

Special Issue

Microbial Bioconversion of Agri-Food Waste for the Production of Pharmacologically Active Compound

Message from the Guest Editor

This Special Issue focuses on the sustainable valorization of agri-food waste via microbial bioconversion to produce pharmacologically active compounds for use in pharmaceuticals, cosmetics, and functional foods. Emphasis is placed on the microbial transformation of lignocellulosic biomass and other residues into valuable bioactives such as enzymes, fatty acids, antimicrobials, alkaloids, terpenoids, polyketides, peptides, organic acids, pigments, and polysaccharides. We welcome studies on advanced fermentation strategies—solid-state and submerged (batch, fed-batch, continuous)—and on novel microbial enzymes for degrading complex polymers. Submissions may also address microbial consortia (bacteria, fungi, microalgae), metabolic pathway engineering, and applications of the transformed products. This Issue supports the circular bioeconomy by advancing green fermentation technologies and microbial innovations to convert waste streams into high-value bioproducts.

Guest Editor

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Message from the Editor-in-Chief

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