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Xenetic Biosciences Completes Enrollment of Second Cohort in Phase 2a Study with ErepoXen® for Anemia; Hemoglobin Levels Rise into Therapeutic Range over Time

ErepoXen well tolerated with no significant treatment-related adverse events

Compound uses Patented PolyXen® Technology for a "Biobetter" Recombinant Erythropoietin

LEXINGTON, Mass.-- **Xenetic Biosciences, Inc. (OTCBB:XBIO**), a biopharmaceutical company focused on developing next-generation biologic drugs and novel oncology therapeutics, announces that it has completed enrollment of the second cohort of its Phase 2a dose-escalation study with ErepoXen® for the treatment of anemia in pre-dialysis chronic kidney disease patients. The patients enrolled in this cohort receive a biweekly injection of ErepoXen until hemoglobin levels reach therapeutic levels. The patients then receive injections of ErepoXen every 4 weeks during maintenance for a total trial time of 17 weeks. Eight of the 12 patients enrolled in this cohort have completed treatment.

The data show that hemoglobin levels increased over time and rose into the therapeutic range. This compares with the first cohort of 12 patients, which showed an increase in hemoglobin levels over the course of the 17-week study but did not significantly penetrate the desired therapeutic level. In both cohorts ErepoXen was well tolerated and there were no significant adverse results deemed related to treatment. The study was conducted at 10 treatment sites, including eight in Australia and two in New Zealand.

Professor Simon D Roger M.D., FRACP, Director of Renal Medicine, Gosford Hospital, New South Wales, Australia and principal investigator of the study, said, "The results achieved with ErepoXen in these chronic kidney disease patients confirm the efficacy of this biopharmaceutical and should lead to continued study of this compound. We have begun the process of preparing for the third cohort and determining the dose and interval for administration to be studied in this group. We are very encouraged about the potential for ErepoXen to treat these patients and look forward to providing additional data on the third cohort in 2015."

"We have made tremendous progress with ErepoXen in the treatment of anemia in chronic kidney disease patients," said M. Scott Maguire, chief executive officer of Xenetic Biosciences. "We will provide the data generated in our study in Australia and New Zealand to the U.S. Food and Drug Administration to support a registration trial in the U.S. In

addition, the work our license partners are doing in Russia and India provides us with additional confidence in our pathway seeking regulatory approval. The global market for anemia drugs exceeds $7 billion annually, and we believe ErepoXen will be a very attractive licensing asset in the U.S., Europe and Japan should data generated in current studies continue to be so compelling."

About ErepoXen

ErepoXen® is a polysialylated form of recombinant erythropoietin (EPO), a hormone produced by the kidneys to maintain red blood cell production and prevent anemia. Chronic renal failure or chemotherapy can cause anemia. ErepoXen is designed to reduce the required frequency of dosage, side effects and to be less immunogenic than existing treatments. Clinical results of ErepoXen suggest that the drug candidate can be administered once a month. ErepoXen is currently in Phase 2/3 clinical development in collaboration with the Serum Institute of India and SynBio, Russia.

About Xenetic Biosciences

Xenetic Biosciences is a biopharmaceutical company developing next-generation biologic drugs and novel oncology therapeutics. Xenetic's proprietary drug technology platforms include PolyXen® for creating next-generation biologic drugs by extending the efficacy, safety and half-life of biologic drugs, and OncoHist® for the development of novel oncology drugs focused on orphan indications. Xenetic's lead product candidates include ErepoXen®, an improved, polysialylated form of recombinant erythropoietin (EPO) for the treatment of anemia in pre-dialysis patients with chronic kidney disease, and OncoHist®, a recombinant human histone H1.3 molecule which Xenetic is developing for the treatment of refractory acute myeloid leukemia (AML). Xenetic is developing a novel series of polysialylated blood coagulation factors through its license agreement with Baxter International Inc. Xenetic is also developing a broad pipeline of clinical candidates for next-generation biologics and novel oncology therapeutics in a number of orphan disease indications. For more information, please visit www.xeneticbio.com.

Forward-Looking Statements

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including but not limited to, the potential safety, tolerability and efficacy of our product candidates and the advancement of our clinical trials. Forward-looking statements can be identified by terminology such as "anticipate," "believe," "could," "could increase the likelihood," "estimate," "expect," "intend," "is planned," "m-ay," "should," "will," "will enable," "would be expected," "look forward," "may provide," "would" or similar terms, variations of such terms or the negative of those terms. Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, the risk of cessation or delay of any of the ongoing or planned clinical trials and/or our development of our product candidates, the risk that the results of previously conducted studies involving similar product candidates will not be repeated or observed in ongoing or future studies involving current product candidates, the risk that our collaboration with Baxter will not continue or will not be successful, and the risk that any one or more of our product candidates will not be

successfully developed and commercialized. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our Annual Report on Form 10-K, as well as discussions of potential risks, uncertainties, and other important factors in our subsequent filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release, and Xenetic undertakes no duty to update this information unless required by law.

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