



## **Abstract**

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### **Designing What We Eat: Nutrition Ingredients in the Age of AI**

AI is redefining not only how we discover natural ingredients, but how we conceptualize the value chain of the food and ingredient industry. However, the complexity of natural mixtures has so far limited systematic exploration.

At MeNow, we combine large-scale molecular data with advanced computational approaches, including QSAR modeling and deep Bayesian networks, to decode complex extracts and predict biological activity. This enables the identification of functional compounds from underexplored sources such as industrial byproducts.

To operationalize this, we recently established the AI Sustainability Hub in collaboration with Vitafoods, connecting waste streams, biological targets, and industrial partners to accelerate the discovery and development of new ingredients.

Using this approach, we have identified a novel food-approved GLP-1 agonist derived from fermentation—the first ingredient of its kind with direct GLP-1 agonist activity.