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Xenetic Biosciences Partner Completes First Patient Cohort in Phase 2 Study with MyeloXen™ for Multiple Sclerosis

Novel vaccine uses proprietary Xenetic Biosciences' Patented ImuXen® Technology

LEXINGTON, Mass.-- **Xenetic Biosciences, Inc. (OTCBB:XBIO**), a biopharmaceutical company focused on developing next-generation biologic drugs and novel oncology therapeutics, announces that its license partner Pharmsynthez has completed dosing in patients in its Phase 2 clinical study with MyeloXen™ in patients with relapsing remitting and secondary progressive (RRSP) multiple sclerosis (MS).

This study is being performed in Russia and has enrolled a total of 26 patients in three cohorts. The first cohort, in which results were reported last year, consisted of single dose of MyeloXen in six healthy volunteers. MyeloXen was well tolerated and the data allowed progression into the remaining cohorts. The second and third cohorts include patients with RRSP with Expanded Disability Status Scale (EDSS) of ≥3.0 and ≤5.5, not less than one attack during the previous year and failure of previous immunomodulation and/or immunosuppression therapy. Patients were given six multiple escalating doses weekly from 50 up to 900 µg. Of the 20 patients enrolled, 19 finished the trial. Fifteen of the 19 patients who completed the trial have completed the follow up period. MyeloXen was well tolerated at multiple doses up to 900 µg. Follow up of all patients and data analysis will be complete in the first quarter of 2015.

"Early data in this dose-escalation study on a novel vaccine for MS are promising and we look forward to Pharmsynthez completing the study and providing us with additional data on this this study," said M. Scott Maguire, chief executive officer of Xenetic Biosciences. "Our company's business strategy is to de-risk drug development by utilizing clinical data generated by our partners in Russia and India- who are also our shareholders- before advancing these clinically vetted drug candidates into clinical trials in the U.S. We currently have 12 drug candidates outlicensed to our Russian and Indian partners, which provides a potentially significant pipeline for the company. We are pleased to see that MyeloXen holds potential to broaden our product pipeline, which includes ErepoXen®, currently in a Phase 2 study in Australia and New Zealand with potential benefits over current marketed erythropoiesis-stimulating agents, and OncoHist®, for which we plan to begin a Phase 2a study in the U.S. in the first half of next year for the treatment of acute myeloid leukemia as well as another undisclosed orphan cancer indication. In total we now have clinical data reported from partners on six novel drugs and vaccines covering eight indications. We expect to be reporting additional clinical data on other programs by the end of the year."

About ImuXen and MyeloXen

ImuXen® is a patented platform technology based on the concept of simultaneous delivery of multiple active pharmaceutical ingredients (APIs) as antigens within the same liposome. The liposomes are comprised of lipids that encapsulate an aqueous core. The APIs can be trapped in the core, be associated with the lipids, or both. Proteins, peptides, nucleic acids, polysaccharides and live or inactivated infectious agents can all be used as an API with the same liposome. Both the size and the lipid composition can be controlled, which affects the biological properties of the liposome.

Manufacturing involves the passive entrapment of the vaccine APIs by freeze-drying commercially available liposomes with the antigens of interest. Having multiple APIs formulated with the same liposome allows simultaneous delivery of the antigens to the same antigen-presenting cell. This may allow for a more efficient immune response to all the agents presented. In addition, it is possible that multiple vaccines can be delivered with a single injection. Relevant preclinical studies have indicated a reduction in the required dose, a reduction in the number of doses and a faster immune response time. This efficient immune response may also allow for the use of antigens that traditionally give a poor antibody response.

A Phase 1/2 clinical trial to treat relapsing remitting multiple sclerosis and secondary progressive multiple sclerosis is underway in the Russian Federation. Peptides corresponding to antigenic sections of basic myelin protein were encapsulated within liposomes to be used as the therapeutic agent (MyeloXen™). Administration of MyeloXen™ to patients has occurred and follow-up monitoring is in progress.

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 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.

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