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# Inflammation & Imaging Symposium

Münster, Germany | Multiscale Imaging Centre

11–13 September 2023

**Programme  
and list of posters**



## Monday 11.09.2023

### Session 1 *Chair: Linda Brunotte*

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- 14:00 **Welcome**
- 14:10-14:40 **Melanie Meersch-Dini:** The effect of DAMPs and remote ischemic preconditioning on the prevention of acute kidney injury
- 14:40-15:10 **Christian Bode:** Cleaving critical illness into treatable traits - A role for the immune response?
- 15:10 **Coffee break**

### Session 2 *Chair: Jan Rossaint*

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- 15:45-16:30 **Keynote – Mark Looney:** Live imaging of immune cell migration in pulmonary lymphatics
- 16:30-17:15 **Poster slam**
- 17:15-19:00 **Poster walk** with drinks and pretzel

## Tuesday 12.09.2023

### Session 3 *Chair: Carlos Silvestre-Roig*

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- 09:00-09:30 **Matthias Gunzer:** Mechanisms of immunosuppression after sterile tissue injury
- 09:30-10:00 **Hans-Uwe Simon:** The molecular mechanism of NET formation
- 10:00-10:30 **Venizelos Papayannopoulos:** Chromatin's life after death
- 10:30 **Coffee break**

### Session 4 *Chair: Noelia Alonso Gonzalez*

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- 11:00-11:30 **Francesca Peri:** Towards a dynamic quantitative understanding of neuronal-immune interactions in the brain
- 11:30-12:00 **Amanda W. Lund:** Tracking CD8 T cell migration out of skin and melanoma
- 12:00-12:30 **Monika Prünster:** E-selectin induced NLRP3 inflammasome activation in neutrophils
- 12:30 **Lunch**

### Session 5 *Chairs: André Schreiber, Samriti Sharma*

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- 13:30-13:40 **Katharina Hellenthal, André Schreiber and Samriti Sharma:** Clinician Scientist Programme CareerS & Medical Scientist Programme InFlame
- 13:40-14:00 **Flashlight Talks #1**
- Thilo von Groote:** Biomarker-based precision medicine for acute kidney injury in critically ill patients – moving from bench to bedside
- Anna Kuntze:** Functional role of different BAF complexes in synovial sarcoma differentiation
- Julian Zimmermann:** Dietary treatment of mice for antioxidant lipid replacement using deuterated polyunsaturated fatty acids
- 14:00-14:10 **Science Slam #1:**
- Philipp Berger:** Fever sleuths - Unraveling red flags in pediatric puzzles
- 14:10-14:30 **Flashlight Talks #2**
- Marcel Kemper:** Exploring neuroinflammatory properties of tumor cell-derived extracellular vesicles that promote brain metastasis in lung cancer
- Katharina Hellenthal:** Targeting truncated procalcitonin modulates sepsis immune response
- Ariana Plasger:** The role of syndecan-1 expression in the inflammatory and metabolic tumor microenvironment in breast cancer

14:30-14:40 **Science Slam #2:**  
**Jan Ehrchen:** Doped hogs

14:40 *Coffee break*

### Session 6 *Chair: Nicholas Schwab*

15:30-16:00 **Manuel A. Friese:** Determinants of neuronal vulnerability to inflammation

16:00-16:30 **Ulrich Flögel:** New building blocks of fluorine MRI for non-invasive assessment of cardiovascular inflammation

16:30-17:00 **Holger Eltzschig:** The hypoxia-inflammation link during lung injury

## Wednesday 13.09.2023

### Session 7 *Chair: Seraphine Wegner*

09:00-09:30 **Britta Engelhardt:** Imaging central nervous system immune privilege

09:30-10:00 **Alexander Flügel:** Multiscale and multimodal imaging of autoimmune neurodegeneration

10:00-10:30 **Jing Guo:** Biomechanical characterization of inflammatory processes with magnetic resonance elastography

10:30 *Coffee break*

### Session 8 *Chair: Melanie Meersch-Dini*

11:00-11:30 **Peter Pickkers:** Neuro-inflammation and its relation to cognitive outcomes

11:30-12:00 **Frauke Alves:** Multimodal and nanoparticle based imaging strategies to assess inflammatory processes

12:00 Poster award & closing remarks

## Posters

NO	Name	Poster title	Floor
1	Marina Kardell	Role of Myo9b RhoGap in integrin activity regulation and neutrophil recruitment	GF
2	Joana Nowacki	The impact of increased low density neutrophil levels on the inflammatory response after cardiopulmonary bypass surgery	GF
3	Ann-Katrin Wienkamp	The role of neutrophils during Yersinia pseudotuberculosis infection	GF
4	Anna-Lena Börsch	Understanding stroma cells of rodent meninges at single cell resolution	GF
5	Juella Cufe	Conversion of extracorporeally-derived PET and MRI arterial input functions for dual pharmacokinetic modeling using gadovist and [18F]F-PSMA-1007	GF
6	Nadine Bauer	Analysis of vascular modulation and tumor hypoxia in a mouse model of glioma	GF
7	Felix Dewies	Development of novel radiotracers for molecular imaging of inflammatory processes targeting alarmin S100A9	GF
8	Charlotte Ganter	Three-dimensional and molecular characterization of the human ductular reaction in hepatic disease	GF

NO	Name	Poster title	Floor
9	Lea Göbel	Specific PET-imaging of bacterial infections utilizing maltodextrin based radiotracers	1 <sup>st</sup> F
10	Nils Marquardt	Simulation of particle paths for single cell tracking in positron emission tomography	1 <sup>st</sup> F
11	Thomas Kirse	Superparamagnetic nanoparticles with phosphorescent complexes as hybrid contrast agents: Integration of MRI and time-resolved photoluminescence lifetime imaging micro(spectro)scopy	1 <sup>st</sup> F
12	Amarnath Bollu	Light-activated translation of mRNA in cells	1 <sup>st</sup> F
13	Duygu Merve Çalışkan	Characterization of pathogenicity factors of IBV/2018/Münster isolates from 2017/18 influenza season	1 <sup>st</sup> F
14	Saskia Sophie Hinse	Advanced models to study cell type specific host responses to infections with Influenza A viruses and SARS-CoV-2 in the human lung	1 <sup>st</sup> F
15	Sascha Beutler	Motion correction in fluorescence microscopy	1 <sup>st</sup> F
16	Robin Rexeisen	Multi-scale image registration by combining information theory and deep learning	1 <sup>st</sup> F
17	Vikramjeet Singh	Neutrophil extracellular traps melt Peyer's patches following stroke and myocardial infarction	1 <sup>st</sup> F
18	Mathis Richter	Neutrophils as novel biomarkers in myocardial infarction	1 <sup>st</sup> F
19	Bruna Caroline Vêras de Carvalho	Soluble CD163 modulates the immune response in bone marrow-derived macrophages	1 <sup>st</sup> F
20	Cindy Pamela Ulloa Guerrero	Interaction of stromal MadCAM-1 cells and metallophilic macrophages	1 <sup>st</sup> F
21	Linda Groeneweg	CD169+ macrophages contribute to lymphocyte aggregation in chronically inflamed CNS tissue	1 <sup>st</sup> F
22	Ricarda Jürgens	Metabolic priming of monocytes during inflammation	1 <sup>st</sup> F
23	Theresa Karagöz	Immune modulating activities of the cell penetrating Shigella effector protein IpaH7.8	1 <sup>st</sup> F
24	Laura Schmitz-Gielsdorf	Impact of myelin phagocytosis on myeloid cells and its effect on human oligodendrocytes	1 <sup>st</sup> F
25	Ting Fu	Performance-impacting visual network dysregulation in early mouse and human neuroinflammation	1 <sup>st</sup> F
26	Luis Correa	Role of laminin 411 in adipose tissue homeostasis, macrophage dynamics and inflammation during obesity	1 <sup>st</sup> F
27	Elisa Terenzani	Molecular mechanisms of leukocyte extravasation across endothelial basement membranes	1 <sup>st</sup> F
28	Merve İlhan-Bayrakci	Resolving interindividual dynamics of slow wave events in human EEG/fMRI recordings	1 <sup>st</sup> F
29	Maria Micheva	Poloxamer-gelatine hydrogels for all-optical sensing	1 <sup>st</sup> F
30	Lauritz Klünder	Quantifying iron-oxide loaded monocytes in magnetic resonance imaging	1 <sup>st</sup> F
31	Chris Lippe	Quantification of interfering signals in CEST imaging through enhanced multi-pool Lorentzian fitting	1 <sup>st</sup> F
32	Kira Engeroff	Rebalancing cortical neuronal hyperactivity as a new treatment strategy in neuroinflammation	1 <sup>st</sup> F