

〈講 演〉

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## マイクロニードルが拓く新たな化粧品・医薬品の世界

中川 晋作\*

### **A World of Novel Cosmetics and Medicines to Open Up by Microneedles**

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#### **Abstract**

Various delivery techniques have been devised to improve the transdermal absorption efficiency of drugs. One of them is the microneedle method. Microneedles are technologies that improve the transdermal delivery efficiency of drugs by creating micropores in the stratum corneum using micrometer-sized needles. This technique is useful not only for drug development but also for cosmetic development. In recent years, development of various microneedles has been developed due to improvements in microfabrication technology. Japan's R&D technology for microneedles is at a high level. In particular, in 2008, the world's first microneedle cosmetics originated in Japan have been launched. This article outlines the characteristics of microneedles and introduces their application to cosmetics.

**Key words:** microneedle, transdermal delivery.