WISAS SPECIAL

SFB 829

post Klenk Minisymposium

NEXT GENERATION FEMALE LEADERS PUSHING EPIDERMAL-DERMAL CROSSTALK

WHERE
CECAD LECTURE HALL
JOSEPH-STELZMANN-STRAßE 26
50931 COLOGNE

WHEN
17TH OCTOBER 2017
2:30 PM - 4:30 PM

PROGRAM

Session 1: Fibroblast function in skin homeostasis and regeneration

14.30 – 15.00 Claire Higgins (London) - *In vitro and in silico models to study skin function*
15.00 – 15.30 Beate Lichtenberger (Wien) - *Fibroblast heterogeneity in skin homeostasis, regeneration and disease*

Session 2: Epithelial function in skin homeostasis and regeneration

15.30 – 16.00 Ning Xu Landén (Stockholm) -*The role of regulatory RNAs in wound healing*
16.00 – 16.30 Maria Alcolea (Cambridge) - *Oesophageal Stem Cell Plasticity - Relevance for Tumour Development*

SFB 829 MOLECULAR MECHANISMS REGULATING SKIN HOMEOSTASIS

ORGANIZATION COMMITTEE: SARA WICKSTRÖM, HISHAM BAZZI, SANDRA IDEN, THOMAS KRIEG, CARIEN NIESSEN

Maria Alcolea

Maria is a cell biologist who has focused on understanding the behaviour of epithelial stem and progenitor cells in health and disease. Using the mouse oesophagus as a model, and by combining genetic lineage tracing approaches with methods from statistical physics, Maria's work revealed the remarkable cellular plasticity of epithelial cells in this tissue. Cells are not only able to redefine their programme of cell behaviour in response to injury and early tumour formation, but they also adapt to these perturbations by reaching a new steady state that ensures tissue maintenance. Investigating the cellular and molecular mechanisms governing this dynamic cell behaviour, and the potential implications for early cancer development represent Maria's main interests.

Ning Xu Landén

After obtaining a PhD degree in molecular virology at Uppsala University Sweden, Ning Xu Landén joined Prof. Mona Ståhle's lab at Karolinska Institute as a Postdoc in 2009, studying the roles of microRNAs in the pathogenesis of psoriasis and skin cancers. Ning started her research group in 2014, with focus on regulatory RNAs (e.g. microRNA and long non-coding RNAs) in skin wound reparation. Her goal is to understand the functions of regulatory RNAs in wound healing to develop RNA-based therapy for chronic wounds. Since then Ning's team has characterized the expression profiles of regulatory RNAs in injured human skin during normal wound healing process and in chronic wounds. They have revealed biological functions and underlying molecular mechanisms of several miRNAs and long non-coding RNAs in wound healing. They also explore the therapeutic potential of miRNAs using human ex vivo and mouse in vivo wound models.

Beate Lichtenberger

For her postdoc, Beate Lichtenberger joined the lab of Prof. Fiona Watt, one of the world-leading labs in skin and stem cell biology, at the University in Cambridge and later at King's College London as a postdoctoral fellow. During her postdoctoral studies she discovered that skin dermis comprises two fibroblast lineages with different functions in skin physiology and pathology, and investigated which pathways are involved in the niche signalling of epidermal stem cells and fibroblasts Since April 2016 she is a principal investigator at the Skin & Endothelium Research Division, the Department of Dermatology at the Medical University of Vienna. Her research focuses on dissecting the role of distinct fibroblast subpopulations in non-melanoma and melanoma skin cancer as well as in fibrotic skin diseases and on investigating if modulating dermal signalling affects skin regeneration and cancer progression.

Claire Higgins

Claire joined the Department of Bioengineering at Imperial College London in 2014, and has assembled a research lab which focuses on fibroblast function, tissue repair and regeneration specifically in the context of human skin. Lab interests include developing in vitro models to assess the role of dermal fibroblast sub-types in wound repair and hair growth. Comparatively, in silico models are being developed and used to investigate the structural features of skin which enable sites such as the feet to have load bearing capacity. Ultimately this research is being conducted with the goal of translating the findings to enable other body sites to become capable of bearing load.