

September 27, 2017



Cellestar Biosciences Reports Cohort Four Data and Partial Response in Relapsed or Refractory Multiple Myeloma Patient Treated with CLR 131

MADISON, Wis., Sept. 27, 2017 (GLOBE NEWSWIRE) -- Cellestar Biosciences, Inc. (Nasdaq:CLRB), an oncology-focused, clinical stage biotechnology company (the "company"), today announces that a patient treated with the company's lead PDC™ compound, CLR 131 in the fourth cohort of its Phase I dose escalation safety trial in relapse or refractory multiple myeloma achieved a partial response (PR).

The primary objective of the study is to determine the highest dose patients can tolerate. The trial's Data Monitoring Committee (DMC) determined that the fourth cohort dose of 31.25 mCi/m² was safe and tolerated. Additionally, the company is monitoring signals of efficacy, including surrogate markers M protein and free light chain (FLC). The International Myeloma Working Group (IMWG) defines a PR as a greater than or equal to 50 percent decrease in FLC levels (for patients in whom M protein is unmeasurable) or 50 percent decrease in M protein.

Cohort 4 had three evaluable patients enrolled, each with heavily pretreated relapsed or refractory multiple myeloma (greater than five prior lines) and high degree of tumor burden upon entry into the trial. Each patient in the cohort received a single 31.25 mCi/m² dose of CLR 131 as a 30-minute infusion, and was evaluated over the course of 85 days for safety and efficacy. All three patients in the cohort experienced clinical benefit with two patients achieving stable disease and one patient achieving a PR. One patient experiencing stable disease attained a 44 percent reduction in M protein. The patient experiencing a partial response had an 82 percent reduction in FLC. This patient did not produce M protein, received seven prior lines of treatment including radiation, stem cell transplantation and multiple combination treatments including one with daratumumab that was not tolerated.

"The encouraging data from Cohort 4 including the partial response and the DMC's determination that the 31.25 mCi/m² of CLR 131 was safe is impressive in light of the highly advanced disease and heavily pretreated patients within the cohort," said Jim Caruso, president and CEO of Cellestar Biosciences. "Given the preclinical and clinical data results we've seen to date, the company intends to advance the compound into a fifth cohort using a multi-dose regimen."

On April 27, 2017, the company reported that preclinical experiments providing multiple doses (two or three doses) of CLR 131 resulted in a statistically significant benefit in survival and tumor burden reduction compared to a single dose regimen. Therefore the company has now elected to advance with a multi-dose regimen, which may provide patients with enhanced clinical benefits and treatment outcomes.

About CLR 131

CLR 131 is an investigational compound under development for a range of hematologic malignancies. It is currently being evaluated as a single-dose treatment in a Phase 1 clinical trial in patients with relapsed or refractory (R/R) multiple myeloma (MM) as well as in a Phase 2 clinical trial for R/R MM and select R/R lymphomas with either a one- or two-dose treatment. CLR 131 represents a novel approach to treating hematological diseases and based upon preclinical and interim Phase 1 study data may provide patients with therapeutic benefits including, overall survival, an improvement in progression-free survival, and overall quality of life. CLR 131 utilizes the company's patented PDC™ tumor targeting delivery platform to deliver a cytotoxic radioisotope, iodine-131, directly to tumor cells. The FDA has granted Cellectar an orphan drug designation for CLR 131 in the treatment of multiple myeloma.

About Phospholipid Drug Conjugates™ (PDCs™)

Cellectar's product candidates are built upon its patented cancer cell-targeting delivery and retention platform of optimized phospholipid ether-drug conjugates™ (PDCs™). The company designed its phospholipid ether (PLE) carrier platform to be coupled with a variety of payloads to facilitate the discovery and development of improved targeted novel therapeutic compounds. The basis for selective tumor targeting of our PDC compounds lies in the differences between the plasma membranes of cancer cells compared to those of normal cells. Cancer cell membranes are highly enriched in lipid rafts, which are glycolipoprotein microdomains of the plasma membrane of cells that contain high concentrations of cholesterol and sphingolipids, and serve to organize cell surface and intracellular signaling molecules. PDCs™ have been tested in more than 80 different xenograft models of cancer.

About Cellectar Biosciences, Inc.

Cellectar Biosciences (Nasdaq:CLRB) 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, even sites of metastases. The company's lead therapeutic PDC, CLR 131, utilizes iodine-131, a cytotoxic radioisotope, as its payload. CLR 131 has been designated as an orphan drug by the US FDA and is currently being evaluated in a Phase 1 clinical study in patients with relapsed or refractory multiple myeloma and a Phase 2 clinical study to assess efficacy in a range of B-cell malignancies. The company is also developing proprietary PDCs for targeted delivery of chemotherapeutics and has several preclinical stage product candidates, and plans to expand its PDC chemotherapeutic pipeline through both in-house and collaborative R&D efforts. For more information please visit www.cellectar.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, 2016. 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, Inc.