

**Organizing Tissue Homeostasis and Immunity  
NK Cell & ILC Meeting  
June 20-23, 2023 - Juliusspital Winery, Würzburg**

**SCIENTIFIC PROGRAM**

Subject to changes, please also visit: <https://nk-symposium.org>

**Tuesday, June 20<sup>th</sup>, 2023**

09:30 Registration and Coffee

11:00 **Welcome note**

**SESSION I NK cells in tumors (I)**

- 11:00 – 11:30 Jan Böttcher  
*Subversion of NK cell immunosurveillance in the metastatic niche*
- 11:30 – 12:00 David Withers  
*Rapid establishment of a tumour-retained state curtails the contribution of conventional NK cells*
- 12:00 – 12:15 Selected talk: Ana Stojanovic  
*Fine-tuning of NK cell responses through the AhR pathway*
- 12:15 – 12:25 Selected short talk: Jennifer Wischhusen  
*Pan-Tumor Screening of Solid Tumor Responses to NK Immune Surveillance Reveals Shared Resistance Mechanisms*
- 12:25 – 12:35 Selected short talk: Maria Cristina Trueba Sanchez  
*Mapping the NK cell - Tumor cell interactome using Proximity labeling*

12:45 – 13:30 **Lunch**

**SESSION II NK cell - Immunotherapy and metabolism**

- 13:30 – 14:00 Eric Vivier  
*Harnessing NK cells in cancer therapies*
- 14:00 – 14:30 Carsten Watzl  
*NK cells on a diet - effect of GLUT inhibitors on NK cell effector functions*
- 14:30 – 14:45 Selected talk: Laura Surace  
*Lipid droplets regulate NK cells function*
- 14:45 – 15:00 Selected talk: Quirin Hammer  
*Genetic Ablation of Adhesion Ligands Effectively Averts Rejection of Allogeneic Immune cells*
- 15:00 – 15:15 Industry sponsored talk: Konstantina Kostadinovska (Miltenyi)  
*Select the best - innovative and flexible tools to enable translational NK cell research*

15:15 – 15:45 **Coffee break**

## SESSION III NK cells in human tissues

- 15:45 – 16:20 Niklas Björkström  
*Diversity, tissue-residency, and recirculation patterns of human natural killer cells*
- 16:20 – 17:00 Mala Maini  
*Regulatory role of liver-resident NK cells*
- 17:00 – 17:15 Selected talk: Nils Christian Müller  
*Eomes+ NK cell subsets accumulate in the intestinal lamina propria during inflammation*
- 17:15 – 17:30 Selected talk: Martin E. Baumdick  
*HLA-DP on Intestinal Epithelial Cells enables Tissue Damage by NKp44+ NK Cells in Ulcerative Colitis*
- 17:30 – 19:00 **Poster session I: Human NK cells, Immunotherapy**
- 17:30 – 18:00 General Assembly AK NK (Members)
- 19:00 – 20:00 **Visit of the wine cellars (Secco-tasting)**

**Wednesday, June 21<sup>st</sup>, 2023**

## SESSION IV NK cells in tumors (II) and inflammation

- 09:00 – 09:40 Joseph Sun  
*Fasting reshapes tissue-specific niches to enhance innate immune responses to cancer*
- 09:40 – 10:10 Heidi Cerwenka  
*Unleashing NK cells in solid tumors*
- 10:10 – 10:40 Antigoni Triantafyllopoulou  
*NK/ILC1 regulating lupus nephritis*
- 10:40 – 11:15 **Coffee break**

## SESSION V Differentiation of NK cells and ILC1

- 11:15 – 11:45 Georg Gasteiger  
*Differentiation and functions of tissue-resident NK cells and ILCs*
- 11:45 – 12:15 Sonja Tugues  
*NK cell surveillance of tumor cell extravasation to the lung*
- 12:15 – 12:30 Selected talk: Peter Tougaard  
*Type 1 immunity enables the production and peripheral homing of neonatal thymic ILC1s*
- 12:30 – 12:45 Selected talk: Elsa Bourayou  
*Bone marrow monocytes sustain NK cell-poiesis during non-alcoholic steatohepatitis (NASH)*
- 12:45 – 13:45 **Lunch break**
- 13:45 **Keynote:**  
**Laura MacKay: Programming tissue-resident lymphocytes**

## SESSION VI NK cell responses to infection

- 14:45 – 15:15 Chiara Romagnani  
*Adaptive features of NK cells*
- 15:15 – 15:30 Selected talk: Christin Friedrich  
*Cooperation of BATF3-IRF4 regulates adaptive NK cell responses by integrating signals from cytokine and activating receptors*
- 15:30 – 16:00 **Coffee break**
- 16:00 Selected short talks:
- 16:00 – 16:10 Vanda Juranić Lisnić  
*Tissue NK / ILC1 responses to mouse cytomegalovirus infection of ovaries and adrenal glands*
- 16:10 – 16:20 Mohammad Zahidul Hasan  
*The spike protein of SARS-CoV-2 modulates NK cell responses via enhanced HLA-E expression*
- 16:20 – 16:30 Franziska Keller  
*Interferon independent regulation of ISGs in NK cells*
- 16:30 – 16:40 Colin Sparano  
*Autocrine TGF- $\beta$ 1 drives tissue-specific differentiation program in group 1 innate lymphoid cells*
- 16:45 – 18:00 **Poster session II: NK cells and ILC1**
- 18:00 **Keynote:**  
**Ruslan Medzhitov: *Tissue homeostasis and inflammation***
- 19:00 – 24:00 **Conference Dinner & Party (Garden & Pavillon)**

**Thursday, June 22<sup>nd</sup>, 2023**

## SESSION VII Type 2 immunity (I)

- 09:00 – 09:40 Andrew McKenzie  
*Regulating innate and adaptive type-2 responses to cancer*
- 09:40 – 10:20 Bart Lambrecht  
*Role of the STE20 kinase Taok3 in ILC and Treg biology across tissue*
- 10:20 – 10:50 Christoph Klose  
*Non-redundant functions of group 2 innate lymphoid cells*
- 10:50 – 11:00 Selected short talk: Ayush Jain  
*Characterization of differentially methylated regions associated with the differentiation and function of human type 2 innate lymphoid cells*
- 11:00 – 11:30 **Coffee break**

## SESSION VIII Tissue niches of ILCs

- 11:30 – 12:10 *Ari Molofsky*  
*Fibroblast niches for tissue-resident lymphocytes*
- 12:10 – 12:25 Selected short talk: Alba Del Rio Serrato  
*Analysis of the murine central nervous system ILC niche and functionality*
- 12:25 – 12:35 Selected short talk: Sandy Bauherr  
*Multiplex histology for the characterization of ILCs and their spatial and phenotypical alterations during systemic inflammation*
- 12:35 – 12:45 Selected short talk: Anna Pascual-Reguant  
*Spatial analysis of human innate lymphoid cells in chronic inflammation*
- 12:45 – 13:45 **Lunch break**

## SESSION IX Type 2 immunity (II)

- 13:45 – 14:20 Tim Halim  
*Immune regulatory functions of ILC2*
- 14:20 – 14:50 Christoph Wilhelm  
*Metabolic relays of ILC-mediated barrier immunology*
- 14:50 – 15:05 Selected Talk: Hashem Mohammadian  
*ILC / Fibroblast Crosstalk in Arthritis*
- 15:05 – 15:20 Selected talk: Julia Sbierski  
*Group 2 innate lymphoid cells constrain type 3/17 lymphocytes in shared stromal niches to restrict liver fibrosis*
- 15:20 – 15:35 Selected talk: Claudia Dürr  
*Regulation of ILC2s through GSK3*
- 15:35 – 15:50 Selected talk: Olga Halle  
*Phenotype and function of ILCs in a murine model of CF-like lung disease treated with *Aspergillus fumigatus* extract*
- 16:00 – 16:30 **Coffee break**
- 16:30 **Keynote: Richard Locksley: ILC2s – A Second Gear**
- 17:30 – 19:30 **Poster session III: ILCs & DFG ILC Priority Program**

**Friday, June 23<sup>rd</sup>, 2023**

## SESSION X Tissue development and homeostasis

- 09:00 – 09:40 Andreas Diefenbach  
*Innate lymphoid cells and tissue homeostasis*
- 09:40 – 10:20 Serge van de Pavert  
*Lymphoid Tissue inducer cells and Lymph Node formation, what else?*
- 10:20 – 11:00 Matt Hepworth  
*Regulation of LTi-like ILC3 phenotype and function*
- 11:00 – 11:15 Selected talk: Michael Kofoed-Branzk  
*Molecular mechanisms controlling ILC3 plasticity*
- 11:15 – 11:45 **Coffee break**

## SESSION XI Tissue immunity

11:45 – 12:15	Mercedes Gomez de Agüero <i>Intestinal microbes overcome ILC3 firewall and cause surgical site infections</i>
12:15	Selected talks:
12:15 – 12:30	Aranzazu Cruz-Adalia <i>IL-18-induced HIF-1<math>\alpha</math> in ILC3s ameliorates the inflammation of <i>C. rodentium</i>-induced colitis</i>
12:30 – 12:45	Kim Kaiser <i>Duodenal accumulation of IL-17A-producing NKp44- ILC3 might promote adenoma formation in familial adenomatous polyposis</i>
12:45 – 13:00	Joana F. Neves <i>Mucosal epithelium promotes the development of tissue-specific innate lymphoid cells</i>
13:00 – 13:15	Christian Neumann <i>Molecular regulation of small intestinal enterocytes - Implications for the intraepithelial lymphocyte niche</i>
13:15 – 13:30	Irene Mattiola <i>ILC3 limit anti-tumor immunity by modulating the tumor vasculature</i>
13:30	<b>Closing remarks</b>
14:00 – 14:30	<b>General Assembly of the SPP ILCs</b>

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