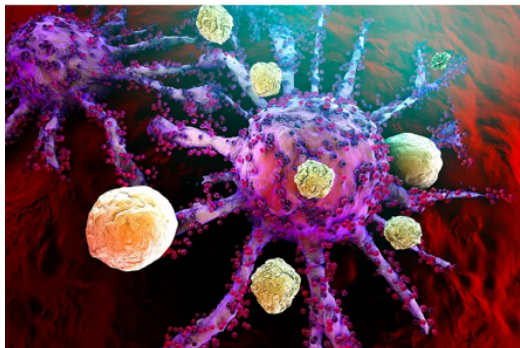


Lecture no. 13167-03
New Trends in Developmental and Molecular Immunology
Advanced Immunology I (HS 24)

Wednesday 15:15 - 17 hrs, Pharmazentrum, Hörsaal 2
University of Basel, Klingelbergstrasse 50, 4056 Basel
Organizer: Daniela Finke and Gennaro de Libero, Department of Biomedicine (DBM)



<https://www.sciencephoto.com/>

Information:

In this lecture series, various immune pathways involved in cancer, autoimmune diseases, infections, inflammation, and immunodeficiencies will be discussed. Highlights include:

- Communication between host and pathogen
- Evolution of immunity
- Novel immunotherapies
- Immune responses in the skin and intestine
- Metabolic and neuronal regulation of immunity and cancer

Each session will begin with an internationally recognized scientist from Switzerland or abroad (e.g., Oxford, Paris, Toronto, Boston, Lisbon, Aachen) providing a general overview of current knowledge in their specific area of interest.

In the second hour, the lecturer will present and discuss their latest state-of-the-art research, offering insights into novel concepts of immune homeostasis, surveillance, and defense.

The second-hour seminars will be announced to the public as weekly DBM research seminars, with credit points available for training in mouse experimentation.

For more information, visit <https://biomedizin.unibas.ch/en/seminars/>.

Learning Goals:

To gain knowledge about 1) key players and pathways in immune surveillance and defense, 2) cutting-edge immunotherapies in human diseases, 3) new genetically modified mouse models, 4) new technologies in cell and molecular biology

Format and organization:

2 x 45' lectures (10 online speakers, 4 in person speakers), personal presence of the audience in the lecture hall is expected (no online participation). The presentations will not be recorded. The seminars will be chaired by postdocs from Ubico/DBM.

Certificate of achievement:

In person presence of at least 10 lectures (1st and 2nd hour) is required in order to receive 2 credit points.

Animal training credit points will be available based on the number of attended lectures.

September 2024

- 18 **Gennaro de Libero** - Department of Biomedicine, University of Basel, Switzerland
MR1-restricted T cells survey the metabolic integrity of target cells **Not Zoom, in person**
- 25 **Simone Becattini** - Department of Pathology and Immunology, University of Geneva, Switzerland
Bidirectional Communication in Immune Responses: From Host to Microbes and Back

October 2024

- 2 **Marta Rizzi** - Center for Translational Cell Research, University Clinic Freiburg, Germany
Peripheral human B cell function in autoimmunity and in immunodeficiency **Not Zoom, in person**
- 9 **Thorsten Mempel** - Center for Immunology and Inflammatory Diseases, Harvard Medical School, Boston, MA, USA - *Diverse roles of Treg cells in anti-tumor immunity*
- 16 **Jim Kaufman** - Institute for Immunology and Infection Research, University of Edinburgh, Scotland
Generalists and specialists in the evolution of immunity
- 23 **Andreas Müller** - Institut für Molekulare und Klinische Immunologie, Otto von Guericke University of Magdeburg, Germany - *Monocytes as effectors and modulators of immune responses against infection and tumour* **Not Zoom, in person**
- 30 **Bruno de Silva Santos** - Immuno-Oncology, Faculty of Medicine, University of Lisbon, Portugal - Title TBA

November 2024

- 6 **David Branch Moody** - Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA
Trapping Antigens and Blockers with CD1 and TCRs
- 13 **Graham Ogg** - Radcliffe Department of Medicine, University of Oxford, Oxford, UK
Immunotherapies and inflammatory skin disease and CD1a-reactive T cells and skin lipids – an emerging therapeutic focus
- 20 **Greta Guarda** - Institute for Research in Biomedicine, Bellinzona, Switzerland - **Not Zoom, in person**
Title TBA
- 27 **Tak Wah Mak** - Department of Immunology and Department of Medical Biophysics, University of Toronto, Canada - *Metabolic and Neural Regulation of Immunity and Cancer*

December 2024

- 4 **Julie Helft** - Phagocytes and Cancer Immunology, Institut Cochin, Paris, France - *Macrophage subsets and T cell immunity in cancer*
- 11 **Stephen Waggoner** - Center for Autoimmune Genomics and Etiology, Cincinnati Children's Hospital Medical Center, Cincinnati Ohio, USA - *A half-century of refining and redefining natural killing. Unconventional contributions of NK cells to immunity and disease*
- 18 **Mathias Hornef** - Institute of Medical Microbiology, University Clinic RWTH Aachen, Germany
Postnatal establishment of host-microbial homeostasis in the intestine.