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# Cellecstar Biosciences Provides Phospholipid Drug Conjugate (PDC) Platform Development Update

## CLR 1603-PTX Paclitaxel Analog Advanced to In Vivo Studies- Details to be Shared During Upcoming Q3 Call

MADISON, Wis., Nov. 2, 2015 (GLOBE NEWSWIRE) -- Cellecstar Biosciences, Inc. (NASDAQ:CLRB), an oncology-focused biotechnology company, today provides an update on its recently initiated Phospholipid Drug Conjugate (PDC) chemotherapeutic program, CLR CTX.

PDCs are a new class of small-molecules that employ Cellecstar's extensively validated phospholipid ether-based cancer targeting and delivery vehicle. The PDC platform possesses the ability to link diverse oncologic payloads for targeted delivery to a broad range of cancers.

The objective of the CLR CTX program is to develop PDC chemotherapeutics through conjugation of our delivery vehicle and multiple non-targeted anti-cancer agents to improve therapeutic indices and expand potential indications through the targeted delivery of chemotherapeutic payloads.

"The potential advantages of drug candidates developed using the PDC delivery platform over classic cytotoxic approaches are broad-band tumor targeting, including brain metastases, and prolonged tumor cell retention, both of which have been validated by human imaging. Further, PDC delivery technology has demonstrated the ability to target human glioma stem cells *ex vivo*, suggesting the potential to provide targeted delivery of therapeutic agents to cancer stem cells," said John S. Kuo, MD, PhD, FAANS, FACS, Associate Professor of Neurological Surgery and Human Oncology (Tenure) Director, Comprehensive Brain Tumor Program Chair, CNS Tumors Working Group, Carbone Cancer Center, Center for Stem Cell and Regenerative Medicine at the University of Wisconsin-Madison.

### CLR CTX Preclinical Update

The company introduced its Phospholipid Drug Conjugate (PDC) platform for the targeted delivery of chemotherapeutics during its second quarter financial results call in August, 2015. Since then the company has completed the first phase of its PDC chemotherapeutic preclinical proof of concept research, including *in vitro* evaluation of multiple conjugated paclitaxel analogs. A key outcome of this evaluation was the identification of a lead paclitaxel analog, CLR 1603-PTX, for advancement to *in vivo* studies. Further details about the results of CLR 1603-PTX *in vitro* evaluation will be presented during the company's third quarter

financial results call later this month.

"The sense of urgency demonstrated by our R&D team and the resulting progress with our CLR CTX program since we announced it two months ago is reflective of the potential of our PDC platform to create new targeted treatments for cancer," said Jim Caruso, president and CEO of Cellectar Biosciences. "To date, we have successfully developed multiple conjugated paclitaxel analogs, completed necessary *in vitro* work and are now advancing to *in vivo* studies."

CLR 1603-PTX *in vivo* safety and efficacy evaluation will now be conducted in animal tumor models in order to demonstrate the chemotherapeutic payload targeting efficacy of the PDC delivery platform.

### **About Phospholipid Drug Conjugates (PDCs)**

Cellectar's PDC platform has demonstrated highly selective cancer targeting both preclinically in over 60 *in vivo* cancer models, and subsequently confirmed clinically in over 10 cancer types. The platform's payload diversity has been validated using cytotoxic radioisotopes for cancer therapy; PET imaging isotopes for cancer imaging; fluorophores for image-guided surgery, and now the company plans to expand its payload portfolio to chemotherapeutics with further preclinical study of paclitaxel and other non-targeted anti-cancer agents with both in-house and collaborative R&D efforts.

Cellectar's lead PDC is CLR 131. Its payload is iodine-131, a proven cytotoxic radioisotope that is used primarily for thyroid cancer treatment. The company initiated a disease-specific Phase 1 dose escalation study in patients with relapsed or refractory multiple myeloma this past April, and has been granted orphan drug designation. The company expects to evaluate cohort 1 and initiate cohort 2 during the first half of 2016. The primary objective of the study is to assess the safety and tolerability of CLR 131 in this patient population with secondary objectives of establishing the recommended Phase 2 dose and characterizing therapeutic activity.

### **About Cellectar Biosciences, Inc.**

Cellectar Biosciences is developing phospholipid drug conjugates (PDCs) designed to provide cancer targeted delivery of diverse oncologic payloads to a broad range of cancers and cancer stem cells. Cellectar's PDC platform is based on the company's proprietary phospholipid ether analogs. These novel small-molecules have demonstrated highly selective uptake and retention in a broad range of cancers. Cellectar's PDC pipeline includes product candidates for cancer therapy and cancer diagnostic imaging. The company's lead therapeutic PDC, CLR 131, utilizes iodine-131, a cytotoxic radioisotope, as its payload. CLR 131 is currently being evaluated under an orphan drug designated Phase 1 study in patients with relapsed or refractory multiple myeloma. The company is also developing PDCs for targeted delivery of chemotherapeutics such as paclitaxel (CLR 1603-PTX), a preclinical stage product candidate, and plans to expand its PDC chemotherapeutic pipeline through both in-house and collaborative R&D efforts. For additional information please visit [www.cellectarbiosciences.com](http://www.cellectarbiosciences.com).

This news release contains forward-looking statements. You can identify these statements by our use of words such as "may," "expect," "believe," "anticipate," "intend," "could,"

"estimate," "continue," "plans," or their negatives or cognates. 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, uncertainties related to 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.

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