



Synlogic to Present at 2017 American College of Medical Genetics and Genomics Annual Meeting

March 23, 2017

Cambridge, Mass (BUSINESS WIRE). March 22nd, 2017. Synlogic™ Inc. today announced that the company will present preclinical data on two rare metabolic disease programs from its Synthetic Biotics™ platform at the American College of Medical Genetics and Genomics Annual Meeting from March 22nd – 25th in Phoenix, Arizona. Synlogic will present posters on its lead investigational candidate, SYN1020, an engineered Synthetic Biotic™ therapy for the treatment of Urea Cycle Disorders (UCD) and SYN-PKU, a preclinical Synthetic Biotic candidate for the treatment of phenylketonuria (PKU).

“These Synthetic Biotic candidates were built leveraging Synlogic’s capabilities to engineer probiotics to operate from within the microbiome and catabolize key metabolites responsible for disease pathogenesis in urea cycle disorders and phenylketonuria. These preclinical data support progressing our two lead Synthetic Biotic therapies that are in development for rare inborn errors of metabolism,” said Caroline Kurtz, Ph.D., head of translational sciences and product development.

This work demonstrates that an engineered *E. coli* Nissle strain, SYN1020 can absorb and metabolize ammonia to produce arginine. Synthetic Biotic therapy for UCD also lower plasma ammonia levels by 50% in the spf-ash/F1 mouse model, a preclinical model of the disease. A second engineered *E. coli* Nissle strain, SYN-PKU, metabolizes phenylalanine to produce *trans*-cinnamic acid (TCA). TCA is converted *in vivo* to hippuric acid, and is followed as a urinary biomarker of strain activity in both the mouse and the normal human primate. SYN-PKU also blunts elevation of plasma phenylalanine levels by 49% following subcutaneous administration in the enu2 mouse, a model of PKU.

“As oral Synthetic Biotic therapies are designed to compensate for the patient’s own metabolic deficiency, these two candidate drugs may offer a completely new approach to treating these diseases,” said Jose Carlos Gutierrez-Ramos, Ph.D., CEO of Synlogic.

The data presented are:

A Genetically Engineered E. coli Nissle that Prevents Hyperammonemia in a Mouse Model of Urea Cycle Disorder (UCD) (Abstract 819) presented by Jonathan Kotula, PhD, Scientist II, Synlogic, to be presented during the poster sessions on March 23rd.

and

A Genetically Engineered E. coli Nissle Strain that Reduces Serum Phenylalanine Levels in a Mouse Model of Phenylketonuria (PKU) (Abstract 814) presented by Dean Falb, Ph.D. chief technology officer, Synlogic, to be presented during the poster sessions on March 24th.

About Synlogic

Synlogic™ is a privately-held biopharmaceutical company based in Cambridge, Massachusetts, pioneering the development of a novel class of therapeutics, called Synthetic Biotics™, based on its proprietary synthetic biology and microbiome platform. Synlogic’s two lead therapeutic programs are being developed for the potential treatment of rare inborn errors of metabolism of Urea Cycle Disorder (UCD) and Phenylketonuria (PKU). In addition to the company’s proprietary pipeline focused on rare diseases, the company is leveraging the broad potential of its Synthetic Biotics platform for novel drug development in major disease areas, such as metabolic and immunomodulatory diseases, through partnerships with pharmaceutical and biotechnology companies. Synlogic is collaborating with AbbVie to develop Synthetic Biotics-based treatment for inflammatory bowel disease (IBD). Synlogic is backed by leading life sciences investors, including Atlas Venture, New Enterprise Associates (NEA), Orbimed, Deerfield and the Bill & Melinda Gates Foundation. For more information, please visit <http://synlogictx.com/>.

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