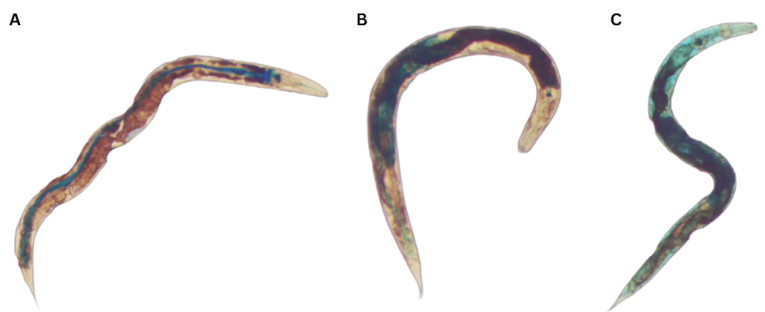


NemaLife files a novel gut health bioassay patent to aid the discovery of functional ingredients

New provisional patent application for a rapid microfluidic in vivo assay enabling discovery of new gut health solutions for the functional ingredients industry

LUBBOCK, TEXAS, UNITED STATES OF AMERICA, September 7, 2023 /EINPresswire.com/ -- NemaLife, a TechBio company specializing in microfluidics, AI and nematode-based screening proudly announces the filing of a provisional patent application on an innovative microfluidic in vivo bioassay for identifying ingredients that improve gut health. This groundbreaking invention is set to transform the way we understand and enhance gut health, addressing critical issues related to [leaky gut](#) syndrome caused by aging, poor nutrition, and enteropathogenic infections.

Gut health is a pivotal factor in human well-being, impacting various aspects of our lives, from digestion and nutrient absorption to immune function and overall health. Central to this is the integrity of the intestinal epithelial barrier, which acts as a protective shield, preventing harmful substances in the gut from entering the bloodstream. When this barrier becomes compromised, it leads to a condition known as “leaky gut syndrome.” This gut disorder can result from dietary, environmental, disease, and age-



Images show (A) a healthy gut with dye localized to the intestinal lumen. (B) Moderate leakiness with the dye diffusing into some surrounding tissues. (C) Severe leaky gut, where the dye permeates almost all peripheral tissues.

“leaky gut syndrome.” This gut disorder can result from dietary, environmental, disease, and age-

related factors.

Siva Vanapalli, Ph.D., CEO, said, "At NemaLife, our commitment to improving human health through cutting-edge technology is unwavering. This patent application marks a significant milestone in our journey to revolutionize the functional ingredient industry by advancing the screening and development of ingredients for gut health. I congratulate the NemaLife team on achieving this important milestone."

While in vitro gut models based on cell cultures offer cost-effectiveness and some throughput, they lack the complexity of in vivo environments. Rodent models provide a closer representation of the gut but come with ethical considerations and high costs, limiting scalability.

Dhaval Patel, Ph.D., Director of Research and Innovation, who led the effort behind this groundbreaking invention, added, " The discovery space of bioactives is increasing at an astounding pace with a variety of ingredient classes, including probiotics, postbiotics, botanical extracts, and phytochemicals. Identifying novel ingredients supporting gut health relies on crucial bioassays that can provide high confidence in selecting preclinical candidates. Our microfluidic platform combined with *C. elegans* and AI opens new doors in gut health research. NemaLife's invention accelerates the discovery pipeline to bring promising candidates into human trials to prevent or mitigate leaky gut syndrome."

This innovation has the potential to reshape the functional ingredient industry, expediting the discovery and development of therapies that enhance gut health. By offering a faster and more precise screening process, NemaLife's invention will empower the identification of promising functional ingredients that can alleviate gut-related disorders, ultimately improving the well-being of individuals worldwide.

About NemaLife

NemaLife is a TechBio platform company developing sustainable AI-powered microfluidics solutions to discover and develop safe and efficacious ingredients. Its patented [organism-on-chip](#) platform de-risks and accelerates product development in several industries, 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 healthy planet.

For more information, visit www.nemalifeinc.com

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