

# Corporate Overview

January 2023

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

- Pioneering proprietary CNSide™ assay using **cerebrospinal fluid (CSF)** to test for cancer involvement in the central nervous system (CNS)
- Initial **U.S. market opportunity of \$1.2B**
- **29 of 64** NCI-Designated Cancer Centers using CNSide
- Expanding CNSide usage among neuro-oncologist KOLs
- Pursuing **CNSide standard of care** status to support broader adoption and higher reimbursement by generating clinical data through **FORESEE** and company-sponsored investigator studies
- Targeting **biopharma partner** collaborations using CNSide assay to support therapeutics clinical trials

*Dedicated to improving outcomes for patients with advanced cancer.*



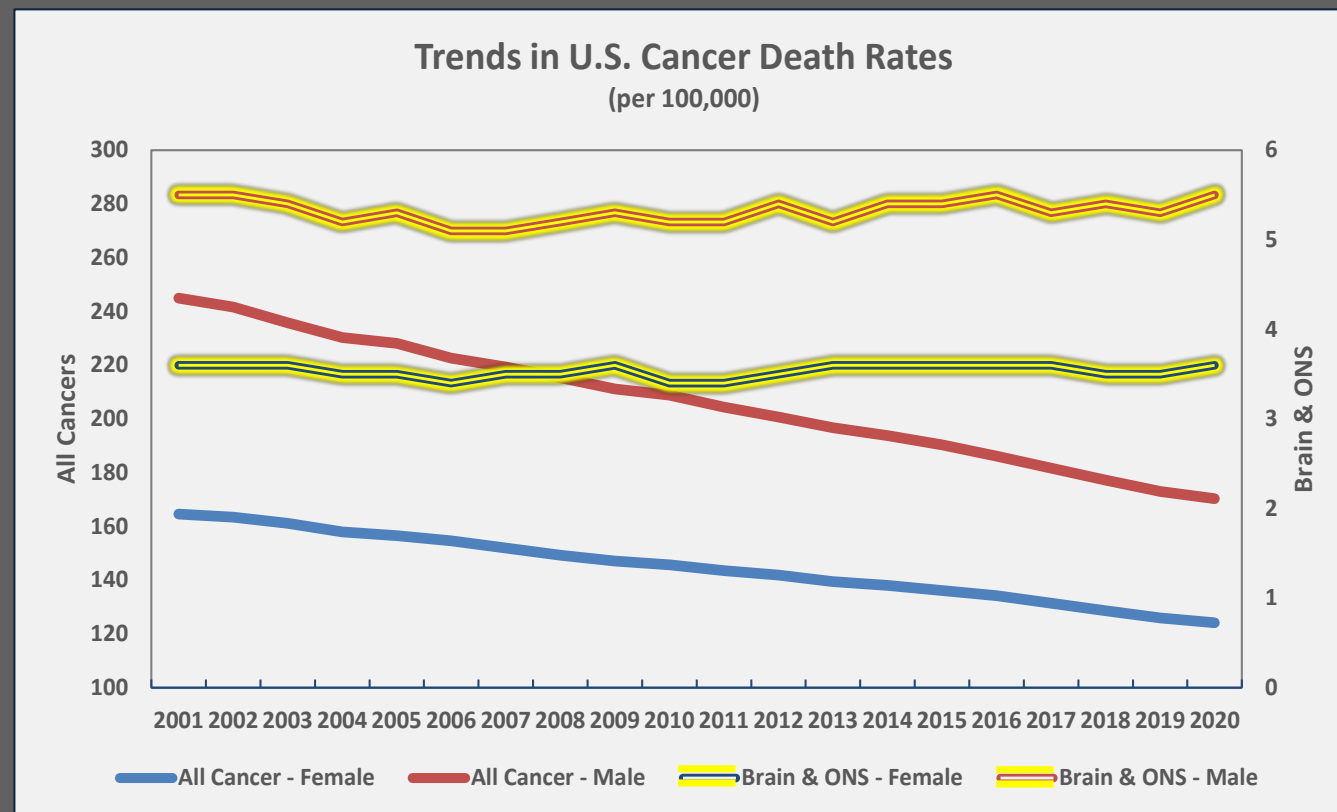
# Neuro-Oncology

## Market Overview



# Recent Trends in U.S. Deaths Due to Cancer

- Cancer deaths in aggregate declined >25% from 2000 to 2019 due to improved screening, diagnosis and prevention, lower smoking rates, and improved treatments
- Deaths due to cancer of the brain and other nervous system (ONS) have unfortunately remained stable
- Metastasis accounts for 90% of all solid tumor cancer mortality<sup>1</sup>



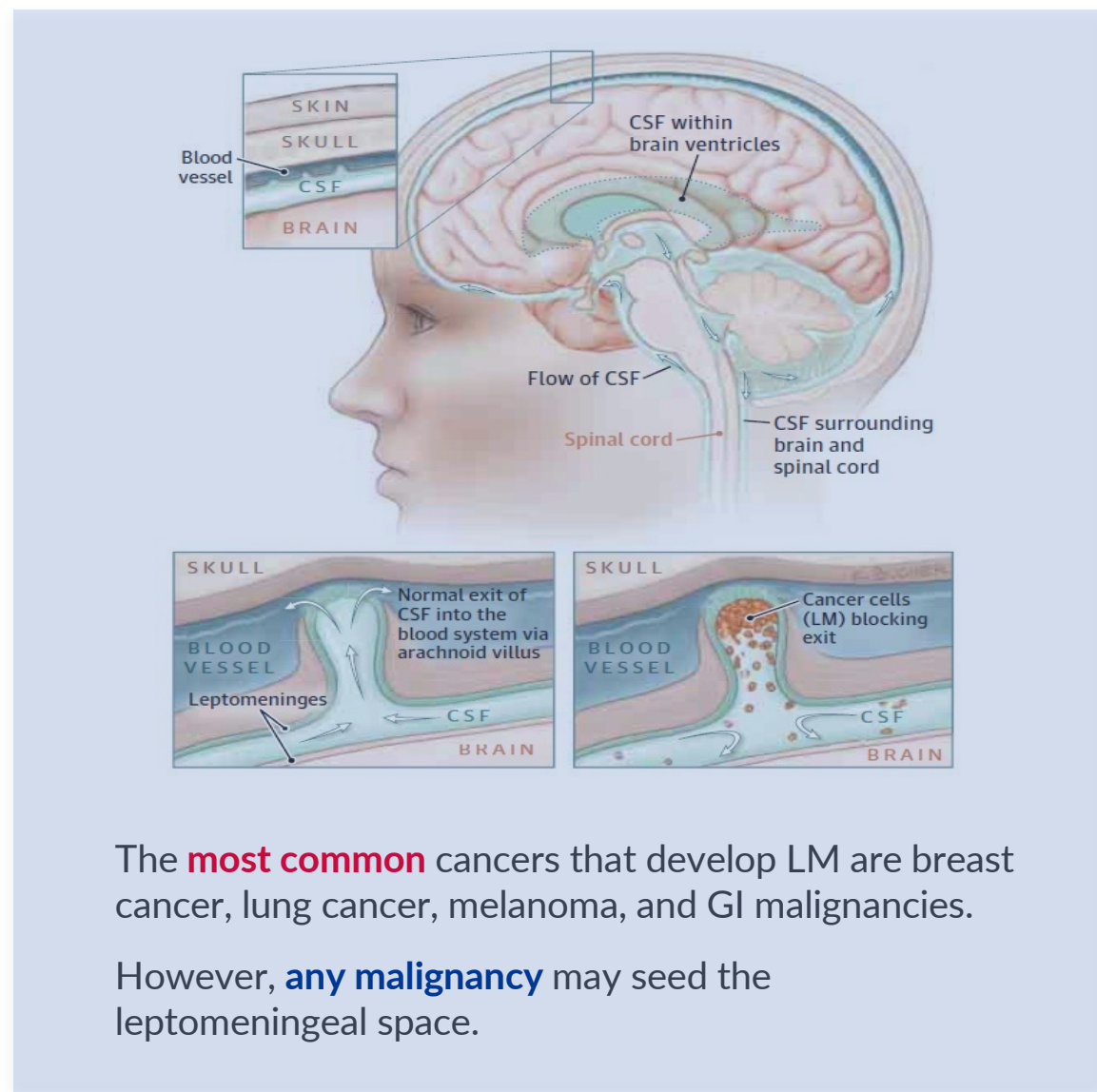
1. Taftaf, R. et al. Nature Communications 12, 4867 (2021).

# Leptomeningeal Metastases (LM)

- Cancer cells in the subarachnoid space/CSF
- Solid and Hematologic malignancies
- Symptoms:
  - High intracranial pressure and/or spinal cord compression
  - Cranial nerve symptoms
  - Spinal cord and nerve root involvement causing extremity weakness, paresthesia and/or pain

Frequency of LM by Solid Tumor Type<sup>1-4</sup>

Breast cancer	12-35%
Lung cancer	10-26%
Melanoma	5 - 25%
Gastrointestinal	4 - 14%
Unknown Primary	1-7%



The **most common** cancers that develop LM are breast cancer, lung cancer, melanoma, and GI malignancies.

However, **any malignancy** may seed the leptomeningeal space.



# LM Unmet Clinical Needs

## Underdiagnosed<sup>5-8</sup>

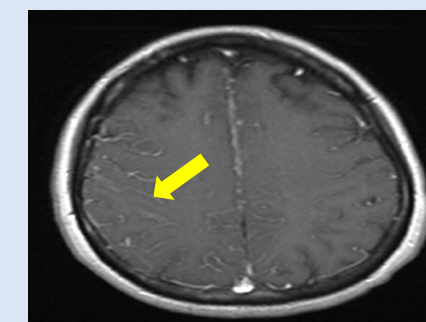
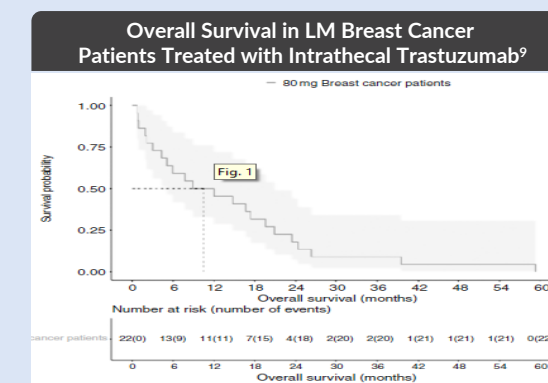
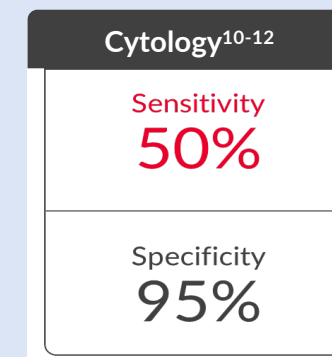
- ▶ Cytology: low sensitivity (a negative result could be a false negative)
- ▶ MRI: low specificity (does not specify cause of abnormality)

## Undertreated<sup>1-5</sup>

- ▶ Overall Survival untreated/chemotherapy 1-4 mo
- ▶ Median OS with IT Trastuzumab 10.5 mo

## Unmeasured<sup>10-12</sup>

- ▶ Cytology result is qualitative
- ▶ MRI and clinical evaluation are often non-specific
- ▶ No objective method to measure treatment response



1. Batool A. Leptomeningeal Carcinomatosis. StatPearls; 2022

2. J Neurooncol. 2013 Sep;114(2):229-35.

3. J Thorac Oncol. 2012 Feb;7(2):382-5.

4. Ann Oncol. 2020 Oct;31(10):1397-1404.

5. Int J Cancer. 2015 Jan 1;136(1):162-71.

6 Arq Neuropsiquiatr. 2013 Sep;71(9B):677-80.

7. Semin Oncol. 2009 Aug;36(4 Suppl 2):S35-45.

8. Neurology. 1979 Oct;29(10):1369-75.

9. Neuro-Oncology. 2022 Aug. 2022 Aug 10;noac195. doi:

10.1093/neuonc/noac195. Epub ahead of print. PMID: 35948282.

10. Neuro Oncol. 2019 May 6;21(5):648-658.

11. J Clin Oncol. 2019 May;37(15\_suppl):e13546-e13546

12. 12 Neuro-Oncology Advances. 2020 Aug;2(2):iii7

# LM Solid Tumor Incidence



**3-8%** of solid tumor patients  
will be diagnosed with LM during the  
course of their illness<sup>1-3</sup>

**20%** of cancer patients  
demonstrated LM at autopsy<sup>4-8</sup>

**40%** of patients positive for  
LM at autopsy had negative CSF  
cytology prior to death<sup>4,5</sup>

On average, LM is  
detected **3.5X**  
more frequently at  
autopsy than it is  
diagnosed clinically



## 2022 Independent Market Research – U.S.

CNSide TAM (# of patients/year)	Literature Sources	Market Research
<b>Diagnosis TAM</b> parenchymal brain metastases (rule out LM)	112,000	101,800
<b>Treatment/Monitoring TAM</b> parenchymal brain metastases	59,400	54,000
<b>Diagnosis TAM</b> LM	41,100	56,700
<b>Treatment/Monitoring TAM</b> LM	21,800	30,100
<b>TOTAL ANNUAL INCIDENCE</b>	<b>234,300</b>	<b>242,600</b>

For LM:  
**Diagnosis and  
Therapy Selection**

**Total Segment:  
\$160M**

For PBM:  
**Diagnosis and  
Therapy Selection**

**Total Segment:  
\$287M**

For LM:  
**Therapy Response,  
Disease Monitoring**

**Total Segment:  
\$255M**

For PBM:  
**Therapy Response,  
Disease Monitoring**

**Total Segment:  
\$457M**

**Aggregate TAM for Diagnosis, Profiling,  
and Monitoring in LM and PBM:**

**Total Market:  
\$1.2B**

# CNSide

Assay Technology, Attributes, and Data





## First commercially available method to objectively measure tumor status & therapy response in the CNS

- Intended to determine the presence, quantity, and characterization of malignant cells in CSF
- Currently performed primarily for suspicion of or diagnosis for LM

CLIA-Validated Test for **Metastatic Carcinomas\***

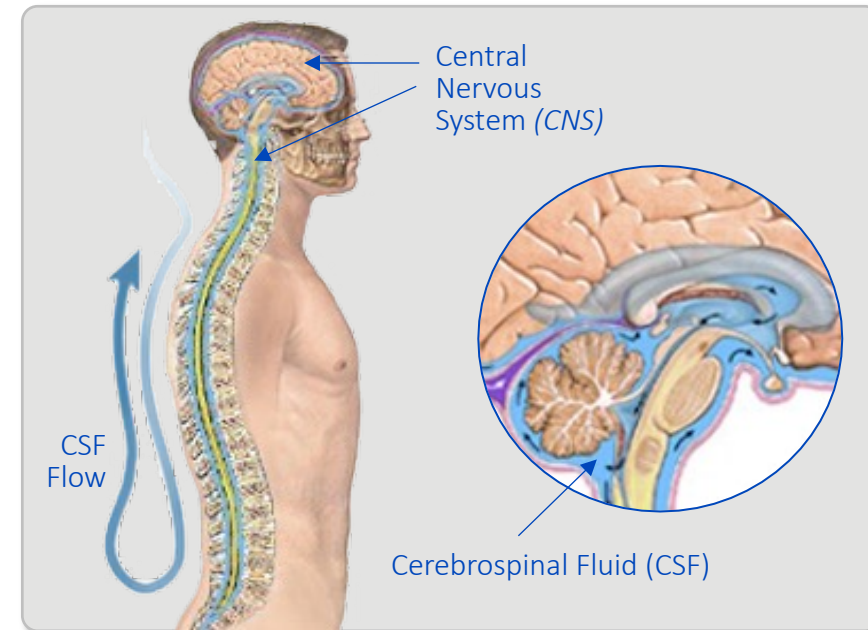
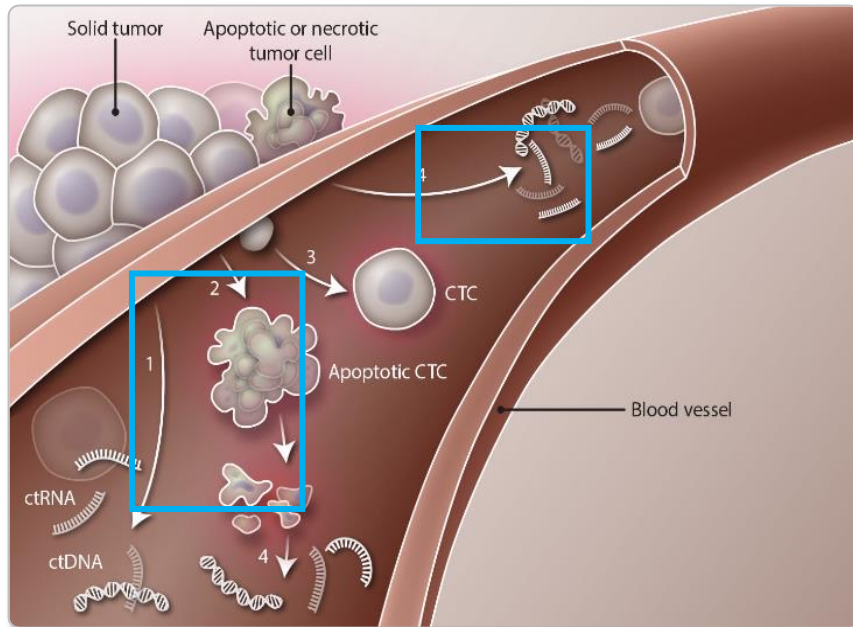
- ✓ Sensitivity: 92%
- ✓ Specificity: 100%

\*(N=79 Clinical CSF Samples<sup>1</sup>)



# CNSide Identifies Biomarkers & Drug Targets in CSF

- Tumor cells circulating in blood (CTCs) can infiltrate the CSF (a cul-de-sac) forming the basis for CNS metastasis
- ctDNA and ctRNA derived from tumors can be shed into blood or CSF as cells die, but **they do not confirm metastasis**
- Biocept analyzes tumor cells and cell-free DNA in CSF for diagnosis, biomarker status, and monitoring





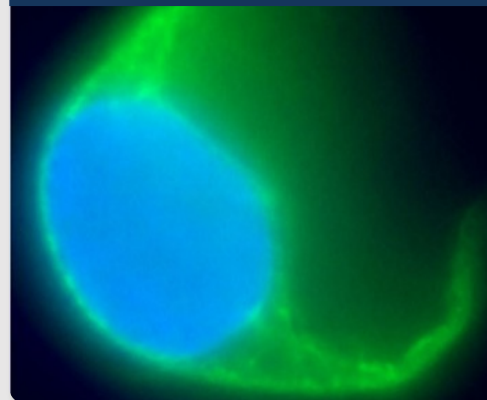
# CNSide Addresses LM Unmet Clinical Needs

**Detection** of LM can be improved using cell capture technology

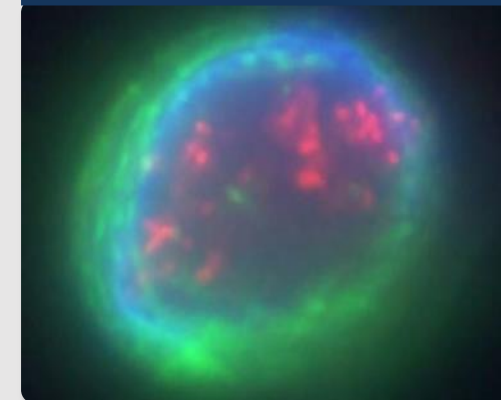
Therapeutic **target selection** can be informed by multiplexing cellular and molecular assays on single samples

Quantifying results for longitudinal observations allows for disease **monitoring**

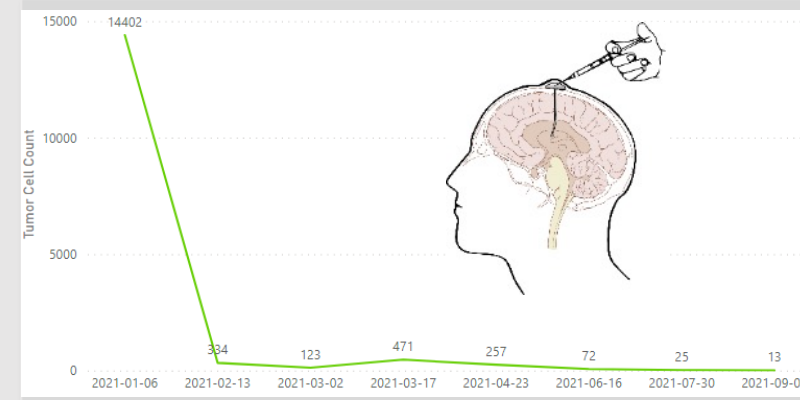
Is there **TUMOR**



Is there **TARGET**



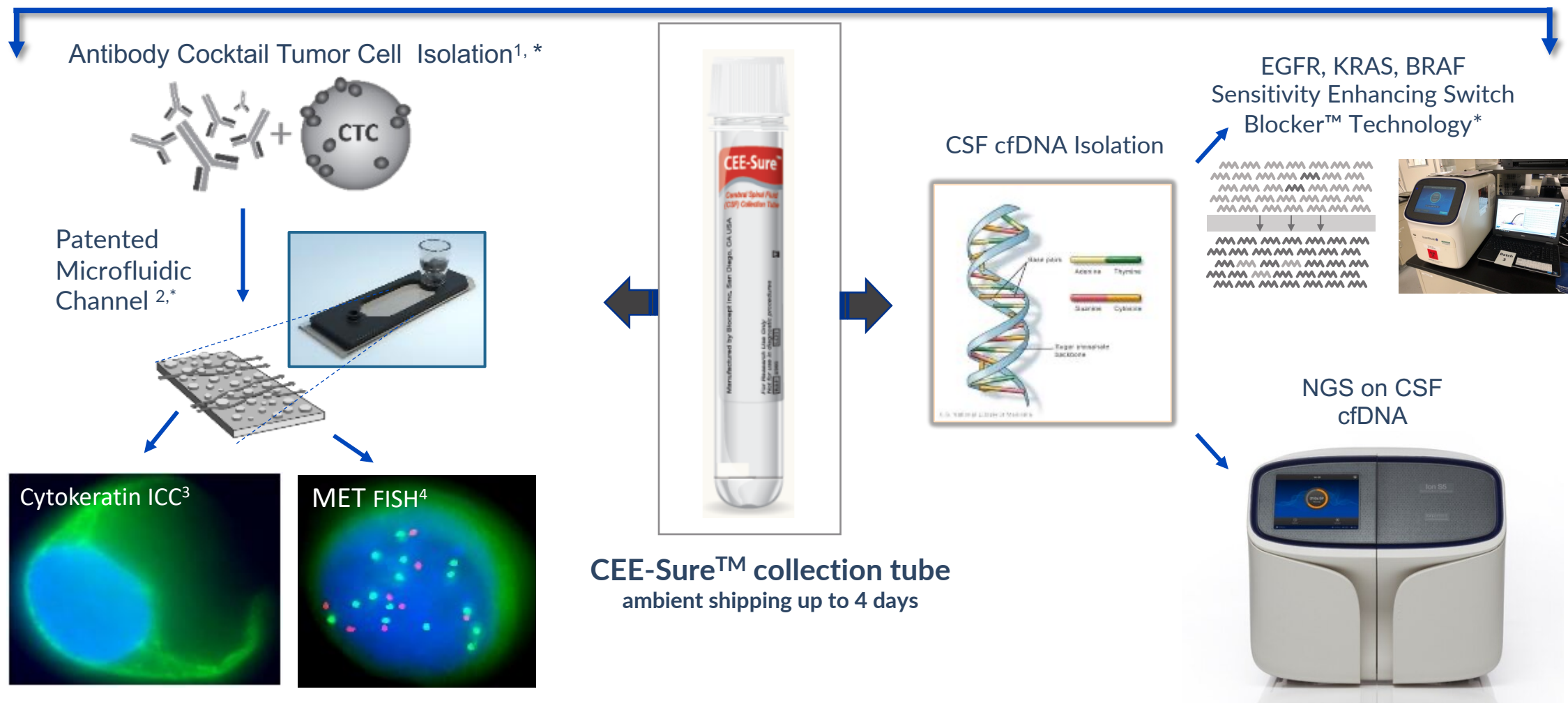
Is there **TREND**



# Overview CNSide

## Tumor Cell Detection Workflow

## cfDNA Detection Workflow



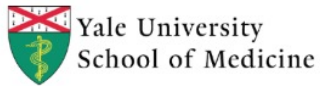
# Biocept IP Portfolio – 42 Patents Issued Worldwide

<b>Family 1</b> MicroChannel for CTC Capture <ul style="list-style-type: none"> <li>▶ Recovery of Rare Cells using Microchannel</li> <li>▶ Device for Cell Separation &amp; Analysis</li> </ul>	Issued in US (3), China (3), EU PTO, Hong Kong (3), Japan, S. Korea, Canada	Expire <b>2025-2027</b>
<b>Family 2</b> CTC Capture With Antibody Cocktail <ul style="list-style-type: none"> <li>▶ Subfamily 1 – Devices &amp; Methods of Cell Capture Analysis</li> <li>▶ Subfamily 2 – Method and Reagents for Signal Amplification</li> </ul>	Sub 1) Issued in US (3), Australia (2), Canada, China, EU PTO (2), Hong Kong, Japan (4)  Sub 2) Issued in US, Canada, China, EU PTO, Hong Kong, Japan	Expire <b>2030-2031</b>
<b>Family 3</b> Collection Tube <ul style="list-style-type: none"> <li>▶ Use of DU for Anti-Clumping of Biological Sample</li> </ul>	1) Issued in US	Expire <b>2031</b>
<b>Family 4 – <i>In licensed from Aegea</i></b> Switch-Blockers for use in real time PCR on CSF samples <ul style="list-style-type: none"> <li>▶ Methods for Detecting Nucleic Acid Sequence Variants</li> </ul>	1) Issued in US, Australia, EU PTO, Brazil, China, Hong Kong, Japan, S. Korea	Expire <b>2032</b>



# CNSide Publications, Posters, and Abstracts

Eleven Published CNSide Documents to Date



COLUMBIA UNIVERSITY  
MEDICAL CENTER

ORLANDO HEALTH®

AdventHealth



EMORY  
UNIVERSITY  
SCHOOL OF  
MEDICINE



BARROW  
Neurological Institute



Beverly Hills Cancer Center  
State of the Art Medicine – State of Mind Healing

UTSouthwestern  
Medical Center

HONORHEALTH®



PACIFIC  
NEUROSCIENCE  
INSTITUTE™

UC San Diego Health



PennState  
Cancer Institute

### Diagnosis of leptomeningeal metastasis (LM) through identification of circulating tumor cells (CTCs) in cerebrospinal fluid (CSF)

Target Selector™ cerebrospinal fluid (CSF) circulating tumor cells and biomarker analysis: improving sensitivity and targeted treatment options in breast and NSCLC cancer patients with CNS involvement

Authors: M. G. ...

### Beyond Cytology – A Single Institution Experience Using CNSide™ for Diagnosing and Monitoring Treatment Response in Non-Small Cell Lung Cancer with Leptomeningeal Carcinomatosis (LMC)

Authors: M. G. ...

### Case Series of Multi-Institutional Utility of CNSide™ to Manage

Authors: M. G. ...

### Characterization of HER2 Amplification in the Cerebrospinal Fluid of Patients with Leptomeningeal Disease in Stage IV Patients with Breast Cancer

Authors: M. G. ...

### The HER2 Flip: HER2 amplification of Tumor Cells in the Cerebrospinal Fluid (CSF-TCs) of Patients with Leptomeningeal Metastasis having solid tumors; implications for treating the LM tumor with anti-HER2 therapy

Authors: M. G. ...

### Workflow and Results

CNSide Capture and Recovery of CSF-TCs

CNSide Workflow and Results

Cell capture and immunocytochemical workflow

### Background

Leptomeningeal Metastasis (LM) is a devastating complication of cancer with limited treatment options. Assessment of the CSF to identify actionable mutations is currently not standard of care. LM breast cancer patients with HER2 positive primary tumors treated with IT trastuzumab experience clinical benefit (Mahan, 2020) and improved overall survival at 10.5 months with limited toxicity (Kunthake, 2022). CNSide is platform that captures CSF TCs and detects HER2 amplification in the CSF.

Here we present results of a retrospective analysis of HER2 amplification in the CSF of patients with LM having breast cancer, Non-Small Cell Lung Cancer (NSCLC) as well as upper GI Cancer.

### Methods

CSF was collected from patients with suspected or confirmed LM having breast cancer (N=14 patients), NSCLC (N=10 patients), or upper GI cancer (N=2 patients). CSF tumor cells were captured using a 10-micron capture cocktail and immunoblotted in a streptavidin coated microfluidic channel. Cancer cells were identified with various immunocytochemistry markers (e.g. Cytokeratin, CD45) and hybridized with a probe detecting HER2 or CEP17.

Cells were deemed HER2 amplified if the ratio of HER2 to CEP17 > 2, or if > 5 copies of HER2 were detected.

For each sample between 50 randomly chosen, or all cells were evaluated for HER2 amplification.

### Patient Characteristics

Characteristics	N
Breast Cancer	134
HER2 Positive Primary Tumor	26
HER2 Negative Primary Tumor	95
HER2 Equivocal (2+) Primary Tumor	13
NSCLC	28
Upper GI	2

### HER2 Amplification in the LM of NSCLC and Upper GI Patients

Tumor Type	HER2 Original Primary Tumor	HER2 Status Subsequent LM
NSCLC (N=28)	Not Tested	50% Positive (14/28)
GE Junction Carcinoma (N=1)	Positive	Positive
Esophageal Cancer (N=1)	Equivocal (2+)	Positive

### Detection Range of HER2 amplified CSF Tumor Cells

Tumor Type	Range of number HER2 positive CSF TCs
Breast Cancer	1-80 (Average is 7 cells/patient)
NSCLC	1-32 (Average is 12 cells/patient)
GE Junction Carcinoma	53 cells
Esophageal Cancer	50 cells

### Examples of HER2 Amplification by FISH in CSF

### Conclusions

- HER2 amplification in the CSF is detected in a substantial fraction of CSF-TCs from patients with LM having breast, upper GI and NSCLC cancer and potential other solid tumors
- An increased HER2 positivity in LM may imply HER2 is a driver for developing LM
- Routine assessment of HER2 amplification the CSF of patients with LM having solid tumors should be considered, as this may offer viable treatment options

### References

Mahan, S. et al. (2020). Trastuzumab in patients with HER2-positive breast cancer: a retrospective analysis of efficacy and safety. *Journal of Clinical Oncology*, 38(15), 1615-1624.

Kunthake, S. et al. (2022). Trastuzumab in patients with HER2-positive breast cancer: a retrospective analysis of efficacy and safety. *Journal of Clinical Oncology*, 40(15), 1615-1624.

# AAN April 2022: Longitudinal Use in Multiple Tumor Types & Longitudinal Genetic Heterogeneity of HER2 Status

Saint John's  
Health Center  
Providence

PACIFIC  
NEUROSCIENCE  
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## Using Cerebrospinal Fluid Tumor Cell (CSF-TC) Assays to Track Disease Burden and Treatment Response in Patients with Leptomeningeal Metastasis

Akanksha Sharma,<sup>1</sup> Nathan Sneed,<sup>2</sup> Barbara Blouw,<sup>2</sup> Deanna Fisher,<sup>2</sup> Kaitlyn Armiijo,<sup>2</sup> Steven Hsiao,<sup>2</sup> Anna Natasha,<sup>2</sup> Shiyi Hua,<sup>2</sup> Pericles Corkos,<sup>2</sup> Tony Pircher,<sup>2</sup> Naveed Wagle,<sup>1</sup> Jose Carrillo,<sup>1</sup> Minh Nguyen,<sup>1</sup> Judy Truong,<sup>1</sup> Michael Dugan,<sup>2</sup> Santosh Kesari<sup>1</sup>

<sup>1</sup>Department of Translational Neurosciences,  
Pacific Neuroscience Institute/Providence Saint John's Cancer Institute,  
<sup>2</sup>Biocept, Inc.

### Background

- Leptomeningeal metastasis (LM) is diagnosed in approximately 5% of patients with metastatic cancer and has a dismal prognosis (4-6 weeks, untreated)
- Imaging, clinical exam, and cytology all have limited capability for diagnosis and disease monitoring of LM

### Methods

- Five (5) cases of LM were diagnosed and followed using the Biocept™ CNSide™ platform
- For each specimen, approximately 6-8 mL of CSF was obtained and transported using the CNSide assay's proprietary tubes
- Each specimen underwent CSF-TC capture, immunocytochemistry (ICC), and (when applicable) fluorescence in situ hybridization (FISH)

### Patient Demographics

Patient	Sex	Age	Primary	Treatment	OS
1	F	40	Breast (HER2+)	Tucatinib, IT Methotrexate, IT Cytarabine, IT Trastuzumab (Added), IT Pemetrexed (Added)	17 mos
2	M	70	Melanoma (PD-L1+)	IT Cytarabine, IT Thiotepa	10 mos
3	M	63	Esophageal (HER2+)	IT Topotecan, IT Trastuzumab (Added)	2 mos
4	F	59	Breast (ER+, PR+)	IT Cytarabine, IT Methotrexate	7 mos
5	M	76	Neuroendocrine Carcinoma	Capecitabine, Temozolomide	5 mos

OS - Overall Survival, IT - Intrathecal

Learn more about the CNSide assay



## Conclusions The CNSide assay shows significant advantages in monitoring treatment response and disease course in LM

- The CNSide assay identifies biomarkers in LM patients for which targeted therapeutic interventions can significantly improve neurological symptoms and survival
- Additional longitudinal trials to assess the utility of this platform for LM patients are warranted

Biocept  
Completing the Answer™

### CSF-TC Capture Demonstrates Improved Tumor Cell Capture Rate Compared To Cytology

CSF tumor cell capture and HER2 amplification on CSF Tumor cells					
Collection Date	Cytology Result	CNSide Result	CNSide Count	HER2 Amplification	CSF Count
<b>Patient 1</b>					
7/22/2020	Positive	Positive	3123.00	Detected	2.17
8/11/2020	Positive	Positive	1621.47	Detected	0.64
8/25/2020	Positive - rare	Positive	25.81	Detected	17.91
9/1/2020	Positive - rare	Positive	1.45	Not Detected	0
9/8/2020	Negative	Positive	1.40	Not Detected	0
9/15/2020	Positive	Positive	0.20	Not Detected	0
9/29/2020	Negative	Positive	1.08	Not Detected	0
10/10/2020	Negative	Positive	3.00	Not Detected	0
10/20/2020	Negative	Positive	1.17	Not Detected	0
10/27/2020	Negative	Positive	1.25	Not Detected	0
11/9/2020	Negative	Positive	0.61	Not Detected	0
11/17/2020	Negative	Negative*	0.17	NA	0
12/1/2020	Negative	Positive	1.43	Not Detected	0
1/12/2021	Positive	Positive	204.54	Detected	2.00
1/18/2021	Positive	Positive	207.83	Detected	6.00
1/27/2021	Positive	Positive	17.00	Detected	2.74
2/3/2021	Negative	Positive	0.50	Not Detected	0
2/4/2021	Negative	Negative	0.00	NA	0
2/14/2021	Negative	Positive	0.20	Not Detected	0
2/23/2021	Negative	Negative	0.00	NA	0
3/2/2021	Negative	Negative	0.00	NA	0
3/23/2021	Negative	Positive	0.33	Not Detected	0
4/1/2021	Positive	Positive	14411.00	Not Detected	0
4/15/2021	Positive	Positive	502.00	Detected	25.00
4/22/2021	Positive	Positive	2494.71	Not Detected	0
4/29/2021	Positive	Positive	558.57	Not Detected	0
7/6/2021	Positive	Positive	439.33	Not Detected	0
7/13/2021	Positive	Positive	554.63	Detected	1.00
7/20/2021	Positive	Positive	144.67	Not Detected	0
7/27/2021	Positive	Positive	527.00	Detected	4.00
8/3/2021	Positive	Positive	241.17	Not Detected	0
8/10/2021	Positive	Positive	258.33	Not Detected	0
8/17/2021	Positive	Positive	535.67	Not Detected	0
9/30/2021	N/A	Positive	1728.00	Detected	1.00
10/14/2021	N/A	Positive	8004.00	Not Detected	0
10/28/2021	N/A	Positive	748.00	Detected	3.00
11/4/2021	N/A	Positive	257.25	Not Detected	0
11/18/2021	N/A	Positive	221.56	Not Detected	0
<b>Patient 2</b>					
1/28/2021	Positive	Positive	46.61	Not Detected	0
3/9/2021	Positive	Positive	0.30	Not Detected	0
3/23/2021	Positive	Positive	1.80	Not Detected	0
3/30/2021	Positive	Positive	12.40	Not Detected	0
4/13/2021	Positive	Positive	9.57	Not Detected	0
4/27/2021	Negative	Positive	0.33	Not Detected	0
5/11/2021	Positive	Positive	1.67	Not Detected	0
5/25/2021	Positive	Positive	1.25	Not Detected	0
6/8/2021	Negative	Positive	1.60	Not Detected	0
6/22/2021	Positive	Positive	29.88	Not Detected	0
7/6/2021	Negative	Positive	8.50	Not Detected	0
7/20/2021	Positive	Positive	1.17	Not Detected	0
8/3/2021	Positive	Positive	9.75	Not Detected	0
8/17/2021	Positive	Positive	1.00	Not Detected	0
9/28/2021	Negative	Positive	0.86	Not Detected	0
10/12/2021	Negative	Positive	0.38	Not Detected	0
<b>Patient 3</b>					
6/3/2021	Positive	Positive	1700.00	Not Detected	0
6/31/2021	Positive	Positive	17593.53	Not Detected	0
7/7/2021	Positive	Positive	17593.53	Not Detected	0
<b>Patient 4</b>					
2/24/2021	Positive	Positive	14.61	Not Detected	0
3/10/2021	Negative	Positive	1.29	Not Detected	0
3/17/2021	Positive	Negative	0	Not Detected	0
3/24/2021	Negative	Negative	0	Not Detected	0
4/21/2021	Negative	Positive	0.25	Not Detected	0
4/28/2021	Negative	Positive	0.13	Not Detected	0
5/5/2021	Negative	Negative	0	Not Detected	0
5/12/2021	Negative	Negative	0	Not Detected	0
6/2/2021	Negative	Negative	0	Not Detected	0
6/16/2021	Negative	Negative	0	Not Detected	0
6/30/2021	Negative	Negative	0	Not Detected	0
7/14/2021	Negative	Positive	0.13	Not Detected	0
7/28/2021	Negative	Negative	0	Not Detected	0
<b>Patient 5</b>					
8/4/2021	Negative	Positive	40.42	Not Detected	0
9/21/2021	Negative	Positive	17.08	Not Detected	0
10/13/2021	Negative	Positive	103.28	Not Detected	0

\*Test Result did not Exceed Normal Cutoff Value (1 CK+ Cell and/or 2 CK- Cells)

#### Patient 1 - Breast cancer HER2+

- CNSide assay HER2 FISH results informed the addition of IT Trastuzumab
- Patient moved overseas in August 2021, expired in late 2021

#### Patient 2 - Melanoma with multiple intracranial recurrences

- LM was well controlled throughout treatment course
- Patient went on hospice after parenchymal mass invaded optic chiasm, causing blindness

#### Patient 3 - Esophageal cancer

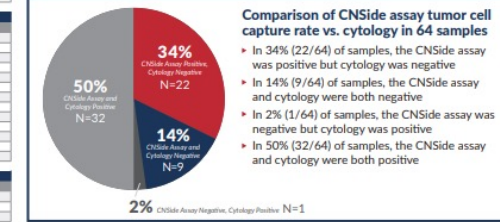
- CNSide assay HER2 FISH results informed the addition of IT Trastuzumab
- Patient transferred providers, no treatment information following 9/7/21

#### Patient 4 - Breast cancer ER/PR+

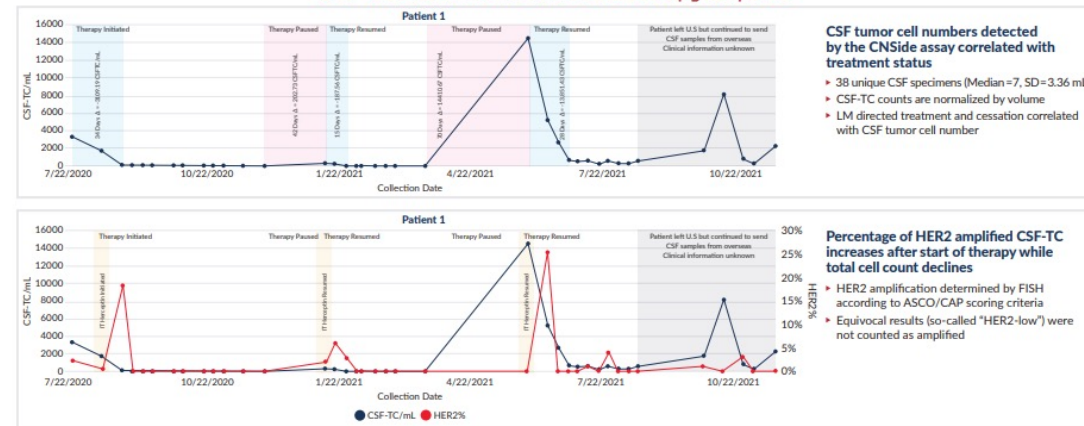
- Diagnostic LP (8/24/21) - CNSide assay detected 1284 tumor cells; cytology was positive, but a differential count by pathologist found only 72 tumor cells
- Patient responded well to IT chemo and her LM remained under control but she progressed with systemic disease and expired

#### Patient 5 - Large cell neuroendocrine carcinoma

- Diagnostic LP (8/4/21) - Cytology negative; the CNSide assay detected 194 tumor cells
- Cytology consistently negative in this patient
- Functional status declined and patient transitioned to hospice



### CSF-TCs Track Disease Status and Therapy Response

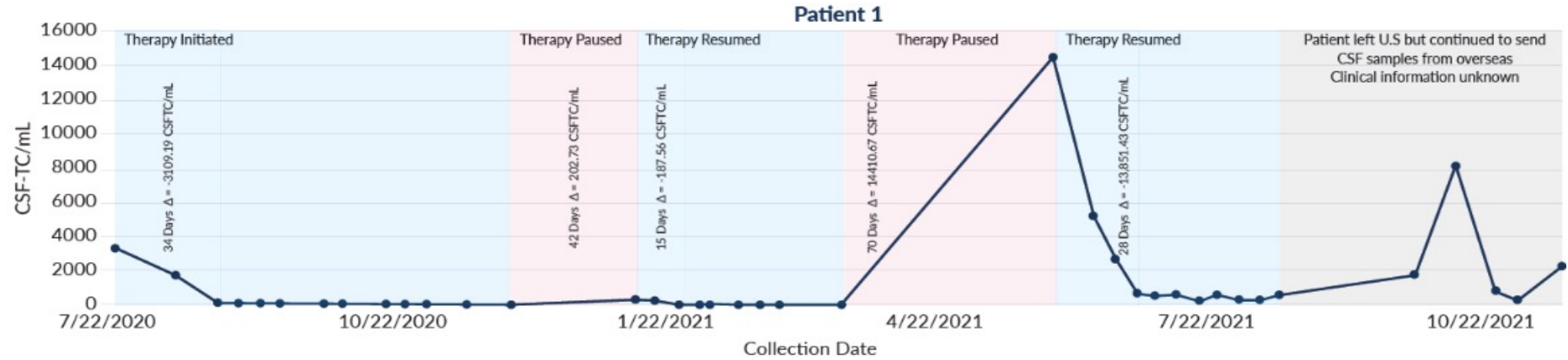




# Case Study Demonstrating CNSide Utility<sup>1</sup>

## 40-year-old Female

- Breast Cancer Primary Tumor
- Diagnosed with LM



## CSF tumor cell numbers detected by the CNSide assay correlated with treatment status

- ▶ 38 unique CSF specimens (Median = 7, SD = 3.36 mL)
- ▶ CSF-TC counts are normalized by volume
- ▶ LM directed treatment and cessation correlated with CSF tumor cell number

**OFF TREATMENT**

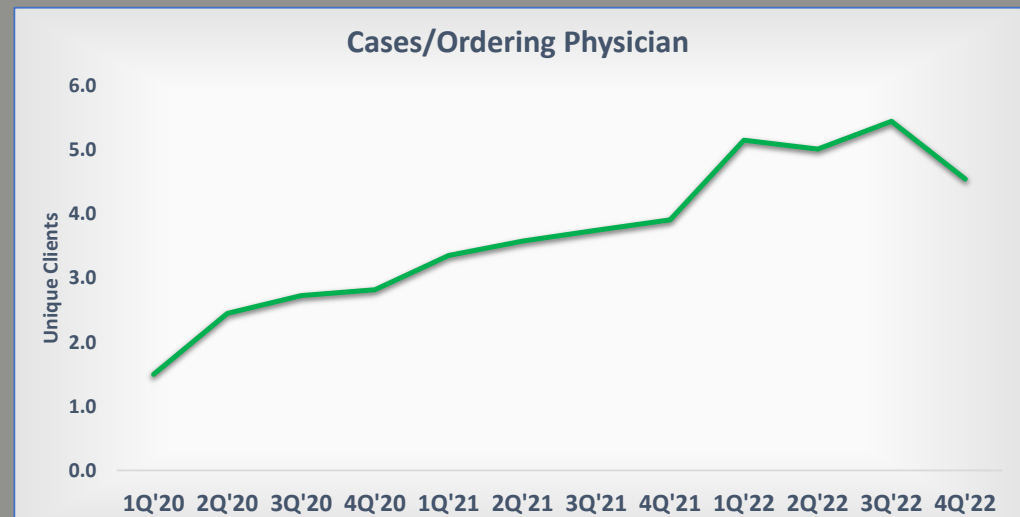
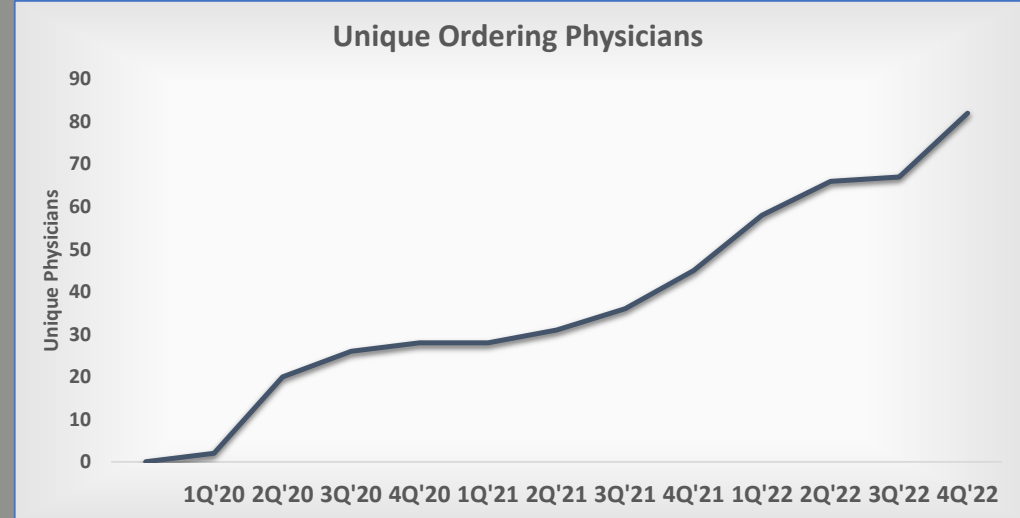
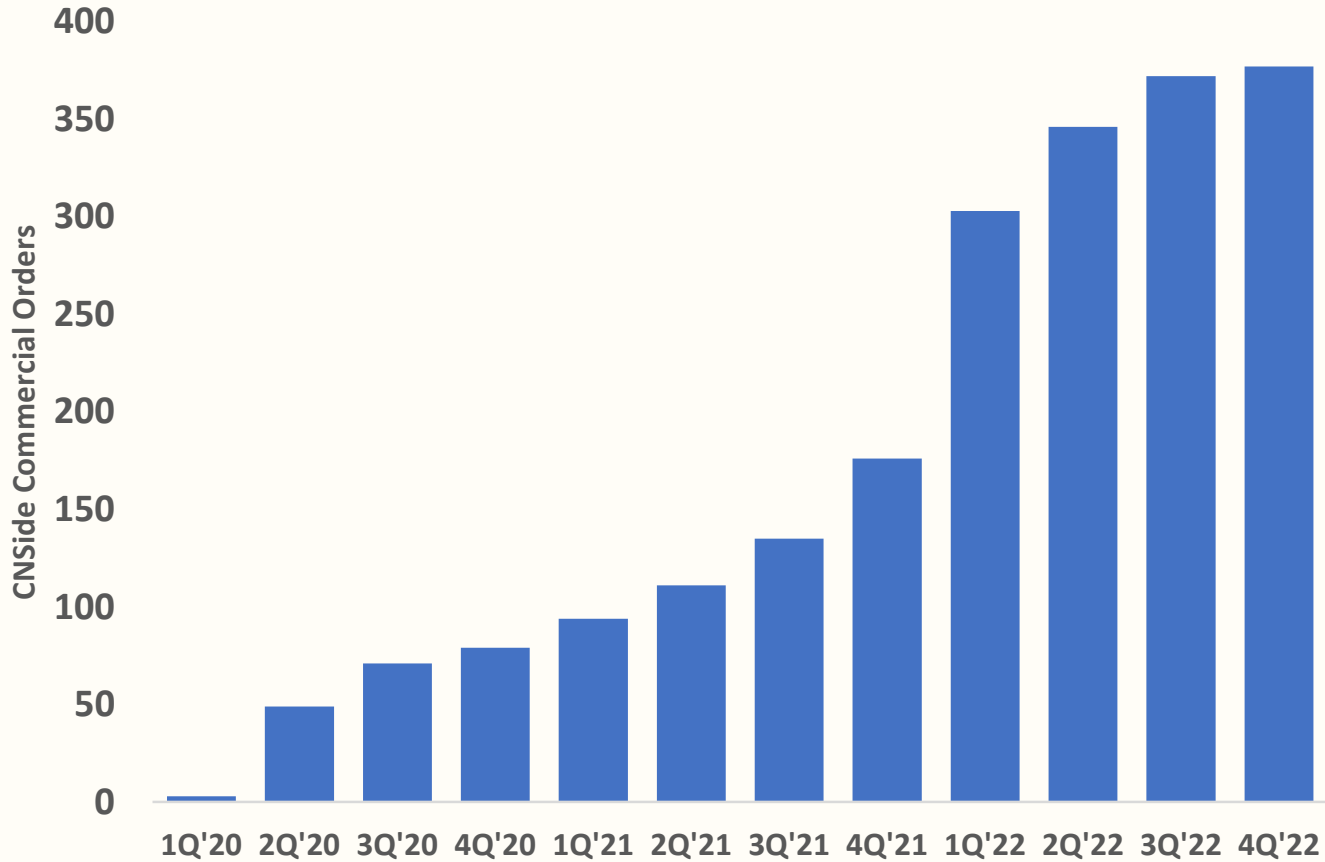
Cells  
Uptrend

**ON TREATMENT**

Cells  
Downtrend



## Promising Early Commercial Adoption of CNSide



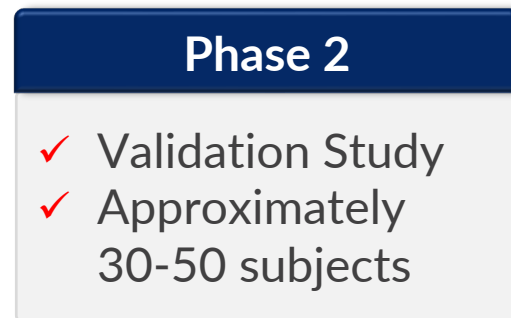
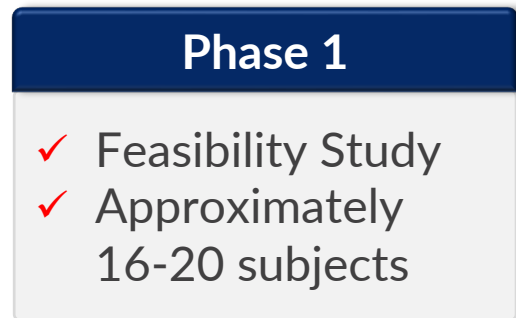
# FORESEE Clinical Trial

A Prospective, Multi-Institution Study Led by Northwestern University

# Biocept's Clinical Trial - FORESEE Study (NCT#: NCT05414123)

## Objectives:

- To determine the impact of CNSide in managing Leptomeningeal Metastasis in patients with Breast or Non-Small Cell Lung Cancer
- Assess correlation of CSF Tumor cells with clinical response
- Evaluate CNSide in helping to determine course of treatment
- Study design:



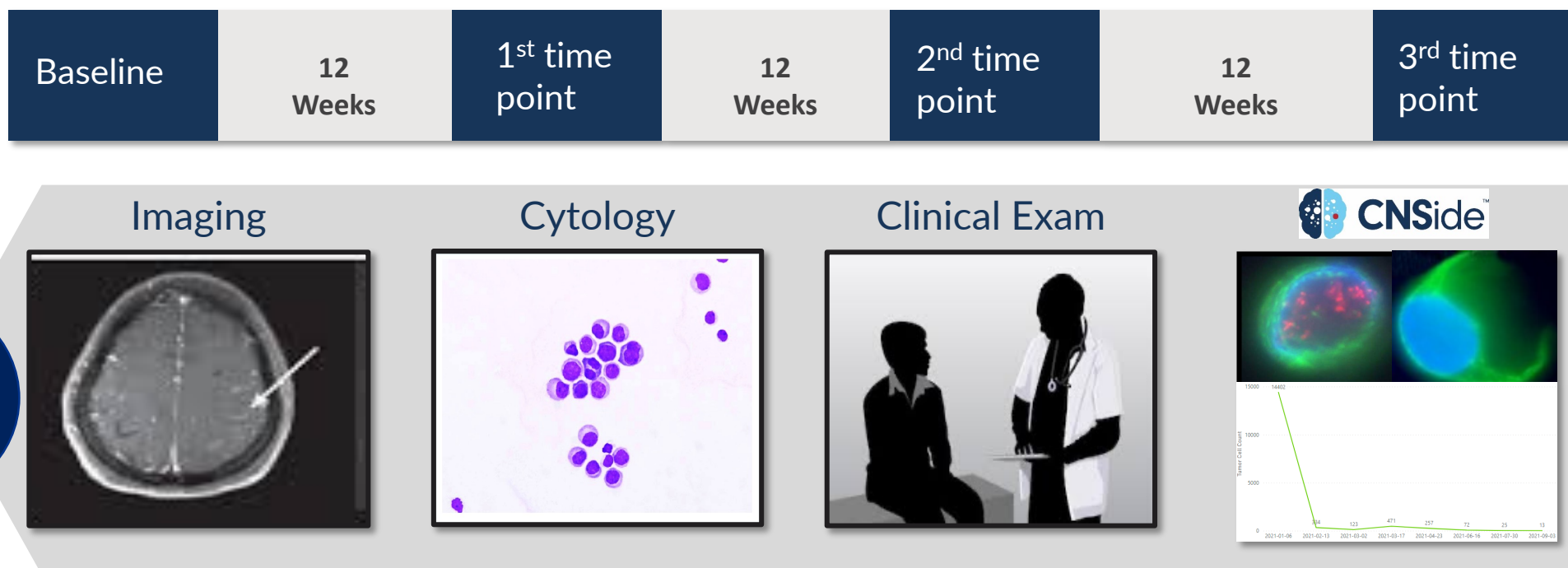
*Now Enrolling*





## FORESEE Trial Schema

- CNSide, imaging, CSF cytology and clinical results collected at baseline and 3 consecutive time points
- Tumor cell detection by CNSide will be correlated with response to treatment
- Impact of CNSide on treatment decision making will be assessed via physician questionnaire



# The Opportunity

Building shareholder value with CNSide

# Biocept Platform for the CSF Liquid Biopsy Market

## 1 Leptomeningeal Metastasis

Establish CSF beachhead in area with critical unmet needs

- Significantly advance patient care and management
- >200,000 with CNS involvement<sup>1</sup>

## 2 PBM & Gliomas

Expand to other neuro-oncology indications

- Parenchymal brain metastases
- Primary brain tumors

## 3 Brain Metastases Prevention / Staging

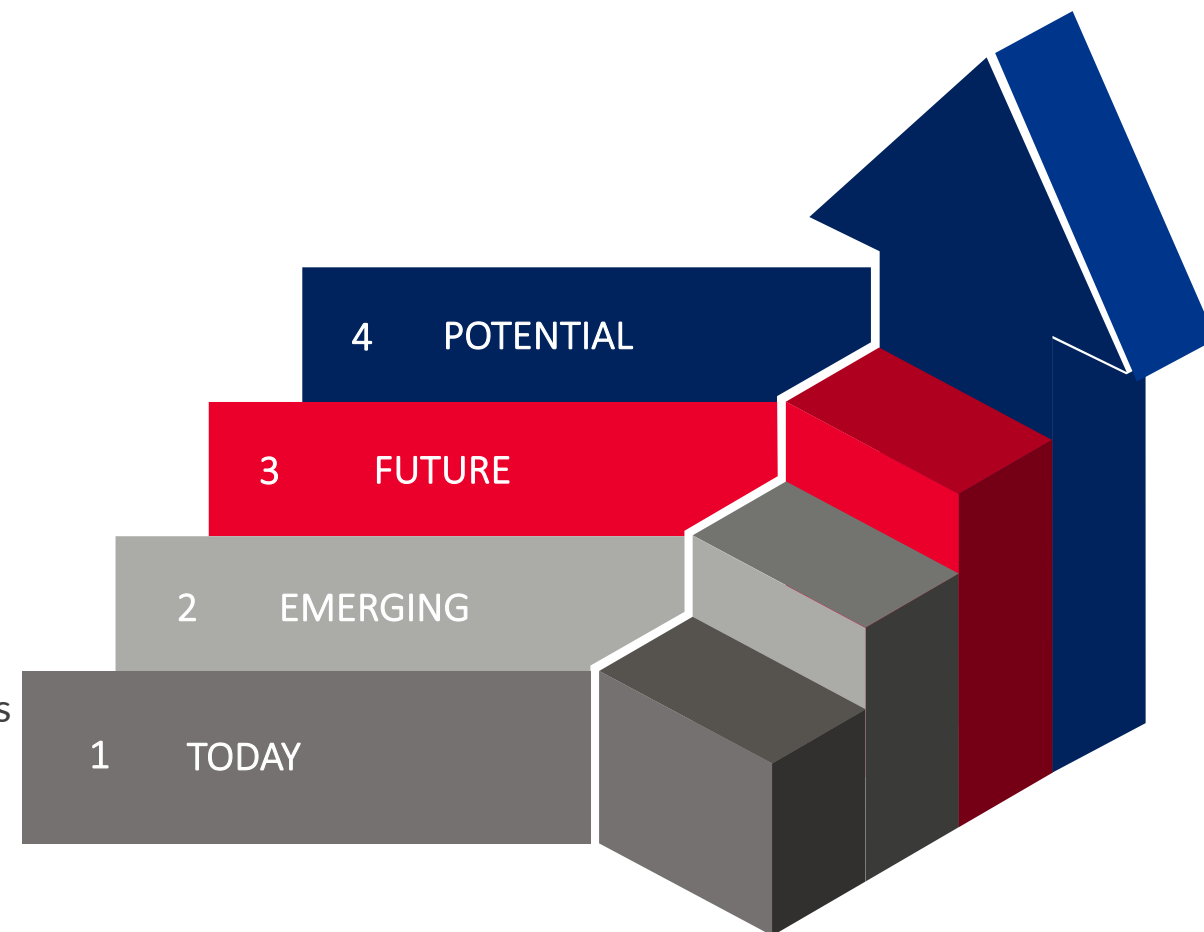
Enable earlier detection

- Emerging evidence of which high-risk primary solid tumors are associated with metastases
- Establish clinical evidence of utility

## 4 Other neurological diseases

CSF analysis as a window into other CNS disease processes<sup>2</sup>

- Especially where cellular process are involved
- Potential for neurodegenerative disease



1. <https://www.cancernetwork.com/view/management-brain-metastases>  
<https://www.cancer.gov/about-cancer/understanding/statistics>  
 2. Busse et al, *Brain Behav Immun Health*; V.14;2021 Jul

# COVID-19 Volume Drives Revenue That Reduces Cash Burn

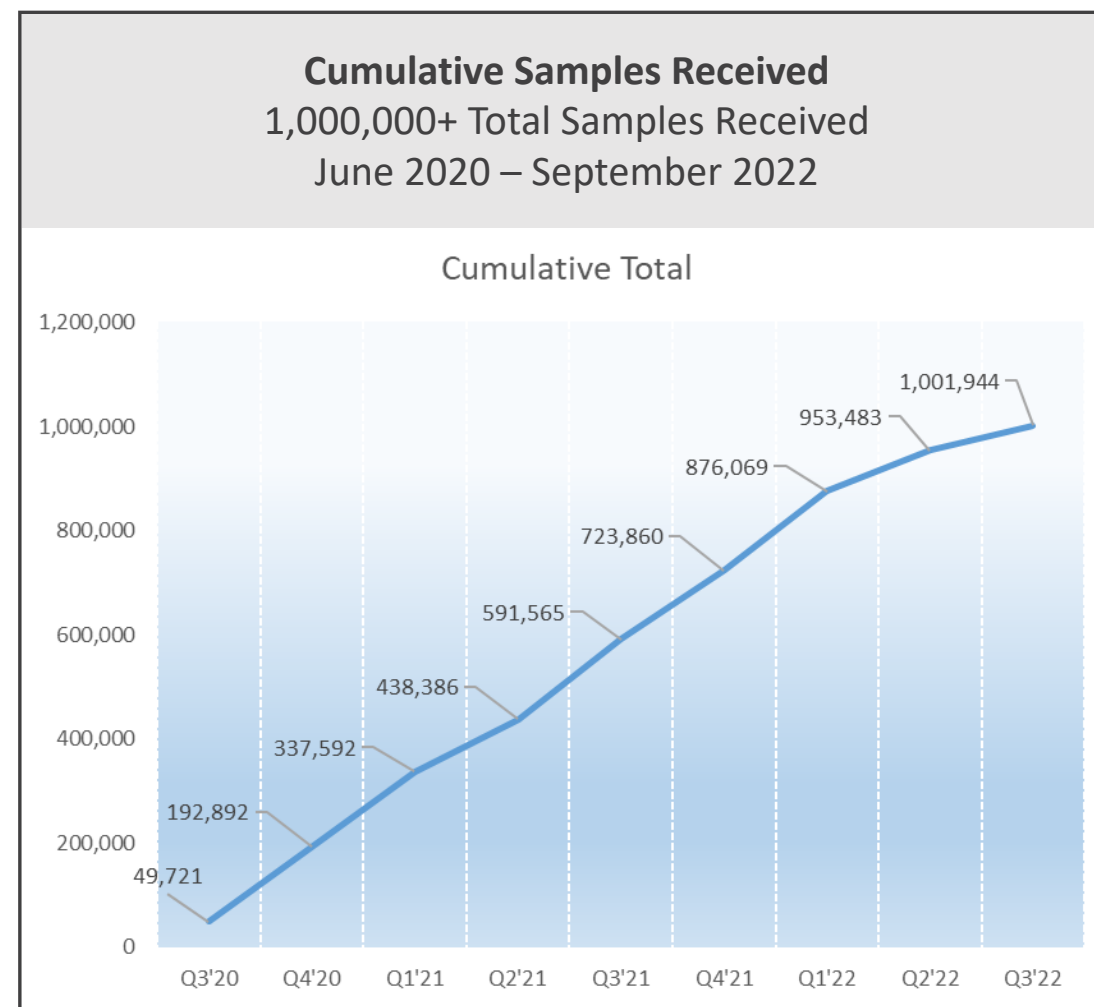
## Medicare Reimbursement

- ▶ ~\$100 per test

## PCR Test Demand Waning

- ▶ Availability of POC antigen tests
- ▶ Community Immunity
- ▶ Notifying clients service is ending

## Supported Investment in Core Neuro-Oncology Business





A blurred photograph of a modern hospital hallway with white walls, glass doors, and recessed ceiling lights. The perspective is looking down the length of the corridor.

# The Team

# Leadership Team

<b>Sam Riccitelli</b> Chair, Interim President & CEO	<ul style="list-style-type: none"> <li>Seasoned executive with 35+ years medical device &amp; diagnostics experience</li> <li>Serial oncology diagnostics entrepreneur</li> <li>Former COO at Genoptix, Inc.</li> </ul>
<b>Antonino Morales, CPA</b> Director, Interim CFO	<ul style="list-style-type: none"> <li>Broad leadership experience in the US and Latin America with Fortune 100 and early-stage start-up companies</li> <li>Senior executive/consulting roles with Citibank, Bank of America, Arthur Andersen, McDonald's, and Mazda</li> <li>University of Southern California; Licensed California CPA</li> </ul>
<b>Philippe Marchand, PhD</b> COO	<ul style="list-style-type: none"> <li>20+ years experience in oncology diagnostics and biopharma industries</li> <li>Proven operations and technology track record as an executive</li> <li>Extensive experience in rare cell isolation and analysis technologies</li> </ul>
<b>Michael Dugan, MD</b> CMO and Medical Director	<ul style="list-style-type: none"> <li>Board certified Pathologist</li> <li>Univ of AZ, Yale, UCLA</li> <li>Numerous publications, serves on CAP committees</li> <li>Leadership positions at Exact Sciences, Clinical Genomics, Quest, Genzyme and others</li> </ul>
<b>Darrell Taylor, JD</b> SVP, CLO & CCO	<ul style="list-style-type: none"> <li>20+ years of extensive legal expertise focusing on healthcare transactional, regulatory, and compliance matters</li> <li>15+ years on the provider side at LabCorp of America and other clinical and research laboratories</li> <li>Formerly with global law firm DLA Piper and in-house at Abbott Labs, AbbVie, and Sorrento Therapeutics</li> <li>The University of Texas Medical Branch and Notre Dame Law School</li> </ul>
<b>David Karlander</b> SVP, Commercial Operations	<ul style="list-style-type: none"> <li>25+ years of industry experience including extensive oncology experience</li> <li>Record of success in building and managing major diagnostics brands</li> <li>Former executive sales and marketing positions at Exact Sciences and Novartis' Genoptix Medical Lab</li> </ul>



# Board of Visionaries & Scientific Influencers

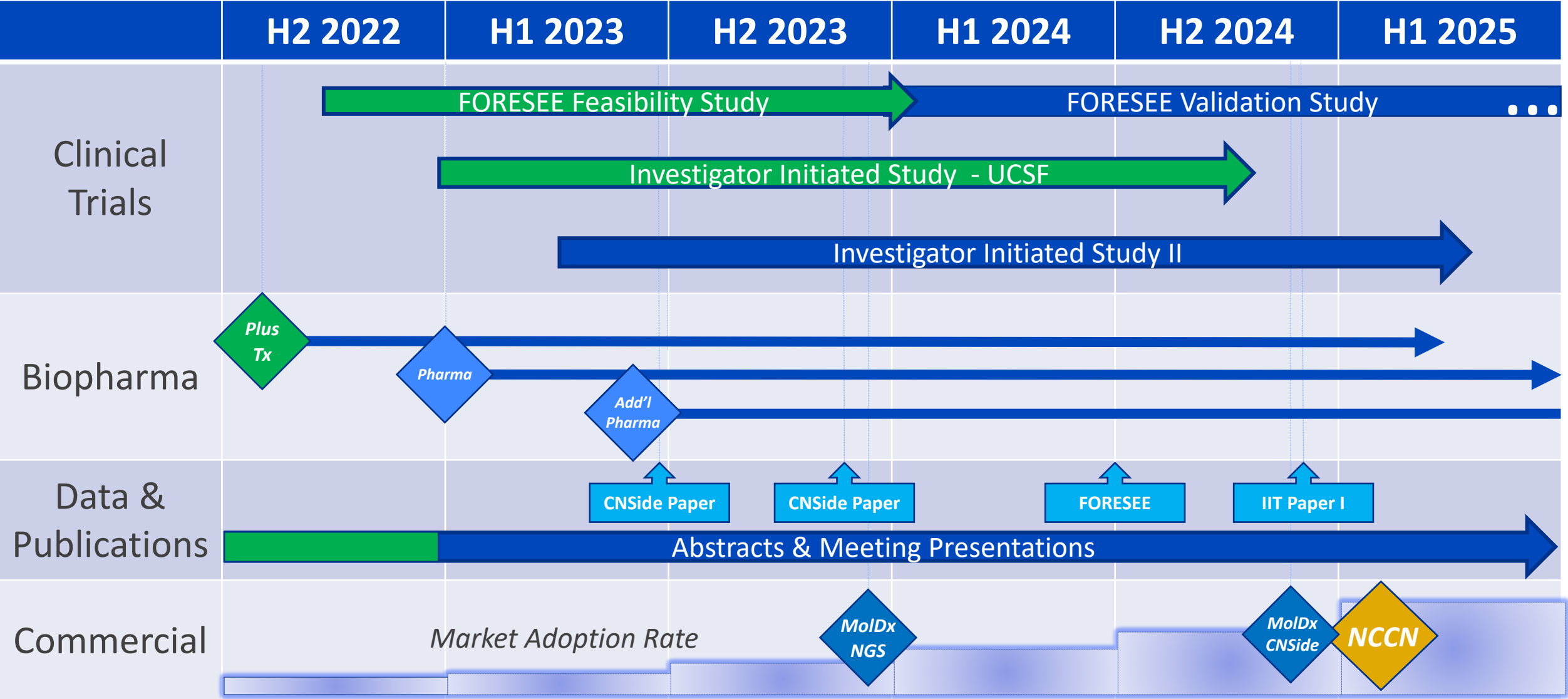
## Board of Directors

- **Samuel D. Riccitelli**  
Chair, Interim President & CEO
- **Marsha A. Chandler, PhD**  
Director, Chair of Nominating and Governance Committee
- **Bruce E. Gerhardt, CPA**  
Director, Chair of Compensation Committee
- **Antonino Morales, CPA**  
Director, Interim CFO
- **Ivor Royston, MD**  
Director, Chair of Science and Technology Committee
- **Linda Rubinstein**  
Director
- **M. Faye Wilson, CPA, MBA**  
Lead Independent Director, Chair of Audit Committee

## Lead Clinical Advisors

- **Santosh Kesari, MD, PhD**  
Chair, Dept. of Translational Neuro-oncology and Neurotherapeutics, John Wayne Cancer Institute, Santa Monica, California
- **Priya Kumthekar, MD**  
Associate Professor of Neurology (Neuro Oncology) and Medicine (Hematology and Oncology)  
Northwestern Medicine  
Feinberg School of Medicine  
Chicago, IL
- **Seema Nagpal, MD**  
Clinical Associate Professor (Neurology & Neurological Sciences)  
Stanford Medicine  
Stanford University  
Stanford, CA

# Biocept CNSide Timeline to Guideline → LM Indication





# Investment Highlights

- Commercializing CNSide assay to test for cancer involvement in CNS; initial U.S. market opportunity of \$1.2B
- Expanding CNSide usage among neuro-oncologist KOLs
- Pursuing CNSide standard of care status to support broader adoption and higher reimbursement
- Targeting collaborations with biopharma partners using CNSide assay to support therapeutics clinical trials

*Dedicated to improving outcomes for patients with advanced cancer.*

