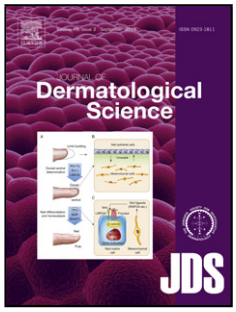

Title: The mechanism of skin lipids influencing skin status

Authors: Yan Jia, Yao Gan, Congfen He, Zhou Chen, Cheng Zhou

PII: S0923-1811(17)30979-9
DOI: https://doi.org/10.1016/j.jdermsci.2017.11.006
Reference: DESC 3280

To appear in: *Journal of Dermatological Science*

Received date: 30-10-2017
Accepted date: 14-11-2017

Please cite this article as: Jia Yan, Gan Yao, He Congfen, Chen Zhou, Zhou Cheng.The mechanism of skin lipids influencing skin status.*Journal of Dermatological Science* https://doi.org/10.1016/j.jdermsci.2017.11.006

The mechanism of skin lipids influencing skin status

Yan Jia[1,*], Yao Gan[1], Congfen He[1], Zhou Chen[2], and Cheng Zhou[2]

[1]Beijing Key Laboratory of Plant Resources Research and Development, School of Science, Beijing Technology and Business University, Beijing 100048, China
[2]Department of Dermatology, Peking University People's Hospital, Beijing China

*Correspondence: Yan Jia, Beijing Key Laboratory of Plant Resources Research and Development, School of Science, Beijing Technology and Business University, Beijing 100048, China. Tel.: +86 10 68984937; E-mail: jiayan@btbu.edu.cn.

Abstract: Skin lipids, compose 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 lipidiomics, 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. Additional, 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.