



University  
of Basel

Department of  
Biomedicine



# DBM Summer Symposium August 22, 2024

**Big Lecture Hall, ZLF**  
Hebelstrasse 20,  
4031 Basel

# Program

August 22, 2024

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08:00 - 08:05 **Ivan Martin**, Welcome

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08:05 - 08:45 **Barbara Treutlein**, ETH-Z, D-BSSE  
Keynote Lecture  
*Reconstructing organ development and regeneration with single-cell technologies*

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**Session 1**      **Chairs: Aimée Zuniga and Victorio Palacio**

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08:45 - 08:55 **Marion Salvador**, Tumor Heterogeneity Metastasis and Resistance  
*PROCR-expressing human mammary stem cells give rise to claudin-low breast cancer with poor prognosis*

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08:55 - 09:05 **Laura Steiger**, Diabetes Research  
*Exocrine pancreas inflammation impairs insulin secretion without affecting  $\beta$ -cell mass*

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09:05 - 09:15 **Adrien Moya**, Bone Regeneration  
*Chondrogenesis, Cell metabolism and Spatial biology using the Hyperion Imaging Mass Cytometry system*

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09:15 - 09:25 **Terézia Dorčáková**, Systems Pharmacology and Biology of Metabolism  
*Systematic gene function annotation in *Mycobacterium smegmatis* by metabolic profiling of CRISPRi-mediated inactivation of essential genes*

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

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**Session 2**      **Chairs: Petya Apostolova and Andres Garcia-Garcia**

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09:50 - 10:00 **Amandine Grimm**, Molecular Neurosciences  
*Exploring the potential of mitochondrial transplantation as a therapeutic approach against neuronal bioenergetic deficits*

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10:00 - 10:10 **Alessandra Vescovi**, Regenerative Angiogenesis  
*VEGF chemically modified mRNA-loaded matrix for vascularized bone engineering*

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10:10 - 10:20 **Lalita Oparija-Rogenmozere**, Cancer- & Immunobiology  
*Non-redundant functions of PI3Kg complexes in obesity and metaflammation*

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10:20 - 10:30 **Marko Hasiuk**, Molecular Immune Regulation  
*Tmem127 regulates the T cell proteome and homeostatic IL-7 signaling*

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10:30 - 10:40 **Sebastian Reinartz**, Brain and Sound  
*Sensation of elapsed time in the auditory system*

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**Session 3**      **Chairs: Tania Rinaldi Barkat and Irenäus Stec**

10:40 - 10:50 **Rushikesh Sheth**, Developmental Genetics  
*Robustness and Plasticity of a Self-Organizing System*

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10:50 - 11:00 **Mattia Marinucci**, Visceral Surgery and Precision Medicine  
*Combined Casein Kinase 2 and MAPK signaling inhibition as a therapeutic strategy for metastatic colorectal cancer*

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11:00 - 11:10 **Jose Pedro Pereira Loureiro**, Experimental Immunology  
*MR1 activates TCR V $\gamma$ 9V $\delta$ 2 cells in an antigen-dependent manner*

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11:10 - 11:30 **David Hauser**, Molecular Virology - **Business Case**  
*Advancing Respiratory Disease Vaccines with Propagation-Deficient Viruses*

**Moderated by Marco Lepore**, Versant Ventures / Ridgeline Discovery

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11:30 - 11:50 **Break with refreshments**

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11:50 - 12:00 **DBM Film - Premiere**

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**Session 4**      **Chairs: Lukas Jeker and Romina Matter**

12:00 - 12:10 **Antonio Sileo**, Cardiac Surgery and Engineering  
*Enhancing cardiac engineered tissue maturation and functionality using combined passive and active mechanical loading*

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12:10 - 12:20 **Mika Schneider**, Clinical Neuroimmunology  
*Brain viral infection unleashes latent autoimmune response*

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12:20 - 12:30 **Raphael Schmid**, Cartilage Engineering  
*The potential of nasal chondrocyte spheroids for intervertebral disc repair*

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12:30 - 12:40 **Jan Thomann**, Psychopharmacology Research  
*In vitro and in vivo metabolism of psilocybin's active metabolite psilocin*

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12:40 - 13:00 **Award Ceremony and Research Presentation**  
**DBM Research Prize Winner 2023/2024**

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