

Issuer Free Writing Prospectus
Filed Pursuant to Rule 433
Registration Statement No. 333-208638
March 25, 2016



NASDAQ: CLRB

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 for the year ended December 31, 2015. These forward looking statements are made only as of the date hereof, and we disclaim any obligation to update any such forward looking statements.

Statement about Free Writing Prospectus

- This presentation highlights basic information about us and the offering. Because it is a summary that has been prepared solely for informational purposes, it does not contain all of the information that you should consider before investing in our company. Except as otherwise indicated, this presentation speaks only as of the date hereof.
- This presentation does not constitute an offer to sell, nor a solicitation of an offer to buy, any securities by any person in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation.
- Neither the Securities and Exchange Commission (the "SEC") nor any other regulatory body has approved or disapproved of our securities or passed upon the accuracy or adequacy of this presentation. Any representation to the contrary is a criminal offense.
- This presentation includes industry and market data that we obtained from industry publications and journals, third-party studies and surveys, internal company studies and surveys, and other publicly available information. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. Although we believe the industry and market data to be reliable as of the date of this presentation, this information could prove to be inaccurate. Industry and market data could be wrong because of the method by which sources obtained their data and because information cannot always be verified with complete certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. In addition, we do not know all of the assumptions that were used in preparing the forecasts from the sources relied upon or cited herein.
- We have filed a Registration Statement on Form S-1 with the SEC, as amended on March 21, 2016, including a preliminary prospectus dated March 21, 2016 (the "Preliminary Prospectus"), with respect to the offering of our securities to which this communication relates. Before you invest, you should read the Preliminary Prospectus (including the risk factors described therein) and, when available, the final prospectus relating to the offering, and the other documents filed with the SEC and incorporated by reference into the Preliminary Prospectus, for more complete information about us and the offering. You may obtain these documents, including the Preliminary Prospectus, for free by visiting EDGAR on the SEC website at <http://sec.gov>.
- Alternatively, we or any underwriter participating in the offering will arrange to send you the prospectus if you request it by contacting Ladenburg Thalmann & Co. Inc., 570 Lexington Ave, 11th Floor, New York, NY 10022 or by email at prospectus@ladenburg.com.

Transaction Overview

Issuer:	▪ Collectar Biosciences, Inc.
Exchange:	▪ NASDAQ: CLRB
Offering Size:	▪ \$6 million
Securities Offered:	▪ Common Stock, Series A Warrants, Series B Pre-funded Warrants
Use of Proceeds:	<ul style="list-style-type: none">▪ Research & Development<ul style="list-style-type: none">○ Further clinical development of CLR 131○ The pre-clinical advancement of our CTX Program, including PDC Taxol series of compounds▪ General Corporate Purposes
Sole Book runner:	▪ Ladenburg Thalmann & Co. Inc.






Company Leadership

Management		Independent Directors	
Jim Caruso President, CEO and Director	Previously: HIP Innovation Technology- EVP & COO; Allos Therapeutics- EVP & CCO	Paul L. Berns Chairman of the Board of Directors	Anacor Pharmaceuticals- President and CEO; Anacor Pharmaceuticals- Director; Jazz Pharmaceuticals, Inc.- Director; XenoPort, Inc.- Director
Chad Kolean CFO	Previously: Pioneer Surgical Technology- CFO	Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S Director	Faraday Pharmaceuticals- CEO; Catalyst Biosciences- Director; Lipocine, Inc.- Director
Kevin Kozak, MD, PhD CMO- Consultant	Mercy Regional Cancer Center - Director of Radiation Oncology; Co-D Therapeutics- Co-Founder	Stefan Loren, PhD Director	Loren Capital Strategy- Founder; GenVec- Director; Marina Biosciences- Lead Independent Director
Jamey Weichert, PhD Company Founder, CSO, and Director	University of Wisconsin Associate Professor of the Departments of Radiology, Medical Physics, & Pharmaceuticals	John Neis Director	Venture Investors, LLC- Managing Director, Head of Healthcare Practice; Virent, Inc.- Director; Deltanoid Pharmaceuticals, Inc.- Director; Inviragen, Inc.- Director

Company Overview

- Oncology-focused biopharmaceutical company in Madison, WI
- Developing Phospholipid Drug Conjugate (PDC) Delivery Platform
 - Phospholipid Ether cancer-targeting vehicle
 - Enables delivery of diverse oncologic payloads
 - Increases payload therapeutic window
- R&D pipeline of PDC cancer therapeutics and diagnostics
- Focused plan to unlock PDC Delivery Platform value
 - Advance CLR 131 therapeutic franchise
 - Develop early-stage chemotherapeutic conjugates
 - Expand PDC pipeline through collaborations

Company Developments

October 1, 2015 - Present			2016 Outlook	
	\$3.3M Financing	10/1/15	CTX Program Update	Q2
	\$2.3M NCI Fast Track Grant - CLR 125 Study Initiated	10/1/15	CTX Patent Publication	Q2
	CTX Patent Application Conversion	11/10/15	Completion of Phase 1 NCI Fast Track Grant	Q2
	Initiated Pierre Fabre Collaboration	12/16/15	MM Study Cohort #2 Data Update	Q3
	Positive Phase 1 MM Data	1/5/16	MM Study Cohort #3 Patient Enrollment	Q3

Delivery Platform Cancer-Targeting Vehicle

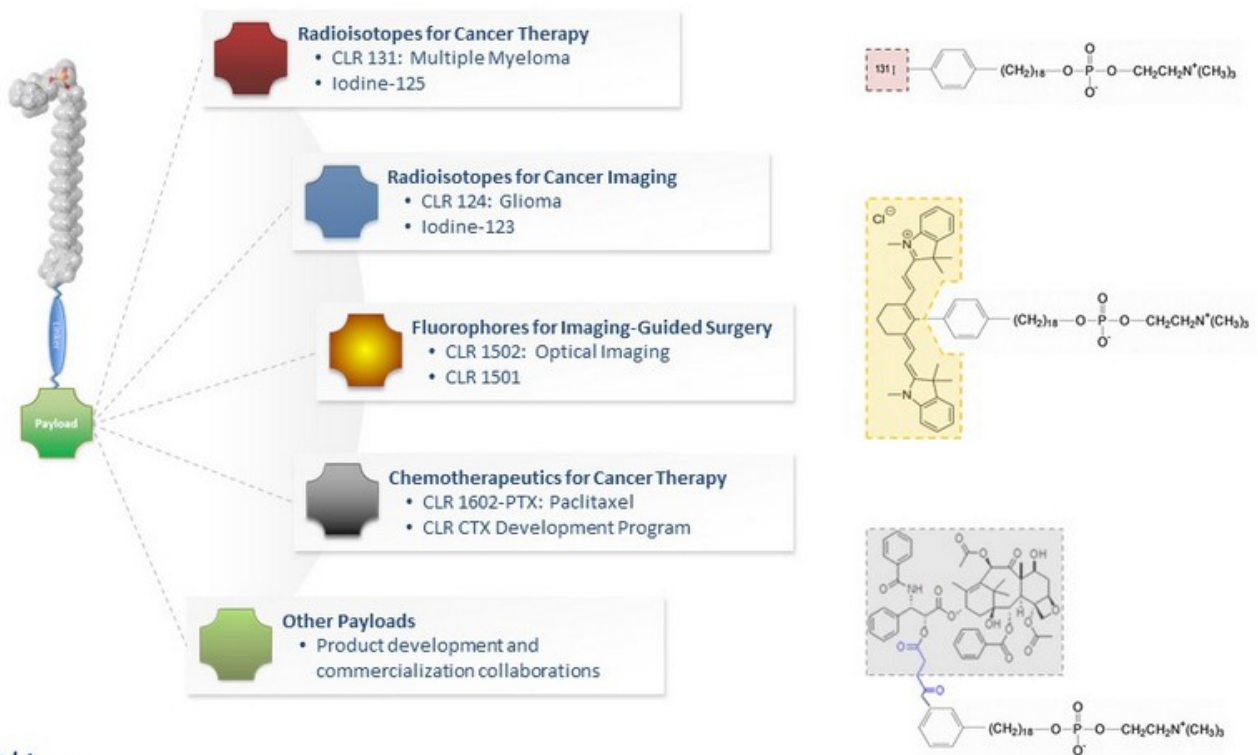
- Proprietary phospholipid ether small-molecule
- Highly selective cancer and cancer stem cell targeting
- Uptake and prolonged retention in malignant cells
 - POC in broad range of cancers
- Ability to attach diverse oncologic payloads
- Extensive research and peer reviewed scientific validation¹

Basis for PDC Delivery Platform



1. STM: *Science Translational Medicine* 11 Jun 2014; Vol. 6, Issue 240, pp. 240ra75 Neurosurgery: *Neurosurgery*. 2015 Feb; 76(2): 115-124.

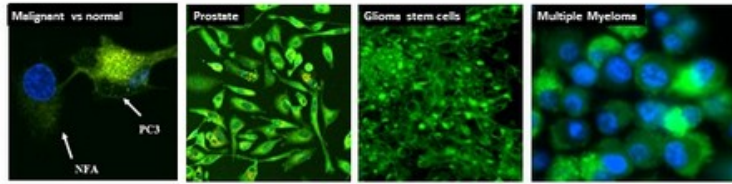
PDC Diverse Payload Delivery Validation



PDC Cancer-Targeting Validation in Broad Range of Cancers

In Vitro Mechanistic POC

- Cellular Uptake via Lipid Rafts
- Delivery to Cytoplasm & Cell Organelles
- Prolonged Retention of Molecule within Malignant Cells



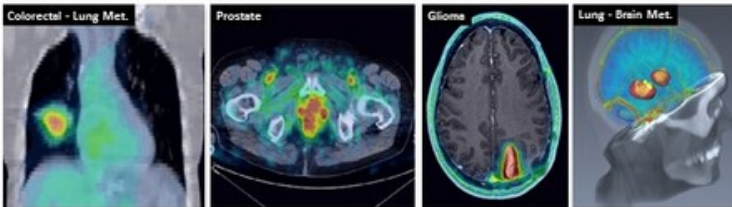
In Vivo POC

- Selective Uptake demonstrated in more than 60 Cancer Models
- Applications in Therapeutics & Imaging



In Human Data

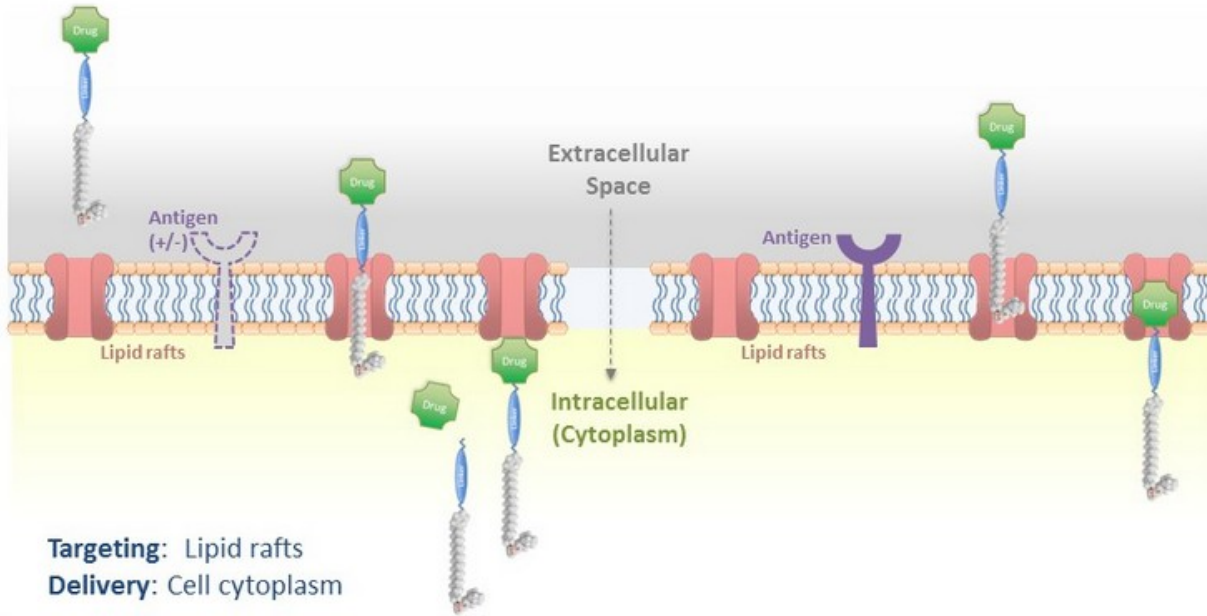
- As of March 2016, Collectar's PDCs have been administered to 84 Patients
- Selective Uptake and Prolonged Retention Shown in More Than 10 Cancer Types



Demonstrated Clinical Translation

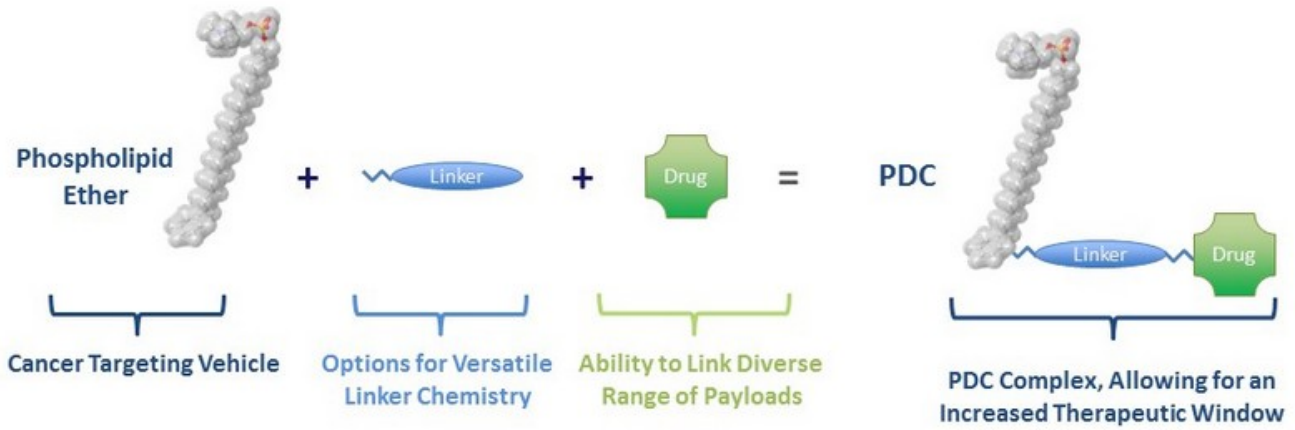
PDC Cancer-Targeting and Payload Delivery

Phospholipid Drug Conjugates (PDCs)



PDC Delivery Platform Overview

Phospholipid Drug Conjugate



Enabling Targeted Delivery of Diverse Oncologic Payloads

PDC Delivery Platform Summary


DELIVERY PLATFORM	PDC: Collectar	ADCs
Description & Manufacturing Cost/Complexity	PLE: Small-Molecule	Antibody: Biologic
Cancer Targeting	Cancer Selective	Antigen Selective
Targeting Mechanism	Membrane-Lipid Rafts	Membrane-Antigen
Payload Delivery	Cytoplasm/Cell Organelle	Linker Dependent (cleavable vs. non-cleavable) ¹
Retention	Prolonged	Linker Dependent (cleavable vs. non-cleavable) ¹

PDCs Represent a New Class of Cancer Targeting & Payload Delivery



1. (see https://en.wikipedia.org/wiki/Antibody-drug_conjugate#Linker_technology for more details)

PDC Product Development Pipeline

Category	Class	PDC Program	Payload	Indication	Discovery	Pre-clinical	Phase I	Phase II
In-House Development	Radio Tx	CLR 131	Iodine-131	Multiple Myeloma	Phase I			
		CLR 125 ¹	Iodine-125	Micrometast. Disease	Pre-Clinical			
Collaborations	 Pierre Fabre	CLR CTX	NP cytotoxics	TBD	Discovery			
Collaboration Platform	Chemo Tx	CLR 1602-PTX	PTX	Performance-based	Pre-Clinical			
		CLR CTX	PTX, GEM, GEL ²	Performance-based	Discovery			
	Dx CDx	CLR 124	Iodine-124	Glioma	Phase II			
		CLR 1502	IR-775	Breast Cancer Lumpectomy	Phase I			



1. The development of CLR 125 is fully funded by a NCI Phase I/II Fast-Track SBIR research grant award 2. PTX = paclitaxel; GEM = gemcitabine; GEL = geldanamycin

CLR 131: Lead PDC Radiotherapeutic Product

- Payload: Iodine-131
 - Cytotoxic radioisotope
 - Thyroid cancer Tx
- PDC: CLR 131
 - Targeted cytotoxic delivery
 - Solid tumor maximum tolerated dose (MTD) established and activity observed ($\leq 31.25\text{mCi/m}^2$)¹
 - Indications beyond thyroid cancer Tx
 - Multiple Myeloma, other cancers



Opportunity for Expanded Oncology Indications

CLR 131: Clinical Rationale For Multiple Myeloma

- Multiple Myeloma
 - Incurable hematologic cancer – Orphan Designation
 - Unmet need in relapsed/refractory setting
 - Medium patient age is 70 years for MM¹
 - Quantitative response criteria
 - M-protein marker
 - Free Light Chain (FLC)
- CLR 131
 - Established radiosensitivity
 - In vivo MM cell uptake – imaging validation
 - Novel mechanism of action
 - Single dose treatment

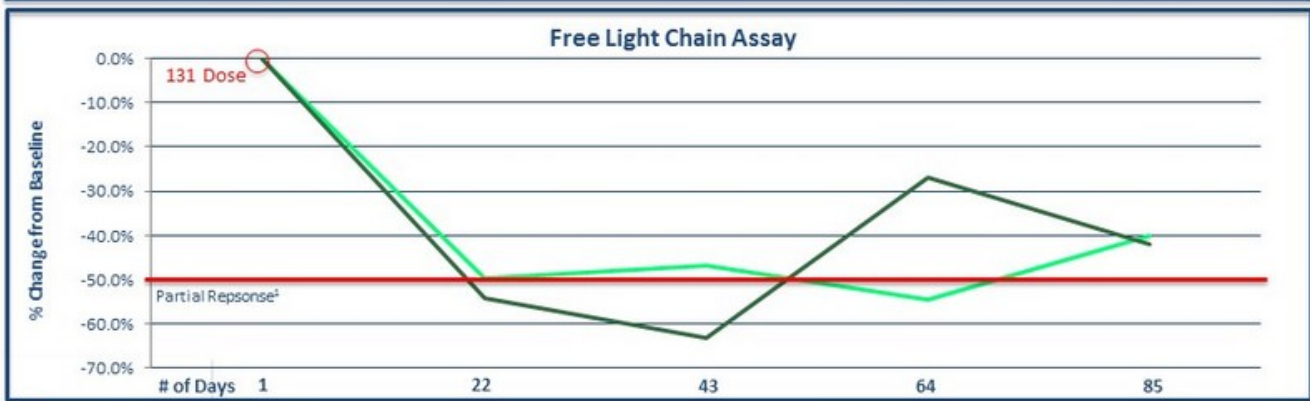
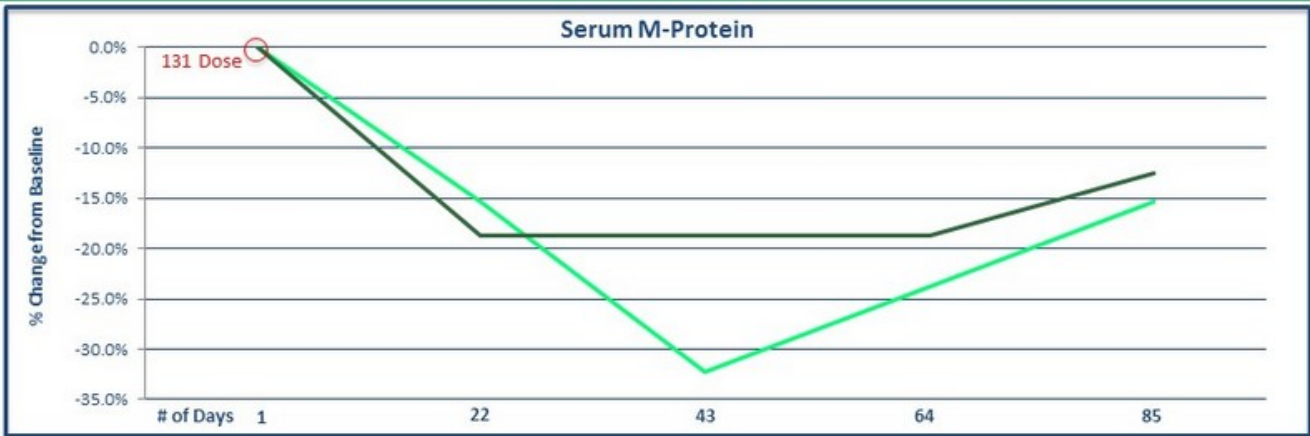
CLR 131: Phase 1 Multiple Myeloma Study Overview

- Multi-center, open label, dose escalation trial initiated Q2 2015
- Relapsed or refractory patients
- Primary objective:
 - Characterize safety & tolerability
- Secondary objectives:
 - Establish phase II dose
 - Assess therapeutic activity
- First cohort dosed @ 12.5 mCi/m²
- 85 day post dose study duration
 - Safety monitoring

CLR 131: Cohort #1 Patient Summary

Patient Number	Prior Treatments	Age	Adverse Events ≥ Grade 2	IMWG ¹ Response Assessment	Progression Free Survival
101	12 Systemic Regimens	55	Decreased Neutrophils 2 Anemia 3 Decreased WBC 3	Stable Disease	64 Days
102 ²	3 Systemic Regimens	74	None	Progressive Disease	N/A
103	3 Systemic Regimens	70	Lymphopenia 3	Stable Disease	>115 Days (ongoing)
104	3 Systemic Regimens Autologous SCT	76	Hypophosphatemia 3	Stable Disease	43 Days
105	3 Systemic Regimens	67	Decreased WBC 2 Decreased Platelet 3	Stable Disease	116 ³ Days

CLR 131: Cohort #1 Patient Efficacy



CLR 131: Market Rationale for Multiple Myeloma

- Unmet need remains in the relapsed or refractory setting
- 2nd most common hematologic cancer¹
 - Prevalence ~ 90,000¹
 - Incidence ~ 26,850
 - Relapsed/Refractory ~ 13,000¹
- Global MM drug market¹
 - \$7.3B (2014) - \$8.9B (2021)
 - Premium pricing for marketed products
 - \$55k - \$150k+

"Judging by the results of the first cohort, I believe there is significant potential for CLR 131 as a safe and tolerable treatment modality for relapsed or refractory multiple myeloma," stated Sikander Ailawadhi, MD, senior associate consultant, Division of Hematology/Oncology, Department of Medicine, The Mayo Clinic, Jacksonville, Florida, and the site's lead investigator.



Cohort #2 Initiated at 18.75 mCi/m²; a 50% Dose Increase

1. - <http://seer.cancer.gov/statfacts/html/mulmy.html>

PDC Chemotherapeutic Program Overview

- Objective
 - Develop chemotherapy PDCs with improved efficacy & tolerability
 - Convert non-targeted drugs to targeted chemotherapeutics
- Clinical rationale
 - Chemotherapeutics highly effective, yet highly toxic drugs
 - Improve drug therapeutic index through targeted delivery
 - Cancer stem cell delivery – increased response durability
- Business rationale
 - Many failed, pre-clinical, clinical and on market chemo's
 - New products, new patent life & life cycle management
 - Reduced regulatory hurdles

Creating Opportunities for Clinical Development Partnerships

Pierre Fabre PDC Chemotherapeutic Collaboration

- Initiated December 2015
- Objectives
 - Co-design library of PDCs
 - Conduct *in vivo* POC studies
 - Evaluate therapeutic index vs. untargeted payloads
- Pierre Fabre to provide payloads
 - Proprietary natural product-derived cytotoxics
- Cellectar to lead conjugation and POC studies

“We are convinced that Cellectar’s proprietary technology will provide our cytotoxic molecules with tissue specificity and enhanced safety which are typically lacking with untargeted agents.”

- Laurent Audoly, Head of R&D of Pierre Fabre Pharmaceuticals (Dec. 2015)

PDC Chemotherapeutic Program Status

- Initial chemotherapeutic payload candidates
- PDCs synthesized
 - Five different payloads, multiple linkers and analogs
- In vitro studies
 - Multiple PTX and GEL PDC analogs
 - 12 tumor cell lines
 - Has shown plasma stability and cytotoxic activity
- Lead PDC selected for *in vivo* targeted delivery studies
 - CLR 1602-PTX
- PDC targeted delivery assessment toolkit in development
 - Efficient, cost-effective payload analysis

CLR 1602-PTX: Pre-Clinical PDC Chemotherapeutic

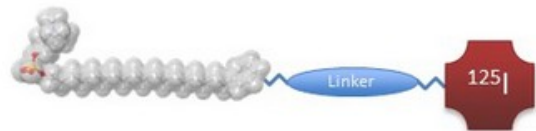
- Payload: Taxol
 - Well characterized chemotherapeutic
 - Breast, lung and ovarian cancers
- PDC: CLR 1602-PTX
 - Developed linker and conjugation
 - Formulation without Cremophor EI[®]
 - Larger scale synthesis
- Established process for targeted delivery assessment
 - Tracer technology
- Next steps
 - In vivo pre-clinical data update – Q2 2016



Expanding Therapeutic Index

CLR 125: Pre-Clinical PDC Radiotherapeutic Product

- Payload: Iodine-125
 - Cytotoxic radioisotope
 - Prostate brachytherapy Tx
- PDC: CLR 125
 - Targeted cytotoxic delivery
 - Micrometastatic disease
 - Lower hematological toxicity¹
- Development
 - Funded by a \$2.3M NCI SBIR grant
 - Small /disseminated tumors and micrometastatic disease



NCI Funded Research Collaboration to Assess CLR 125 Clinical Applications



1. Based on internal studies.

Financial Summary

Capitalization as of March 2016 ¹






Common Stock Outstanding	858,013
Warrants (exercisable: \$22.00-\$250.00)	861,314
Options	<u>70,916</u>
Fully Diluted	<u>1,790,243</u>

\$3.9M cash at December 31, 2015

¹ On March 4, 2016, the Company effected a reverse stock split at a ratio of 1-for-10. All share information presented herein reflects the reverse split.

Note: The Company is presenting at a hearing with NASDAQ on March 31, 2016, to request an extension of time to regain compliance with NASDAQ's minimum stockholders' equity requirement. The Company believes there are sound reasons for NASDAQ to grant an extension; however, there can be no assurance that NASDAQ will grant the extension we are seeking as a result of the hearing.

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