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Synthetic Biology; Microbial Chassis; Natural Product; Biosynthesis; Fermentation

Our research focuses on harnessing synthetic microbiology to produce natural food ingredients in a more sustainable and efficient manner. By engineering microorganisms such as yeast and bacteria, we are developing novel metabolic pathways to synthesize key compounds, including flavors, sweeteners, colorants, and preservatives, traditionally derived from plants and other natural sources. This approach enables us to produce high-demand ingredients through microbial fermentation, reducing reliance on plant extraction. Our goal is to enhance production efficiency, lower environmental impact, and ensure consistent, high-quality natural products for the food industry.

Potential Areas for Collaboration

- Microbial Fermentation of Small Molecules
 - Enzyme Biotechnology
 - Microbial chassis development
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