

Novozymes and LinusBio announce collaboration to accelerate scientific discovery in Biohealth

COPENHAGEN, Denmark – November 10, 2022. Novozymes, the world leader in biological solutions, and LinusBio (Linus Biotechnology Inc.), a leader in precision exposome sequencing, today announced the companies are forming a collaboration to test a new, non-invasive technology in a clinical trial. The project will apply LinusBio's environmental biodynamics platform, enabling detailed temporal mapping of harmful compound exposure, to a clinical trial of probiotics sponsored by Novozymes' human health unit, Novozymes OneHealth. The clinical trial will assess exposure to heavy metals, such as lead, and a broad range of environmental pollutants, and is part of a larger clinical program from Novozymes OneHealth.

As part of the project, LinusBio will conduct a comprehensive study examining lead and other harmful chemical levels. Utilizing a single strand of hair, LinusBio's proprietary exposome and biological response sequencing platform can generate data similar to several hundred liquid biopsies and reconstruct the subjects' exposure to environmental toxicants over time. The study will be conducted in Mexico, where environmental lead exposure remains a significant public health issue¹. Lead exposure is also prevalent in many other countries where lead was previously used in gasoline, household paint, water pipes and other products².

According to the World Health Organization, lead is now known to produce a spectrum of injuries across multiple body systems³. Lead can affect children's brain development, resulting in reduced intelligence quotient (IQ), behavioral changes and reduced educational attainment. The neurological and behavioral effects of lead are believed to be irreversible. Lead exposure may also cause anemia, hypertension, renal impairment, immunotoxicity and toxicity to the reproductive organs.

"We are very excited to embark on this groundbreaking venture with Novozymes," says Dr. Manish Arora, co-founder and CEO of LinusBio. "Lead exposure has a detrimental impact on health, especially in children. Currently, there are no effective methods to eliminate lead once it has entered the body. We are aiming, together with Novozymes, to change that. This joint project combines innovative technology and a fresh approach that can offer a major advance in solving the longstanding problem of lead exposure."

"The collaboration with LinusBio in translating complex exposome data into biological insights and critical global health benefits will be key to advancing our leading biosolution pipeline," says Dr. Delphine Saulnier, Health Science Lead of the Protective Health Venture at Novozymes OneHealth. "By combining this knowledge with our Data Science platform, the collaboration will give us a technical edge for pursuing new opportunities and further strengthen existing OneHealth solutions", says Dr. Kimmo Makinen, Product Innovation Director at Novozymes OneHealth.

References:

- 1) Tellez-Rojo, M. M., Bautista-Arredondo, L. F., Tamayo-Ortiz, M., Cantoral, A., Estrada-Sanchez, D., Kraiem, R., Pantic, I., Romero, M., Fuller, R., & Trejo-Valdivia, B. (2020, October). First National Report of Blood Lead Levels in Mexican Children: An Analysis to Inform Public Health Actions and Policy. In *ISEE Conference Abstracts* (Vol. 2020, No. 1).
- 2) Rees, N., & Fuller, R. (2020). *The toxic truth: children's exposure to lead pollution undermines a generation of future potential*. UNICEF.
- 3) World Health Organization, "Lead Poisoning and Health" Fact Sheet, 23 August 2019, (<https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health>) [Accessed on Oct 07 2022]

About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners, and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel, and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow. www.novozymes.com

About Novozymes OneHealth

Novozymes has established Novozymes OneHealth to market solutions within human health under one umbrella. The aim is to help people live healthier and better lives by use of probiotics and enzymes. By finding the one in a

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trillion solution, Novozymes OneHealth will help to solve profound consumer challenges related to modern lifestyle. www.novozymesonehealth.com

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About LinusBio

LinusBio (Linus Biotechnology Inc.) is a patient-centric, precision exposome medicine company headquartered in New York, NY. The company's program pipeline comprises precision exposome medicine biomarkers and target discovery across disease domains for which historically no molecular endpoints have been available in medical practice or for clinical trials, including CNS (autism spectrum disorder, amyotrophic lateral sclerosis), gastroenterology (inflammatory bowel disease), renal disease and oncology. For more information, visit www.linusbio.com.

Media Relations

Lina Danstrup,
Head of Media Relations
Phone: +45 30 77 05 52
lind@novozymes.com

Aviad Yitshak-Sade
Director of Marketing and
Communications
Phone: +1 404 789 5393
aviad_ys@linusbio.com