

## NemaLife Debuts New Discovery Flywheel and Efficacy Matrix for Screening Bioactive Ingredients

*Concurrent Identification of Multiple Health Benefits Now Possible* 

LUBBOCK, TX, UNITED STATES OF AMERICA, May 13, 2024 / EINPresswire.com/ -- NemaLife Inc., an Alpowered discovery company specializing in nutritional bioactive asset development and pre-clinical testing, announces the launch of the <u>NemaLife Discovery Flywheel</u> and <u>Efficacy Matrix</u>. These transformative advances are made possible by NemaLife's patented Al-powered organism-on-chip platform that integrates C. elegans, microfluidics, and visual Al providing living proof of the health outcomes of nutritional substances.

The NemaLife Discovery Flywheel was developed to screen bioactives for several key health benefits concurrently, including stress resilience, cognitive health, gut health, metabolic health, muscle



NemaLife Discovery Flywheel - Comprehensive parallel profiling of bioactives for diverse human health benefits.

performance, and longevity. This breakthrough was enabled by a unique discovery pipeline that combines natural and accelerated aging in C. elegans with a tech stack of AI models tracking organ-level and whole-organism phenotypes.

The NemaLife Discovery Flywheel scans every bioactive for six (6) health benefits. This multidimensional phenotypic data is visualized as an Efficacy Matrix revealing which bioactives are positive, negative, or neutral for each of the health benefits. This Matrix allows NemaLife and its partners to quickly identify ingredients, or combinations thererof, that demonstrate specific and significant health benefits in pre-clinical trials. "The Food-as-Medicine industry is struggling to discover novel natural solutions to improve human health while compressing both cost and time to advance qualified bioactive candidates to clinical studies. Our team has developed the Flywheel with the goal of bringing new bioactives from worm- to human studies in less than 100 days while de-risking safety, bioefficacy, and dosing. The NemaLife Discovery Flywheel and the Efficacy Matrix are the first steps to achieve this goal, and we are excited to work with partners to deliver a new class of ingredients that significantly improve human health and wellness. I congratulate the NemaLife team for debuting this discovery platform to our industry and drive sustainable innovation", said Dr. Siva Vanapalli, NemaLife's co-founder and CEO.

"Bioactives including beneficial microbes, phytochemicals, and botanicals target several signaling pathways lending to multiple health benefits. However, reliance on the traditional linear process of in vitro-to-rodent testing is plagued by the inability to explore the multidimensional space of bioefficacy, making innovation risky and expensive. NemaLife's Discovery Flywheel can bring true innovation by rapidly scanning the bioefficacy space while de-risking safety and bioavailability", said Dr. Martin Kussmann, Chairman of the Strategic Advisory Board at NemaLife with corporate/academic career in nutrition, pharma, and biotechnology and with stints at Nestlé, EPF Lausanne, Aarhus University, and Auckland University.

"The NemaLife Discovery Flywheel is a game-changer for the ingredient industry as it allows for adding new benefits to existing products, mining collections and side/waste streams, and designing combinations with synergistic outcomes. The benefits scanned by the Flywheel represent major categories in the health and wellness space, and NemaLife has been attracting the attention of global ingredient suppliers looking to unlock the next generation of bioactives", said Gaby Vreeken, NemaLife's Strategic Advisory Board Member, former EVP at Unilever and Global Chief Marketing Officer at Bayer Consumer Health.

## About NemaLife

NemaLife is an AI-powered discovery company developing sustainable AI-powered microfluidic solutions to deliver safe and efficacious ingredients. Its patented organism-on-chip platform both de-risks and accelerates product development across multiple industries and application areas, including functional foods, sports nutrition, dietary supplements, and animal/pet nutrition. NemaLife Inc. partners with innovative companies and academic institutions to discover and develop novel functional ingredients that can improve the quality of life on a healthier planet.

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