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Cellecstar to be Granted EU Patent for Phospholipid Ether (PLE) Analogs as Cancer-Targeting Drug Vehicles

Covers composition of matter and method of use into 2036 for proprietary PLE analogs in combination with various small molecule chemotherapeutics

FLORHAM PARK, N.J., June 11, 2020 (GLOBE NEWSWIRE) -- Cellecstar Biosciences, Inc. (NASDAQ: CLRB), a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of drugs for the treatment of cancer, today announced that the European Patent Office has announced the intent to grant patent number EP3229810 (B1) titled "Phospholipid Ether Analogs as Cancer-Targeting Drug Vehicles." The patent provides composition of matter and use protection for the company's proprietary PLE, targeted delivery vehicle analogs in combination with a broad range of chemotherapeutics such as paclitaxel, gemcitabine, and other classes of small molecule chemotherapeutic agents. The cancer-targeting PLE delivery vehicle serves as the foundation for the company's lead product candidate CLR 131, which continues to advance through clinical studies in both adult and pediatric cancer indications.

"This patent represents a key step towards the expansion of our PDC franchise into the European and the rest of the world markets. It provides intellectual property protection for many of our ongoing preclinical programs, similar to the previously granted U.S. patent," stated James Caruso president and chief executive officer of Cellecstar Biosciences. "We plan to explore other therapeutic modalities with the PLE and seek partnerships with pharmaceutical and biotechnology companies interested in utilizing our technology to potentially improve the delivery and the efficacy and tolerability of their drugs."

The combination of the PLE with a small molecule chemotherapeutic is known as a Phospholipid Drug Conjugate or PDC™. PDCs provide targeted delivery and release of therapeutic payloads inside tumor cells including primary and metastatic tumor sites as well as cancer stem cells and has also demonstrated the capacity to cross the blood-brain-barrier and target brain tumors.

About Phospholipid Drug Conjugates™

Cellecstar's product candidates are built upon a patented delivery platform that utilizes optimized phospholipid ether-drug conjugates (PDCs™) to target cancer cells. The PDC platform selectively delivers diverse oncologic payloads to cancerous cells and cancer stem cells, including hematologic cancers and solid tumors. This selective delivery allows the payloads' concentration within tumor cells to be increased while reducing the concentration in normal tissue, which may enhance drug potency while reducing adverse events. This platform takes advantage of a metabolic pathway utilized by all tumor cell types. Compared

with other targeted delivery platforms, the PDC platform's mechanism of entry does not rely upon specific cell surface epitopes or antigens which can be modified or removed by tumor cells resulting in resistance to the treatment. In addition, PDCs can be conjugated to molecules in numerous ways, thereby increasing the types or classes of molecules that can be selectively delivered. Cellectar believes the PDC platform holds potential for the discovery and development of the next generation of cancer-targeting agents.

About Cellectar Biosciences, Inc.

Cellectar Biosciences is focused on the discovery, development and commercialization of drugs for the treatment of cancer. The company is developing proprietary drugs independently and through research and development collaborations. The company's core objective is to leverage its proprietary Phospholipid Drug Conjugate™ (PDC) delivery platform to develop PDCs that specifically target cancer cells, delivering improved efficacy and better safety as a result of fewer off-target effects. The company's PDC platform possesses the potential for the discovery and development of the next-generation of cancer-targeting treatments, and it plans to develop PDCs independently and through research and development collaborations.

The company's lead PDC therapeutic, CLR 131, is currently in two clinical studies. The CLOVER-1 Phase 2 study completed the Part A dose-exploration portion, conducted in relapsed/refractory (r/r) B-cell malignancies, and is now enrolling in the Part B expansion cohorts evaluating an approximate 100mCi total body dose of CLR 131 in relapsed/refractory (r/r) multiple myeloma (MM) and lymphoplasmacytic lymphoma/Waldenstrom's macroglobulinemia (LPL/MM). The data from the Part A portion was announced on February 19, 2020. The company is also conducting a two-part Phase 1 dose-escalation with expansion arms in pediatric solid tumors and lymphomas.

The company's product pipeline includes one preclinical PDC chemotherapeutic program (CLR 1900) and multiple partnered PDC assets.

For more information, please visit www.cellectar.com or join the conversation by liking and following us on the company's social media channels: [Twitter](#), [LinkedIn](#), and [Facebook](#).

Forward-Looking Statement Disclaimer

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 including our expectations of the impact of the recent COVID-19 pandemic. 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 disruptions at our sole source supplier of CLR 131, the ability to attract and retain partners for our technologies, the identification of lead compounds, the successful preclinical development thereof, patient enrollment and the completion of clinical studies, the FDA review process and other government regulation, our ability to maintain orphan drug designation in the United States for CLR 131, the volatile market for priority review vouchers, 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, 2019 and our Form 10-Q for the quarter ended March 31, 2020. These forward-looking statements are made only as of the date hereof, and we disclaim any obligation to update any such forward-looking statements. 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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Source: Cellestar Biosciences