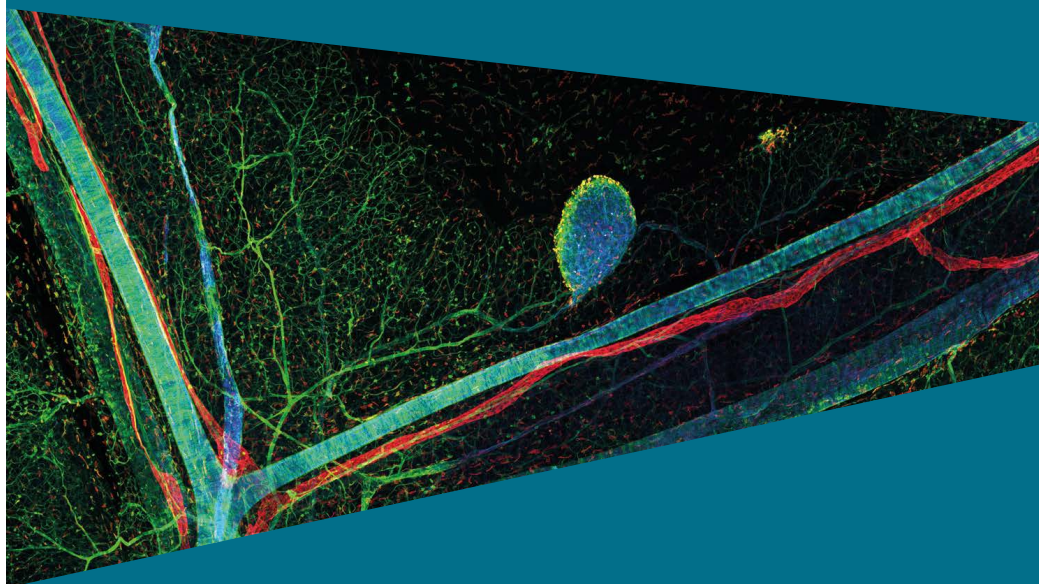




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TRACI
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5th Inflammation & Imaging Symposium

08–10 September 2025

Multiscale Imaging Centre (MIC)

Röntgenstraße 16, Münster, Germany

Programme

Imager: Visualisation of a branch of the mesenteric vessel bed by immunofluorescence microscopy. Major blood (turquoise) and lymph (red) vessels are surrounded by a rich capillary network (green), in which regulatory lymphatic organs (blue, egg-shaped) are embedded. Essler Research / Meier lab, European Institute for Molecular Imaging, Münster

Session: Immune cell imaging across scales *Chair: A.Faust & M. Schäfers*

- 13:30 **Welcome**
Michael Schäfers, *Spokesperson CRC 1450 inSight, Münster*
- 13:40-14:10 **Astatine-211 in oncology – from production to combined alpha-immunotherapy**
Bernd Neumaier, *Forschungszentrum Jülich*
- 14:10-14:20 **Monitoring hypoxia dynamics in the liquid microenvironment of cell cultures**
Maria Micheva, *Max Planck Institute for Polymer Research, Mainz*
- 14:20-14:50 **Advances in translational immunoimaging in cancer**
Johannes Schwenck, *Werner Siemens Imaging Center, Tübingen*
- 14:50-15:00 **CNFY-triggered targeting of the regulated exocytosis machinery enhances bacterial transcytosis across the intestinal barrier**
Christopher Margraf, *Institute of Infectiology, University of Münster*
- 15:00-15:30 **Into the 3d dimension**
Danny Jonigk, *Uniklinik RWTH Aachen*
- 15:30 *Coffee break*

Keynote and poster session A *Chair: F. Kiefer*

- 16:15-17:00 **Keynote lecture**
Ratiometric mosaics for precision single-cell functional genetics
Rui Benedito, *Max Planck Institute for Molecular Biomedicine, Münster*
- 17:00-17:30 **Poster pitches** (odd numbers): A lively overview about the multifaceted research projects from junior scientists in Münster!
- 17:30-19:00 **Poster walk** (odd numbers): Grab something to drink and enjoy the scientific exchange!

Session: Cell dynamics in health and disease *Chair: P. Backhaus & F. Sánchez*

- 09:00-09:30 **Oligodendrocyte-blood vessel mode of interaction shapes brain development**
Carla Gomes da Silva, *University Medical Center Utrecht*
- 09:30-09:40 **Impaired neutrophil migration in S100A9-/- mice during sepsis is linked to dysregulated kinase activities**
Saskia Mülder, *Institute of Immunology, University of Münster*
- 09:40-10:10 **Molecular mechanisms of epithelial (mal-)adaptation to organ damage**
Thomas Worzfeld, *University of Marburg*
- 10:10-10:20 **Enhanced targeting of immune cells using albumin-coated nanocarriers for intracellular drug delivery**
Jaana Westmeier, *Department of Dermatology, University Hospital Münster*
- 10:20-10:50 **Danger signal regulation of leukocyte migration**
Pablo J. Sáez, *UKE Hamburg*
- 10:50 *Coffee break*

Session: Biomedical imaging & data analysis *Chair: B. Risse & B. Wirth*

- 11:20-11:50 **Inverse problems for the identification of forces in biophysics**
Anne Wald, *University of Göttingen*
- 11:50-12:00 **Strategies for MRI of immune cells**
Lauritz Klünder, *Department for Radiology, University Hospital Münster*
- 12:00-12:30 **Extended reality in the operating room and before the OR**
Gabriel Zachmann, *University of Bremen*
- 12:30-12:40 **Dynamic optimal transport-based cell tracking in PET with time-of-flight information**
Nils Marquardt, *European Institute for Molecular Imaging, University of Münster*
- 12:40 *Lunch*

Poster session B

- 13:40-14:00 **Poster pitches** (even numbers): A lively overview about the multifaceted research projects from junior scientists in Münster!
- 14:00-15:00 **Poster walk** (even numbers): Grab something to drink and learn about the most recent research projects from junior scientists in Münster!

Coffee break

Session: Immune cell interaction in inflammation and cancer

Chair: T.Lämmermann & A. Margraf

- 15:30-16:00 **On the role of platelets in dictating hepatitis and response to immunotherapy in liver cancer**
Mathias Heikenwälder, *University Hospital and Eberhard Karls University Tübingen*
- 16:00-16:30 **Interactions and divergent functions of monocyte-derived cells during infection and tumour**
Andreas J. Müller, *Otto-von-Guericke-University Magdeburg*
- 16:30-17:00 **Inflammation in cardiovascular diseases**
Konstantin Stark, *LMU Munich*

Session: Unlocking the power of spatial omics *Chair: A. Rambold & O. Söhnlein*

- 09:00-09:30 **Investigating immune-fibroblast cross talk in cardiovascular diseases using spatial multi-omics and AI**
Sikander Hayat, *Uniklinik RWTH Aachen*
- 09:30-10:00 **Imaging mass spectrometry for the molecular analysis of immune cells at cellular and sub-cellular resolving power**
Jens Soltwisch, *University Hospital Münster*
- 10:00-10:30 **Beyond the surface – 3D spatial molecular maps in optically cleared whole organism**
Harsharan S. Bhatia, *Helmholtz Center Munich*
- 10:30 *Coffee break*

Session: Sepsis & ARDS *Chair: L. Brunotte & J. Rossaint*

- 11:00-11:30 **Metabolic reprogramming – an ancient mechanism to survive sepsis**
Hernando Gómez Danies, *University of Pittsburgh*
- 11:30-12:00 **Sepsis – current and future therapy**
Mervyn Singer, *University College London*
- 12:00-12:30 **Host-directed therapies in pneumonia and ARDS – bench-to-bedside**
Susanne Herold, *University Hospital Gießen & University of Gießen*
- 12:30-13:00 **Latent class analysis using plasma biomarkers identifies two inflammatory phenotypes with differential responses to therapy in a mouse model of ARDS**
Michael Matthay, *University of California, San Francisco*
- 13:00 **Closing remarks & poster prizes**

Special session for clinician scientists in Münster

Chair: Clinician Scientist CareerS Münster

- 13:15-14:30 **A career as a clinician scientist – international views and informal exchange**
Our international guests – Hernando Gómez Danies, Susanne Herold, Michael Matthay and Mervyn Singer – will be available for an inspiring and supportive exchange with our local community of junior clinician scientists.