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The mechanism of skin lipids influencing skin status

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Abstract: Skin lipids, composed of sebocyte-, keratinocyte-, and microbe-derived lipids, dramatically influence skin status by different mechanisms. (I) Physical chemistry function: They are “mortar” to establish the physico-chemical barrier function of skin; (II) Biochemistry function: They function as signals in the complex signaling network originating at the epidermal level; (III) Microecology function: Sebocyte- and keratinocyte-derived lipids vary the composition of microbial skin flora, and microorganisms metabolize them to produce lipids as signal starting signaling transduction. Importantly, further research needs lipidomics, more powerful analytical ability and high-throughput manner, to identify skin lipid components into individual species. The validation of lipid structure and function to research the process that lipid species involved in. Additionally, the integration of lipidomics data with other omics strategies can develop the power to study the mechanism of skin lipids influencing skin status.

Keywords: skin lipid, skin status, microecology, lipidomics.

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