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Xenetic Biosciences, Inc. Announces Research and Development Collaboration with The Scripps Research Institute to Advance DNase Platform

- Collaboration provides a significant step forward in the advancement of Xenetic's DNase-based oncology program towards Phase 1 clinical development

- Systemic DNase program initially targeting multi-billion-dollar indications including pancreatic carcinoma

FRAMINGHAM, MA / ACCESSWIRE / April 11, 2023 /Xenetic Biosciences, Inc. (NASDAQ:XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company focused on advancing innovative immune-oncology technologies addressing hard to treat cancers, today announced it has entered into a Research Funding and Option Agreement (the "Agreement") with The Scripps Research Institute ("TSRI") to advance the development of the Company's systemic DNase program as well as its DNase-armored CAR T program. The systemic DNase program is expected to be evaluated in combination with existing therapies for the potential treatment of pancreatic carcinoma and other solid tumor indications.

Xenetic's DNase-based oncology platform is designed to target neutrophil extracellular traps ("NETs"), which are weblike structures composed of extracellular chromatin coated with histones and other proteins. NETs are expelled by activated neutrophils, in response to microbial or pro-inflammatory challenges. However, excessive production or reduced clearance of NETs can lead to aggravated inflammatory and autoimmune pathologies, as well as creation and support of pro-tumorigenic niches in the case of cancer growth and metastasis, thereby potentially limiting response to therapy.

"Scripps has been a long-standing valued collaboration partner of ours and we are pleased to further extend our relationship through this agreement for our DNase-based oncology platform. We believe that the team at Scripps is well-equipped to provide valuable insight and generate meaningful data in our preclinical development program as we work to advance toward the clinic. We look forward to exploring a platform technology that has the potential to generate much needed therapies for pancreatic carcinoma and other locally advanced or metastatic solid tumors," commented Jeffrey Eisenberg, Chief Executive Officer of Xenetic.

Under the terms of the Scripps Research agreement, in addition to advancing Xenetic's existing intellectual property, Xenetic has an option to acquire an exclusive license to any new intellectual property arising from the DNase research program. Xenetic is working toward its planned first-in-human study to evaluate DNase combined with immune

checkpoint inhibitors or chemotherapy.

About Scripps Research

Scripps Research is an independent, nonprofit biomedical institute ranked the most influential in the world for its impact on innovation. With campuses in La Jolla, California, and Jupiter, Florida, it is advancing human health through profound discoveries that address pressing medical concerns around the globe.

Its drug discovery and development division, Calibr, works hand-in-hand with scientists across disciplines to bring new medicines to patients as quickly and efficiently as possible, while teams at Scripps Research Translational Institute harness genomics, digital medicine and cutting-edge informatics to understand individual health and render more effective healthcare.

Scripps Research also trains the next generation of leading scientists at its Skaggs Graduate School, consistently named among the top 10 U.S. programs for chemistry and biological sciences. Learn more at http://www.scripps.edu.

About Xenetic Biosciences

Xenetic Biosciences, Inc. is a biopharmaceutical company focused on advancing innovative immune-oncology technologies addressing hard to treat cancers. The Company's DNase platform is designed to improve outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which have been implicated in cancer progression and resistance to cancer treatments. Xenetic is currently focused on advancing its systemic DNase program into the clinic as an adjunctive therapy for pancreatic carcinoma and locally advanced or metastatic solid tumors.

The Company is also developing its personalized CAR T platform technology, XCART™, to develop cell-based therapeutics targeting the unique B-Cell receptor on the surface of an individual patient's malignant tumor cells for the treatment of B-Cell lymphomas.

For more information, please visit the Company's website atwww.xeneticbio.com and connect on Twitter, LinkedIn, and Facebook.

Forward-Looking Statements

This press release contains forward-looking statements that we intend to be subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release other than statements of historical facts may constitute forward-looking statements within the meaning of the federal securities laws. These statements can be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," and other words of similar meaning, including, but not limited to, statements regarding: all statements regarding expectations for our DNase-base oncology platform, including designing the DNase-based oncology platform to target NETs, our expectations regarding evaluating the systemic DNase program in combination with existing therapies for the potential treatment of pancreatic carcinoma and other solid tumor indications, our expectations that the systemic DNase program is initially targeting multi-billion-dollar indications, our expectations regarding

advancing toward our first-in-human study to evaluate DNase combined with immune checkpoint inhibitors or chemotherapy, the DNase platform improving outcomes of existing treatments, including immunotherapies, by targeting NETs, which have been implicated in cancer progression and resistance to cancer treatments, our expectation that the platform technology has the potential to generate much needed therapies for pancreatic carcinoma and other locally advanced or metastatic solid tumors, and our focus on advancing our systemic DNase program into the clinic as an adjunctive therapy for pancreatic carcinoma and locally advanced or metastatic solid tumors; our belief that the team at Scripps is well equipped to provide valuable insight and generate meaningful data in our preclinical development program as we work to advance the clinic; our option to acquire an exclusive license to any new intellectual property arising from the DNase research program; and expectations regarding developing our personalized CAR T platform technology, XCART™, to develop cell-based therapeutics targeting the unique B-Cell receptor on the surface of an individual patient's malignant tumor cells for the treatment of B-Cell lymphomas. Any forward-looking statements contained herein are based on current expectations and are subject to a number of risks and uncertainties. Many factors could cause our actual activities, performance, achievements, or results to differ materially from the activities and results anticipated in forward-looking statements. Important factors that could cause actual activities, performance, achievements, or results to differ materially from such plans, estimates or expectations include, among others, (1) unexpected costs, charges or expenses resulting from our manufacturing and collaboration agreements; (2) unexpected costs, charges or expenses resulting from the licensing of the DNase platform; (3) uncertainty of the expected financial performance of the Company following the licensing of the DNase platform; (4) failure to realize the anticipated potential of the DNase, XCART or PolyXen technologies; (5) the ability of the Company to implement its business strategy; and (6) other risk factors as detailed from time to time in the Company's reports filed with the SEC, including its annual report on Form 10-K, periodic quarterly reports on Form 10-Q, current reports on Form 8-K and other documents filed with the SEC. The foregoing list of important factors is not exclusive. In addition, forward-looking statements may also be adversely affected by general market factors, general economic and business conditions, including potential adverse effects of public health issues, such as the COVID-19 outbreak, and geopolitical events, such as the Russian invasion of Ukraine, on economic activity, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new product candidates 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 the Company does not undertake any obligation to update forward-looking statements, except as required by law.

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