



Metagenomi Presents Compact SMART Editing Platform at AIChE 7th International Conference on CRISPR Technologies

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*Poster presentation highlights SMART adenine base editors (ABEs)
small enough to be packaged into a single adeno-associated virus (AAV)*

*Data demonstrate compact SMART system optimizations allowing for
therapeutically-relevant genome editing*

EMERYVILLE, Calif., Oct. 14, 2024 (GLOBE NEWSWIRE) -- Metagenomi, Inc. (Nasdaq: MGX), a precision genetic medicines company committed to developing curative therapeutics for patients using its proprietary gene editing toolbox, today presented a poster titled "[Engineering of compact and efficient adenine base editors from metagenomic derived systems](#)" at the American Institute of Chemical Engineers (AIChE) 7th International Conference on CRISPR Technologies in San Diego, CA.

"We are thrilled to share the progress we've made with our compact SMART systems," said Chris Brown, PhD and Head of Discovery at Metagenomi. "Our update highlights the improved efficiency of our SMART platform across multiple targets and cell types. We demonstrated that our SMART nucleases can be engineered into functional base editors within the packaging limits of standard AAV. We believe the improved editing efficiency of these SMART systems will enable pursuit of neuromuscular targets, either on our own or in partnerships."

Metagenomi's SMART platform potentially addresses a key challenge of in vivo gene editing: efficient delivery of gene editing components to tissues beyond the liver. Currently, AAV is an established approach for delivery to extrahepatic tissues, which is necessary for treating neuromuscular diseases such as Duchenne muscular dystrophy (DMD), familial amyotrophic lateral sclerosis (ALS), and Charcot-Marie-Tooth disease type 1A (CMT1A). Traditional gene editing tools such as SpCas9 exceed the cargo capacity of standard AAV vectors, potentially necessitating the need for dual AAV systems, which may reduce overall editing efficiency, increase required dosages, and complicate the manufacturing process. Metagenomi's SMART genome editing systems are small enough to be packaged into standard AAV vectors, even when additional effector domains are included for base editing, potentially enabling a differentiated therapeutic approach.

Metagenomi has taken a multi-pronged approach to optimizing the SMART platform since its initial discovery (Aliaga Goltsman, Daniela S., et al. "[Compact...](#)" *Nature Communications*, vol. 13, no. 1), including structure-guided engineering enabled through collaboration with Professor David Taylor and his lab at UT Austin (Ocampo, Rodrigo Fregoso, et al. "[DNA...](#)" *bioRxiv*). In addition, Metagenomi has applied advanced artificial intelligence (AI) tools trained on natural SMART enzymes, which was presented at the Cold Spring Harbor Laboratory (CSHL) CRISPR Frontiers conference earlier this year. The AI-driven approach underscores the importance of leveraging multiple cutting-edge techniques to advance next-generation gene editing systems.

About Metagenomi

Metagenomi is a precision genetic medicines company committed to developing curative therapeutics for patients using its proprietary, comprehensive metagenomics-derived toolbox. Metagenomi is harnessing the power of metagenomics, the study of genetic material recovered from the natural environment, to unlock four billion years of microbial evolution to discover and develop a suite of novel editing tools capable of correcting any type of genetic mutation found anywhere in the genome. Its comprehensive genome editing toolbox includes programmable nucleases, base editors, and RNA and DNA-mediated integration systems (including prime editing systems and clustered regularly interspaced short palindromic repeat associated transposases). Metagenomi believes its diverse and modular toolbox positions the company to access the entire genome and select the optimal tool to unlock the full potential of genome editing for patients. For more information, please visit <https://metagenomi.c>

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 expressions, include, but are not limited to, any statements relating to our growth strategy and product development programs, including the timing of and our ability to conduct IND-enabling studies, make regulatory filings such as INDs, statements concerning the potential of therapies and product candidates, statements concerning the timing of data presentations and publications, 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 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; patent and intellectual property matters; competition; as well as other risks described in "Risk Factors," in our most recent Form 10-K and our most recent 10-Qs on file with the Securities and Exchange Commission. 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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