

〈シンポジウム II〉『環境と皮膚』

体内環境と皮膚 角層構造と皮膚

角層のバリア・保湿機能

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**Barrier and Water Holding Function of Stratum Corneum**

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**Abstract**

The ceramide in the stratum corneum is crucial for cutaneous barrier function and water holding capacity. There are many approaches to increase the ceramide by topical application of ceramide or enhance the epidermal synthesis. Recently it is found that the not only the quantity of ceramides but also the quality of ceramides. The ceramides form lamellae structure in the intercellular domain of stratum corneum and the stability may be important for the stratum corneum functions. The acylceramide is one of the key molecules to stabilize the lamellae structure. These days it is found that sphingosine also stabilize the lamellae structure. Additionally the lipidomic analysis found that the ceramide profile varies depending on the stratum corneum function. These results may suggest that stratum corneum function is controlled by ceramide contents, ceramide profiles, and sphingosine.

**Key words:** ceramide, acylceramide, lamellae structure, profile, LC-MS.