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Cellestar Biosciences Announces USPTO Issues Patent for its Radiotherapeutic PDC Portfolio, Further Strengthening and Expanding Protection for Its Delivery Platform

Patent Covers Targeted Delivery to Cancer and Cancer Stem Cells

MADISON, Wis., May 31, 2016 (GLOBE NEWSWIRE) -- Cellestar Biosciences, Inc. (Nasdaq:CLRB) ("the company"), an oncology-focused biotechnology company, today announces that the United States Patent and Trademark Office ("USPTO") has issued U.S. Patent No. 9,339,564, which covers the treatment of cancer stem cells employing the company's phospholipid drug conjugate ("PDC") delivery platform technology; specifically, either of the company's current PDC products, CLR 131 or CLR 125, in combination with external beam radiation. This patent, which provides intellectual property protection to at least June 2030, is based on one of multiple patent applications directed to the treatment of cancer stem cells.

The company's radioiodinated compounds may possess the unique ability to target and potentially kill both cancer and cancer stem cells while sparing healthy cells and normal stem cells. Cancer stem cells are known to be highly resistant to traditional chemotherapeutics and potentially a significant source of metastasis. Beyond traditional chemotherapeutics, cancer stem cells have been shown to be as much as 30 percent more radioresistant than cancer cells, further increasing the challenge of treating cancer.

"The recent USPTO actions have expanded and strengthened Cellestar's intellectual property portfolio for strategic PDC program assets, including our radiotherapeutics in combination with external beam radiation in a wide range of cancers," said Jim Caruso, president and CEO of Cellestar. "Importantly, they also provide yet another clear example of the broad utility and potential of our delivery platform. The company will continue its aggressive approach to protect assets and increase their respective value, whether internally or collaboratively developed."

This patent, which describes the combined use of either CLR 131 or CLR 125 with external beam radiotherapy, utilizes the unique targeted delivery property of PDCs to internally supplement the radiation dose to the entire tumor and specifically cancer stem cells. The cancer stem cells then become as radiosensitive as other cancer cells. If successful, this dual internal-external radiotherapy approach may achieve a more effective and durable treatment response.

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, added: "Our studies conducted to date at the Carbone Cancer Center demonstrate that Collectar's PDC delivery vehicle, a proprietary phospholipid ether analog, also targets therapy-resistant cancer stem cells responsible for cancer growth and recurrence. PDCs show promise as a means of targeting and treating all of the tumor cells within a patient's cancer, including cancer stem cells."

About Phospholipid Drug Conjugates (PDCs)

The foundation of Collectar's delivery platform technology is its proprietary, small molecule, phospholipid ether cancer targeting drug vehicle. The drug vehicle preferentially delivers cytotoxic compounds directly to cancer cells, thus limiting the drug's impact on healthy cells, increasing the potency of the drug at lower concentrations and improving the compound's adverse event profile. Collectar'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, and fluorophores for image-guided surgery. Recently, the company has expanded its payload portfolio to chemotherapeutics with further research of paclitaxel and other non-targeted anti-cancer agents through both in-house and collaborative R&D efforts.

About Collectar Biosciences, Inc.

Collectar 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. Collectar's PDC Delivery 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. Collectar'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.collectarbiosciences.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 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.

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