Metagenomi Therapeutics, Inc. Announces Publication in Nature Structural & Molecular Biology Highlighting Proprietary Compact CRISPR Nuclease with Enhanced Genome Editing Efficiency

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EMERYVILLE, Calif., April 16, 2026 (GLOBE NEWSWIRE) -- Metagenomi Therapeutics, Inc. (Nasdaq: MGX) (the "Company"), an in vivo genome editing company capitalizing on its proprietary technologies to create curative genetic medicines for patients, today announced a publication in *Nature Structural & Molecular Biology* highlighting the discovery and detailed characterization of MG119-28, a compact CRISPR nuclease with superior editing efficiency relative to previously identified compact nucleases.

The publication, titled "*Comparative characterization of Cas12f orthologs reveals mechanistic features underlying enhanced genome editing efficiency*" highlights the potential of MG119-28 (formally named Al3Cas12f) to overcome low editing efficiency in mammalian systems of previously identified compact nucleases from the Cas12f class.

The publication demonstrates that the enhanced editing performance is due to superior structural stability of the protein and inherently more stable guide RNA which enables faster DNA cleavage activity. The structural and mechanistic insights enabled engineering of MG119-28 to further improve activity across multiple target genes.

"The ability to pair compact size with high editing efficiency has been a longstanding challenge in the field," said Jian Irish, Ph.D., M.B.A., President and Chief Executive Officer of the Company. "These findings support a path toward building clinically relevant genome editing systems that are both deliverable to tissues outside of the liver via AAV and capable of achieving the levels of activity needed for therapeutic impact. We believe that MG119-28 represents an important step forward for future applications of our platform and the broader field of in vivo gene editing."

This most recent study was conducted in collaboration with researchers from the University of Texas at Austin. It builds on the elegant in vivo proof of concept for MG119-28 presented at the ASGCT meeting in 2025 in which the Company demonstrated 64% knockdown of Atxn2 protein in mice after direct injection of a single AAV delivering MG119-28 and a targeting guide. The Company views this data as encouraging as it explores opportunities to advance its gene editing beyond hepatic indications to treat unmet medical needs in neuromuscular disease targets.

About Metagenomi Therapeutics, Inc.

Metagenomi Therapeutics, Inc. is an in vivo genome editing company capitalizing on its proprietary technologies to create curative genetic medicines for patients. The Company was founded on the science of metagenomics, the study of genetic materials recovered from the natural environment, to discover and develop a suite of novel editing tools potentially capable of correcting any type of genetic mutation found anywhere in the human genome. The Company focuses on high value programs in disease indications with well-understood biology and clearly defined clinical development and regulatory pathways. Going forward, the Company intends to continue to expand its pipeline by leveraging its proprietary genetic editing capabilities in site specific deletion, integration and correction.

MGX-001, the Company's lead, wholly-owned development program in hemophilia A, has demonstrated a preclinical profile potentially competitive with best-in-class treatment options, including targeted genome editing and durable gene expression in a one-time treatment. MGX-001 is designed to provide curative, life-long protection from bleeding events and joint damage in adults and children with hemophilia A. The Company is also currently pursuing other secreted protein deficiencies leveraging the MGX-001 site-specific genome integration system and partnered assets targeting cardiometabolic diseases. For more information, please visit https://metagenomi.co.

Cautionary Note Regarding Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. Such statements, which are often indicated by terms such as "anticipate," "believe," "could," "estimate," "expect," "goal," "intend," "look forward to," "may," "plan," "potential," "predict," "project," "should," "will," "would" and similar include, but are not limited to, any statements relating to our product development programs, including the timing of and our ability to conduct IND-enabling studies and make regulatory filings such as INDs, expectations regarding MGX-001 including the preclinical profile being potentially competitive with best-in-class treatment options and timing to submit the IND/CTA package, statements regarding the Company's plans to prioritize its preclinical pipeline and potential for value creation and sustainable growth, statements regarding upcoming milestones, statements concerning the potential of therapies and product candidates, statements concerning the impact of the organizational restructuring, statements concerning our anticipated cash runway, and any other statements that are not historical facts. Forward-looking statements are based on management's current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition, and stock value. Factors that could cause actual results to differ materially from those currently anticipated include: risks relating to our growth strategy; our ability to obtain, perform under, and maintain financing and strategic agreements and relationships; risks relating to the results of research and development activities; risks relating to the timing of IND submissions and starting and completing clinical trials; uncertainties relating to preclinical and clinical testing; our dependence on third party suppliers; our ability to attract, integrate and retain key personnel; the early stage of products under development; our need for substantial additional funds; government regulation and the current regulatory environment; patent and intellectual property matters; competition; the volatility of capital markets and other adverse macroeconomic factors; as well as other risks described in "Risk Factors," in our most recent Form 10-K and other risk factors set forth from time to time in our filings with the Securities and Exchange Commission made pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based, except as required by law, and we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

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