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Evaluation of human melanocyte migration *in vitro* by a small scale but powerful method utilizing the real-time cell mobility assay device

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Melanocytes are key players for homeostasis in skin and hair by producing melanin for pigmentation. Since the migration of melanocyte plays an important role for physiological and pathological status in skin, to develop assay methods for melanocyte function is useful for research in Dermatology as well as for evaluating effects of chemicals on these cells. We established a small-scale but powerful assay method for human melanocyte migration *in vitro* utilizing the real time cell motility assay device (Exp Dermatol. 22(10): 664-7) and evaluated human melanocyte migration to chemokines. We found that the melanocyte migration to CXCL12 was enhanced with extracellular matrix as a scaffolding molecule and that the migration was further enhanced by treating with chemical substances such as ciglitazone, FK506, and alpha melanocyte stimulating hormone. This method is useful for evaluation of melanocytes in various conditions and can contribute to regulation of melanocyte function.

Biography

Akira Yamauchi is the Associate Professor, Department of Biochemistry, Kawasaki Medical School, Kurashiki, Japan. Akira Yamauchi graduated from Nagasaki University, School of Medicine (Nagasaki, Japan) in 1995 and trained at the Second Tokyo National Hospital (Tokyo, Japan). He got Ph.D. degree at Nagasaki University Graduate School in 2001 and joined Herman B Wells Center for Pediatric Research, Indiana University School of Medicine (Indianapolis, USA) as a post-doctoral fellow. And then he worked at the University of Tokyo (Tokyo, Japan) as an Assistant Professor and also at ECI Inc., as a Director. Since 2010, he has been working at the current position. His major is analysis of host defense system and cell migration.

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