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Xenetic Biosciences Announces Collaboration with Excivion Ltd., UK, to Develop a Novel Combined Zika and Dengue Vaccine

- Xenetic's proprietary IMUXEN™ Technology will be used to develop the combined vaccine -

LEXINGTON, Mass.-- Xenetic Biosciences, Inc. (OTCQB: XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company developing next-generation biologic drugs and novel orphan oncology therapeutics, today announced that it has commenced a collaboration with Excivion Ltd. ("Excivion") to develop a vaccine against Zika and dengue viruses. As part of the collaboration, Xenetic's proprietary IMUXEN™ Technology will be used to develop the vaccine. Excivion is a private UK company that has developed a proprietary antigen design platform for viral vaccines which it is applying to flavivirus infections.

Commenting on the collaboration, Scott Maguire, CEO of Xenetic, stated, "We are very pleased to be working with Excivion to develop this important vaccine that will be designed to address these serious pandemic diseases that have spread worldwide. There is a growing sense of urgency for a solution since the unexpected emergence of Zika in Florida, which now represents a real and immediate threat in the United States.

The collaboration exploits a new paradigm in rational vaccine design pioneered by Excivion, based on an understanding of the interacting epidemiology of these diseases, with great potential for synergy with Xenetic's IMUXEN™ vaccine delivery platform. Importantly, this platform enhances the potency of vaccine antigens and provides for cold-chain-free distribution and stockpiling of vaccines for pandemic emergencies."

According to the Centers for Disease Control, Zika and dengue viruses are responsible for a serious burden of morbidity and mortality across the globe. Dengue infection can give rise to a potentially fatal hemorrhagic fever. These concerns were accentuated recently by formal recognition that Zika infection of pregnant women is linked to the occurrence of 'microcephaly' resulting in an underdeveloped brain in their offspring, as well as Guillain-Barré syndrome (an autoimmune disorder of the peripheral nervous system) in adults. Commentators have noted that some dengue vaccines in development before the emergence of Zika may have the potential to worsen Zika infection. The present vaccine is expressly designed to avoid that risk.

Commenting on the potential synergy of the IMUXEN™ and antigen-design platforms, Peter Laing, CEO of Excivion, stated, "Xenetic's IMUXEN™ delivery platform provides simultaneously a prime and boost effect with a single shot of vaccine. This remarkable

feature is ideal for our purpose, because dengue and Zika vaccines are required to stimulate strong and long-lasting immune responses. We are pleased that the present collaboration with Xenetic provides access to this powerful technology and grateful for the generous support and validation of the UK Government who are funding this work via a contract under the Small Business Research Initiative (SBRI) from the UK's innovation agency, Innovate UK."

About Excivion

Excivion is a UK-based biotechnology company developing solutions to the present and emerging healthcare needs of society that are sustainable and affordable by healthcare systems in the face of competing priorities imposed by an ageing population and the emergence of pandemic diseases. Excivion is producing novel vaccines that can be used to prevent emerging pandemic infectious diseases and to prevent and treat chronic diseases of ageing. Vaccines, historically, have proven the most cost-effective solution to disease prevention, but also have a formidable potential to treat diseases once they have arisen. Excivion is in the vanguard of a new pharmaceutical model for this changing world in which vaccines feature globally in both disease-prevention and in the treatment of chronic diseases. www.excivion.com

About Xenetic Biosciences

Xenetic Biosciences, Inc. is a biopharmaceutical company developing next-generation biologic drugs and novel oncology therapeutics. Xenetic's proprietary drug technology platforms include PolyXen®, designed to develop next generation biologic drugs by extending the efficacy, safety and half-life of biologic drugs.

Xenetic's lead product candidates include ErepoXen™, a polysialylated form of erythropoietin for the treatment of anemia in pre-dialysis patients with chronic kidney disease, and FDA orphan designated oncology therapeutics Virexxa™ and Oncohist™ for the treatment of progesterone receptor negative endometrial cancer and refractory Acute Myeloid Leukemia.

Xenetic is also working together with Shire plc (formerly Baxalta Incorporated, a spinoff of the biopharmaceuticals business from Baxter Healthcare SA and Baxter Healthcare Corporation) to develop a novel series of polysialylated blood coagulation factors, including a next generation Factor VIII. This collaboration relies on Xenetic's PolyXen technology to conjugate polysialic acid ("PSA") to therapeutic blood-clotting factors, with the goal of improving the pharmacokinetic profile and extending the active life of these biologic molecules. Shire is one of the Company's largest shareholders having invested $10M in the common stock of the Company during 2014. The agreement is an exclusive research, development and license agreement which grants Shire a worldwide, exclusive, royalty-bearing license to Xenetic's PSA patented and proprietary technology in combination with Shire's proprietary molecules designed for the treatment of blood and bleeding disorders. Under the agreement, Xenetic may receive regulatory and sales target payments for total potential milestone receipts of up to $100 million plus royalties on sales.

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 the company's website at www.xeneticbio.com and connect on Twitter, LinkedIn, Facebook and Google+.

Forward-Looking Statements

This press release contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," and other words of similar meaning, including statements regarding expected benefits of NGS cancer panels, the ability to accurately determine the heritable factors increasing the risk of cancer, permitting tailored treatment, screening and prevention of cancer in patients, as well as other non-historical statements about our expectations, beliefs or intentions regarding our business, technologies and products, financial condition, strategies or prospects. Many factors could cause our actual activities or results to differ materially from the activities and results anticipated in forward-looking statements. These factors include those described in our filings with the Securities and Exchange Commission, as well as the risks inherent in funding, developing and obtaining regulatory approvals of new, commercially-viable and competitive products and treatments. In addition, forward-looking statements may also be adversely affected by general market factors, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new products and indications, manufacturing issues that may arise, patent positions and litigation, among other factors. The forward-looking statements contained in this press release speak only as of the date the statements were made, and we do not undertake any obligation to update forward-looking statements. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA.

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