

〈教育セミナー〉

(21世紀を迎えてのアンチエイジング—髪を美しく保つために)

白髪研究の現状と防止の可能性

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Recent Research of Gray Hair and Possibility of Prevention

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Abstract

It is usually considered that hair graying is a part of aging and its major cause is believed to be a reduction in the number of melanocytes, which proliferate and synthesize melanin. Some factors concerning proliferation and melanin synthesis of melanocytes are presumed to be very important for prevention and recovery from gray hair. Recently, it was reported that localization of melanocytes is exquisitely controlled in the growth cycle of hair, the level of melanin synthesis is closely related with hair growth, and that most of the gray hair contains melanocytes, even though its amount is small. We observed a case whose gray hair turned black within 7 months suggesting gray hair has a potential to be back to black hair if melanocytes were stimulated by growth factors contributing proliferation and differentiation. Due to the development of molecular biology, a wide range of research on the function of melanocytes has been rapidly developed and it has been proved that factors such as cytokines and hormones are much related to the proliferation and differentiation of melanocytes. Furthermore, a recent research on hair growing process identified some factors controlling hair growth. In this review article, the possibility of preventing gray hair was discussed based on the relevance with the hair growth cycle and melanin synthesis.

Key words: gray hair, melanocyte, hair growth cycle, growth factor.