



## Advances in Biotechnology and Application of Microbial Surfactants

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### Message from the Guest Editors

Our proposal in this Special Issue is to extract biosurfactants based on the pattern of production and modification of amphotericin B and analogues, as well as truncated polyketide intermediates produced by genetic engineering in *Streptomyces nodosus*. Amphotericin B and similar antibiotics also work as biosurfactants, as they have been investigated from an amphiphilic molecule viewpoint, along with acting as a powerful but toxic drug used against fungal infections and leishmaniases. On a large scale, molecules and intermediates can be produced at a low cost by genetic modifications that have produced amphotericin B from *Streptomyces nodosus*. We propose improved methods for the manufacture and purification of such molecules (surfactants) with complete chemical analysis. The new bacterial mutants will produce biological surface active agents for commercial and research purposes. Hamycin, another polyene antifungal antibiotic (also a biosurfactant) belonging to the group of heptaene polyantibiotics, is produced by *Streptomyces pimprina*, an actinomycete isolated from soil.





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