ZYBRESTAT(TM) Results Suggest Improvement in Overall Survival in Phase 2/3 Study in Anaplastic Thyroid Cancer

Median Overall Survival Extended by 1.2 Months for ZYBRESTAT Patients

One-Year Survival Almost Tripled With ZYBRESTAT Plus Chemotherapy Compared to Chemotherapy Alone (26% vs. 9%)

ZYBRESTAT Oral Presentation Included in "Best of ASCO®"

SOUTH SAN FRANCISCO, Calif., June 6, 2011 (GLOBE NEWSWIRE) -- OXiGENE, Inc. (Nasdaq:OXGN), a clinical-stage, biopharmaceutical company developing novel therapeutics to treat cancer and eye diseases, announced today that encouraging final results from a randomized, controlled, Phase 2/3 study of ZYBRESTAT (fosbretabulin tromethamine, or CA4P) in patients with anaplastic thyroid cancer (ATC) were presented today at the 2011 Annual Meeting of the American Society of Clinical Oncology (ASCO) meeting in Chicago, Illinois, by Julie Sosa, M.D., Associate Professor of Surgery and of Medicine at Yale University, and primary investigator in the study.

In this 80-patient study, the median overall survival (OS) time was 5.2 months for patients who received ZYBRESTAT and chemotherapy compared with 4.0 months for patients receiving chemotherapy alone (Hazard Ratio (95% CI) of 0.72 (0.43, 1.20)), representing a 28% reduction in the risk of death for patients receiving ZYBRESTAT and chemotherapy. For patients treated with ZYBRESTAT and chemotherapy, the likelihood of being alive at six months was 48% compared with 35% for patients treated with the control arm regimen. At one year, the likelihood of being alive was 26% for patients treated with ZYBRESTAT and chemotherapy compared with 9% for patients treated with chemotherapy alone. As in other studies of ZYBRESTAT, the most clinically relevant side effects reported in the study were neutropenia, transient hypertension, clinically asymptomatic QTc prolongation and tumor pain.

"The final FACT data suggest that patients treated with fosbretabulin plus chemotherapy experienced clinically meaningful increases in overall survival, which is a highly encouraging outcome in a patient population that has historically shown a survival rate of less than one year," said Dr. Sosa. "The suggestion of survival benefit is especially noteworthy given how quickly this cancer develops, and the observation that patients in this trial who experienced the most meaningful clinical benefit included those with poor prognostic factors and larger, more advanced tumors."

"We believe that the final data from the FACT study being presented here at ASCO confirm our earlier analyses suggesting that ZYBRESTAT may represent a potential future treatment option for ATC patients who currently have very few treatment choices for this very aggressive disease," said Peter J. Langecker, M.D., Ph.D., OXiGENE Chief Executive Officer. "We are hopeful that results presented today and featured in the "Best of ASCO" presentations will help to continue to build interest in ZYBRESTAT among potential pharmaceutical partners and the broader oncology community."

ZYBRESTAT is a vascular disrupting agent (VDA), and one of a novel class of small-molecule drug candidates. 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 shown potent and selective activity against tumor vasculature, as well as possible clinical activity against ATC, ovarian cancer and various other solid tumors.

ZYBRESTAT has received orphan drug designation for the treatment of anaplastic thyroid cancer, medullary thyroid cancer, and stage IV papillary or follicular thyroid cancer.

Phase 2/3 Study Key Results

The FACT Study is a randomized, controlled Phase 2/3 study investigating the addition of ZYBRESTAT to chemotherapy (carboplatin and paclitaxel) in patients with anaplastic thyroid cancer. A total of 80 patients were enrolled in the study, with 55 in the ZYBRESTAT + chemotherapy arm and 25 in the chemotherapy arm. The treatment arms were well balanced with regard to key patient characteristics except for a greater percentage of females in the control arm. Patients in the study arm received ZYBRESTAT each week and chemotherapy on day 2 of treatment every three weeks. Patients in the control arm received chemotherapy every three weeks. Patients in the study arm could elect to receive ZYBRESTAT as maintenance therapy after completing 6 cycles of therapy without progression. Maintenance therapy continued until disease progression.
Key Study Results

- Median overall survival time of 5.2 months for patients receiving ZYBRESTAT and chemotherapy, compared with 4.0 months for patients receiving chemotherapy alone (HR (95% CI) of 0.72 (0.43, 1.20)).
- The likelihood of 1-year survival almost tripled with ZYBRESTAT and chemotherapy vs. chemotherapy only (26% vs. 9%).
- Suggestion of improved survival in patients with poor prognostic factors, such as stage IVC disease and with tumors greater than 6 cm in size, suggesting greater antitumor activity in more advanced tumors.
- ZYBRESTAT in combination with chemotherapy appeared to be well tolerated, with adverse events primarily related to ATC and disease progression. Myelosuppression was more common in patients receiving ZYBRESTAT and chemotherapy, but rates of febrile neutropenia were equally low in both arms. As a result of work done in earlier studies, hypertension management guidelines were implemented and have reduced significant ZYBRESTAT-induced hypertension and cardiac ischemia.

A copy of the ASCO presentation, titled, "A randomized phase II/III trial of a tumor vascular disrupting agent fosbretabulin tromethamine (CA4P) with carboplatin (C) and paclitaxel (P) in anaplastic thyroid cancer (ATC): Final survival analysis for the FACT trial," is available on OXiGENE's website at www.oxigene.com.

The FACT oral presentation has been selected for inclusion in the Best of ASCO® program, which will be held shortly after the ASCO Annual Meeting. The Best of ASCO is an educational initiative that condenses highlights from ASCO's Annual Meeting into a two-day program and is intended to increase global access to cutting-edge science. Abstracts were selected according to specific criteria and reflect research that is relevant and significant in oncology today. In addition to two domestic Best of ASCO meetings in Miami and Seattle, there will also be approximately eighteen International Best of ASCO Meetings and various ASCO-licensed packages.

About ZYBRESTAT (fosbretabulin tromethamine)

ZYBRESTAT is being evaluated in studies of patients with ATC, non-squamous non-small cell lung cancer and platinum-sensitive ovarian cancer. OXiGENE believes that ZYBRESTAT is poised to become an important therapeutic option 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 possible clinical activity against anaplastic thyroid cancer, ovarian cancer and 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 possible outcomes of clinical studies involving ZYBRESTAT, regulatory outcomes or interest among potential partners 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, 2010.

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