Creative Biogene Optimizes Microbial Polysaccharides Production Platform to Accelerate Growth in Biotech Industry

NY, UNITED STATES, July 4, 2025 /EINPresswire.com/ -- Creative Biogene, a leading biotechnology company, has optimized its platform for microbial Polysaccharides Production. The new process increases production yields and substantially cuts operational expenses, facilitating scalable manufacturing for food-grade and pharmaceutical applications.

The newly developed technology integrates the latest achievements in microbial engineering by precisely regulating metabolic pathways in microorganisms. Creative Biogene has focused on strain optimization and process intensification to achieve this goal, resulting in higher yields and increased purity of the polysaccharides produced. By shortening fermentation cycles and increasing resource utilization efficiency, the technology enables faster production turnaround while reducing environmental impact. This development represents a major milestone in microbial fermentation technology, with significant economic and ecological advantages.

Microbial polysaccharides are biopolymers produced by microorganisms such as bacteria, yeast, and fungi. These characteristics make them indispensable in food, cosmetics, pharmaceuticals, and materials science. For example, Xanthan gum is widely used in salad dressings to maintain a stable and smooth texture even after long storage, while Pullulan (pharmaceutical coatings and edible films), and Dextran (biotechnology and drug delivery systems). Other polysaccharides, such as Curdlan and Alginate, function as heat-gelling agents and wound care solutions, while Gellan gum is important for food structuring and biofilm engineering. These versatile biopolymers meet stringent performance requirements and support sustainable industrial solutions. Learn more about microbial polysaccharides production here.

Creative Biogene offers comprehensive capabilities in strain selection, fermentation process development, downstream processing, analytical quality control, and GMP-compliant manufacturing, ensuring high-quality and scalable production of polysaccharides for various industrial applications.

This technological advancement has broad implications. In pharmaceuticals, it streamlines the production of bioactive polysaccharides integral to drug formulations and biomaterials. In the food industry, it enhances the production of functional ingredients, contributing to the quality and sustainability of food products. Industrial applications, including bioplastics and specialty coatings, are poised to benefit from the improved efficiency and cost-effectiveness enabled by

this innovation.

“This has been a game-changing innovation in the field of polysaccharide production, This technology addresses the challenge by optimizing yield and purity, resulting in a more efficient and sustainable production process. Its impact extends across industries, from food to pharmaceuticals.” said the chief expert at Creative Biogene.

In the future, Creative Biogene’s optimized microbial polysaccharide production technology is set to drive further innovation in microbial biotechnology. Continued advancements in process optimization and sustainable manufacturing are expected to open new avenues for polysaccharide applications, raising industry standards and fostering growth across diverse sectors.

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