



University
of Basel

Department of
Biomedicine



DBM Summer Symposium August 20, 2025

Big Lecture Hall, ZLF
Hebelstrasse 20,
4031 Basel

Program

August 20, 2025

08:00-08:05 **Ivan Martin**, Welcome / Info Best Presentation Award

08:05-08:35 **Mustafa Khammash**, ETH-Z, D-BSSE
Keynote Lecture
Homeostasis in Health and Disease: An Engineer's Perspective

Session 1 **Chairs: Judith Zaugg and Hanna Norbäck**

08:35-08:45 **Benjamin Demarco**, Systems Pharmacology
Combining growth inhibition assays and metabolic profiling to accelerate the discovery of antibiotics with unconventional modes of action

08:45-08:55 **Aline Bröglin**, Molecular Neuroscience
Mitochondrial transplantation improves neurite outgrowth in a model of neurodegenerative disease

08:55-09:05 **Chunyan Zhang**, Cardiac Surgery and Engineering
Stromal vascular fraction cell-engineered patch induces angiogenesis in Orthotopic and Ischemic rat hearts

09:05-09:15 **Romuald Parmentier**, Translational Genitourinary Cancer
Single-cell analysis uncovers preserved prostate cancer lineages and universally altered pathways in Matrigel-free patient-derived organoids

09:15 - 09:25 **James Taylor**, Brain and Sound
New pathways to hearing: Cortical implants bridging neuroscience and therapy

09:25-09:50 **Break with refreshments**

Session 2 **Chairs: Andrea Barbero and Karolina Kania**

09:50-10:00 **Morgan Le Gall**, Immunobiology and Immunotherapy
Boosting the IL-4/Stat6 axis enhances the persistence and cytotoxicity of exhausted CD8+ T cells to improve tumor control

10:00-10:10 **Johanna Nimmerfroh**, Cancer Immunotherapy
Sweet success: The role of sialic acid on T cell function

10:10-10:20 **Basil Wicki**, Pulmonary Infection Biology
Chemical and genetic determinants of mycobacterial drug-drug interactions

10:20 - 10:30 **Massimo Andreis**, Blood Cancer Biology and Immunotherapy
A CRISPR-Cas9 knockout screen to uncover metabolic drivers of anti-leukemia immunity

10:30-10:40 **Morgane Roth**, Neuroplasticity
Task Performance predicts the substitution of feedforward by feedback drive in visual cortex

Session 3

Chairs: Andreas Keller and Morgane Roth

10:40 - 10:50

Jonas Fürst, Cancer Immunology

Bacterial immunotherapy drives systemic neutrophil reprogramming through cytokine Licensing to potentiate Tumor immunity

10:50 - 11:00

Michal Kloc, Tumor Heterogeneity Metastasis and Resistance

Data-driven modeling of the ER-GATA3 regulatory network in ER+ breast cancer

11:00 - 11:10

Romina Matter-Marone, Molecular Immune Regulation

Impact of human genetic variation underlying resistance to antigen-specific immunotherapy

11:10 - 11:30

GlioCART, Patrice Zeis, Valerio Sabatino and Gregor Hutter

Business Case

11:30 - 11:50

Break with refreshments

Session 4

Chairs: Jean-Christophe Beltra and Marie Czech

11:50 - 12:00

Atharva Damle, Cartilage Engineering

A Nasal Chondrocyte-Based Inflammation-Resistant Therapy Approach For Osteoarthritis

12:00 - 12:10

Kleopatra Sifoniou, Diabetes Research

Mechanism and consequences of IL-1 β -mediated changes in β -cell function

12:10 - 12:20

Marc Usart, Allergy and Immunity

Cellular barcoding of JAK2-V617F hematopoietic stem cells reveals clonal selection by PegIFN α in a mouse model of myeloproliferative neoplasm

12:20 - 12:30

Gleb Turchinovich, Developmental Immunology

Power of two: New binary Cre mouse model specifically targeting type 3 innate lymphoid cells

12:30 - 12:50

Award Ceremony and Research Presentation

DBM Research Prize Winner 2024

12:50 - 13:00

Best Presentation Award 2025

The Department of Biomedicine
is a joint venture between the
following institutions:



**Educating
Talents**
since 1460.

University of Basel
Department of Biomedicine
Hebelstrasse 20
4031 Basel
Switzerland

www.biomedizin.unibas.ch