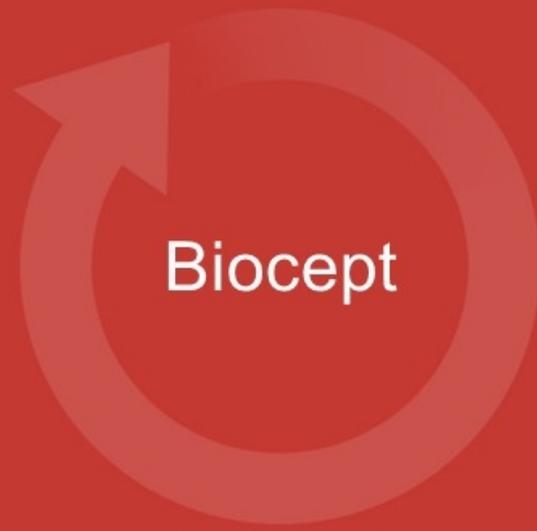
## Target Selector Kit Enablement

- 100 patients planned
- Collaborator: Vector Oncology
- Sites: 5 - 20 Centers
- Cost – \$1.5 mm (approximate)
- Endpoint(s):
  1. Concordance to tissue when available
  2. Response to treatment when tissue not available
  3. Cost of liquid biopsy vs tissue biopsy
  4. Progression Free Survival
- Estimated patient accrual time: 6 months
- Study results expected: 12 - 24 months (opportunity for results from completed study portions)
- Consultants working with CMS and Regulatory – ADVI ([www.advi.com](http://www.advi.com))

# Anticipated Milestones in 2016

- ✓ Continued Commercial Growth
- ✓ Initiate Pivotal Clinical Study For Kits
- ✓ Enter Into Partnerships – Global and U.S.
- ✓ Present & Publish Clinical Study Results
- ✓ Launch Add'l Oncology Marker Assays
- ✓ Sign New Health Plan Agreements





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Contact: David Moskowitz, Vice President Strategy and Corp. Communications  
Email: [dmoskowitz@biocept.com](mailto:dmoskowitz@biocept.com); Phone: 858-320-8244

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