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OXiGENE Reports First Quarter 2010 Financial Results

South San Francisco, CA -- May 11, 2010 -- OXiGENE, Inc. (NASDAQ: OXGN, XSSE: OXGN), a clinical-stage, biopharmaceutical company developing novel therapeutics to treat cancer and eye diseases, reported financial results for the quarter ended March 31, 2010, and presented an update on recent clinical and corporate progress.

Financial Results

The Company reported a consolidated net loss for the first quarter of 2010 of $ 11.0 million compared with $6.6 million for the same three month period of 2009. In the three month period ended March 31, 2009, the consolidated net loss of $6.6 million included a loss attributed to the Symphony ViDA non-controlling interest of approximately $1.0 million. The net loss attributed to OXiGENE, Inc. for the first quarter of 2010 was $ 11.0 million, or $0.17 per share, compared with a net loss attributed to OXiGENE, Inc. of $5.6 million, or $0.12 per share, for the same period in 2009.

On a consolidated net loss basis, a decrease in research and development expenses of approximately $0.7 million for the 2010 three month period compared to the same three month period of 2009, was offset by a non-recurring restructuring charge of approximately $0.5 million in the first quarter of 2010 in connection with OXiGENE's efforts to focus its resources on its highest-value clinical assets and reduce its cash utilization and an increase in the fair value of warrants resulting in a non-cash, non-operating loss of approximately $4.6 million in the three month period ended March 31, 2010.

At March 31, 2010, OXiGENE had consolidated cash and cash equivalents of approximately $14.2 million compared with approximately $14.1 million at December 31, 2009.

"In the first quarter, OXiGENE made good progress toward our goals of strengthening our company, focusing clinical resources on our most promising product candidates, reducing cash utilization and extending our cash runway," said Peter J. Langecker, M.D., Ph.D., OXiGENE's Chief Executive Officer. "We look forward with enthusiasm to presenting data on our high-priority clinical programs at the American Society of Clinical Oncology (ASCO) annual meeting, including safety and efficacy data from our Phase 2 trial of ZYBRESTAT™ in non-small cell lung cancer (NSCLC) and data from our Phase 1b trial of OXi4503 in solid tumors. We believe that today OXiGENE has a strong pipeline and a competitive position in the field of vascular disrupting agents in cancer, and we are the only company clinically evaluating a vascular disrupting agent in an ophthalmologic indication. We anticipate multiple value-creating

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opportunities in 2010, including the potential to establish industry partnerships that will enhance our ability to deliver on the promise of our programs."

Corporate Highlights

- In February, the Company announced the streamlining of its operations in order to focus more closely on advancing its high-priority programs, including the Phase 2 FALCON trial of ZYBRESTAT in patients with non-small cell lung cancer and second-generation OXi4503 program in solid tumors. Enrollment in the FACT trial in anaplastic thyroid cancer (ATC) was discontinued and an event-driven analysis based on 80 patients enrolled to date is anticipated by the end of 2010 or early 2011.

- In March, the Company announced its entry into a definitive agreement with certain institutional investors to raise approximately $7.5 million, which includes the potential for additional capital should the warrants issued in conjunction with the deal be exercised. The net proceeds from the offering will be used to fund development of OXiGENE's high-priority oncology programs and to continue its programs in ATC and in ophthalmology.

- In April, the Company appointed Tamar Howson and Peter Langecker to OXiGENE's Board of Directors. Ms. Howson brings considerable pharmaceutical business development and licensing expertise to the OXiGENE Board.

- Upcoming highlights in the second quarter include the presentation of FALCON data and OXi4503 Phase 1 data at the ASCO annual meeting in June.

Conference Call Today

Members of OXiGENE's management team will review first quarter results via a webcast and conference call today at 4:30 p.m. EDT (1:30 p.m. PDT). To listen to a live or an archived version of the audio webcast, please log on to the Company's website, www.oxigene.com. Under the "Investors" tab, select the link to "Events and Presentations."

OXiGENE's earnings conference call can also be heard live by dialing (888) 841-3431 in the United States and Canada, and +1 (678) 809-1060 for international callers, five minutes prior to the beginning of the call. A replay will be available starting at 7:30 p.m. EDT, (4:30 p.m. PDT) on May 11, 2010 and ending at midnight EDT (9:00 p.m. PDT) on Tuesday, May 25, 2010. To access the replay, please dial (800) 642-1687 if calling from the United States or Canada, or +1 (706) 645-9291 from international locations. Please refer to replay pass code 73237663.

About ZYBRESTAT (fosbretabulin)

ZYBRESTAT is being evaluated in a Phase 2 study of patients with 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 (VDAs). 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 ATC, ovarian cancer and various other solid tumors.

About OXi4503

OXi4503 (combretastatin A1 di-phosphate / CA1P) is a dual-mechanism vascular disrupting agent (VDA) that is being developed in clinical trials for the treatment of solid tumors. Like its structural analog, ZYBRESTAT(TM) (fosbretabulin / CA4P), OXi4503 has been observed to block and destroy tumor vasculature, resulting in extensive tumor cell death and necrosis. In addition, preclinical data indicate that OXi4503 is metabolized by oxidative enzymes (e.g., tyrosinase and peroxidases), which are elevated in many solid tumors and tumor white blood cell infiltrates, to an orthoquinone chemical species that has direct cytotoxic effects on tumor cells. Preclinical studies have shown that OXi4503 has (i) single-agent activity against a range of xenograft tumor models; and (ii) synergistic or additive effects when incorporated in various combination regimens with chemotherapy, molecularly-targeted therapies (including tumor-angiogenesis inhibitors), and radiation therapy. OXi4503 is currently being evaluated as a monotherapy in a Phase 1 dose-escalation trial in patients with advanced solid tumors and in patients with hepatic tumor burden.

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 (VDAs) 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.

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 OXiGENE’s anticipated cash utilization, expected initiation, progress, conclusion and reporting on clinical studies and availability of potential strategic collaborations 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, timing of reporting interim and final data from the Phase 2 clinical trial of ZYBRESTAT in NSCLC, timing of reporting data from the Phase 2/3 clinical trial of ZYBRESTAT in

ATC, timing of reporting final results from the ongoing Cancer Research United Kingdom sponsored Phase 1 clinical trial of OXi4503 in patients with advanced solid tumors and timing or execution of a potential strategic collaboration on any product or indication or any other strategic or financing transaction. 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.

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OXiGENE, Inc.
Condensed Consolidated Balance Sheets
(All amounts in 000's)
(Unaudited)

	March 31, 2010	December 31, 2009
Assets		
Cash and cash equivalents	$ 14,154	$ 14,072
Prepaid expenses	767	752
License agreement	460	484
Other assets	352	309
Total assets	$ 15,733	$ 15,617
Liabilities and stockholders' equity		
Accounts payable and accrued liabilities	$ 7,136	$ 7,618
Derivative liabilities	14,372	2,200
Total stockholders' equity	(5,775)	5,799
Total liabilities and stockholders' equity	$ 15,733	$ 15,617

OXiGENE, Inc.
Condensed Consolidated Statements of Operations
(All amounts in 000's except per share amounts)
(Unaudited)

	Three months ended March 31,	
	2010	2009
Costs and expenses:		
Research and development	$ 4,185	$ 4,925
General and administrative	1,703	1,708
Restructuring	510	-
Total costs and expenses	6,398	6,633
Operating loss	(6,398)	(6,633)
Change in fair value of warrants	(4,633)	(8)
Investment income	7	52
Other (expense) income, net	(4)	14
Consolidated net loss	$ (11,028)	$ (6,575)
Loss attributed to non controlling interest	-	(1,023)
Net loss attributed to OXiGENE Inc.	$ (11,028)	$ (5,552)
Basic and diluted net loss per common share	$ (0.17)	$ (0.12)
Weighted average number of common shares outstanding	64,441	46,008