Special Issue

Barrier Function of Skin and Oral Mucosa

Message from the Guest Editor

Skin and oral mucosa have superficial permeability barriers that protect underlying viable tissue. Due to their physical properties, these barriers limit penetration of harmful substances. In skin, stratum corneum (SC) is produced. SC cells are flat and are bounded by a cornified envelope (CE) consisting of polymerized proteins. The outer surface of the CE is coated by a monolayer of \(\mathbb{Z}\)-hydroxyceramides (CLE). Between the CLEs of adjacent cell layers is a mixture of ceramides, cholesterol and fatty acids. The CLE and the intercellular lipids form multilamellar structures that determine the permeability of the skin. In oral mucosa, the gingiva and hard palate produce SC. These regions do not have CLE, and intercellular lipid levels are lower. Buccal regions and the underside of the tongue are nonkeratinized. These regions do not produce SC. There is some evidence that lipid structures within the intercellular spaces may provide the barrier. The purpose of this Special Issue is to present the current perspectives on the barrier function of skin and oral mucosa. Original research articles and reviews are welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 May 2021)



International Journal of Molecular Sciences

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