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Biosurfactants are promising bioactive molecules for cosmetic, therapeutic and oral-related health applications

Ibrahim M Banat Ulster University, UK

) iosurfactants are biological naturally produced molecules that are surface active and are able to reduce surface tensions Dbetween different phases. Biosurfactants are good foaming and wetting agents, and they have excellent critical micelle concentration and surface-tension properties compared to surfactant phosphates, suggesting that these compounds can easily replace the more problematic surfactants on the market. The global interest in these biosurfactants has been stimulated by their exceptional surfactant characteristics and their biodegradability and low toxicity. In addition they have consistently shown suitability for application in numerous product lines and processes, including cosmeceuticals as anti-aging and woundhealing agents in dermatological care and as cleaning products, emulsifiers in food, dispersants in pesticides, anti-fungal agents, and environmental bioremediation and enhanced oil recovery technologies. All this makes them desirable candidates for downstream applications as they are fast becoming high value specialty chemicals that have numerous applications. The structure-activity-related properties of the biosurfactants which are directly correlated with their potency as antimicrobial agents, is a result of their ability to alter surface energies and their ability to increase bioavailability. Such properties have attracted researchers to exploit their potential use in the oral-related health applications. Current research into biosurfactant indicates significant future potential for use in cosmetic and therapeutic oral hygiene product formulations and related medical device treatments. In this presentation, we hope to emphasize recent research output and directions highlighting biosurfactant properties including antimicrobial activity, emulsion formation and the ability to increase bioavailability of hydrophobic compounds which makes them potential candidates for use in cosmetic, therapeutic, oral hygiene and medical devices.

im.banat@ulster.ac.uk