Swiss
Multiple Sclerosis
Society

Swiss MS Researcher Meeting 2014 – Program

Friday, September 26th, 2014

Best Western Hotel, Merian Spitz

Merian Saal, Rheingasse 2, CH-4058 Basel

09.45 – 09.50 **Opening and Introduction**
PD Dr. Myriam Schluep
President of the Scientific Advisory Board of the Swiss MS-Society

09.50 – 10.00 **News from the Swiss MS-Society**
Dr. Christoph Lotter
Vice Director of the Swiss MS-Society

10.00 – 11.15 **Session I**
Chairs: Prof. Dr. Derfuss & Dr. Granziera

10.00 – 10.15 The neuroprotective hepatocyte growth factor limits the development of IL-17-producing CD8+ T cells.

Kristbjorg Bjarnadottir, MSc student
University of Geneva, Department of Pathology and Immunology

10.15 – 10.30 A comparison of MS patients with and without cortical lesions: Demographical, cognitive and cortical thickness differences.

Olivia Geisseler, MSc
University Hospital Zurich, Department of Neurology

10.30 – 10.45 Sterile inflammation in MS: cell surface bioactive lipids on stimulated t cells induce cytokine production in human monocytes/macrophages.

Rakel Carpintero, PhD
University Hospital of Geneva, Division of Immunology and Allergy

10.45 – 11.00 Motor learning in patients with multiple sclerosis: Preliminary results of an fMRI study.

Stefano Magon, PhD
University Hospital Basel

11.00 – 11.15 Role of CD8+ T cell and infection in an animal model of multiple sclerosis.

Nicolas Page, PhD Postdoc
University of Geneva, Department of Pathology and Immunology

11.15 – 12.00 Invited Lecture
Nutrition and the gut in MS: the length of the aliphatic fatty acids determines the fate of T cell differentiation in the gut

Dr. Aiden Haghikia
Universitätsklinikum der Ruhr-Universität Bochum

12.00 – 12.45 Lunch break

12.45 – 13.30 poster viewing

13.30 – 14.30 Session II
Chairs: Prof. Dr. Sprenger & Dr. Pot-Kreis

13.30 – 13.45 The novel FTY720 derivative ST-968 improves symptoms of active experimental autoimmune-induced encephalomyelitis in mice independent of SphK2 by directly enhancing the blood-brain barrier function.

Faik Imeri, PhD student
University of Bern, Institute of Pharmacology

13.45 – 14.00 Home-based training to improve manual dexterity in patients with multiple sclerosis: a randomized controlled trial

Tim Vanbellingen, Postdoc
University of Bern, Department of Clinical Research

14.00 – 14.15 Low threshold of activation of human memory TH17 cells dependent on miR-181a

Federico Mele, PhD student
Institute for Research in Biomedicine, Bellinzona

14.15 – 14.30 Molecular mechanisms and cellular pathways involved in the migration of CD8+ T cell subsets across the BBB *in vitro* and *in vivo*

Dr. Armelle Klopstein
University of Bern, Theodor Kocher Institute

14.30 – 15.00 Coffee break and poster viewing

15.00 – 16.00 Session III
Chairs: PD. Dr. Schluep & Prof. Dr. Merkler

15.00 – 15.15 Anti-MOG immune response characterizes a subgroup of AQP4-seronegative patients with a NMO phenotype

Dr. Anne-Katrin Pröbstel
University Hospital Basel, Department of Neurology

15.15 – 15.30 Oxysterols regulate encephalitogenic CD4+ T cell trafficking during experimental autoimmune encephalomyelitis

Fanny Chalmin, PhD Postdoc
University of Geneva, Department of Pathology and Immunology

15.30 – 15.45 Inhibition of T cell mediated neuroinflammation by Btn2a2, a novel immunomodulatory molecule co-regulated with MHC class II genes

Kerstin Sarter, PhD Postdoc
University of Geneva, Department of Pathology and Immunology

15.45 – 16.00 Transfer of plasmacytoid Dendritic Cells lead to therapeutic abrogation of EAE through endogenous plasmacytoid DC recruitment and modulation in the CNS

Fernanda do Valle Duraes, PhD student
University of Geneva, Department of Pathology and Immunology

16.00 – 16.10 Poster award

The Swiss MS-Society will award a poster prize for the best poster presentation (500 CHF).

Poster Presentations

Michael Abadier[1], Neda Haghayegh Jahromi[1], Urban Deutsch, Britta Engelhardt and Ruth Lyck *Theodor Kocher Institute, University of Bern* *[1] Graduate School for Cellular and Biomedical Sciences, University of Bern*	**Detailed *in vitro* analysis of the molecular and cellular pathway of T cell extravasation across the highly specialized BBB endothelium**
J. Bansi[1], W. Bloch[2], U. Gamper[1], S. Riedel[3], J. Kesselring[1] *[1] Kliniken – Valens, Rehabilitationsklinik Valens* *[2] German Sport University Cologne, Institute of Cardiology and Sports Medicine, Cologne* *[3] arignos, Dresden*	**Short-term immune adaptations to different endurance training protocols (aquatic versus overland) in MS and their relation to health-related quality of life, fatigue and cardiorespiratory fitness after three weeks randomized controlled trial**
Jovana Cupovic[1], Cristina Gil-Cruz[1], Lucas Onder[1], Elke Weiler[2], Ingo Bachmann[2], Sonja Firner-Caviezel[1], Christian Perez-Shibayama1 and Burkhard Ludewig[1] *[1]Institute for Immunobiology, Kantonal Hospital St. Gallen* *[2]Institute of Anatomy, University of Leipzig*	**Extra-lymphatic CCR7-ligand expression controls virus-induced CNS inflammation**
M. Hardmeier, F. Hatz, I.K. Penner, Y. Naegelin, H. Bousleiman, C. Schindler, L. Kappos, P. Fuhr *University Hospital Basel*	**Functional connectivity of resting state EEG in MS patients: follow-up over two years**
Ivan Jelcic[1], Faiez Al Nimer[1], Ilijas Jelcic[1,2], Raquel Planas[1], Mireia Sospedra[1], Roland Martin[1,2] *[1] Neuroimmunology and Multiple Sclerosis Research Section, Department of Neurology, University Hospital Zurich* *[2] Department of Neurology, University Hospital Zurich*	**Homeostatic T cell proliferation in multiple sclerosis and its functional involvement in disease pathogenesis**
N. A. van der Maas *Institut für Physiotherapieforschung, Biel. Head of the Science Committee of the FPMS, Physioswiss.*	**Responsivity and MID of the German Multiple Sclerosis Questionnaire for Physiotherapists MSQPT®**

Brenda J. Reinhart and Roland Martin. *Neuroimmunology and MS Research, Department of Neurology, University Hospital Zurich*	**Sequence Profiling the T-cell Receptor Repertoire in Twin Pairs Concordant and Discordant for Multiple Sclerosis**
Nicholas Sanderson, Maria Zimmermann and Tobias Derfuss *University Hospital Basel*	**Capture of Self Antigens from Plasma Membrane by B cells**
Nora Schweizer[1], Cinzia Tiberi[2], Elisabeth Rushing[2], Hans Welzl[3], Mirjana Wojtal[1], and Tobias Suter[1] [1] *Neuroimmunology and MS Research, University Hospital Zürich (USZ)* [2] *Institute of Neuropathology, University Hospital Zürich* [3] *Institute of Anatomy, University Zürich*	**The absence of TNF exacerbates spontaneous neuroinflammation in MOG-specific TCR-transgenic (2D2) mice**
Claudia Sievers, Maria Meira, Francine Hoffmann, Hedwig Wariwoda, Heidi Bodmer, Tobias Derfuss, Ludwig Kappos, Raija LP Lindberg *Clinical Neuroimmunology, Departments of Biomedicine and Neurology, University Hospital Basel*	**Characterization of B lymphocyte subpopulations in Natalizumab treated MS patients. From phenotype to function**
Silvia Tietz[1], Pascale Baden[1], Julia Michel[1], Elisabetta Dejana[2], Mikio Furuse[3], Beat Imhof[4], Urban Deutsch[1], Britta Engelhardt[1] [1] *Theodor Kocher Institute, University of Bern* [2] *IFOM, Milan, Italy* [3] *Division of Cell Biology, Kobe University Graduate School of Medicine, Kobe, Japan* [4] *Centre Médicale Universitaire, Geneva*	**The role of brain barrier tight junctions in the pathogenesis of experimental autoimmune encephalomyelitis**
Björn Zörner, Katja Reuter, Linard Filli, Adam Czaplinski, Lilla Lörincz, David Weller, Tabea Sutter, Melinda Farkas, Sandra Kapitza, Michael Linnebank *Department of Neurology, University Hospital Zurich*	**Detailed effects of prolonged-release fampridine on ambulatory function in patients with multiple sclerosis (FAMPKIN-Study)**

The program and abstracts of the Swiss MS Researcher Meeting can also be found on the website of the Swiss MS-Society (www.multiplesklerose.ch).

We are grateful for the support by the following sponsors: