

Program of the SFB/CRC-TR 128 International Symposium

Multiple sclerosis and related disorders in 2024:

Past, present, and future

28 – 30 April 2024, Münster, Germany

For SFB/CRC-TR 128 “Initiating/Effector versus Regulatory Mechanisms in Multiple Sclerosis - Progress towards Tackling the Disease”

Monday, 29 April (venue: Castle of the Münster University, Schlossplatz 2, 48149 Münster, Aula)

Talks: 20 mins (15+5); Young Investigator Talks: 10 mins (7+3)

08:00-08:30 Welcome Coffee and Snacks

Session 1: MS and beyond: what have we learned, what is to be expected?

(08:30-10:10)

Chair: Frauke Zipp, Heinz Wiendl

08:30-08:50	Frauke Zipp + Heinz Wiendl	Looking back 10 years of evolution in the MS field: Where do we need to go?
08:50-09:10	Jonathan Kipnis	New insights into brain-immune interactions
09:10-09:30	Roland Liblau	Tissue-resident memory T cells and chronicity of CNS inflammatory diseases
09:30-09:50	Britta Engelhardt	Back to the future: The role of antigen-presentation at the brain barriers to MS pathogenesis
09:50-10:10	Burkhard Becher	Neuroprotection through inflammatory cytokines

10:10-10:30 Coffee Break

Session 2: Understanding progression and repair: myelin in the focus

(10:30-11:50)

Chair: Lydia Sorokin

10:30-10:50	Martin Kerschensteiner	Can surviving oligodendrocytes contribute to remyelination?
10:50-11:10	Tanja Kuhlmann	Consequences of inflammation for oligodendrocytes in MS lesions
11:10-11:30	Peter Calabresi	Complement component C3 defines disease associated glial subtypes mediating neuroinflammation and retinal pathology
11:30-11:50	Manuel Friese	Neuronal inflammatory stress response in multiple sclerosis

Poster session and lunch (Poster in the entrance hall, ground floor; lunch in the tent forecourt castle)

(11:50-13:20)

Session 3: Imaging in the focus

(13:20-14:20)

Chair: Albrecht Stroh, Sergiu Groppa

13:20-13:40	Vinzenz Fleischer	Structural Brain Networks in Multiple Sclerosis
13:40-14:00	Benedetta Bodini	Positron Emission Tomography in Multiple Sclerosis: Past, Present, and Future
14:00-14:20	Alexander Flügel	Imaging T-cell-mediated autoimmunity
14:20-14:40	Coffee break	

Session 4: Young investigators' talks (10 mins (7+3))

(14:40-15:40)

Chair: Ralf Gold

- 14:40-15:40 Beatrice Wasser: **Interference with AMPA receptor signaling ameliorates neuroinflammation via regulation of the immune compartment**
 Lisa Richter: **Role of IL-6 in shaping local immune milieus in the CNS**
 Louisa Müller-Miny: **How can CSF flow cytometry help diagnose and understand neuroimmunology - usecase examples and perspectives**
 Timo Uphaus: **BBB function and neuronal excitability in neuroinflammation and ischemic stroke**
 Clara de la Rosa del Val: **Essential cytokines driving macrophage phenotypes in neuroinflammation**
 Catharina Gross/Andreas Schulte Mecklenbeck: **Immune profiling matters - discrete cellular immune fingerprints indicate distinct disease trajectories in early MS**

Session 5: Novel directions and technologies

(15:40-17:20)

Chair: Martin Kerschensteiner

15:40-16:00	Alexandre Prat	Single cell RNA sequencing of human MS and ALS brain endothelial cell
16:00-16:20	Tobias Bopp	Metabolic Communication in the development and manifestation of autoimmunity
16:20-16:40	Gerd Meyer zu Hörste	Studying brain borders in neuroinflammation
16:40-17:00	Jen Gommerman	B cell depletion therapies in MS – Exploring mechanisms of action
17:00-17:20	Sergio Baranzini	Integrating “omics” with AI for precision medicine

Tuesday, 30 April (Venue: castle of the Münster University, Aula, 1st floor)

08:00-08:30 Welcome Coffee and Snacks (in the tent forecourt castle)

Session 6: Is there still a role for T cell immunology or should we prioritize B cells in understanding MS?

(08:30-09:50)

Chair: *Sven Meuth*

08:30-08:50	Jan Lünemann	Functional signatures of encephalitogenic antibodies in CNS autoimmune disease
08:50-09:10	Fabienne Brilot	Biomarkers of a relapsing course in MOG antibody –associated disease (MOGAD)
09:10-09:30	Daniela Latorre	B cell depletion therapies in MS – Exploring mechanisms of action
09:30-09:50	Stefan Bittner	Balancing glutamate signaling in inflammatory neuronal injury

9:50-10:20 Coffee Break

Session 7: Learning pathogenesis from therapeutic intervention (10:20-12:00)

Chair: *Aiden Haghikia*

10:20-10:40	Thomas Korn	A fresh look at B cells in autoimmunity
10:40-11:00	Ari Waisman	Inflammatory mediators affecting blood brain barrier function in autoimmunity
11:00-11:20	Luisa Klotz	Cellular immune fingerprints and their potential use in the evaluation of clinical prognosis and treatment decisions - fact or future?
11:20-11:40	Naoto Kawakami	Molecular mechanisms of autoreactive T cell infiltration to the CNS
11:40-12:00	Nicholas Schwab	What next-generation sequencing of treatment cohorts can teach us about pathology

Farewell drinks and lunch
