

# **Interdisciplinary CiM-IMPRS Graduate School Meeting**

**Wednesday 20 October 2021 - Friday 22 October 2021**

## **Scientific Programme**

**20th OCT, 2021 Cell & Molecular Biology**

## Session 1 - afternoon

13:00 - 13:30 Welcome

13:30 - 14:30 **Prof. Dr. Hellmut Augustin:**

The systemic vasculature as guardian of health and longevity

14:30 - 15:00 **Dr. Cedric Bardy:**

Modeling human brain disorders in vitro with patient-derived induced pluripotent stem cells

15:00 - 15:30 Q&amp;A

15:30 - 16:00 **Prof. Dr. Marco Prinz:**

Heterogeneity of myeloid cells in the brain

16:00 - 16:30 **Dr. Michael Potente:**

Metabolic guidance of vascular growth and differentiation

16:30 - 17:00 Young Investigator Talk

17:00 - 17:30 Q&amp;A

**21st OCT, 2021 Cell Metabolism**

## Session 2 - morning

10:00 - 10:30 **Prof. Dr. Marino Zerial:**

Mechanisms of hepatocyte polarization and liver tissue morphogenesis

10:30 - 11:00 **Prof. Dr. Christof Osman:**

Keeping the good ones: intracellular selection of mitochondrial DNA

11:00 - 11:30 Young Investigator Talk

11:30 - 11:45 Q&amp;A

11:45 - 12:30 Lunch Break

12:30 - 13:00 Poster Session

13:00 - 14:00 **Prof. Dr. Gökhan S. Hotamisligil:**

Molecular architecture as a critical determinant of metabolism

14:00 - 14:30 **Prof. Dr. Kelly Grace Magalhaes:**

The impact of adipose tissues in cancer cells and macrophage immunometabolism

14:30 - 15:00 Q&amp;A

**21st OCT, 2021 Cell Architecture Visualization**

## Session 3 - afternoon

15:00 - 16:00 **Prof. Dr. Taekjip Ha:**

Light, CRISPR and DNA repair

16:00 - 16:30 Young Investigator Talk

16:30 - 17:00 Q&amp;A

17:00 - 17:30 **Prof. Dr. Stefan Raunser:**

Cryo-ET reveals sarcomere structures at molecular resolution

17:30 - 18:00 **Prof. Dr. Carlos Bustamante:**

Power at the nanoscale: speed, strength and efficiency in biological motors

18:00 - 18:30 **Prof. Dr. GV Shivashankar:**

Mechano-genomics of cell-state transitions

18:30 - 19:00 Q&amp;A

**22nd October, 2021 Tissue Engineering**

## Session 4 - morning

09:00 - 10:00 **Prof. Dr. Hans Clevers:**  
Organoids to model human disease  
10:00 - 10:30 **Prof. Dr. Matthias Lutolf:**  
Engineering organoids-on-a-chip  
10:30 - 11:00 Q&A  
11:00 - 11:30 **Prof. Dr. Anne Grapin-Botton:**  
Engineering pancreas organogenesis: from self-organization to understanding diabetes  
11:30 - 12:00 Young Investigator Talk  
12:00 - 12:30 **Dr. Kristina Haase:**  
Tissue-specific vascular models – modelling human disease at the microscale  
12:30 - 12:45 Q&A  
12:45 - 13:30 Lunch Break  
13:30 - 14:00 Poster Session

22nd October, 2021 **Systems Biology**

Session 5 - afternoon

14:00 - 15:00 **Prof. Dr. James Collins:**  
Synthetic biology: life redesigned  
15:00 - 15:30 **Prof. Dr. Carolina Wählby:**  
Image analysis and AI in microscopy-based life science research  
15:30 - 16:00 Q&A  
16:00 - 16:30 **Dr. Stephan Preibisch:**  
Towards reconstructing petabyte-scale lightsheet microscopy acquisitions  
16:30 - 17:00 **Dr. Laleh Haghverdi:**  
Computational approaches for analysis of single-cell multi-modal data  
17:00 - 17:15 Q&A  
17:15 - 17:30 Closing remarks