

## Scientific Program

VonRoll Campus, Room 001,  
University of Bern, Fabrikstrasse 6, 3012 Bern

### Wednesday July 12, 2023

7:45 – 8:30 Registration

8:30 – 8:40 Welcome and Introduction

**8:40 -9:30 Keynote lecture by Yasmine Belkaid (NIH, USA)**  
*"Microbiome Control of Host Immunity"*

*Chairs: Christoph Schneider, Stephanie Ganai-Vonarburg*

9:30- 10:00 Coffee break

#### **10:00 – 12:00 Session I: Innate Immunity in Mucosal Tissues**

*Chairs: Andy Wullaert, Jakob Zimmermann*

**Maria Rescigno** (Humanitas University, IT)  
*"Microbiota in gut-liver-brain axis"*

*Short talks:*

Isabelle Coales (King's College London, UK): *Mucosal epithelial organoids promote the development of tissue-specific innate lymphoid cells (T1)*

Martin Schwarzer (Institute of Microbiology of the Czech Academy of Sciences, CZ): *Nodding to growth: Lactiplantibacillus plantarum WJL improves linear growth of undernourished infant mice (T2)*

Signe Birkeland (Norwegian University of Life Sciences, NO): *Exploring effects of naturalized housing and dietary fiber on DSS-induced low-grade colonic inflammation in mice (T3)*

**Andreas Diefenbach** (DRFZ Berlin & Charité, DE)  
*„Innate lymphoid cells and tissue homeostasis"*  
5' company pitch: Agilent

**12:00 – 12:20 Eulogy for Nils Lycke by Allan Mowat**

12:20 – 13:30 Lunch

#### **13:30 – 15:10 Session II: Mechanisms of Mucosal Inflammation**

*Funded by the EoE Foundation*

*Chairs: Christoph Schneider, Melanie Conrad*

**Gitta Stockinger** (The Francis Crick Institute, UK)  
*"The effect of environmental stimuli on barrier integrity in the gut"*

*Short talks:*

Francesco Strati (University of Milano Bicocca, IT): *iNKT cells immunomodulation and mucosal healing by microbiota-derived lactate (T4)*

Jakob Zimmermann (University of Bern, CH): *Transient intestinal colonisation of germ-free mice demonstrates long-lived microbiota-specific Th cell memory (T5)*

**Hamida Hammad** (VIB-UGent, Belgium)

*"Neonatal exposure to environmental triggers influences type 2 immunity to allergens later in life"*

15:10 – 15:40 Coffee break

**15:40 – 17:35 Session III: Intertissue crosstalk**

*Chairs: Francesca Ronchi, Kathalina Lahl*

**Eugene C. Butcher** (Stanford University and PAVIR, USA)

*"Cruising the bioinformation highway for new insights into the mucosal immune system"*

*Short talks:*

Soraya Rabahi (Institut Curie, FR): *Interleukin-22 modulates enteric nervous system development and function in zebrafish (T6)*

Marika Falcone (San Raffaele Institute, IT): *The beneficial role of microbial bile acid metabolites in brain autoimmunity (T7)*

Mikael Niku (Veterinary Biosciences, University of Helsinki, FI): *Impacts of maternal microbial metabolites and extracellular vesicles on the fetal development of the immune system (T8)*

**Henrique Veiga-Fernandes** (Champalimaud Centre for the Unknown, PT)

*"Neuroimmune Ecosystems"*

**17:35-18:35 Swiss Young Immunologists Society (SYIS) and young European Federation of Immunological Societies (yEFIS) session**

*Funded by EFIS and SYIS*

*Chairs: Annika Hausmann, Hind Hussein*

*Short talks:*

Robin Avanthay (IVI, CH): *NS1 and PA-X act in a concerted manner to manipulate the innate immune response of pandemic H1N1/09 influenza virus (T9)*

Eva-Lena Stange (Uniklinik Aachen, DE): *Microbial influence on the postnatal establishment of hepatic immune homeostasis (T10)*

Anna Pascual Reguant (Deutsches Rheuma-Forschungszentrum & Charité Universitätsmedizin Berlin, DE): *Cellular and molecular characterization of the local immune response in severe COVID-19 by integrated spatial analysis of lungs and draining lymph nodes (T11)*

Maximilian R. A. Koch (Technical University Munich, DE): *CagA-specific Gastric CD8+ Tissue-Resident T Cells Control Helicobacter pylori During the Early Infection Phase (T12)*

**18:45-21:00 Dinner and Poster session I**

*Posters 001-094*

**Thursday July 13, 2023**

**8:30 – 10:15 Session IV: Systems Immunology in Host-Microbe Interactions**

*Chairs: Cecilia Johansson, Bahtiyar Yilmaz*

**Nicola Segata** (University of Trento & IEO Milan, IT)

*"High-resolution metagenomics to mine the hidden diversity of the human microbiome"*

**Nassos Typas** (EMBL Heidelberg, DE)

*„Probing the interface of medication and the human gut microbiome"*

*Short talks:*

Vanni Bucci (UMass Chan Medical School, USA): *Microbiota encoded fatty-acid metabolism expands tuft cells to protect tissues homeostasis during Clostridioides difficile infection in the large intestine* (T13)

Victoria von Goetze (Deutsches Rheuma-Forschungszentrum Berlin, DE): *Direct induction of TGF- $\beta$  signaling by the intestinal gut microbiota bacterium Anaeroplasm reveals new potential anti-inflammatory probiotic* (T14)

10:15- 10:45 Coffee break

10:45 – 12:05 **Session V: Microbe-Immune Interactions at Body Surfaces**

*Chairs: Christoph Müller, Andrew Macpherson*

**Joanne Konkel** (University of Manchester, UK)

*“Delineating mechanisms of immune tailoring at the oral barrier”*

*Short talks:*

Stefan Fattinger (ETH Zurich, CH): *Gasdermin D is the only Gasdermin that provides non-redundant protection against acute Salmonella gut infection* (T15)

Valérie Gaboriau-Routhiau (INRAE, FR): *MyD88-dependent control of host-SFB symbiosis in SFB-monocolonized mice* (T16)

Lara Grassi (University of Basel, CH): *An innovative human bladder microtissue infection model* (T17)

5' company pitch: Olink

12:05 – 13:30 Lunch

12:20 – 13:20 **Company-sponsored lunch symposium “Advances in spatial biology technologies”**

Mila Basic (Lunaphore): *Sequential immunofluorescence: the novel fully automated method to map the cellular architecture and immune microenvironment.*

Carmela Foti (Merck): *Illuminating multiple dimensions: entirely new generation of antibody technologies to empower complex analysis with superior specificity, high reproducibility and attention to sustainability.*

Placido Pereira (Bio-Techne): *Bio-Techne - Where Science Intersects Innovation*

13:30 – 16:00 **Session VI: Mucosal Infections**

*Chairs: Bill Agace, Allan Mowat*

**Emma Slack** (ETH Zurich, CH)

*“Growing, flowing and sugar-coating”*

*Short talks:*

Marco Rodari (Institut Imagine, FR): *Aberrant TGF-beta signaling downstream importin  $\beta$  deficiency triggers intestinal inflammation* (T18)

Maria Pasztoi (Technical University of Munich and Helmholtz Centre Munich, DE): *Inflammation-driven polarization and tissue-niche formation of intestinal lamina propria stromal cells* (T19)

De Martin Angelina Marisa (Kantonsspital St. Gallen, CH): *Fibroblastic stromal cell-derived IL-33 controls intestinal helminth infestation* (T20)

Konjit Getachew Muleta (Lund University, SW): *cDC1 deficiency affects neonatal humoral immunity to Rotavirus without impacting on protection from reinfection later in life* (T21)

5' company pitch: Transnetyx

16:00 – 16:05 Travel awards

**16:05 – 17:40** Coffee and **Poster session II**  
*Posters 095-187*

**18:45 – 00:00** Gala Dinner and Party at Kornhauskeller Restaurant, Kornhausplatz 8, Bern

## Friday July 14, 2023

**9:00 – 9:50** **Keynote lecture by Eran Segal (Weizmann Institute of Science, Israel)**  
*"Personalized medicine based on deep human phenotyping"*  
*Chairs: Christoph Müller, Francesca Ronchi*

**9:50- 10:20** Coffee break

**10:20 – 12:00** **Session VII: The neonatal window of opportunities**  
*Chairs: Stephanie Ganai-Vonarburg, Ziad Al Nabhani*  
**G rard Eberl** (Institut Pasteur, FR)  
*"Modulation of immune response to vaccination and autoimmunity by the weaning reaction"*  
**Mathias Hornef** (RWTH University Hospital Aachen, DE)  
*"Macromolecule translocation and mucosal immune maturation in the neonatal host"*  
*Short talks:*  
Anna Silvia Wenning (University of W rzburg, DE): *Maternal microbiota-derived metabolites drive embryonic epidermal formation and set neonatal skin barrier (T22)*  
Gina Ann Lindberg (Lund University, SW): *A method to distinguish neonatal and maternal IgA in young mice (T23)*

**12:00 – 13:15** Lunch

**13:15 – 14:25** **Session VIII: Mucosal B Cells**  
*Chairs: Hyun-Dong Chang, Emma Slack*  
**Andrew Macpherson** (University of Bern, Switzerland)  
*"Specific and generic mucosal immune responses to the intestinal microbiota"*  
*Short talks:*  
Mauricio Guzman (Hospital del Mar d'Investigacions M diques (IMIM), ES): *Secreted IgD Targets Monocytes to Deliver a Complex Signaling Program Characterized by a Prominent Tolerogenic Component (T24)*  
Simona Ceglia (University of Massachusetts Chan Medical School, US): *Integrated nutrient sensing controls intestinal IgA plasma cell response against commensals and pathogens (T25)*  
5' company pitch: Cancer Tools

**14:25 – 14:45** Poster prizes and Closing words