Institute of Medical Biology
A*STAR

Seminar Announcement

- All Are Welcome -

Speaker : **Professor Maurice van Steensel**
Professor of Genetic Dermatology and
Vice-chair of Department of Dermatology,
Maastricht University Medical Centre

Title : ***"Understanding acne: Insights into a common skin disease from ultra-rare genetic disorders"***

Date : **28 November 2013 (Thursday)**
Time : **11:00am – 12:00pm**
Venue : **Creation Theatrette, Matrix Level 4**
Host : **Prof Birgit Lane**
(Tel: 64070151, e-mail: birgit.lane@imb.a-star.edu.sg)

Abstract:

Acne is a common skin condition, in some countries affecting almost 100% of adolescents. It is characterised by comedones, which are cystic sebaceous glands, and inflammation. Acne can leave disfiguring scars and often requires systemic therapy. However, treatment options are limited and no novel drug classes are being developed. Thus, there is a significant unmet medical need. However, acne pathogenesis remains elusive.

We know that genetic predisposition, hormonal influences and a Western diet are important precipitating factors. It is not clear how or why these should cause acne. Recent results from my lab provide novel insights. We have elucidated the genetic basis of Borrone syndrome, a recessive condition causing severe acne. The gene defects that we found interfere with podosome function. Podosomes are cellular extensions that mediate tissue remodeling.

We propose that acne in Borrone syndrome results from defective tissue remodeling due to podosome dysfunction. From this, sporadic acne may likewise be caused by sebaceous glands being unable to properly remodel cutaneous connective tissue. This hypothesis explains known risk factors for acne. It also predicts that genetic association studies should reveal genes that are involved in tissue remodeling and related processes. Additionally, it points to novel targets for medical intervention.

About the Speaker:

Maurice van Steensel is professor of genetic dermatology and vice-chair of the department of Dermatology in Maastricht University Medical Center, the Netherlands.

He studied medicine at the University of Nijmegen (NL) obtaining his MD in 1996. During his study, he was active in clinical genetics research and trained in molecular genetics. After graduating, he completed a cum laude PhD in genetics and dermatology, while training to become a dermatologist. In 2006, dr. van Steensel completed his dermatology training and in 2008 became associate professor and vice-chair of the department. He was appointed full professor in 2010.

Prof. van Steensel is an internationally renowned expert in genetic skin disorders. He is active in numerous national and international patient and professional organizations. His scientific accomplishments include over 200 peer-reviewed papers in national and international journals, several book chapters and over 100 invited talks at national and international conferences. He has obtained numerous grants and awards for his work, which covers the full range of genetic dermatology from the clinical identification of novel disorders to ciliary biology. His present research interests focus on the molecular cell biology of ultra-rare disorders and the application of systems biology approaches to improve patient care.