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Circular Bioeconomy; Waste Byproducts; Microbial Protein; Sustainable Aquaculture; Microbial Fermentation

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Aquaculture depends heavily on fishmeal derived from wild fisheries, creating ecological pressure and price volatility. Our research converts nutrient-rich food processing byproducts into microbial protein using controlled bioprocessing systems. The product consists of functional protein ingredients that enhance shrimp survival and resilience while reducing fishmeal dependence and carbon footprint. By converting waste streams into valuable nutrition, our research contributes to circular food systems and more sustainable aquaculture.

Potential Areas for Collaboration

- Industrial Waste Streams in Food-processing
- Life Cycle Analysis;
- Techno-economic Analysis
- Bioreactor Technology
- AI-assisted Process Optimization
