



Cellibre and Brightseed Develop Cost-Effective, Sustainable Biomanufacturing Technology for Precision Bioactives at Scale

Collaboration accelerated bioactive leader's ability to commercialize clinically-backed, proprietary natural compounds, NCT (N-trans-caffeoyltyramine) and NFT (N-trans-feruloyltyramine)

San Francisco, CA — July 17, 2025 — Cellibre Inc., nature's manufacturing technology company, and Brightseed, the AI-led bioactive discovery company, today announced the successful development and scale-up of a first-of-its-kind biomanufacturing technology. Leveraging its full stack synthetic biology and biomanufacturing capabilities, Cellibre developed a cost- and quality-advantaged manufacturing solution for the commercialization of Brightseed's breakthrough, proprietary bioactive ingredients — NCT and NFT.

Discovered by Brightseed's leading AI platform, Forager®, these novel bioactives are found in dozens of natural plant sources such as garlic and black pepper. They have the ability to activate HNF4 α , a transcription factor shown to play a key role in gut barrier function and integrity. Brightseed recently launched [Bio Gut Core](#), a low-dose, digestive health ingredient powered by a proprietary blend of NCT and NFT clinically proven to strengthen gut barrier and reduce bloating in just three weeks.

Cellibre brings decades of experience designing and engineering microorganisms for the production of cultured natural products that are utilized in pharmaceuticals, functional health and beauty ingredients, industrial applications, and more. Led by the belief that biology is the future of manufacturing, Cellibre is committed to creating more resilient supply chains, delivering products that are lower cost and higher quality while limiting the impact on natural ecosystems.

"Brightseed's decision to partner with Cellibre provides yet another external validation of our approach to developing sustainable manufacturing solutions in a fundamentally different way than legacy industrial biotechnology companies. By selecting organisms with the proper primary metabolism as a starting point for



development, rapidly developing the tools to engineer those organisms, and integrating the full suite of synthetic biology capabilities, Cellibre will transform how we as humans make an almost limitless number of products.” said Nicky Caiazza, founder and Chief Scientific Officer of Cellibre. “In particular, our team has developed the world’s best platform for the production of plant-based molecules via precision fermentation and we have a deep interest in developing manufacturing solutions for natural products with applications in medicine, wellness, beauty and industry while minimizing the impact on ecosystems to produce those important chemicals and ingredients. That is just one of the many reasons our partnership with a leader like Brightseed is so compelling.”

Leveraging Forager, Brightseed employs machine learning and metabolomic profiling to systematically discover bioactive compounds and map those molecules to health benefits and biomarkers. Brightseed has the world’s largest commercial natural product database and to date, Forager has mapped seven million plant compounds – 52x more than what was previously known in published scientific literature – across 23 health territories, including digestive, cognitive, metabolic, maternal, and immune health.

“Consumers are increasingly looking for natural, accessible solutions to elevate their health and wellbeing. We know nature holds an incredibly rich and largely uncharted source of powerful bioactives that stand to deliver big benefits to human longevity and flourishing,” said David Blackwood, SVP of Commercial, Brightseed. “As we continue to extend our leadership in discovering, mapping, and commercializing these natural compounds, we want to make these available to as many people as possible as we prepare to announce ingredient partnerships with industry-leading companies.”



About Cellibre

Cellibre is a biomanufacturing technology company that employs an organism-agnostic approach to turn cells into specialized, sustainable factories for the manufacture of globally significant products at scale. Our world-class scientific team has led programs from ideation to commercial, pioneering revolutionary breakthroughs in energy, ingredients, medicines and more. Cellibre was founded in 2017 and headquartered in San Diego, California. For more information visit cellibre.com.

About Brightseed

Brightseed®, the bioactives company, is a World Economic Global Innovator that leverages AI discovery to illuminate nature-based solutions that elevate human health. Brightseed's proprietary AI, Forager®, accelerates bioactive discovery, biological validation, and ingredient formulation from years to months, rapidly revealing new connections between nature and humanity. Brightseed produces clinically-proven bioactives for dietary supplements, food & beverage CPG, specialty nutrition, and medical foods to power proactive health worldwide. Learn more at brightseedbio.com.

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