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

Company is advancing DNase-based oncology program towards clinical proof-of-concept studies in multiple indications

FRAMINGHAM, MA / ACCESSWIRE / November 7, 2024 /Xenetic Biosciences, Inc. (NASDAQ:XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company focused on advancing innovative immuno-oncology technologies addressing hard to treat oncology indications, today announced it has extended its previously announced Research Funding and Option Agreement (the "Agreement") with The Scripps Research Institute ("TSRI") to advance the development of the Company's program on the combination of systemic DNase and CAR T-cell therapies. Xenetic's systemic DNase I candidate is undergoing preclinical evaluation in combination with anti-CD19 CAR-T and anti-EGFR CAR-T cells in models of CD19-expressing hematological cancers and EGFR-expressing metastatic melanoma. Previous studies at TSRI showed that co-administration of DNase I with CAR T cells significantly reduces tumor burden, decreases the number of metastatic foci, and substantially prolongs survival compared to the CAR-T cell monotherapy groups. Degrading of NETs by DNase I increases the amount of tumor-infiltrating T and CAR-T cells and reduces the immunosuppressive effects of the tumor microenvironment (TME).

Collected preclinical data highlights the critical role of NETs in modulating CAR-T cell efficacy and we believe provides a compelling rationale for incorporating DNase I as an adjunctive treatment to improve therapeutic responses in patients undergoing CAR-T cell therapy.

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. In cancer, NETs are expelled by activated neutrophils into the TME and blood, thereby promoting cancer spread and local and systemic immunosuppression. Reduction of NETs burden via application of Xenetic's proprietary

recombinant human DNase I has been shown to improve efficacy of immunotherapy, adoptive cell therapy and chemotherapy in preclinical animal models.

"Scripps has continued to be a valued partner of ours and we are pleased to extend our collaboration agreement to further explore the potential of our DNase-based oncology platform. We are grateful we are able to continue to leverage the knowledge and expertise of the team at Scripps to potentially expand and broaden the utility of our proprietary platform technology," commented James Parslow, Interim Chief Executive Officer and Chief Financial 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 executing on its plans to advance its DNase-based oncology program towards Phase 1 clinical development for the treatment of pancreatic carcinoma and other locally advanced or metastatic solid tumors.

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 are involved in cancer progression. 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.

For more information, please visit the Company's website atwww.xeneticbio.com and connect on X, 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," "remain," "focus", "confidence in", "potential", "making", and other words of similar meaning, including, but not limited to: all statements regarding the collaboration agreement with Scripps, including regarding us continuing to leverage the knowledge and expertise of the team at Scripps to potentially expand and broaden the utility of our proprietary platform technology; and expectations regarding our DNase-based oncology platform, including statements regarding: advancing DNase-based oncology program towards clinical proof-of-concept studies in multiple indications; focusing on advancing innovative immuno-oncology technologies addressing hard to treat oncology indications; advancing the development of the Company's program on the combination of systemic DNase and CAR T-cell therapies; our belief that preclinical data that highlights the critical role of NETs in modulating CAR-T cell efficacy provides a compelling rationale for incorporating DNase I as an adjunctive treatment to improve therapeutic responses in patients undergoing CAR-T cell therapy; plans to advance our

DNase-based oncology program towards Phase 1 clinical development for the treatment of pancreatic carcinoma and other locally advanced or metastatic solid tumors; the DNase platform improving outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in cancer progression; 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. All 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 or PolyXen technologies; (5) the ability of the Company to obtain funding and 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 conflicts in Ukraine and in the Middle East, 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, litigation and shareholder activism, 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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