

Development of model mice for skin hyperpigmentation

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Hyperpigmentation (e.g., melasma, freckles, senile pigment freckles, and post-inflammatory pigmentation) is a common skin disorder that progress with exposure to sunlight and is generally intractable. Hydroquinone, tranexamic acid, corticosteroids and kojic acid are well-established agents for treating hyperpigmentation. However, problems of limited efficacy, recurrence and side effects such as hypopigmentation remain. Model mice would be important for the development of effective drugs. However, unlike human skin, the amount of melanin and the number of melanocytes are very limited in the epidermis of wild-type haired mice and hairless mice. Therefore, model mice having pigmented skin would be a useful tool for studying the mechanisms of hyperpigmentation and for developing effective drugs. Recently, an original mouse with pigmented skin was developed in our laboratory. In this study, we examined whether hyperpigmentation is induced by UVB radiation in the skin from our original mouse.