

Xencor Receives Milestone Payment from Merck for Initiation of Phase 1 Clinical Trial of a Biologic Candidate using XmAb® Antibody Engineering Intellectual Property

MONROVIA, Calif., April 10, 2014 — Xencor, Inc. (NASDAQ: XNCR), a clinical-stage biopharmaceutical company developing engineered monoclonal antibodies for the treatment of autoimmune diseases, asthma and allergic diseases, and cancer, today announced that the company has received a milestone payment from Merck, through a subsidiary, triggered by the initiation of a Phase 1 clinical trial for an undisclosed biologic drug candidate that uses Xencor's XmAb® antibody engineering intellectual property.

"Merck's program is the sixth drug candidate using our XmAb intellectual property currently in clinical trials and is the latest example of our technology offering partners an opportunity to create best-in-class therapeutics," said Bassil Dahiyat, Ph.D., President and CEO of Xencor. "By selectively licensing our XmAb technology, we believe we create value in non-core areas, thus allowing us to focus on advancing our key internal development programs."

Under the terms of the agreement signed in June 2013, Xencor granted Merck a non-exclusive license to certain Xencor patents for use in an undisclosed product, as well as an option to license the same intellectual property for future products. Xencor received an upfront payment and continues to receive annual maintenance fees. Xencor is also eligible to receive milestone payments associated with the successful development of Merck product candidates, as well as royalties on sales of any potential products that may result from this agreement.

About XmAb® Antibody Engineering Technology

In contrast to conventional approaches to antibody design that focus on the Fv domain responsible for binding to target cells, Xencor's XmAb® antibody engineering technology focuses on the Fc domain, the portion of the antibody that interacts with multiple segments of the immune system. Xencor's XmAb® Fc domains have shown an ability in preclinical and clinical studies to enhance antibody performance while typically maintaining over 99.5% identity in structure and sequence to natural antibodies. This design allows our engineered antibodies to retain the beneficial stability, pharmacokinetics and ease of discovery of natural antibodies, while utilizing validated methods for antibody manufacturing.

About Xencor, Inc.

Xencor is a clinical-stage biopharmaceutical company developing engineered monoclonal antibodies for the treatment of autoimmune diseases, asthma and allergic diseases, and cancer. Currently, six candidates are in clinical development internally and with partners that have been engineered with Xencor's XmAb® technology. Xencor's internally-discovered programs include XmAb5871, in Phase 1b/2a clinical trials for the treatment of Rheumatoid arthritis and lupus, XmAb7195 in preclinical development for the treatment of asthma, and XmAb5574/MOR208 which has been licensed to Morphosys AG and is in Phase 2 clinical trials for the treatment of acute lymphoblastic leukemia and non-Hodgkin lymphoma. Xencor's XmAb antibody engineering technology enables small changes to the structure of monoclonal antibodies resulting in new mechanisms of therapeutic action. Xencor partners include Amgen, Merck, Janssen R&D LLC, Alexion and Boehringer Ingelheim.

For more information, please visit www.xencor.com.

Forward Looking Statements

Certain statements included in this press release may be considered forward-looking, including the quotation from our President and CEO and any expectations relating to our clinical trials or our capital requirements. Such statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from those implied by such statements, and therefore these statements should not be read as guarantees of future performance or results. All forward-looking statements are based on Xencor's current beliefs as well as assumptions made by and information currently available to Xencor and relate to, among other things, anticipated financial performance, business prospects, strategies,

regulatory developments, clinical trial enrollment and results, market acceptance and future commitments. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Due to risks and uncertainties, including the risks and uncertainties identified by Xencor in its public securities filings; actual events may differ materially from current expectations. Xencor disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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