



Corporate Overview August 2017

Biocept
Completing the Answer™

NASDAQ: BIOC
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.

Corporate Profile

NASDAQ: BIOC, Listed 2014
Market Cap: +/- \$35M
Shares Out: 30.3M
ADTV: ~500K

Large potential
market - \$10B plus
Worldwide

Rapidly growing
adoption and
reimbursement

Collaborations and
partnerships with
renowned
institutions

Future as IVD kits to
be performed in labs
around the world

High concordance
with tissue biopsy

Patented technology
used for liquid
biopsy in cancer

Provide actionable
information to help
physicians make
treatment decisions

CLIA – CAP
accredited
laboratory located in
San Diego

Biocept
Completing the Answer™

Large Market Opportunity

Liquid Biopsy market segments

Today

Profiling

~\$7B worldwide market by 2020*

Emerging

Monitoring

~\$5B worldwide market by 2020*

Companion diagnostics

~\$2B worldwide market by 2020*

Future

Screening

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

Future



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

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

The Executive Team

Michael Nall
President & CEO

- 25+ years in healthcare sales, marketing and commercial operations
- 16 years in cancer diagnostics and genomics
- 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

Lyle Arnold, Ph.D.
SVP, R&D & CSO

- 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

Veena Singh, MD
SVP & Sr. Medical Director

- Board certified AP/CP and Molecular Pathology, UCSD, Cedars Sinai trained
- Numerous publications, serves on CAP committees
- Most recently Medical Director – bioTheranostics

Michael Terry
SVP, Commercial Operations

- 25+ years commercial leadership experience in molecular Dx 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

David Moskowitz, RPh
VP Strategy & Corporate Communications

- 16-year Wall Street professional - sell-side equity analyst and research director
- 25+years of healthcare industry experience; #1 biotech stock-picker 2011 (Starmine)
- Strategic consultant to numerous companies in pharma, biotech, and diagnostics sectors



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

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

Clinical Advisory Board

Lee Schwartzberg, MD

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

David Carbone, MD

Director, James Thoracic Center,
James Cancer Hospital and
Solove Research Institute, Ohio
State University

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

Fred Hirsch, MD, PhD

CEO, Int'l Assoc. of Study of Lung
Cancer; Professor of Medicine,
University of Colorado

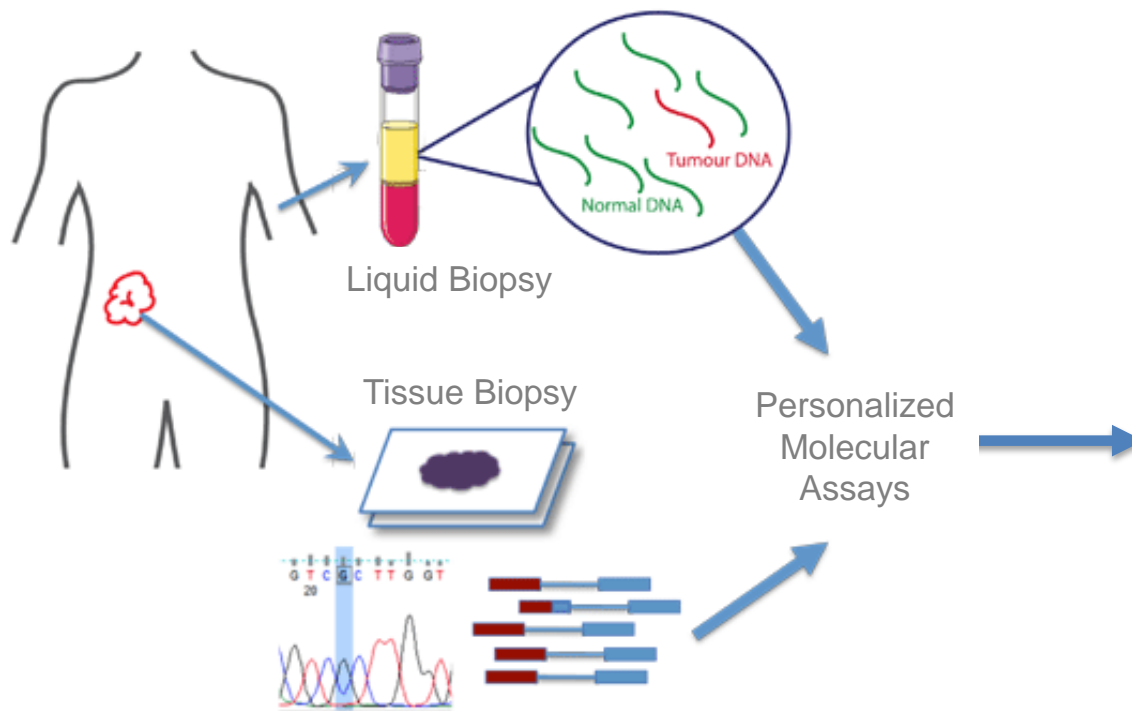
Santosh Kesari, MD, PhD

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

Melissa Johnson, MD

Medical Oncologist, Tennessee
Oncology, Nashville, Tennessee

Molecular Profiling of Cancer biomarkers: The Standard of Care in Personalized Treatment

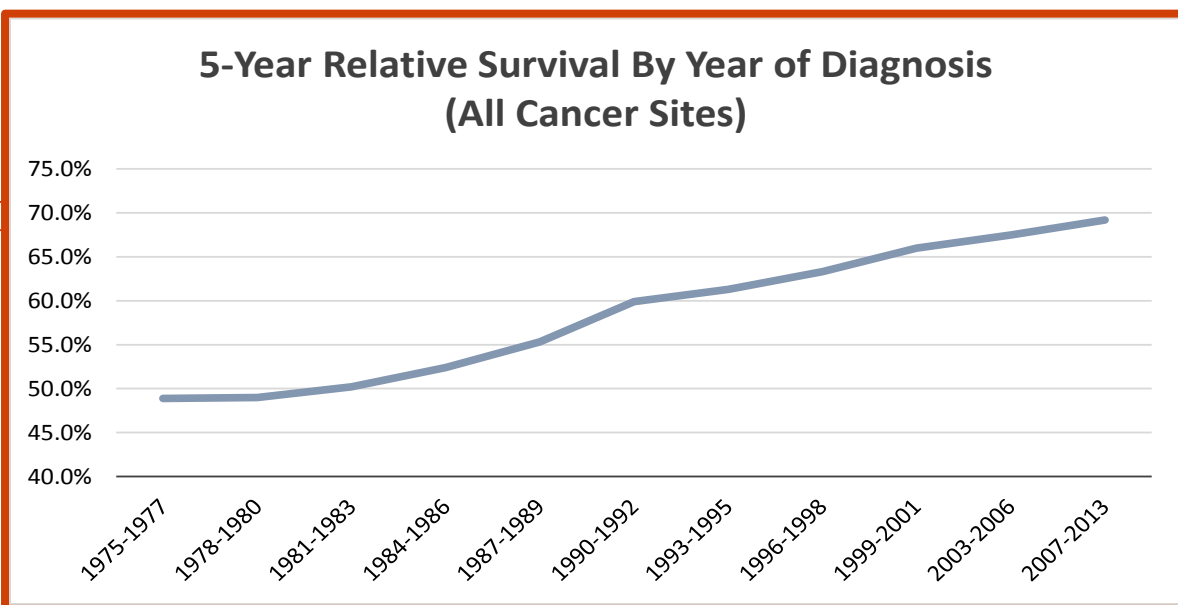
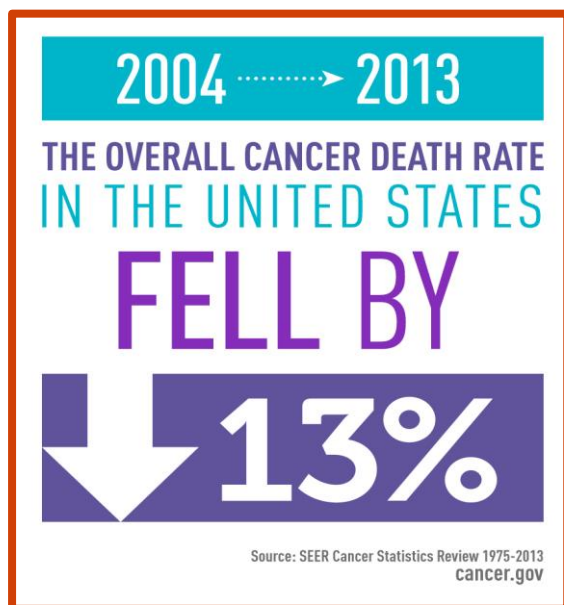


Identification of Molecular Biomarkers Required to Qualify Patients for Targeted Therapy

		OncoCEE-BR™ Circulating Tumor Cell (CTC) Test 8010 Nanny Ridge, Suite 100, San Diego, CA 92121 Client Service: 877-555-1172 FAX: 619-555-1171 www.oncocept.com							
PATIENT INFORMATION Patient Name: Patient, u00351234 DOB: C100504 Address: 450 Brookline Avenue Boston, MA 02215 Date of Birth: 12/13/1985 Sex: F		CLIENT INFORMATION Ordering Physician: Simon, MD Order Location: Dana-Farber Cancer Institute Address: 450 Brookline Avenue Boston, MA 02215 Account Number: N0000103 Phone: 617-655-5555 Fax: 617-655-5555							
SPECIMEN INFORMATION Accession #: OFW-0010 Client Account #: 1218-00-XX Specimen Type: Peripheral Site(s): 16		Collected Date: 5/7/2014 8:00 PM Received Date/Time: 5/9/2014 8:46 AM Reported Date/Time: 5/14/2014 12:31 PM Test(s) Ordered: HER2, OncoCEE-BR™							
RESULTS <table border="1"> <thead> <tr> <th>Display</th> <th>History of Breast Cancer</th> </tr> </thead> <tbody> <tr> <td>CTCs</td> <td>Present</td> </tr> <tr> <td>HER2</td> <td>Amplified (Positive)</td> </tr> </tbody> </table>		Display	History of Breast Cancer	CTCs	Present	HER2	Amplified (Positive)	   	
Display	History of Breast Cancer								
CTCs	Present								
HER2	Amplified (Positive)								
SUPPORTING DATA Enumeration of Circulating Tumor Cells by OncoCEE-BR™, CTX HER2 Analysis of CTXs by OncoCEE-FISH Amplification (Positive) <table border="1"> <thead> <tr> <th>Number of CTXs</th> <th>HER2</th> </tr> </thead> <tbody> <tr> <td>Number of CTXs, HER2 amplified (CTXs)</td> <td>7</td> </tr> <tr> <td>Number of CTXs, HER2 amplified (CTXs)</td> <td>7</td> </tr> </tbody> </table>		Number of CTXs	HER2	Number of CTXs, HER2 amplified (CTXs)	7	Number of CTXs, HER2 amplified (CTXs)	7	Circulating tumor cells (CTCs) were detected in peripheral blood submitted to test by OncoCEE-BR™. FISH analysis for HER2 showed evidence of HER2 amplification. Clinical investigations have shown that presence of circulating tumor cells (CTCs) is linked to an increased risk of relapse. Metastasis is a complex multifactorial process that includes upregulation of proteolytic enzymes, increased cell motility, and increased cell survival. HER2, an overexpression of EGF receptors, acceleration of neovascularization, and increased proliferation of tumor cells are all recognized as important biological and prognostic factors in breast cancer (1). HER2 targeted application of a potent monoclonal antibody to HER2 targeted cells such as breast and metastatic(2).	
Number of CTXs	HER2								
Number of CTXs, HER2 amplified (CTXs)	7								
Number of CTXs, HER2 amplified (CTXs)	7								
<small> CTC: Johnson et al., Clin. Cancer Res. 2004; 10(12):4153-4157 OncoCEE-BR™ is a registered trademark of Biocept, Inc. ©2014 Biocept, Inc. 01-01 </small>		Accession #: OFW-0010 Laboratory Director: Sam Smith, PhD, FACMG, FFID, (FFID) CLIA #: Number only/agency							

Page 1 of 2

Personalized Treatment ➡ Improved Outcomes



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

1999 *Evolution of Targeted Therapies for Cancer Treatment* **➡ 2017**
Herceptin Tarceva Erbitux Zelboraf Xalkori Gilotrif Tagrisso Keytruda Opdivo

Some Patients Missing the Opportunity to Benefit from Personalized Cancer Treatment

Molecular profiling is not feasible or inadequate



Patient Status



Limited
Tissue



Bone
Biopsies



Intra-tumor
Heterogeneity



Inter-tumor
Discordance

Financial Constraints

Tissue Biopsy = \$15,000 to \$45,000

Biocept Addressing Highest Medical Need

Why Liquid Biopsy?

10 CRITICAL GENE
ALTERATIONS
are missed in
25% of TISSUE
BIOPSIES.



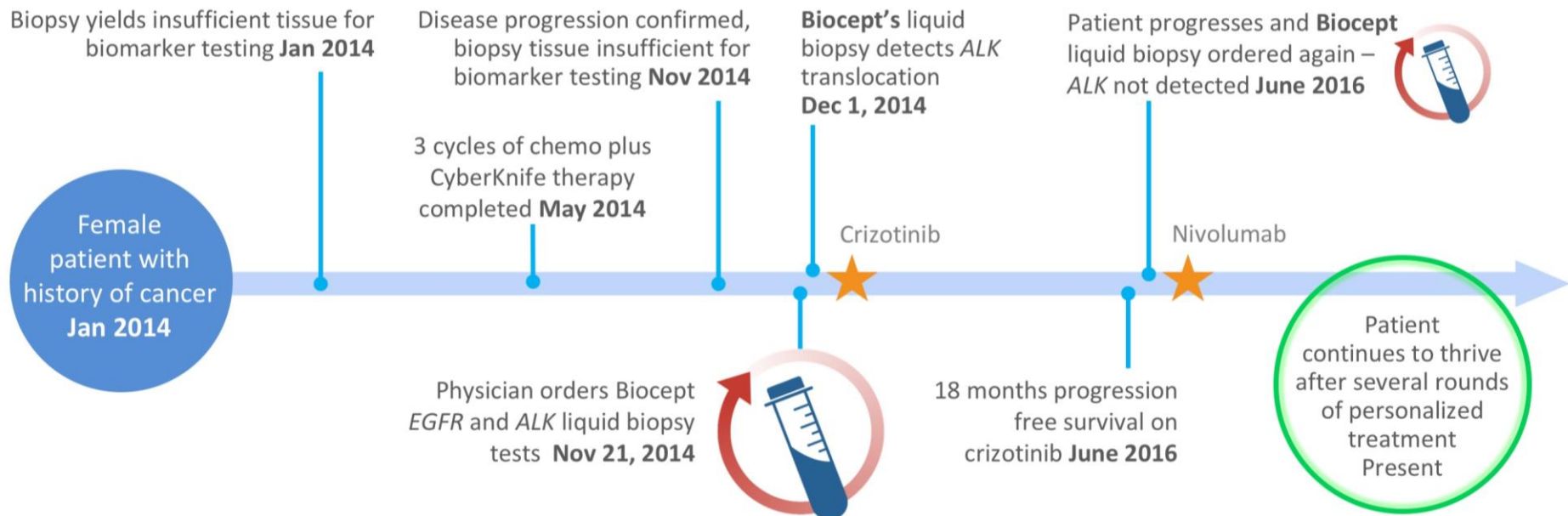
And only **57%**
of tissue biopsies have sufficient tissue for analysis.

Biocept's Target Selector™

- *Complements tissue biopsy by increasing the chance to identify critical biomarkers*
- *Yields results in 7 days or less enabling targeted therapy as first-line treatment*
- *Costs significantly less than the \$15,000 to \$45,000 for tissue biopsy – approx \$1200*
- *Is non-invasive*

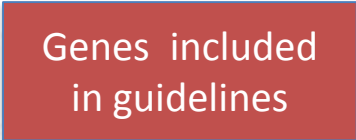
Patient Case Study – “The Gift of Time”

Biocept’s Liquid Biopsy Enables Personalized Treatment for Non-Small Cell Lung Cancer (NSCLC) Patient After Tissue Biopsy Proves Inadequate



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Highly Relevant Test Menu: 14 Actionable Biomarkers Found in Guidelines

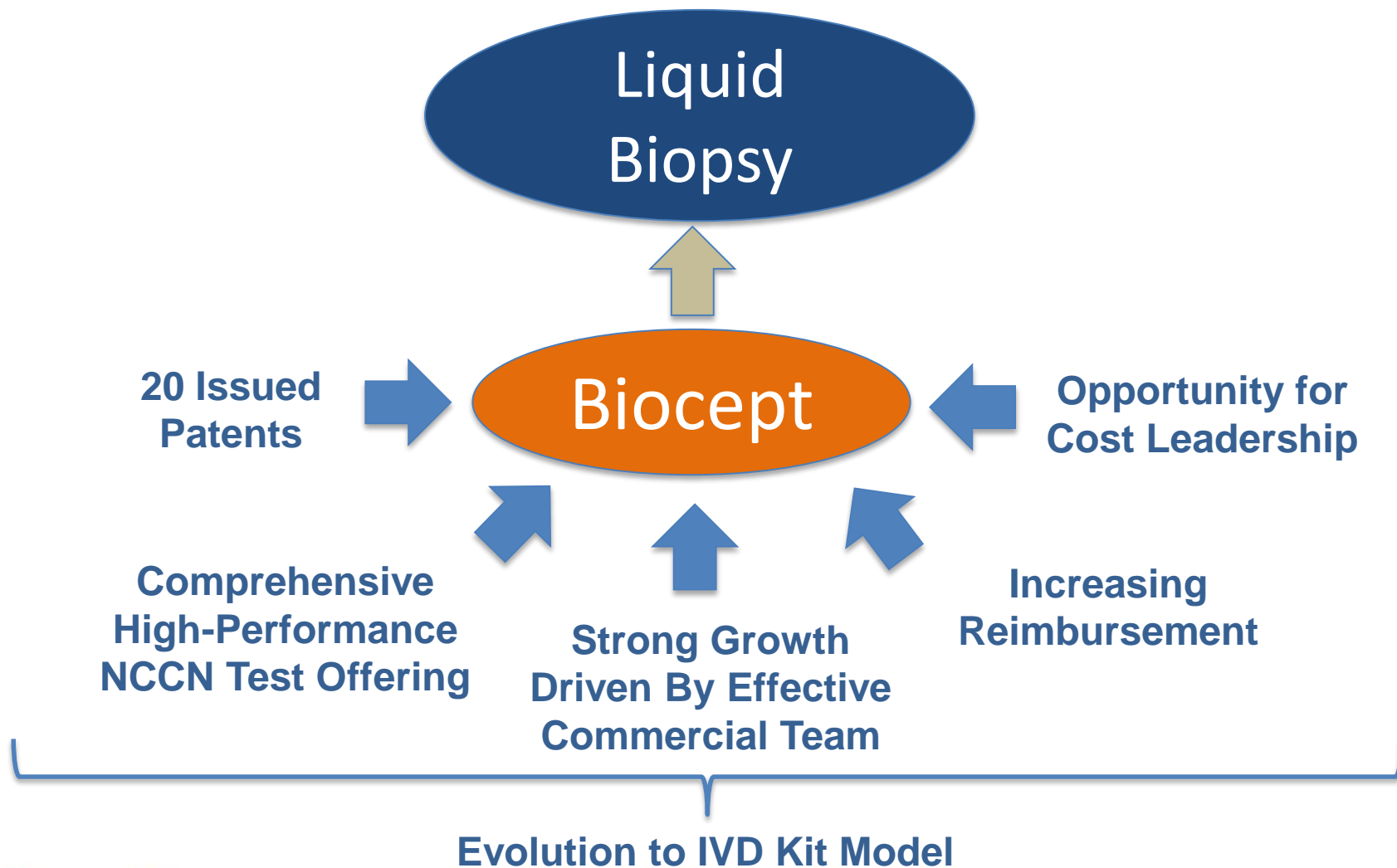
Cancer	Target Selector CTC	Target Selector ctDNA
Breast	HER2*, ER*, FGFR1, AR, PDL1, PR*	ESR1 mutations
Gastric	HER2*, FGFR1	
Lung	ALK*, ROS1*, MET*, FGFR1, PDL1*, RET	EGFR*, KRAS*, BRAF* mutations, ALK mutations
Colon	EGFR amplification	KRAS*, BRAF*, NRAS* mutations
Prostate	AR, ARv7	
Melanoma		BRAF*, NRAS* mutations

* In NCCN guidelines

■ Biomarkers currently available for clinical use

■ Biomarkers under development

Premier Commercial Platform in Liquid Biopsy



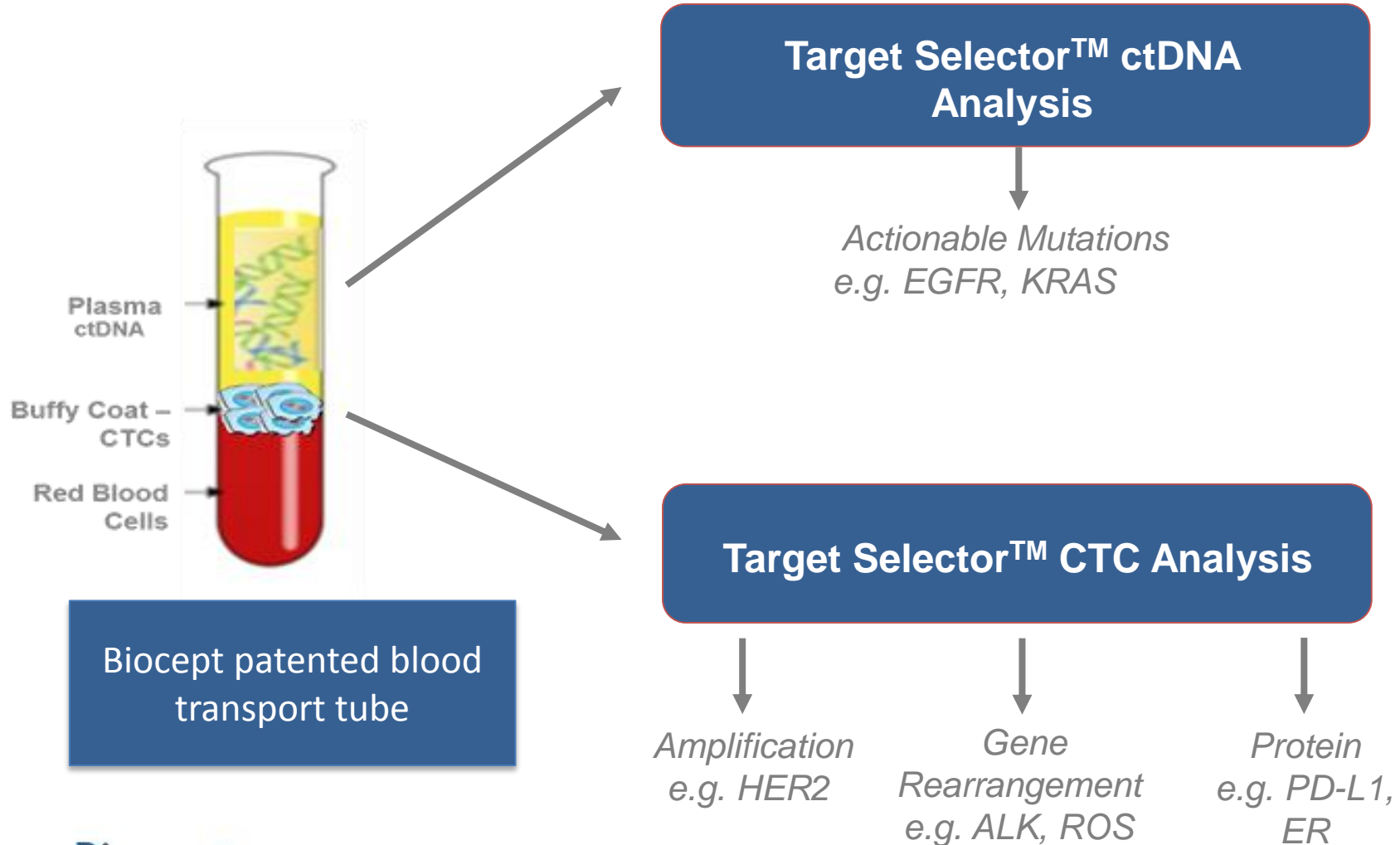
Biocept: Completing the Answer...

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

Biocept advantage

- Leading 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

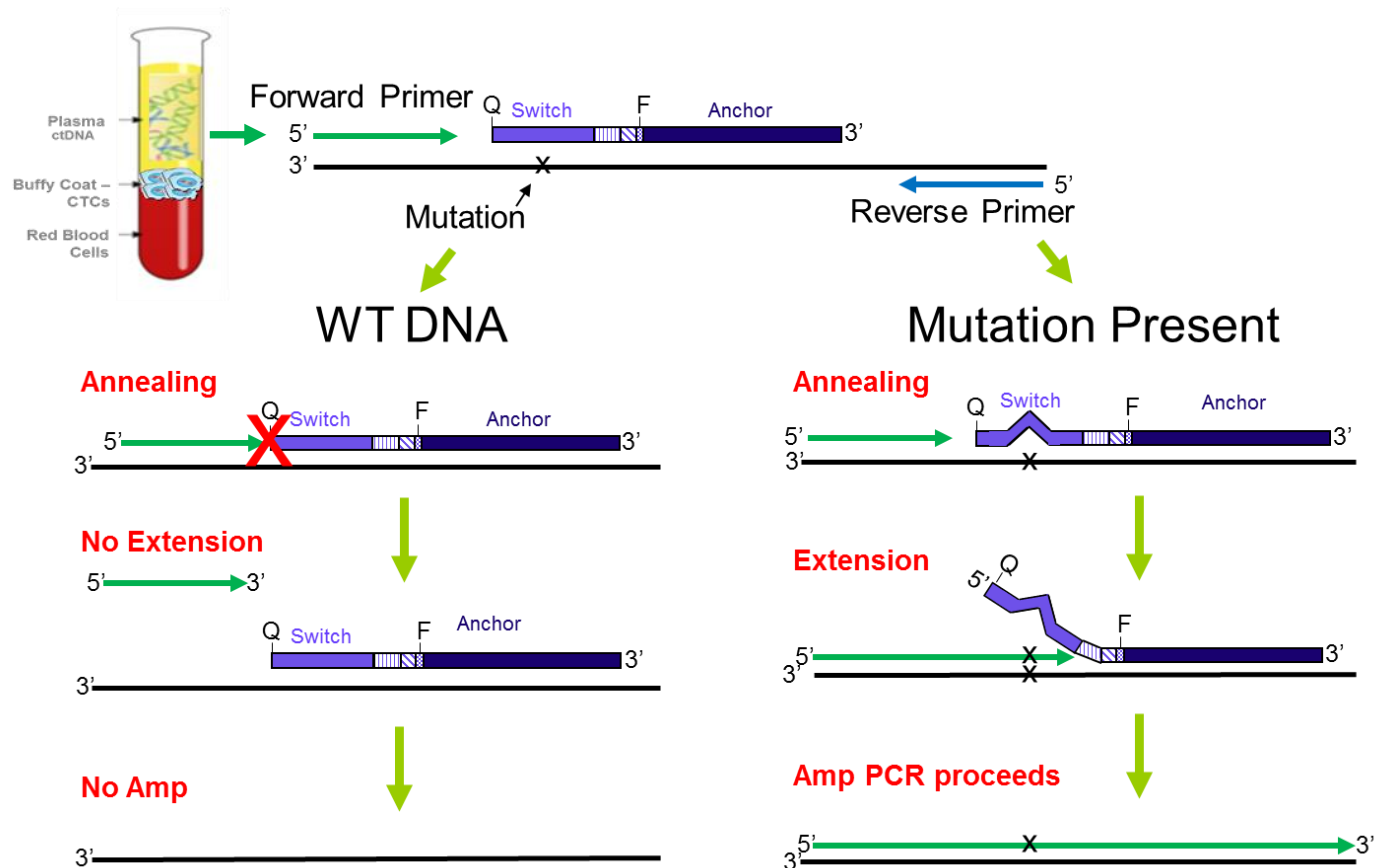
Patented Target Selector™ Platform Enables both CTC and ctDNA Analysis



Target Selector™ ctDNA Testing for Oncogene Mutation Analysis

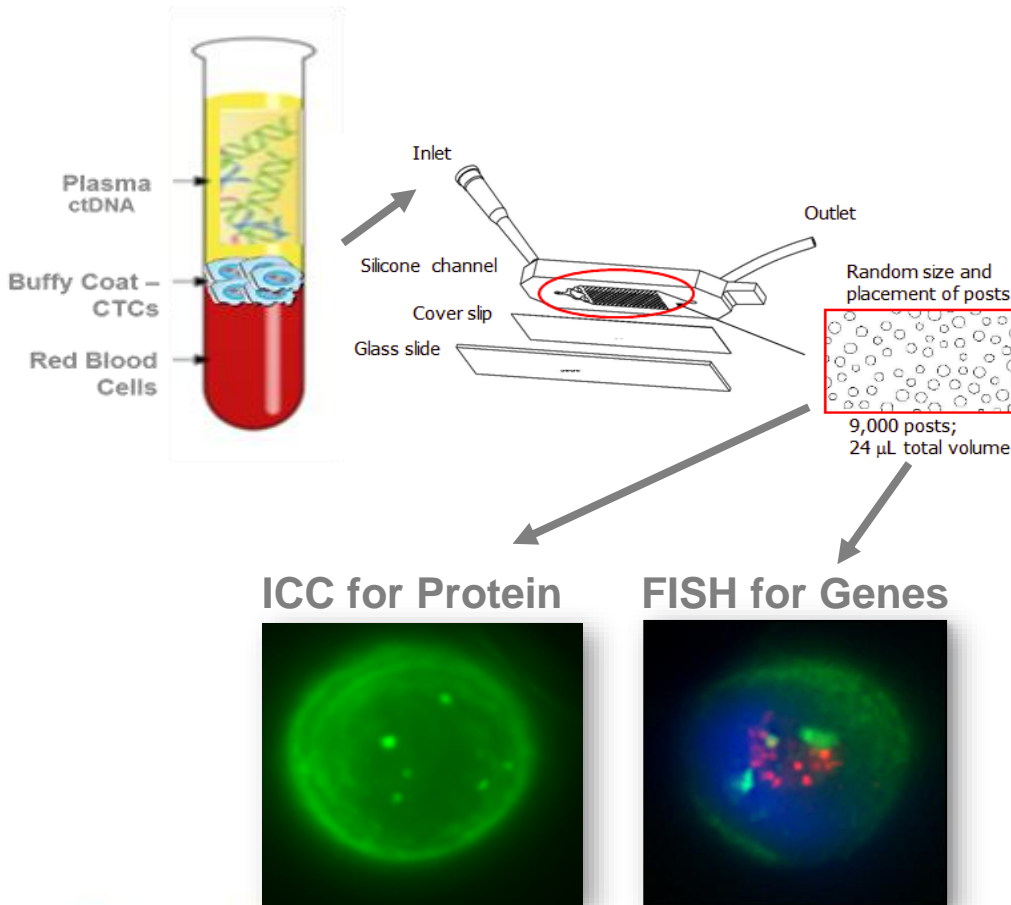
Industry-leading accuracy with >99% specificity, >95% sensitivity*

- 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



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)

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%

Partners in Establishing Clinical Utility

- ✓ 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



Comprehensive Cancer Center designated by the National Cancer Institute

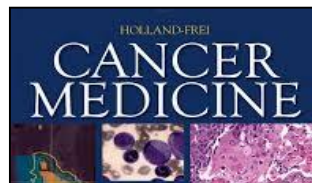


Biocept Publications, Posters, and Abstracts

36 Scientific/Clinical Presentations

- ✓ 6 Peer-Reviewed Journal Publications
- ✓ 23 Poster Presentations at Leading Scientific/Clinical Meetings
- ✓ 1 Technology Description
- ✓ 6 Abstracts: Scientific/Clinical Meetings

Clinical & Translational
Oncology
Official publication of the Federation of Spanish Oncology Societies



Landmark Clinical Trial for Liquid Biopsy

The Addario Lung Cancer Medical Institute (ALCMI) is an international research consortium driving clinical research via a world-class team of investigators from 25 member institutions in the U.S. UK, and Europe. It is supported by a dedicated centralized research infrastructure including standardized biorepositories and data systems.



- 400 Lung Cancer Patients
- 25 Treatment Sites (U.S. and International)
- 1 Year Study Duration Evaluating Clinical Utility of Biocept Liquid Biopsy Testing
- Up to 2,400 Liquid Biopsy Data Points
- Key Endpoints:
 - Demonstrate Concordance vs. Tissue
 - Evaluate Response To Drug Therapy
 - Identify Resistance Mechanisms
 - Predict Treatment Failure Early

“AND” Campaign debut at ASCO 2017



Target Selector™
Liquid Biopsy

Increasing Targeted Therapies via Liquid Biopsy

When treating cancer patients, it's no longer an either/or world.

At Biocept, we're
all about the

AND...

It's time to consider molecular information from both
tissue **AND** blood.

Biocept is the industry's first to offer cancer biomarker
testing using both ctDNA **AND** CTCs.

Focused on approved NCCN biomarkers, Biocept's tests
include targeted therapy **AND** immunotherapy markers.

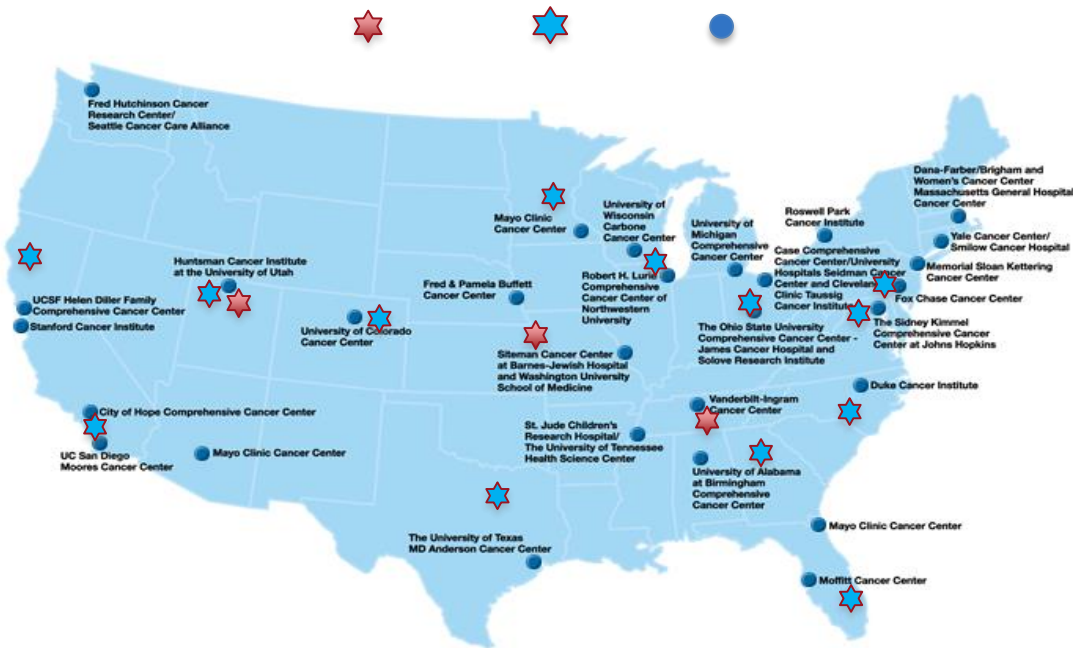
Visit Booth #25160 to learn about Biocept's Liquid Biopsy Technology.

www.biocept.com

Market Development

Current Salesforce Coverage

Sales Mgt. Sales Exec NCCN Center



Plans to expand from 13 direct sales reps today to 15-20 by year-end

Customer Focus

- Target select cancer center regions
- Focus on community oncologists (80% of cancer care)
- Partner with integrated delivery networks and local pathologists

Commercial team

- Experienced leadership
- Regionally based team with significant oncology sales experience
- Managed care expertise

Commercial Progress



KNIGHT
CANCER
Institute



Cancer Treatment
Centers of America®



**BlueCross BlueShield
Association**



Quest
Diagnostics

- ✓ 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 (ie "TC-PC")

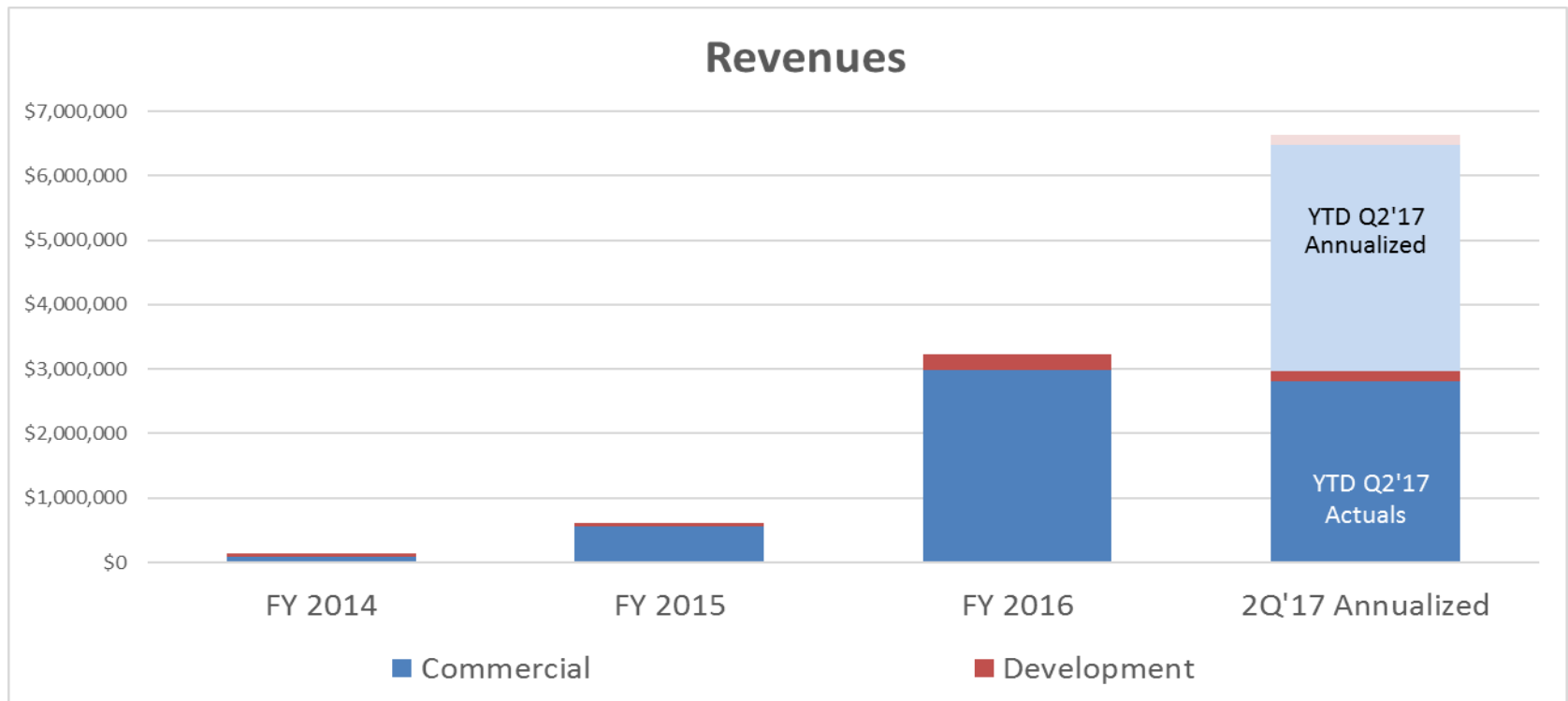
Health Plan Access Continues to Expand



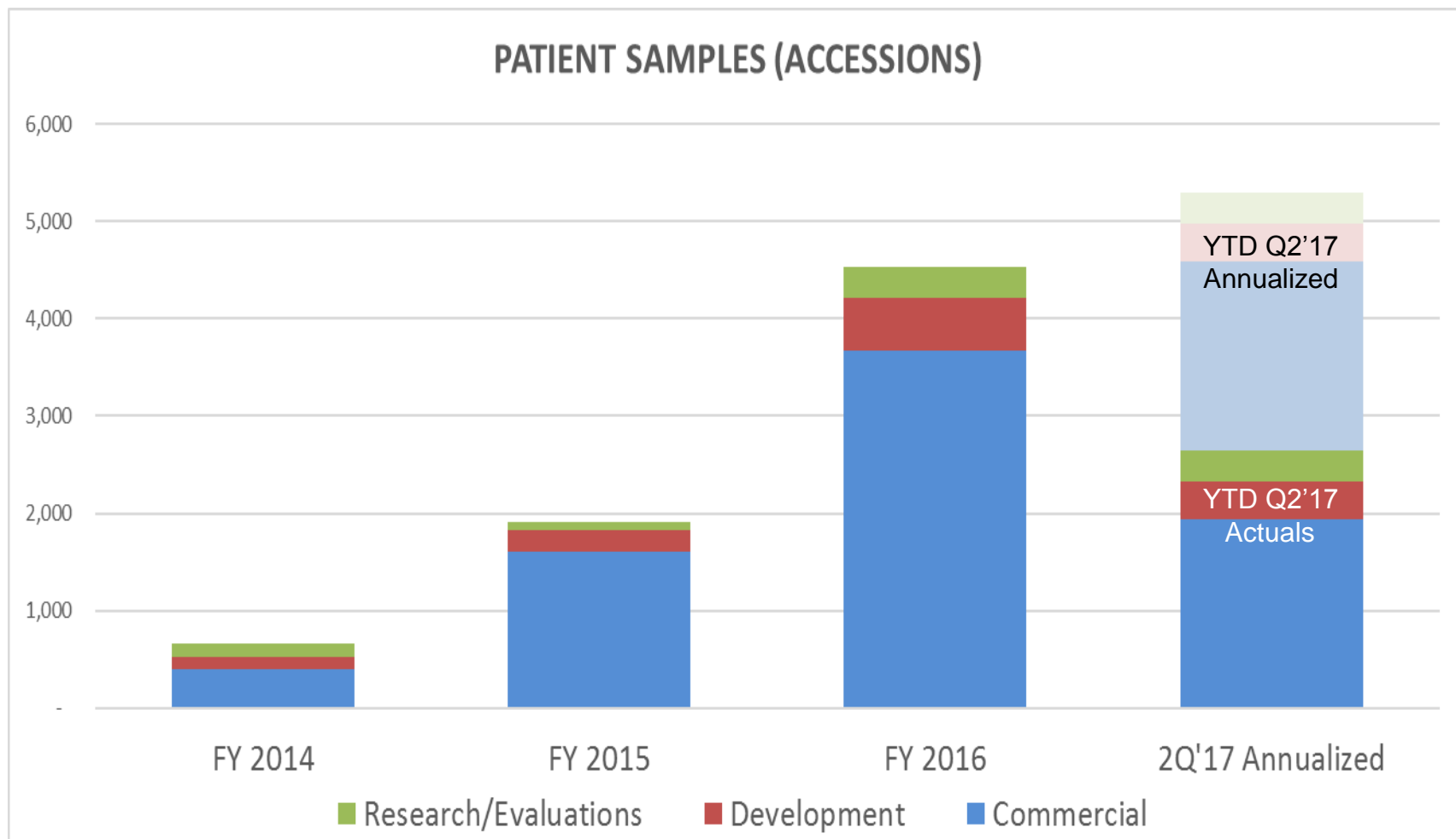
- Managed Care agreements in place covering >190 million lives
- Dedicated managed care leadership with years of experience from GE, LabCorp and Quest
- Payors have positive coverage for biomarkers listed in guidelines
- Aligns with goals of healthcare reform
- Improved outcomes while reducing costs
- Utilize established CPT codes

Favorable Collections Support Sales Growth

- Invoice approved CPT codes for ctDNA and CTC detection, as well as biomarker staining
- Moved from cash accounting to accrual accounting in 1Q 2017
- Payments received from Medicare, UHC, Aetna, and BCBS
- Average of \$1,200 per claim based on payments from third parties



Growing Volume & Establishing Market Share



Long-Term Growth Strategy



Anticipated Milestones

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



The logo consists of a thick, light-red circular arrow that curves clockwise, with its tail pointing towards the top-left. The word "Biocept" is centered within the circle in a white, sans-serif font.

Biocept

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



Appendix

Biocept's Platform Can Reduce Cost of Care

Use of Liquid Biopsy for Lung Cancer Profiling Alone Could Save The U.S. Healthcare System Millions of Dollars

- Non-Small Cell Lung Cancer (NSCLC) occurrence per SEER Statistics (52.7 per 100,000) translates to **527 NSCLC patients per 1M Health Plan members**
- Applying an approximate **\$9,130 savings per NSCLC patient** based upon data from a large institutional study that demonstrated the number of patients where the initial biopsy was not adequate or possible to provide molecular biomarker testing
- **Savings per covered lives would be \$4.8M for every 1M Insured Members**

A Focus on Clinically Actionable Information

The NCCN Clinical Practice Guidelines® for oncology are published to assist in the decision-making by physicians, nurses, pharmacists, payers, cancer patients and their families to achieve optimal outcomes and advance patient care

Markers for Targetable Therapies	Biocept	Technology	Result Interpretation	CPT Codes	Method	Targeted Therapies
Breast Cancer						
HER2 (ERBB2)	✓	FISH	Amplification	88377	CTC	Herceptin®, Perjeta®
ER/PR	✓	Expression	Expression	88346 or 88350	CTC	Nolvadex® (Tamoxifen), Aromatase Inhibitors
Colon Cancer						
RAS mutations (KRAS, NRAS end of June release)	✓	Sequencing	Mutation	81275, 81301	ctDNA	Erbixx®, Vectibix® (need NRAS targeted therapies)
BRAF c1799T.A	✓	Sequencing	Mutation			Tafinlar®, Mekinist®
Non-Small-cell lung cancer (NSCLC)						
EGFR (del 19, exon 21, T790M)	✓	Sequencing	Mutation	81235	ctDNA	Tarceva®, Gilotrif®, Iressa®, Tagrisso®
ALK/ROS1	✓	FISH	Amplification	88377	CTC	Xalkori®, Zykadia®, Alecensa®
BRAF*	✓	Sequencing	Mutation	81210	ctDNA	Tafinlar® and Mekinist®
PD-L1	✓	Expression	Expression	88346 or 88350	CTC	Keytruda®, Opdivo®
KRAS	✓	Sequencing	Mutation	81275, 81301	ctDNA	Erbixx®, Vectibix® (need NRAS targeted therapies)
RET	✓	FISH	Amplification	88377	CTC	Cabometyx®, Capresa®
MET	✓	FISH	Amplification	88377	CTC	Xalkori®, Cabometyx®, Exelixis®, Tivantinib
Metastatic melanoma						
BRAF v600	✓	Sequencing	Mutation	81210	ctDNA	Zelboraf®, Tafinlar®
Gastrointestinal stromal tumors						
KIT						