

Renaissance BioScience files patent for yeast derived VLP platform to advance RNA delivery across agriculture and therapeutics

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New virus like particle technology enhances RNA production, stabilization, and delivery, expanding opportunities from biocontrol applications to future animal and human health solutions.



Renaissance BioScience Corp., a global leader in bioengineered yeast, today announced the filing of a provisional patent application for a highly advanced, yeast-derived, virus-like particle (“VLP”) technology designed for the production, stabilization and efficient delivery of RNA for use across a broad range of agricultural, biocontrol and therapeutic applications.

Virus-Like Particles (VLPs) are non-infectious, nanoscale, multiprotein structures that closely mimic the physical organization, shape, and conformation of authentic native viruses but lack sufficient viral genetic material for replication.

Importantly, the Renaissance VLP platform allows the Company to expand well beyond its current focus on RNAi-based biopesticides targeting chewing insect pests, into many additional high-value applications, including potential biocontrol of non-chewing insect pests, fungicides and herbicides, as well as future therapeutic delivery opportunities in animal and human health. The particles can be purified for specific downstream uses or retained within yeast cells depending on the intended application. The VLPs are significantly smaller than yeast cells, enabling expanded delivery applications where smaller particle size may offer advantages.

The new intellectual property builds upon Renaissance’s existing proprietary yeast-based RNA platform technologies. This VLP technology, generated by yeast, significantly increases RNA production quantities, amplification, stabilization and delivery efficiency for multiple downstream applications. It is intended to complement Renaissance’s existing yeast-based RNA platform delivery systems, with each platform offering advantages for different end-use markets and applications.

Renaissance invites industrial inquiries for potential collaboration to develop products and solutions using this novel and powerful RNA production and delivery technology.