

## Program Kloster Seeon Meeting “Angiogenesis”

**Friday, September 24, 2021**

15:00            **Welcome and introduction**  
Tatiana Petrova (chair), Stefan Schulte-Merker (chair)

15:15 – 18:15	<b>Session 1</b>
---------------	------------------

**Endothelial cell origins, lineages and sub-types**

Discussion leader: Ralf Adams (Münster, GER)

15:15            **Taija Mäkinen (Uppsala, SWE)**  
Vessel type-specific mechanisms of lymphatic development and disease

15:45            **Holger Gerhardt (Berlin, GER)**  
Principles and regulation of vascular remodelling – the endothelial cell junction in focus

16:15 **BLITZ 1**    **Katarzyna Koltowska (Uppsala, SWE)**  
Mafba and mafbb differentially regulate lymphatic endothelial cell migration in topographically distinct manners

16:30            *Coffee break*

17:00 **BLITZ 2**    **Mara Pitulescu (Münster, GER)**  
Cell-cell signaling mechanisms controlling sprouting and artery formation

17:15            **Alice Neal (Oxford, UK)**  
Using enhancers to understand vessel development in the heart and beyond

17:45            **Karina Yaniv (Rehovot, ISR)**  
Generation of specialized blood vessels through transdifferentiation of lymphatic endothelial cells

18:45            *Dinner*

20:00 - 21:00    **Panel discussion: “Publishing your research”**

Moderator: Jeremiah Bernier-Latmani, Lausanne, SWI

Panelists: Hellmut Augustin, Heidelberg, GER  
George Caputa, Associate Editor, Nature  
Holger Gerhardt, Berlin, GER  
Michele Marass, Senior Editor, Nature Communications  
Lise Roth, Scientific Editor, EMBO Molecular Medicine  
Vesna Todorović, Chief Editor, Nature Cardiovascular Research  
Karina Yaniv, Rehovot, ISR

**Saturday, September 25, 2021**

08:45 – 12:15

**Session 2**

**Perivascular niches and cells**

Discussion leader: Anna Randi (London, UK)

08:45

**Kari Alitalo (Helsinki, FIN)**

Involvement of angiotensin receptors in atherosclerosis

09:15 **BLITZ 3**

**Susanne Fleig (Bonn, GER)**

Loss of vascular endothelial Notch signaling induces tertiary lymphoid structures in parenchymatous organs

09:30 **BLITZ 4**

**Andreas Fischer (Heidelberg, GER)**

Angiocrine signals promote adipose tissue wasting in cancer cachexia

09:45

**Lars Muhl (Uppsala, SWE)**

Molecular characterization of smooth muscle cell-archetypes and subtypes

10:15

*Coffee break*

10:45

**Anne Eichmann (New Haven, USA)**

Molecular regulation of endothelial barrier function

11:15

**Mariona Graupera (Barcelona, ESP)**

Pathophysiological implications of high PI3K signaling in endothelial cells

11:45

**Luisa Iruela-Arispe (Chicago, USA)**

The Goldilocks principle in angiogenesis requires the RNA-decay protein ZFP36

12:15

*Lunch*

13:30 – 15:00

**Poster Session I**

15:00 – 16:00

**Session 3**

**Metabolite and lipid signaling in endothelial cells**

Discussion leader: Kairbaan Hodivala-Dilke (London, UK)

15:00

**Michael Potente (Bad Nauheim, GER)**

Surveillance mechanisms in the vascular endothelium

15:30 **BLITZ 5**

**Anna Rita Cantelmo (Lille, FRA)**

Aberrant calcium homeostasis is a hallmark of endothelial-to-mesenchymal transition

15:45 **BLITZ 6**

**Massimo Santoro (Padua, ITA)**

Oxidative pentose phosphate pathway controls vascular mural cell coverage by regulating extracellular matrix composition

16:00 – 22:00

*Social event*

**Sunday, September 26, 2021**

**08:30 – 11:30      Session 4**

**Vascular renewal and repair**

Discussion leader: Mariona Graupera (Barcelona, ESP)

08:30      **Myriam Grunewald (Jerusalem, ISR)**  
Undoing vascular ageing for healthspan extension

09:00 **BLITZ 7**      **Harald Junge (Minneapolis, USA)**  
A Norrin/Wnt surrogate antibody stimulates endothelial cell barrier function and rescues retinopathy

09:15      **Hellmut Augustin (Heidelberg, GER)**  
Moving angiogenesis from candidate gene biology towards vascular systems biology

09:45      *Coffee break*

10:15      **Michael Simons (New Haven, USA)**  
Metabolic control of endothelial cell fate transitions

10:45 **BLITZ 8**      **Konstantin Gaengel (Uppsala, SWE)**  
Cell migration defects contribute to the formation of vascular malformations in CCM

11:00      **Lena Claesson-Welsh (Uppsala, SWE)**  
Endothelial resilience to mechanical stress

11:30      *Group photo*

12:00      *Lunch*

**13:15 – 14:45      Poster Session II**

**14:45 – 18:45      Session 5**

**Organ-specific vascular networks**

Discussion leader: Carmen Ruiz de Almodóvar (Mannheim, GER)

14:45      **Eckhard Lammert (Düsseldorf, GER)**  
Identification of a mechanically-induced, growth-promoting angiocrine signal in the liver

15:15 **BLITZ 9**      **Jeremiah Bernier-Latmani (Lausanne, SWI)**  
Endothelial apelin signaling maintains intestinal progenitor cells

15:30      **Tatiana Byzova (Cleveland, USA)**  
Innate immunity receptor TLR2 in tissue regeneration

16:00      **Ralf Adams (Münster, GER)**  
Heterogeneity and functional specialization of the bone microvasculature

- 16:30 *Coffee break*
- 17:00 **Gou Young Koh (Daejeon, KOR)**  
Vascular heterogeneity in respiratory organs
- 17:30 **BLITZ 10** **Natalie Tisch (Mannheim, GER)**  
Caspase-8 in endothelial cells is required to maintain gut homeostasis and to prevent small bowel inflammation in mice
- 17:45 **Benoit Vanhollebeke (Brussels, BEL)**  
Single-cell control mechanism of brain angiogenesis and blood-brain barrier formation
- 18:15 **Katrien De Bock (Zürich, SWI)**  
Endothelial GLUT1 controls muscle insulin sensitivity by angiocrine regulations of resident muscle macrophage activation and proliferation
- 19:30 *Dinner*

**Monday, September 27, 2021**

8:45 – 12:00	<b>Session 6</b>
--------------	------------------

**Endothelial cells in pathology**

Discussion leader: Karina Yaniv (Rehovot, ISR)

- 08:45 **Gabriele Bergers (Leuven, BEL)**  
Getting endothelial cells high on lymphocytes
- 09:15 **BLITZ 11** **Ashik Ahmed Abdul Pari (Heidelberg, GER)**  
Vascular aging limits metastasis
- 09:30 **BLITZ 12** **Lubor Borsig (Zürich, SWI)**  
The endothelium during tissue-specific metastatic outgrowth
- 09:45 **Kairbaan Hodivala-Dilke (London, UK)**  
Enhancing the efficacy of immunotherapy in non-small cell lung carcinoma using a new RGD-mimetic oral prodrug
- 10:15 *Coffee break*
- 10:45 **Saravana Ramasamy (London, UK)**  
Functions of blood vessels in bone remodelling
- 11:15 **Miikka Vikkula (Brussels, BEL)**  
Vascular anomalies: Novel findings into their pathophysiological bases
- 11:45 **Final announcements**  
Tatiana Petrova & Stefan Schulte-Merker
- End of meeting**
- 12:00 *Lunch*
- 13:00 *Departure of shuttle buses*