



**FOR IMMEDIATE RELEASE**

**Brightseed Publishes Second Peer-Reviewed Publication of Clinical Study  
Demonstrating AI-Discovered Bioactives Significantly Improve Continuous Glucose  
Monitoring**

**South San Francisco, CA** — February 26, 2026 — Brightseed today announced a [second peer-reviewed](#) publication from its landmark randomized, double-blind, placebo-controlled clinical trial evaluating the effect of novel plant bioactives N-trans caffeoyltyramine (NCT) and N-trans feruloyltyramine (NFT) on blood glucose regulation..

Published in [Bioactive Compounds in Health and Disease](#), this new paper focuses specifically on continuous glucose monitoring (CGM) endpoints, providing one of the most comprehensive dynamic assessments of glycemic control reported for a dietary bioactive ingredient.

“This second publication complements Brightseed’s previously published findings on fasting glucose and insulin by delivering deeper insight into 24-hour glucose patterns, variability, and overall glycemic burden — metrics not commonly included in comparable ingredient studies,” said Swati Kalgaonkar, Senior Director, Medical & Scientific Affairs and Clinical Research of Brightseed

**AI-Discovered Bioactives Deliver Measurable Improvements in 24-Hour Glucose Control**

In the 4-week clinical trial involving 126 adults with prediabetes, supplementation with 120 mg/day of NCT/NFT resulted in statistically significant improvements across multiple CGM parameters compared to placebo, including:

- 24-hour total glucose AUC (p=0.0018)
- Mean 24-hour glucose (p=0.0286)
- Maximum 24-hour glucose (p<0.0001)
- Mean Amplitude of Glycemic Excursion (MAGE) (p<0.0001)
- Mean of Daily Differences (MoDD) (p=0.0017)
- Basal hyperglycemia AUC (p=0.0035)

These results demonstrate reductions in both overall glucose exposure and glycemic variability, two emerging indicators of metabolic stress and long-term cardiometabolic risk.

Unlike traditional studies that rely primarily on single fasting measurements, this trial incorporated a 24 h window of continuous glucose monitoring at baseline and after intervention, capturing 288 glucose readings per day per participant. The CGM data, summarized in Table 2 and detailed across Tables 3–5 of the publication, show consistent reductions in glycemic burden and stabilization of daily glucose patterns.



## **Differentiating Through Dynamic Endpoints**

Continuous glucose monitoring offers a real-time view of glucose excursions and variability — metrics increasingly recognized as critical to metabolic health but rarely assessed in dietary ingredient trials.

By integrating CGM-derived endpoints such as MAGE, MoDD, and basal hyperglycemia AUC, Brightseed's research moves beyond point-in-time biomarkers to capture dynamic metabolic resilience. This level of analysis sets a new benchmark for clinical validation in the functional ingredient space.

## **Powered by Brightseed's AI Platform**

NCT and NFT were identified using Brightseed's proprietary AI platform, which maps plant compounds to human biological pathways. Through in-silico prediction and preclinical validation, the platform identified these bioactives as potent agonists of HNF4 $\alpha$ , a master regulator of glucose and lipid metabolism.

This second publication underscores Brightseed's unique capability to:

- Computationally predict novel bioactives and their mechanisms
- Validate efficacy through rigorous human clinical trials using advanced endpoints
- Translate discovery into 'fit for market' precision-fermented ingredients

"AI enabled us to uncover previously uncharacterized bioactives targeting a central metabolic regulator," said Lee Chae, Co-Founder and CEO of Brightseed. "This publication demonstrates our ability to move from computational insight to clinically validated, CGM-backed outcomes — in record time."

## **A New Standard for Clinically Validated Nutrition**

The dual-publication strategy — first addressing fasting biomarkers, and now continuous glucose monitoring — provides a comprehensive evidence package for NCT/NFT. Together, the findings demonstrate improvements in fasting glucose, insulin resistance, and dynamic glycemc burden in adults with prediabetes.

As personalized biomonitoring technologies like CGM become increasingly mainstream, the ability to demonstrate measurable impact on real-world glucose patterns represents a significant advancement for clinically substantiated nutrition.

The study was registered at ClinicalTrials.gov (NCT06417840) and conducted in accordance with international clinical research standards.

## **About the Study**

Effects of a 4-week supplementation with novel bioactives N-Trans Caffeoyltyramine (NCT) and N-Trans Feruloyltyramine (NFT) on parameters of continuous glucose monitoring in individuals with prediabetes: A randomized, double-blind, placebo-controlled trial.



Published February 2026, in Bioactive Compounds in Health and Disease. The full study can be found [here](#).

### **About Brightseed**

Brightseed® is a continuous innovation platform for health science teams. The company combines deep scientific expertise, cutting-edge artificial intelligence, and the world's largest proprietary bioactive dataset—spanning more than 11 million bioactives—to help teams discover, validate, and bring new products to market with greater confidence. At the core of the platform is Forager™, Brightseed's AI-powered discovery engine, which enables systematic, biology-driven discovery at a scale beyond human capability. Together, Brightseed's platform approach allows organizations to make better decisions earlier, reduce downstream risk, and turn innovation into a durable strategic advantage. Learn more at [brightseedbio.com](http://brightseedbio.com).

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