



Biomed Retreat 2022 – Meeting Overview

Sunday, 18 September 2022

08:20	Meeting point at Zürich HB in front of platform 4
08:35 - 9:30	Train + bus connection to Kartause Ittingen
9:30 - 10:30	Registration and little refreshment
10:30	Welcome Notes
10:30 - 11:00	Plenary Lectures I Prof. Dr. Berend Snijder
11:00 - 12:30	Student Session I Immune system: friend and foe (Presentations)
12:30 - 14:00	Lunch
14:00 - 15:00	Poster session I
15:00 - 16:00	Plenary Lectures II Prof. Dr. Bernd Bodenmiller Prof. Dr. med. Arnold von Eckardstein
16:00 - 17:30	Student Session II Organ and systemic pathophysiology (Presentations)
17:30 - 18:00	Snacks and beverages
18:00 - 19:00	Career Panel with LSZGS Alumni
19:00 - 20:00	Check-in rooms
20:00 - 21:00	Dinner
21:00 - ...	Networking and drinks

Monday, 19 September 2022

07:00 - 10:00	Breakfast and check-out from rooms
10:00 - 10:30	Plenary Lecture III Prof. Dr. Ori Bar-Nur
10:30 - 12:00	Student Session III Cell fate: to see and to conquer it



12:00 - 13:00	Poster Session III
13:00 - 13:15	Prizes for best presentation and poster, Closing remarks
13:15 - 15:30	Free-time activity
15:30 - 16:30	Train + bus connection to Zürich HB

Student and Poster Sessions

Student Session I – Immune System: friend and foe

Presentations by 3rd and 4th year PhD students (8 minutes presentation, 2 minutes Q&A)

1. Amela Hukara

“The role of Fosl-2 transcription factor in macrophage polarization and phagocytosis in systemic sclerosis”

2. Sam Galen Edalat

“A Single Atlas of Human Synovium in Rheumatoid Arthritis”

3. Samantha Sherman

“GM-CSF derived from lung epithelial cells supports alveolar macrophage differentiation and survival”

4. Yulia Volkova

“The oxygen sensor factor inhibiting HIF (FIH) catalyzes the formation of a likely covalent protein complex with the NF-κB inhibitor β (IκBβ)”

5. Nikolaos Poulis

“The Potential Of Ipsc-derived Macrophages To Assess Tissue Engineered Matrices' Immunocompatibility”

6. Irina Léa Dubach

“Targeted erythrophagocyte reprogramming of Kupffer cells halts cancer immunotherapy associated liver toxicity”

7. Lucia Cambiaggi

“Resolvin D1 Signaling in Primary Human Macrophages”

Student Session II – Organ and systemic pathophysiology

Presentations by 3rd and 4th year PhD students (8 minutes presentation, 2 minutes Q&A)

1. Patrick Krohn

“Multisystem Involvement, Defective Lysosomes, and Impaired Autophagy in a Novel Rat Model of Nephropathic Cystinosis”

2. Marta Mariniello

“Pathogenic mechanisms in ADTKD-UMOD: from humanized mouse models to cell systems”

3. Angela Portmann

“Sex-differences in the development and clinical course of left ventricular hypertrophy”

4. Andrea Boraschi

“Non-invasive measurement of head dielectric properties and its potential application”

5. David Lauer

“Integrative analysis of chronic experimental and human fibrosing ILD using image- and molecular based omics approaches”

6. Lynn Ebner

“Dual-active gene therapy targeting RPE and photoreceptors rescues mouse models of chronic hypoxia”

7. Itzel Shantal Martinez Lopez

“MicroRNA expression analysis in Chronic Thromboembolic Pulmonary Hypertension using pulmonary endarterectomy derived samples”

8. Dominique Lisa Birrer

“Sex Disparities in Outcomes following Major Liver Surgery – New powers of estrogen?”

9. Polina Zaytseva

“Advance the clinical relevance of human tissue-engineered matrices - Towards high-pressure applications”

10. Alexander Laure

“Transcriptomic Analysis of Malignant Pleural Mesothelioma (MPM) Reveals Insights for Basic Research and Preclinical Testing”

Student Session III – Cell fate: to see and to conquer it

Presentations by 3rd and 4th year PhD students (8 minutes presentation, 2 minutes Q&A)

1. Yiqi Gong

“A large-scale microRNA functional high-throughput screening identifies mir-515 and mir-519e as potent inducers of human ipsc-derived cardiomyocyte proliferation”

2. Guillermo Turiel

“scRNAseq analysis on physiological and pathological angiogenesis”

3. Matthew Denley

“Mitochondrial dysfunction drives patient iPSC-derived neuronal pathology in methylmalonic aciduria”

4. Xhem Qabrati

“Transgene-free direct reprogramming of mouse fibroblasts into myogenic progenitors utilizing modified mRNA and small molecules”

5. Laura Hinte

“Epigenetic landscapes of white and beige adipocytes”

6. Giada Bacchin

“Uncovering alternative molecular paths for reprogramming mouse fibroblasts into functional myogenic progenitor cells”

7. Eric Gähwiler

“Gene-Edited Cell Sources for the Generation of Designer Tissue-Engineered Matrices”

8. Markus Holzner

“New Modulators to the Hedgehog Signalling Pathway”

9. Nick Herger

“Development of an allogeneic anti-inflammatory mesenchymal stem cell-based therapy for chronic low back pain patients with Modic type 1 changes”

Poster Session I – 18.09.2022

The number associated to each poster will be present on the pinboard where the poster needs to be attached to

1. Yuansheng Zhang

“Risk prediction model of MACE after kidney transplantation”

2. Cristine Marie Yde Ohki

“Involvement of the Wnt-Signaling in Methylphenidate (Ritalin) treatment of ADHD”

3. Bart Thomson

“Blood oxygenation-level dependent cerebrovascular reactivity imaging as strategy to monitor CSF-hemoglobin toxicity”

4. Xuan Shu

“Investigating the role of RNA binding protein Celf3 in diabetes”

5. Ekaterina Maevskaia

“Osteoconductive TPMS-based scaffolds for bone tissue engineering”

6. Pascal Breitenstein

“Enhancing the adaptive remodeling properties of human-derived tissue-engineered matrices by using an induced apoptotic switch”

7. Cédric Borreguero

“Metabolic characteristics of a Dguok mutant mouse model”

8. Fabienne Caldana

“Gravitational force – induced nuclear mechanotransduction in muscle cells”

9. Nevena Jankovic

“Investigating cross-talk between the endo-lysosomal system and calcium signaling in the kidney proximal tubule”

10. Chiara Scaffidi

“The role of IL-23 signaling in obesity-induced insulin resistance and NAFLD”

11. Masoumeh Mirrahimi

“Joint specific gene expression in synovial fibroblasts”

12. Marijn Wilmink

“The role of elevated triglyceride levels in the development of hypertension in SHR rats”

13. Adam Majcher

“Sphingosine-1-phosphate lyase insufficiency syndrome (SPLIS)”

14. Porawit Kamnoedboon

“Effect of age in exosome mediated pulp regeneration”

15. Zsuzsa Radvanyi

“Contribution of SLC20 and SLC34 phosphate-transporters to renal phosphate transport in rat kidney”

16. Angelica Rigutto

“High dimensional analysis of infiltrating immune cells in tumors from patients with mesothelioma and lung cancer”

17. Simone Ponta

“CRISPR-Cas9 Strategies for the Upregulation of Fetal Hemoglobin and Adult Hemoglobin 2 to Treat the β -Hemoglobinopathies”

18. Olga Maria Lempke

“The molecular identity of renal Epo-producing cells in healthy and diseased kidney.”

19. Malgorzata Wilk

“Single cell variability of hypoxia-inducible gene expression”

20. Nadescha Viviane Hänggi

“Body fluid identification and assignment to donors using an improved targeted mRNA massively parallel sequencing approach – Preliminary Results”

21. Marta Girona Alarcon

“In vivo synchronized X-ray tomography of mouse cerebrospinal fluid spaces”

22. Alexandra Khmelevskaya

“Characterization of synovium T-cell subsets in immune-mediated arthritic conditions”

23. Anna-Lea Stalder

“Exploring the microenvironment of hematoma in the brain”

24. Valentin Johannes Weber

“Establishment of a new approach for the molecular diagnosis of hereditary retinal dystrophies”

25. Valentin Baumgartner

“Targeting mitochondria: A link between Prostate Cancer Metabolism and Novel Therapeutic Approaches”

26. Luise Linzmeier

“The role of the gut-liver axis in the pathogenesis of primary sclerosing cholangitis”

27. Melina Perez Vertti Valdes

“Pain or no pain – a role for cross-talk between skin fibroblasts and nerve fibers in Complex regional pain syndrome (CRPS) and Charcot neuropathy (CN)”

28. Thamonwan Diteepeng

“Protein misfolding: an additional mechanism in the heart-brain communication after ischemic stroke”

30. Yustina Puspitasari

“Effects of PCSK9 inhibitor after stent implantation: A novel potential therapeutic strategy to reduce stent-related complications”

Poster Session II – 19.09.2022

The number associated to each poster will be present on the pinboard where the poster needs to be attached to

1. Pratintip Lee

“Omega-3 Fatty Acids: a Nutritional Intervention on Megakaryocyte and Endothelial Cell Aging “The Role of SIRT 1””

2. Nicolina Zjacic

“Pre-natal functional testing pipeline for variants of unknown significance in Noonan syndrome genes”

3. Valery Visser

“Computational models to study the influence of valve design on remodeling in tissue engineered pulmonary heart valves”

4. Miriam Gura

“Mutations in methylmalonyl-CoA mutase correlate with higher degradation in HEK cells”

5. Lisa Crone

“Antigen-specificity of antibodies in breast milk”

6. Tamara Mengis

“The central role of the disc degradome in the pathobiology of Modic changes”

7. Aurelia Gondrand

“Expression of antimicrobial enzyme dual oxidase 2 (DUOX2) associated with helminth-induced type II immunity”

8. Arian Ehterami

“Design, development, and fabrication of a bioresorbable polymeric heart valve stent using 3d printing”

9. Tongtong Wang

“A UCP1-independent thermogenic adipocyte subpopulation is important for early cold adaptation and systematic metabolism”

10. Ivna Ivankovic

“A versatile computational pipeline for the preprocessing of cell-free DNA fragmentation data”

11. Yu-Jen Wang

“NAD⁺ boosting as pan-sirtuin activation tended to increase atherosclerotic plaques and systemic inflammation in apoE knockout mice”

12. Ievgeniia Kocherova

“Combined single-cell/ bulk RNA sequencing and proteomics analysis reveals new candidate targets involved in myocardial fibrogenesis”

13. Akash Chakravarty

“BMP-2 is reduced in human blood following the passage through the pulmonary circulation”

14. Sven Klassa

“Assessing the effect of urea cycle gene variants on protein stability by a fluorescence based assay”

15. Zuzana Oulehlova

“Restoring Pigmentation in the Skin”

16. Christine Ling Li Trautmann

“Generation of cow myogenic progenitor cells for cultivated meat production”

17. Peter Horvath

“Development and Validation of Offline-Collection Systems for Breath Analysis of Children using High-Resolution Mass Spectrometry”

18. Eva Breuer

“An optimized protocol for the isolation of regenerating hepatocytes after partial hepatectomy in mice”

19. Inseon Kim

“Integrative molecular roadmap for direct conversion of fibroblasts into myocytes and myogenic progenitor cells”

20. Meret Allemann

“Microbiome studies in cardiovascular disease”

21. Luca Merolla

“Characterisation of Egr1 activation in models of retinitis pigmentosa”

22. Agnieszka Jucht

“Prolyl 4-hydroxylase domain 1-3 (PHD1-3) enzymatic activity leads to oxygen-dependent likely covalent protein interactions in cells”

23. Luca Truscello

“Intratumoral microbiota and breast cancer metastasis”

24. Giulia Mazzini

“Amylin: centrally mediated actions on metabolism and memory”

25. Fen Long

“Medag regulates cAMP/PKA signalling”

26. Anja Frei

“Multiplex imaging based immunoprofiling of cancer”

27. Sara Barreiro Correia

“Axial arrangement of transport in the proximal tubule and adaptation to nephron loss”