

Professor Daisuke Tsuruta,

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Professor Tsuruta specializes in autoimmune bullous diseases (pemphigus and pemphigoid). In addition to clarifying the pathology and development of treatments, Dr. Tsuruta's laboratory is also conducting an elucidation of the mechanism of hair growth and development of new therapeutic drugs for depilation, studying the pathological analysis of oculocutaneous albinism and its treatment, and studying the treatment of infectious diseases with photodynamic therapy (PDT).

There is believed to be no relationship between the two studies of clarifying the pathology of autoimmune bullous diseases and elucidating the mechanism of hair growth. However, both studies involve the basement membrane. The basement membrane is located between the epidermis and the dermis lying underneath the epidermis. Dr. Tsuruta focuses on the function of the basement membrane on the pathogenesis of several skin diseases. Autoimmune bullous diseases are

incurable disorders in which the body produces antibodies that attack the basement membrane. Since the basement membrane molecule laminin-332 inhibits hair growth and laminin-511 promotes hair growth, the study of how to control the two molecules has led to greater understanding of the mechanism of hair growth. In addition, recent studies reveal that endocannabinoids, which activate cells similarly to cannabis and lead to a sense of euphoria, are involved in hair growth. As such, Dr. Tsuruta advances his research from every possible angle.

Dr. Tsuruta's goal is to one day be able to say, "We could contribute to elucidating the pathomechanisms of intractable skin diseases," and to share his joy with everyone in the laboratory. Today, he continues to devote himself to studies in diagnoses and treatments of intractable skin diseases.



Another side

Dr. Tsuruta actively takes part in overseas conferences and works in international cooperation, so he has many occasions to go overseas. Since he is a skin specialist, his own skin looks marvelous, despite widespread explanations of how men's skin is drier found on the Internet and in newspapers and magazines. For a change of pace, he likes to play music, having learned piano from a young age and the horn from junior high school. While in university, he was a member of the Osaka City University Medical School Orchestra, and still enjoys sessions with his family.