

〈シンポジウム I〉

『毛髪研究の最前線：毛包幹細胞から毛髪特性まで』

毛髪の再生—毛包幹細胞の最新の話—

伊藤真由美

**Hair Follicle Stem Cells and Tissue Regeneration in the Skin**

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**Abstract**

Hair follicle stem cells in the bulge area are responsible for hair follicle regeneration that cyclically occurs under normal homeostatic conditions. Upon wounding, these hair follicle stem cells migrate to the epidermis and contribute to epidermal healing. On the other hand, skin epidermal cells that do not normally produce hair follicles have the ability to regenerate hair follicles when hair follicle stem cells are lost through injury. These studies suggest that adult skin cells possess the intrinsic capacity to alter the fate between the epidermis and hair follicles in order to facilitate skin regeneration. Understanding the molecular mechanisms underlying the fate decision of skin cells may thus reveal the strategy to control wound healing as well as to regenerate hair follicles lost as a result of disease or aging.

**Key words:** stem cell, hair follicle, epidermis, tissue regeneration, wound healing.