OXiGENE Announces Positive Phase Ib Update of CA4P with Radiotherapy at ASCO

-CA4P well tolerated with radiotherapy for lung and prostate cancers, anti-tumor activity observed-

WALTHAM, Mass.--(BUSINESS WIRE)--May 16, 2005--OXiGENE, Inc. (NASDAQ: OXGN, XSSE: OXGN) today announced that a clinical investigator studying the Company's lead vascular targeting agent, Combretastatin A4 Prodrug (CA4P), has noted that CA4P is well tolerated when combined with radiotherapy thus far in the Phase Ib portion of a planned Phase Ib/II combination trial of the compound in patients with advanced cancer. Some of these preliminary findings are contained in an abstract titled "CA4P plus Radiotherapy: Clinical Results" published for attendees of the 2005 American Society of Clinical Oncology Annual Meeting taking place May 13th-17th in Orlando, Florida.

The abstract reviews the status of the Phase Ib study of CA4P in combination with radiotherapy (RT) and details the first 20 patients entered into the study. Patients with inoperable, advanced non-small cell lung cancer (NSCLC), or prostate adenocarcinoma, who are eligible to receive RT were enrolled. The first two cohorts (6 patients per cohort) had NSCLC, and received RT over 3 weeks (27Gy in 6 fractions). Patients in the 3rd and 4th cohorts had prostate cancer, and received RT over 4 weeks (55Gy in 20 fractions). Patients in the 1st and 3rd cohorts received a single dose of CA4P at the completion of radiation treatment; patients in the 2nd and 4th cohorts received weekly CA4P for the duration of their RT. The authors conclude in the abstract that "CA4P is well tolerated when combined with RT. There was no increase in acute or late RT reaction, and no accumulation of toxicity with repeated doses."

In addition to the data presented in the abstract, the lead investigator of the study, Professor Peter Hoskin, from the Mount Vernon Cancer Centre in the United Kingdom, today noted that, "We have now enrolled a total of 24 patients in the study and have completed the original NSCLC patient cohorts as well as the prostate patient cohorts. In the prostate patients, as in the NSCLC patients, we have not seen any increased radiation reactions when CA4P is used. The side effects of CA4P observed to date continue to be been mild and self-limiting."

"As we reported at the ESTRO meeting last September, at the doses of CA4P we are using in this trial, clear evidence of blood flow shutdown has been seen in many of the tumors evaluated suggesting that the dose of CA4P we are using is biologically active and potentially synergistic with radiotherapy," Professor Hoskins continued. "Although it is too early to evaluate any prolonged response in the prostate patients we are very encouraged by the results seen in the NSCLC patients (Stage IIIB/IV) both in terms of the low toxicity, tumor response and patient survival in this cohort. Based on this positive early data we anticipate moving forward with OXiGENE towards approval for an international, multi-center randomized trial in late 2005."

"NSCLC accounts for 75%-80% of all lung cancers (172,000 estimated new cases in the U.S. in 2005(1)) and more than two thirds of patients with NSCLC will have with the most advanced stages (Stage IIIB or Stage IV) of the disease that are not curable with surgery(2). These new data on the combination of CA4P and radiotherapy show a good safety profile with no dose-limiting toxicities and early indications of both tumor response and patient survival," said Dr. Dai Chaplin, Chief Scientific Officer for OXiGENE. "We look forward to further studying this combination in a clinical trial with a larger patient population in a randomized setting."

The Phase Ib/II trial is designed to assess the safety and tolerability of CA4P when used in combination with radiotherapy in patients with NSCLC as well as advanced cancers of the prostate and head & neck. In addition, researchers are gathering preliminary data to determine the anti-tumor efficacy of the CA4P- radiotherapy combination.

About Combretastatin A4P (CA4P)

CA4P leads a novel class of drug candidates which have been referred to by OXiGENE as vascular targeting agents (VTAs). CA4P attacks the vascular structure of solid tumors and other diseases characterized by the formation of aberrant blood vessels. The compound triggers a change in the shape of the endothelial cells lining these blood vessels, in turn blocking the flow of blood to a tumor and depriving it of oxygen and nutrients essential to its survival. Similarly, in eye diseases that are characterized by abnormal blood vessel growth, CA4P has been shown in preclinical studies to suppress development and induce regression of these unnecessary blood vessels.

CA4P is currently being studied in seven clinical trials in oncology, including anaplastic thyroid, lung, head and neck, prostate, colorectal, ovarian, cervical cancers and other imageable tumor types. These clinical trials involve the use of CA4P in both single-agent and combination therapies. It is also currently being studied in a Phase I/II trial in wet age-related macular degeneration and a Phase II trial in myopic macular degeneration.

(1) www.cancer.gov
(2) Journal of Clinical Oncology March 2004

About OXiGENE, Inc.

OXiGENE is an emerging pharmaceutical company developing novel small-molecule therapeutics to treat cancer and eye diseases. The Company's major focus is the clinical advancement of drug candidates that selectively disrupt abnormal blood vessels associated with solid tumor progression and visual impairment. OXiGENE is dedicated to leveraging its intellectual property position and therapeutic development expertise to bring life saving and enhancing medicines to patients.

Safe Harbor Statement

Certain statements in this news release concerning clinical trials being conducted on OXiGENE's lead VTA, CA4P, are considered "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to: the timing and results of clinical development of CA4P; and the availability of resources to execute on critical corporate objectives over the next two years. Any or all of the forward-looking statements in this press release may turn out to be wrong. They can be affected by inaccurate assumptions OXiGENE might make or by known or unknown risks and uncertainties, including, but not limited to: the early stage of product development; the ability to secure necessary patents; uncertainties as to the future success of ongoing and planned clinical trials; and the unproven safety and efficacy of products under development. Consequently, no forward-looking statement can be guaranteed, and actual results may vary materially. Additional information concerning factors that could cause actual results to materially differ from those in the forward-looking statements is contained in OXiGENE's reports to the Securities and Exchange Commission, including OXiGENE's 10-Q, 8-K and 10-K reports. However, OXiGENE undertakes no obligation to publicly update forward-looking statements, whether because of new information, future events or otherwise.

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