

Microvi, Nexilico, and UC Berkeley Awarded NIH Funding for Platform Predicting Gut Microbiome Effect on Drug Efficacy

The project will advance the understanding of microbiome function in drug-gut interactions and inform strategies to enhance public health and economic growth.

HAYWARD, CA, USA, July 13, 2021 /EINPresswire.com/ -- Nexilico, the University of California Berkeley, and Microvi Biotech, Inc. have been awarded a grant from the National Center for Advancing Translational Sciences (NCATS) to develop a new computational solution for reliable and cost-effective prediction of gut microbiome-mediated drug metabolism and its effect on drug efficacy and toxicity.

The gut microbiome interacts with a range of therapeutics across indications, resulting in biotransformation of drugs into metabolites with altered disposition, efficacy, and toxicity. As a result, gut microbiome-mediated drug metabolism could lead to non-effective treatments as well as toxic side effects. Accordingly, it is now widely recognized that gut microbiome is a determining factor in drug metabolism and should be accounted for in attempts to improve drug development and treatment effectiveness.

In collaboration with University of California Berkeley and Microvi, Nexilico will develop this comprehensive in silico solution, supported by rigorous experimental validation, to reliably identify and characterize microbial metabolism of drugs. The proposed methods will increase the reliability of predictions to achieve the accuracy necessary for clinical and commercial use.

This project is designed to not only advance the current understanding of microbiome function in the context of drug-gut interactions but also inform strategies to help enhance public health and economic growth.

Shedding light on microbial metabolism of drugs can help reduce the cost and timeframe of drug development, increase drug development success rate, and develop more effective therapeutics and personalized treatment strategies. Additionally, this technology substantially increases the safety of drugs by predicting the mechanisms of efficacy and toxicity as they may differ from individual to individual.

About Nexilico

Nexilico is a life sciences and biotechnology company that employs the power of computational

and systems biology to address challenging problems in medicine and biotechnology. As a pioneer in advanced in silico microbiome technologies, Nexilico advances scientific understanding about the role of microbiomes in health and disease and leverages that information to develop novel microbiome-based technologies. Learn more at www.nexilico.com

About Microvi

Microvi is a transformative biology company based in the San Francisco Bay Area that delivers next-generation biotechnologies for the water, wastewater, bio-based chemicals, biofuels and biopharma industries. Microvi offers commercial technologies around the world to reduce waste, increase productivity and provide disruptive economics across the value chain. Learn more at www.microvi.com.

About the National Center for Advancing Translational Sciences

The National Center for Advancing Translational Sciences (NCATS) at the National Institutes of Health (NIH) was officially established in fiscal year 2012 to transform the translational science process so that new treatments and cures for disease can be delivered to patients faster. NCATS, one of 27 Institutes and Centers (ICs) at NIH, strives to develop innovations to reduce, remove or bypass costly and time-consuming bottlenecks in the translational research pipeline in an effort to speed the delivery of new drugs, diagnostics and medical devices to patients. Learn more at <https://ncats.nih.gov/>

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