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OXiGENE ADDS TWO NEW DIRECTORS TO ITS BOARD

WALTHAM, Mass -- June 27, 2007 -- OXiGENE, Inc. (NASDAQ: OXGN, XSSE: OXGN), a clinical-stage biopharmaceutical company developing novel therapeutics to treat cancer and eye diseases, announced today that the Company has added two new members to its Board of Directors. The addition of Roy Hampton Fickling and William D. Schwieterman, M.D., as Directors brings the total number of OXiGENE Directors to nine.

Dr. Schwieterman is a board-certified internist and a rheumatologist, and was formerly Chief of the Medicine Branch and Chief of the Immunology and Infectious Disease Branch in the Division of Clinical Trials at the Food and Drug Administration (FDA). In these capacities and others, Dr. Schwieterman spent 10 years at the FDA in the Center for Biologics overseeing a wide range of clinical development plans for a large number of molecules. He worked with sponsors for the development of new agents for pulmonary medicine, neurology, sepsis, hepatitis, rheumatology, infectious disease, solid organ transplantation and wound-healing, among other areas, and also worked closely with reviewers of vaccines, devices (CDRH) and oncologic products. Dr. Schwieterman also helped author the FDA's "Good Review Practices" for investigational products, and was instrumental in the development of several guidance documents. Dr. Schwieterman is now an independent consultant to biotech and pharmaceutical companies specializing in clinical development.

Mr. Fickling is the owner and President of Fickling & Company, Inc., a Macon, GA-based regional real estate development, brokerage, management and consulting firm, and a Director of several closely held investment and operating companies. In the past, he was a founding Director of Rivoli Bank & Trust, of Macon and of Beech Street, U.K., Ltd. of London, England, an international healthcare administration firm. He was a major shareholder and advisor to Beech Street Corporation, the largest private PPO network, prior to its acquisition by Concentra, Inc. in 2005. Prior to forming Fickling & Company, Mr. Fickling was employed by Charter Medical

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Corporation where he worked in the administration of both a medical surgical hospital and a psychiatric hospital.

Joel Citron, Chairman of the Board, stated, "I am pleased to welcome Mr. Fickling and Dr. Schwieterman to OXiGENE's Board of Directors. Roy's track record as a highly regarded businessman and his experience with the healthcare providers and payors will be an important addition to OXiGENE's board. Bill has extensive experience at senior levels of the FDA, as well as expertise on clinical trials and regulatory strategy."

Richard Chin, M.D., the Chief Executive Officer stated, "We look forward to working with Mr. Fickling and Dr. Schwieterman as we mature the pipeline with a goal of bringing important products to the market. Experience from the payor perspective and from the regulatory perspective will be very helpful to the company as we transition into a late clinical stage company and beyond."

About OXiGENE, Inc.

OXiGENE is a clinical-stage biopharmaceutical 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

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, including those relating to the successful completion of planned clinical trials and product approvals by the FDA 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. 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 Form 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. Please refer to our Annual Report on Form 10-K for the fiscal year ended December 31, 2006.

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