OXiGENE Completes Enrollment of ZYBRESTAT Phase 2 Trial in Non-Small Cell Lung Cancer

Encouraging Safety and Outcome Data Recently Reported at the 2010 ASCO Annual Meeting

SOUTH SAN FRANCISCO, Calif., June 16, 2010 (GLOBE NEWSWIRE) -- OXiGENE, Inc. (Nasdaq:OXGN), a clinical-stage, biopharmaceutical company developing novel therapeutics to treat cancer and eye diseases, announced today that it has completed its targeted enrollment of 60 patients in the FALCON trial, a randomized, controlled Phase 2 study of ZYBRESTAT™ in patients with non-squamous non-small cell lung cancer (NSCLC). An updated safety and outcome analysis from this trial was recently presented at the 2010 Annual Meeting of the American Society of Clinical Oncology (ASCO) showing that trends towards improved outcomes were observed in response rate, progression-free survival and overall survival rates in the study arm (ZYBRESTAT combined with bevacizumab and carboplatin/paclitaxel chemotherapy) as compared with the control arm (bevacizumab and chemotherapy) of the trial. The combination regimen including ZYBRESTAT was observed to be well-tolerated with no significant cumulative toxicities when compared with the control arm of the study. OXiGENE anticipates that further data from the trial will be available later in 2010.

"We continue to be encouraged by the growing body of data showing that ZYBRESTAT has potential as an important cancer treatment based on its unique vascular disrupting mechanism of action and excellent combinability with other treatment modalities, including anti-angiogenic agents," said Peter Langecker, M.D., Chief Executive Officer at OXiGENE. "We look forward to presenting a more complete analysis of the FALCON trial later in 2010 at a scientific meeting. If the encouraging positive trends in terms of progression free survival and overall survival that we presented at ASCO are maintained, they will underscore ZYBRESTAT's utility in non-small cell lung cancer and potentially pave the way toward embarking upon a registration pathway. We appreciate the positive response to our data from the oncology community and plan to continue efforts to find a partner for later-stage development."

A copy of the ASCO presentation is available on OXiGENE's website at www.oxigene.com.

About ZYBRESTAT (fosbretabulin)

ZYBRESTAT is being evaluated in a Phase 2 study of patients with non-squamous non-small cell lung cancer and other clinical trials. OXiGENE believes that ZYBRESTAT is poised to become an important product in a novel class of small-molecule drug candidates called vascular disrupting agents. Through interaction with vascular endothelial cell cytoskeletal proteins, ZYBRESTAT selectively targets and collapses tumor vasculature, thereby depriving the tumor of oxygen and causing death of tumor cells. In clinical trials in solid tumors, ZYBRESTAT has demonstrated potent and selective activity against tumor vasculature, as well as clinical activity against anaplastic thyroid cancer, ovarian cancer and various other solid tumors.

About OXiGENE

OXiGENE is a clinical-stage biopharmaceutical company developing novel therapeutics to treat cancer and eye diseases. The Company's major focus is developing vascular disrupting agents

that selectively disrupt abnormal blood vessels associated with solid tumor progression and visual impairment. OXiGENE is dedicated to leveraging its intellectual property and therapeutic development expertise to bring life-extending and life-enhancing medicines to patients.

The OXiGENE, Inc. logo is available at
http://www.globenewswire.com/newsroom/prs/?pkgid=4969

Safe Harbor Statement

This news release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Any or all of the forward-looking statements in this press release, which include projected study outcomes, emerging oncology treatments and the expected conclusion of ongoing or initiation of new clinical studies may turn out to be wrong. Forward-looking statements can be affected by inaccurate assumptions OXiGENE might make or by known or unknown risks and uncertainties, including, but not limited to, the outcome of clinical studies and the availability of additional financing to continue development of ZYBRESTAT. 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 reports on Form 10-K, 10-Q and 8-K. However, OXiGENE undertakes no obligation to publicly update forward-looking statements, whether because of new information, future events or otherwise. Please refer to our Annual Report on Form 10-K for the fiscal year ended December 31, 2009.

CONTACT: OXiGENE, Inc.
Investor and Media Contact:
Michelle Edwards, Investor Relations
650-635-7006
medwards@oxigene.com