

NASDAQ: CLRB

August 2015

Safe Harbor Statement

This slide presentation contains forward-looking statements. Such statements are valid only as of today, and we disclaim any obligation to update this information. These statements are only estimates and predictions and are subject to known and unknown risks and uncertainties that may cause actual future experience and results to differ materially from the statements made. These statements are based on our current beliefs and expectations as to such future outcomes. Drug discovery and development involve a high degree of risk. Factors that might cause such a material difference include, among others, uncertainties related to the ability to raise additional capital required to complete the development programs described herein, the ability to attract and retain partners for our technologies, the identification of lead compounds, the successful preclinical development thereof, the completion of clinical trials, the FDA review process and other government regulation, our pharmaceutical collaborators' ability to successfully develop and commercialize drug candidates, competition from other pharmaceutical companies, product pricing and third-party reimbursement. A complete description of risks and uncertainties related to our business is contained in our periodic reports filed with the Securities and Exchange Commission including our Form 10-K/A for the year ended December 31, 2014. These forward looking statements are made only as of the date hereof, and we disclaim any obligation to update any such forward looking statements.

Investment Overview

- Oncology-focused biopharmaceutical company in Madison, WI
- First and best-in-class PDC delivery platform
 - Phospholipid ether-Drug Conjugate (PDC)
 - Cancer-targeting delivery of oncologic payloads
- Pipeline of cancer therapeutics and diagnostics
- New leadership delivering on focused plan to unlock PDC platform value
 - Developing wholly-owned PDC therapeutics
 - Expanding cytotoxic therapeutic windows
 - Advancing PDC platform through collaborations

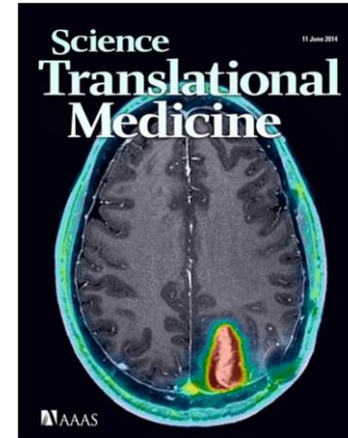
PDC Product Development Pipeline

PDC Product Candidates					
Class	Cancer Therapeutics			Cancer Diagnostics	
Status	Phase 1	Pre-Clinical	Pre-Clinical	Phase 2	Phase 1
PDC	CLR 131	CLR 1601-PTX	CLR 1605-GEM	CLR 124	CLR 1502
Payload	Radiotherapy	Chemotherapy	Chemotherapy	Radioisotope PET/CT Imaging	Fluorophore Optical Imaging
Indication	Multiple Myeloma	Breast and Lung	Pancreatic, Other	Glioma	Breast Cancer Lumpectomy
Status	Enrolling Patients	Internal In Vitro and In Vivo Studies		Evaluating Value-Optimizing Pathways	
Path	In-House	Collaboration Platform			

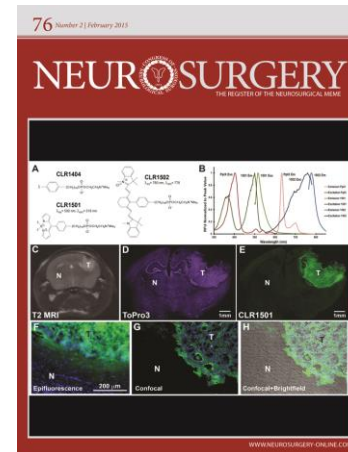
PDC Platform Creates Partnerships Opportunities

Phospholipid Ether Cancer Targeting Vehicle

- Proprietary small-molecule
- Highly selective cancer and CSC targeting
- Uptake and prolonged retention in malignant cells
 - POC in broad range of cancers
- Ability to attach diverse oncologic payloads
- Extensive research and peer reviewed scientific validation



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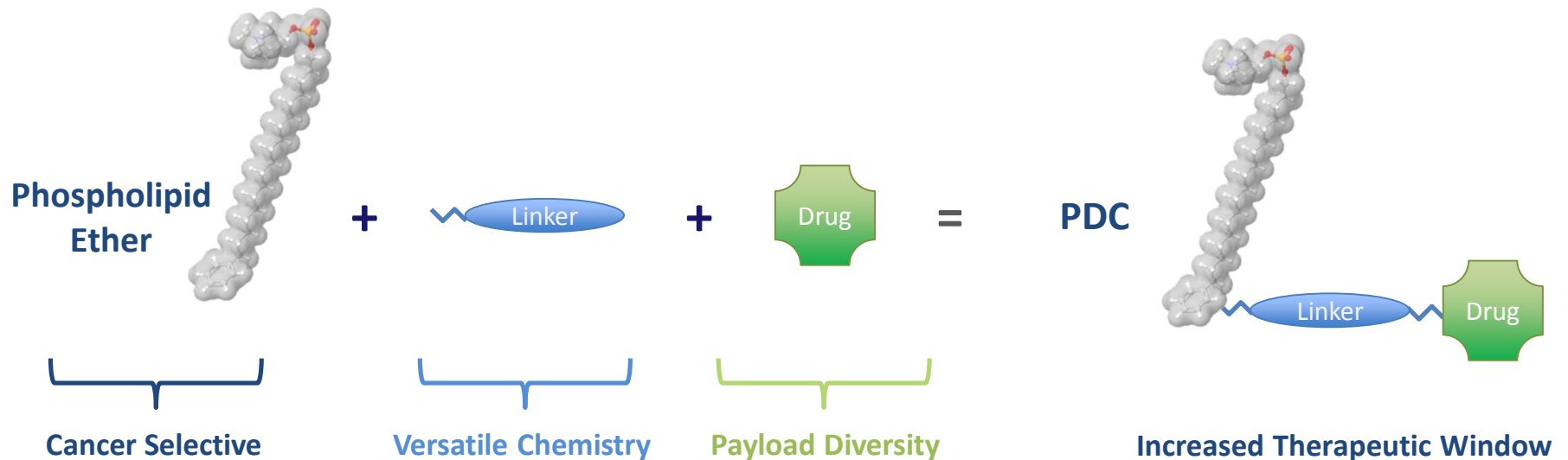


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Basis for PDC Delivery Platform

PDC Delivery Platform Overview

Proprietary Small-Molecule, Cancer-Targeting Delivery Vehicle

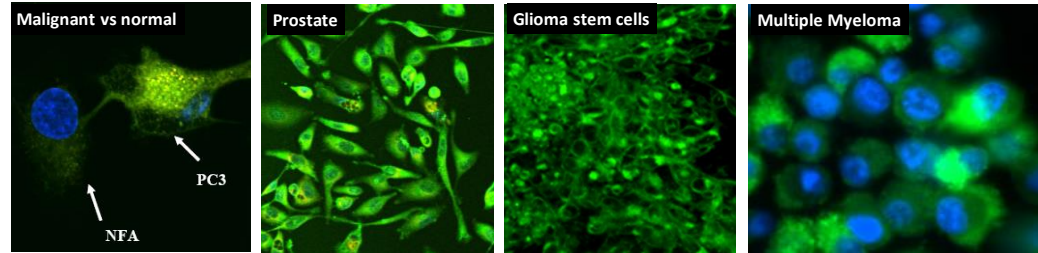


Enabling Targeted Delivery of Diverse Oncologic Payloads

PDC Cancer Targeting Validation in Broad Range of Cancers

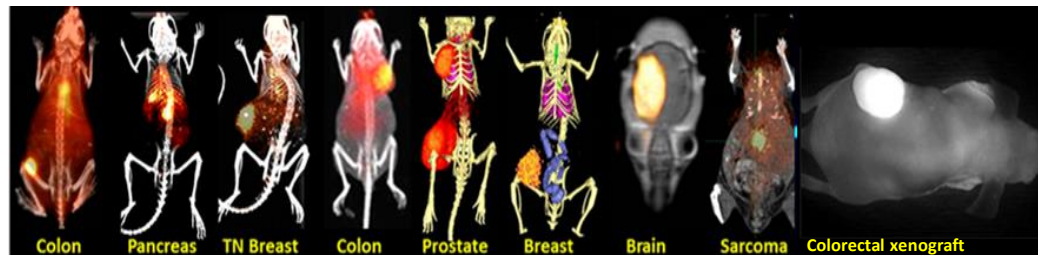
In Vitro Mechanistic POC

- Uptake Via Lipid Rafts
- Cytoplasm & Cell Organelle Uptake
- Prolonged Retention



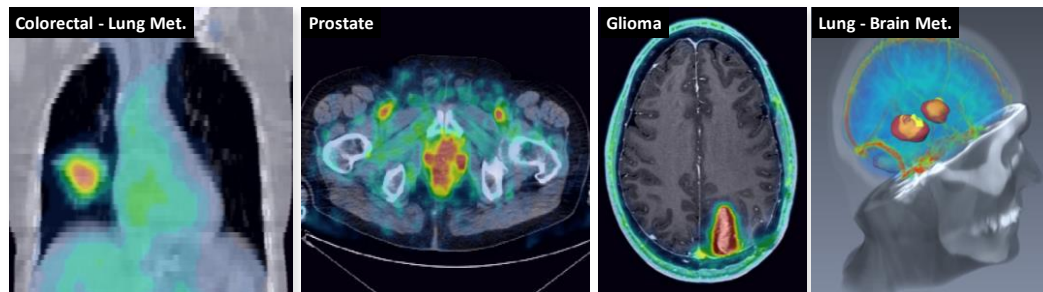
In Vivo POC

- 60+ Cancer & CSC Models
- Therapeutics & Imaging



In Human Data

- 50+ Patients
- 10+ Cancer Types



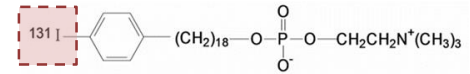
Demonstrated Clinical Translation

PDC Diverse Payload Delivery Validation



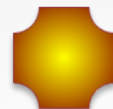
Radioisotopes for Cancer Therapy

- CLR 131: Multiple Myeloma
- Iodine-125



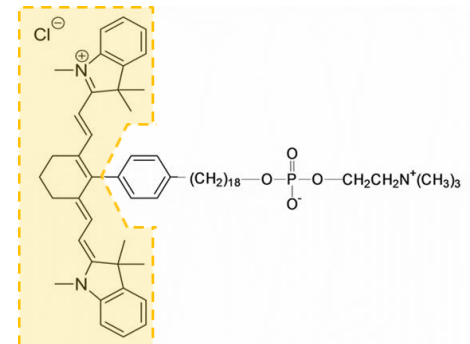
Radioisotopes for Cancer Imaging

- CLR 124: Glioma
- Iodine-123



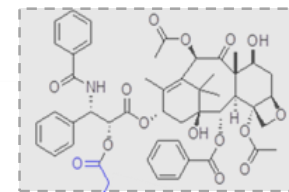
Fluorophores for Imaging-Guided Surgery

- CLR 1502 (near-infrared spectrum)
- CLR 1501 (visible spectrum)



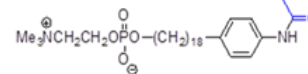
Cytotoxins for Improved Therapeutic Index

- CLR 1601-PTX: Paclitaxel- pre-clinical
- CLR 1605-GEM: Gemcitabine- pre-clinical



Other Payloads

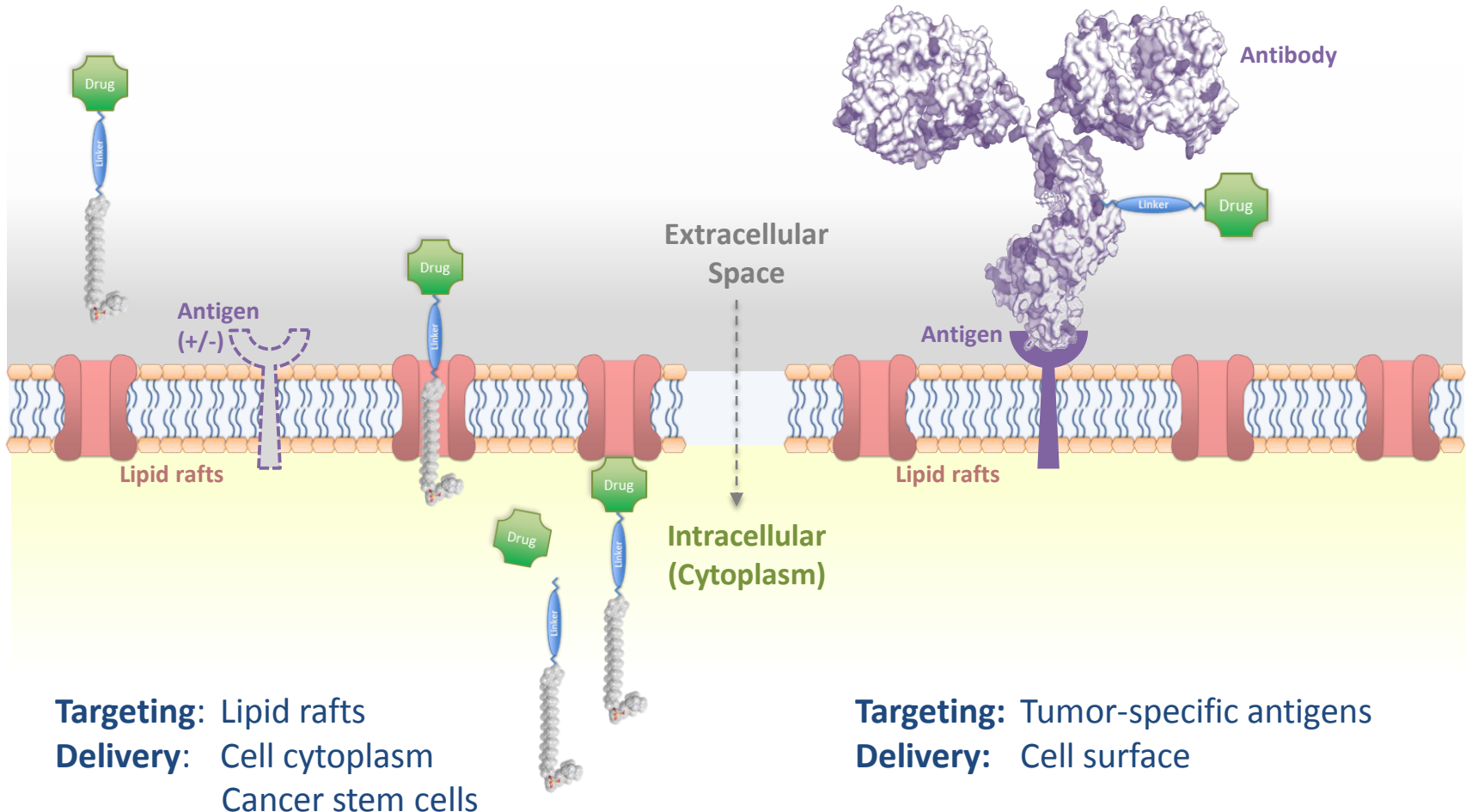
- Product development and commercialization collaborations



PDC Cancer Targeting & Payload Delivery

Phospholipid Ether-Drug Conjugates (PDCs)

Antibody-Drug Conjugates (ADCs)



Targeting: Lipid rafts
Delivery: Cell cytoplasm
Cancer stem cells

Targeting: Tumor-specific antigens
Delivery: Cell surface

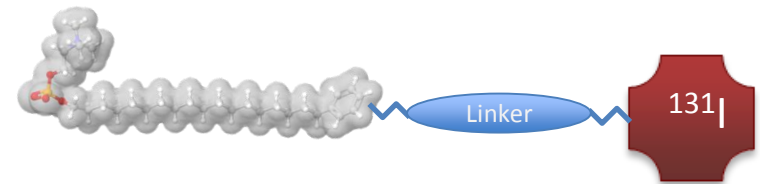
PDC Delivery Platform Summary

DELIVERY VEHICLE	PDC	ADC
Description	PLE: Small-Molecule	Antibody: Biologic
Manufacturing Cost/Complexity	Low	High
Cancer Targeting	Cancer Selective	Antigen Selective
-- <i>Cancer Stem Cell</i>	Yes	?
-- <i>Brain Metastases</i>	Yes	?
Cancer Cell Uptake	Membrane - Cytoplasm	Antigen Dependent
Retention	Prolonged	Linker/Payload Dependent
Linker Options	Simple	Complex
Payload Diversity	Multiple	Multiple

PDCs are New Class of Cancer Targeting & Delivery Technology

CLR 131: Lead PDC Radiotherapeutic Product

- Payload: Iodine 131
 - Cytotoxic radioisotope
 - Thyroid cancer
- PDC: CLR 131
 - Targeted cytotoxic delivery
 - Tumor uptake, retention and efficacy demonstrated in vivo
 - Liquid and solid tumors
 - Solid tumor MTD established and activity observed
 - Indications beyond thyroid cancer
 - Multiple Myeloma, other cancers



Opportunity for Expanded Oncology Indications

Market Opportunity in Multiple Myeloma

- Incurable hematologic cancer- malignant plasma cells
- Unmet need in relapse/refractory setting
- 2nd most common hematologic cancer
 - Prevalence ~ 90,000
 - Incidence ~ 26,850
 - Relapse/Refractory ~ 13,000
- Global MM drug market
 - 2014-2019 8.5% CAGR
- Premium pricing for marketed products
 - \$55k - \$150k+

CLR 131: Rationale for Multiple Myeloma

- Novel mechanism of action
- Single dose treatment
- Established radiosensitivity
- In vivo MM cell uptake
- Quantitative response criteria
 - M-protein marker
- Regulatory Pathway
 - Unmet need in relapse/refractory patients
 - Orphan designation granted
 - Potential for fast track, breakthrough therapy, accelerated approval

Phase 1 Study in Multiple Myeloma Underway

- Multi-center, open label, dose escalation trial initiated Q2 2015
 - Determine Phase II dose
- 3rd line relapse/refractory patients
- Primary objective: Dose limiting toxicity
- Secondary objective: Efficacy
- Next Steps
 - Evaluate cohort 1- 1H 2016
 - Initiate cohort 2- 1H 2016

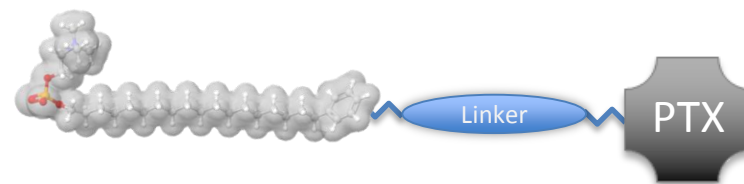
PDC Chemotherapeutic Program Overview

- Objective
 - Develop chemotherapy PDCs with improved efficacy & tolerability
- Clinical Rationale
 - Numerous chemotherapeutics available for PDC
 - Highly effective yet highly toxic drugs
 - Improve drug therapeutic index through targeted delivery
- Business Rationale
 - Many failed, pre-clinical, clinical and on market chemotherapeutics
 - New products, new patent life & life cycle management
- Initial Chemotherapeutic Candidates
 - CLR 1601-PTX (Paclitaxel), CLR 1605-GEM (Gemcitabine)
 - Evaluating other chemotherapeutic compounds

Creating Opportunities for Clinical Development Partnerships

CLR 1601-PTX: Pre-Clinical PDC Chemotherapeutic Product

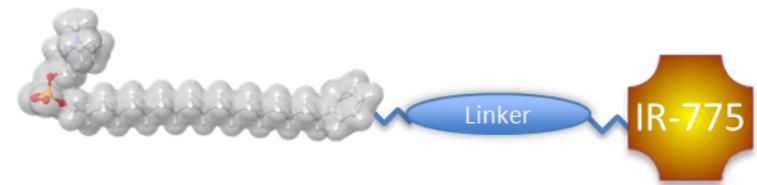
- Payload: Paclitaxel
 - Well characterized chemotherapeutic
 - Breast, lung and ovarian cancers
- PDC: CLR 1601-PTX
 - Multiple derivatives developed
 - Established linker and Conjugation
 - In vitro studies document:
 - Stability
 - Retention of cytotoxic activity
- Next Steps
 - Pre-clinical data update- Q4 2015



Expanding Therapeutic Index

CLR 1502: Phase I PDC Cancer Diagnostic Product

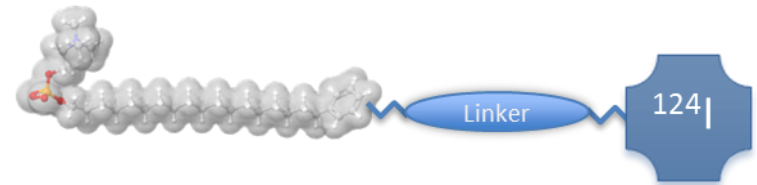
- Payload: Fluorophore
 - Fluorescent dye: Assess tissue perfusion
- PDC: CLR 1502
 - Cancer surgery imaging agent
 - Accurate visualization of tumor margins
- Breast Cancer/Lumpectomy
 - Complete malignant tissue removal
 - Improved patient outcomes & QOL
 - Limit repeat surgeries
 - Healthcare system savings
- Next steps
 - Identify optimal clinical development pathway
 - Assess future cancer surgery indications



Evaluating Value-Optimizing Pathways

CLR 124: Phase II PDC Cancer Diagnostic Product

- Payload: Iodine 124
 - PET/CT imaging isotope
 - Limited cancer use
- PDC: CLR 124
 - More precise cancer imaging diagnostic
 - Early detection, staging, monitoring
 - Prostate, colorectal, head & neck, other
 - Brain cancer, glioma & metastases
- Next Steps
 - NCI, ICTR (brain metastases/cancer) and Phase II Glioma data- collate & assess



Evaluating Value-Optimizing Pathways

Intellectual Property Portfolio

Patent Asset	Composition of Matter	Methods of Use	Methods of Manufacturing	Freedom to Operate
CLR 131	12/2016 Orphan Drug- Multiple Myeloma	2025 -Cancer, Solid Tumors 2030 - Cancer Stem Cell	2028	✓
CLR 124	12/2016 Orphan Drug- Glioma	2025 -Cancer TRX	2028	✓
CLR 1502	2029	2029	2029	✓
Phospholipid Ethers (various)	12/2016 - 2028	2028	2028	✓

Over 28 Patents Issued or Pending

Near Term Milestones

PDC Product Candidate	Indications	Near Term Milestone	Q4 2015	Q1 2016	Q2 2016
CANCER THERAPEUTICS					
CLR 131	RR Multiple Myeloma	Cohort 1 Data & Initiate Cohort 2			✓
CLR 1601-PTX	Breast & Lung	Pre-Clinical Data Update	✓		
CLR 1605-GEM	Pancreatic, Other	Pre-Clinical Data Update		✓	
CANCER DIAGNOSTICS					
CLR 1502	Lumpectomy	Identify Optimal Clinical Development Pathway	✓		
CLR 124	Brain Mets & Glioma	ICTR, Phase I/II Collate/Assess Data		✓	

Summary Financial Outlook

Capitalization

Common Stock Outstanding	7,562,762
Warrants (exercisable: \$3.75-\$25.00)	6,604,096
Options	<u>839,936</u>
Fully Diluted	<u>15,006,794</u>

\$4.8 M cash at June 30, 2015

Company Leadership

Management		Board of Directors	
Jim Caruso President, CEO and Director	HIP Innovation Technology- EVP & COO; Allos Therapeutics- EVP & COO; BCI, Novartis, BASF, BMS	Paul L. Berns Chairman of the Board of Directors	Anacor Pharmaceuticals- President and CEO; Allos Therapeutics- President and CEO; BCI, Abbott, BASF, BMS
Jamey Weichert, PhD Company Founder, CSO, and Director	University of Wisconsin Associate Professor of the Departments of Radiology, Medical Physics, Pharmaceuticals and member of the Comprehensive Cancer Center	Jim Caruso President, CEO and Director	HIP Innovation Technology- EVP & COO; Allos Therapeutics- EVP & COO; BCI, Novartis, BASF, BMS
J. Patrick Genn VP, Business Development	Continuum Investment Holdings- President; Wells Fargo-Executive, Collectar since 2006	Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S Director	Targacept- President and CEO; Solvay Pharmaceuticals- President and CEO; ArQule, F. Hoffmann- La Roche Ltd.
Chad Kolean CFO	Pioneer Surgical Technology- CFO; TomoTherapy – Corporate Controller	Stefan Loren, PhD Director	Loren Capital Strategy- Founder; Westwicke Partners- Head of Life Science Practice; Perceptive Advisors, Legg Mason
Kevin Kozak, MD, PhD CMO	Mercy Regional Cancer Center - Director of Radiation Oncology; Co-D Therapeutics- Co-Founder	John Neis Director	Venture Investors, LLC; Managing Director, Head of Healthcare Practice
		Jamey Weichert, PhD Company Founder, CSO, and Director	University of Wisconsin Associate Professor of the Departments of Radiology, Medical Physics, Pharmaceuticals and member of the Comprehensive Cancer Center

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