



News Release

Positive Phase II Data on Cougar Biotechnology's CB7630 Presented at Prostate Cancer Foundation Scientific Retreat

Interim Phase II Results Support Efficacy of CB7630 (Abiraterone Acetate) in Advanced Prostate Cancer Patients

Los Angeles, CA, October 17, 2008 – Cougar Biotechnology, Inc. (NASDAQ: CGRB) today announced that results from an ongoing Phase II clinical trial of Cougar's investigational drug CB7630 (abiraterone acetate) were presented today at the Prostate Cancer Foundation Scientific Retreat. The Prostate Cancer Foundation Scientific Retreat is currently taking place in Lake Tahoe, Nevada.

The clinical trial of CB7630 was conducted at the University of Texas M.D. Anderson Cancer Center in order to investigate associations between serum and microenvironment (bone marrow) androgen concentrations and response to CB7630. In the trial, CB7630 in combination with prednisone was administered orally, once daily, to patients with castration resistant prostate cancer (CRPC), who had progressive disease despite treatment with LHRH analogues and multiple other therapies. All of the 44 patients who were enrolled in the trial had radiological evidence of metastatic disease with bone metastases. Thirty-eight patients (86%) had at least 10 metastatic bone lesions, 7 patients (16%) had metastases in the liver and 14 patients (32%) had lymph node metastases. Twenty-five (57%) of the 44 patients had received prior treatment with ketoconazole and/or diethylstilbesterol and 38 patients (86%) had received prior treatment with chemotherapy, with 27 patients (61%) having received two or more prior chemotherapy regimens before entering the trial.

In her poster presentation entitled, "Identification of an androgen withdrawal responsive phenotype among patients with castrate resistant prostate cancer (CRPC) treated with abiraterone acetate, a selective CYP17 inhibitor (COU-AA-BMA)," Dr. Eleni Efstathiou from the University of Texas MD Anderson Cancer Center presented data on the 41 evaluable patients treated in the trial. Of the 41 evaluable patients, 21 patients (51%) experienced a confirmed decline in prostate specific antigen (PSA) levels of greater than 50% with a median duration of 6+ months. In addition, 5 patients (12%) experienced PSA declines of greater than 90%. Of the 41 evaluable patients, 24 (59%) experienced an improvement in performance status.

Of the 16 evaluable patients with bone metastases, after 6 months of treatment 4 patients (25%) showed an improvement in their bone scan and 11 patients (69%) showed a stable bone scan. Also, 5 of 5 patients with lymph node metastases showed stable disease after 6 months of treatment with CB7630 and 1 of 2 patients with liver metastases demonstrated a partial radiological response (as measured by the RECIST criteria).

Both serum and bone marrow testosterone levels were measured before and after treatment with CB7630. A decline in both serum and bone marrow testosterone levels to below detectable levels (<10ng/ml) was seen in all patients in the trial. Also, patients with depleted baseline bone marrow testosterone levels (<10ng/ml) appeared to progress earlier when treated with CB7630 (p=0.05) compared to patients with measurable baseline bone marrow testosterone levels. Further examination of the bone marrow biopsies of patients treated with CB7630 in this study revealed both overexpression of androgen receptor and CYP17 overexpression.

Alan H. Auerbach, Chief Executive Officer and President of Cougar Biotechnology, said, "The data from our COU-AA-BMA trial of CB7630 presented at the Prostate Cancer Foundation Scientific Retreat continues to support the potential role of the drug in the treatment of CRPC. We continue to be pleased with the strong evidence of antitumor activity in patients with chemotherapy refractory disease, which represents a significant unmet medical need in prostate cancer."

Arturo Molina, M.D., M.S., FACP, Cougar's Chief Medical Officer and Executive Vice President of Clinical Research and Development, added, "We are pleased to present the results of this Phase II study and we are intrigued by its findings. The identification of CYP17 expression in CRPC tumor metastases and observation that both serum and bone marrow testosterone levels decline after CB7630 therapy suggests that treatment with CB7630 results in the inhibition of adrenal and intra-tumoral androgen synthesis."

About Cougar Biotechnology

Cougar Biotechnology, Inc. is a Los Angeles-based biotechnology company established to in-license and develop clinical stage drugs, with a specific focus on the field of oncology. Cougar's oncology portfolio includes CB7630, a targeted inhibitor of the 17-alpha hydroxylase/c17,20 lyase enzyme, which is currently being studied in a Phase III clinical trial in prostate cancer; CB3304, an inhibitor of microtubule dynamics, which is currently in a Phase I trial in multiple myeloma; and CB1089, an analog of vitamin D, which has been clinically tested in a number of solid tumor types.

Further information about Cougar Biotechnology can be found at www.cougarbiotechnology.com.

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are often, but not always, made through the use of words or phrases such as "anticipates," "expects," "plans," "believes," "intends," and similar words or phrases. These forward-looking statements include, without limitation, statements related to the benefits to be derived from Cougar's drug development programs, including the potential advantages of CB7630 and its potential for use in the treatment of CRPC and in second-line hormone and chemotherapy treatment settings. Such statements involve risks and uncertainties that could cause Cougar's actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are only predictions based on current information and expectations and involve a number of risks and uncertainties. Actual events or results may differ materially from those projected in any of such statements due to various factors, including the risks and uncertainties inherent in clinical trials, and drug development and commercialization, including the uncertainty of whether results of prior clinical trials of CB7630 will be predictive of results of later stage clinical trials, including Cougar's ongoing Phase III clinical trial, COU-AA-301. For a discussion of these and other factors, please refer to Cougar's annual report on Form 10-KSB for the year ended December 31, 2007, as well as other subsequent filings

with the Securities and Exchange Commission. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All forward-looking statements are qualified in their entirety by this cautionary statement and Cougar undertakes no obligation to revise or update this press release to reflect events or circumstances after the date hereof.

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