



17-19 February 2021, Afternoon Online Meeting

LS²
Life Sciences Switzerland

LS² Annual Meeting 2021

Mechanisms in health, disease and ageing

annual-meeting.ls2.ch

Program of e-Symposia

Thursday, 18. 02. 2021

15:35 - 17:20 (CET)

iPSC derived cardiomyocytes and cardiac microtissues - *LS2 Cardiovascular Intersection*
Precision Medicine and Biomarkers: The Quest for Gold - *LS2 Bioinformatics-SIB Intersection*
Autophagy and Ageing – implications for age-related diseases - *LS2 Autophagy Section*
Multiparametric Microscopy in Basic and Translational Research - *LS2 Microscopy Intersection*
Mitochondria in health, disease and ageing - *LS2 Molecular & Cellular Biosciences Section*

iPSC derived Cardiomyocytes and Cardiac Microtissues

LS2 Intersection: Cardiovascular Biology

- 15:35 - 15:40 Welcome note by chairs of the symposium
Gabriela Kania (University of Zurich - CH) & **Marie-Noëlle Giraud** (University of Fribourg - CH)
- 15:40 - 16:00 **Christine Mummery** (Leiden University Medical Center, Leiden, The Netherlands)
Mechanisms underlying contractile responses of hiPSC-derived cardiomyocytes
- 16:00 - 16:20 **Christian Zuppinger** (University Hospital Bern - CH)
3D cardiac cells culture
- 16:20 - 16:30 **Sandrine Morel** (University of Geneva - CH) - *Selected from abstracts. Poster # 27*
Primary cilia control endothelial permeability by regulating expression and location of junction proteins
- 16:30 - 16:40 **Olga Rusiecka** (University of Geneva - CH) - *Selected from abstracts . Poster # 28*
Deletion of Pannexin1 confers protection against cardiac ischemia-reperfusion injury
- 16:40 - 17:00 **Przemyslaw Blyszczuk** (University Hospital Zurich - CH)
Human cardiac microtissues as a model to study myocardial fibrosis
- 17:00 - 17:15 Q&A
- 17:15 - 17:20 Closing remarks

Precision Medicine and Biomarkers: The Quest for Gold

LS2 Intersection: Bioinformatics - Swiss Institute of Bioinformatics (SIB)

- 15:35 - 15:40 Welcome note by chairs of the symposium
Mark Ibberson (SIB - CH) & **Alan Bridge** (SIB - CH)
- 15:40 - 16:10 **Ewan Pearson** (University of Dundee - UK)
Precision medicine in Diabetes
- 16:10 - 16:20 **Gema Fuerte Hortigón** (Bucher Biotec AG & Mission Bio Inc) - *Industry talk*
High-throughput single-cell DNA-sequencing and protein analysis reveals CRISPR-editing efficiency as well as clonal evolution in cancer
- 16:20 - 16:30 **David Benz** (Bucher Biotec AG) - *Industry talk*
Exosomes as Novel Multicomponent Biomarkers: Challenges and Opportunities
- 16:30 - 17:00 **María Gomez** (Lund University, Sweden)
BEAt-DKD (Biomarker Enterprise to Attack DKD) and the power of public private partnerships in diabetes research
- 17:00 - 17:15 Q&A
- 17:15 - 17:20 Closing remarks



Autophagy and Ageing – Implications for Age-Related Diseases

LS2 Section Autophagy

Supported by the Swiss Society for Aging Research (SSFAR)

- 15:35 - 15:40 Welcome note by chairs of the symposium
Alexander Eggel (University of Bern - CH) & **Jörn Dengjel** (University of Fribourg - CH)
- 15:40 - 16:10 **Katja Simon** (Kennedy Institute of Rheumatology - UK)
Autophagy in Immune Senescence
- 16:10 - 16:15 **Moushumi Das** (University of Bern - CH) - *Selected from abstracts. Poster # 1*
Impact of genome folding on C. elegans lifespan
- 16:15 - 16:25 **Jiongming Lu** (Max Planck Institute for Biology of Ageing - DE) - *Selected from abstracts. Poster #3*
Sestrin is a key regulator of stem cell function and lifespan in response to dietary amino acids
- 16:25 - 16:30 **Nicolas Niklaus** (University of Bern - CH) - *Selected from abstracts. Poster # 7*
Oncogene-induced autophagy enhances migration and invasion of breast and prostate cancer cells
- 16:30 - 16:35 **Sreoshee Rafiq** (University of Bern - CH) - *Selected from abstracts. Poster # 8*
Linking lysosomes with chemotherapy resistance in acute myeloid leukemia
- 16:35 - 17:05 **Linda Partridge** (Max Planck Institute for Biology of Ageing - DE & UCL -UK)
Ageing: a gut feeling
- 17:05 - 17:15 Q&A
- 17:15 - 17:20 Closing remarks



Multiparametric Microscopy in Basic and Translational Research

LS2 Microscopy Intersection

- 15:35 - 15:40 Welcome note by chairs of the symposium
Urs Ziegler (UZH - CH), **Laure Plantard** (FMI - CH) & **Joanna Delgado Martins** (UZH - CH)
- 15:40 - 16:15 **Lucas Pelkmans** (Department of Molecular Life Sciences, UZH - CH)
Cellular state determines the multimodal signaling response of single cell
- 16:15 - 16:35 **Christian Holz** (Molecular Devices) - *Industry talk*
New 3D applications on Molecular Devices intelligent automated imaging solutions
- 16:35 - 16:45 **Ana Kalichava** (University of Bern - CH) - *Selected from abstracts. Poster #38*
Ultrastructure Expansion Microscopy of TAC Protein-complex Arrangement in T. brucei
- 16:45 - 16:55 **Ilya Lukonin** (Friedrich Miescher Institute - CH) - *Selected from abstracts. Poster #39*
Phenotypic landscape of intestinal organoid regeneration
- 16:55 - 17:15 Q&A
- 17:15 - 17:20 Closing remarks



Mitochondria in health, disease and ageing

LS2 Molecular & Cellular Biosciences Section

- 15:35 - 15:40 Welcome note by chair of the symposium
Torsten Ochsenreiter (University of Bern- CH)
- 15:40 - 16:05 **Pierre Maechler** (University of Geneva - CH)
Short or long mitochondria, a dilemma for glucose homeostasis
- 16:05 - 16:15 **Timo Rey** (EPF Lausanne - CH) - *Selected from abstract. Poster # 50*
Mitochondrial transcription is confined (Organisation of mitochondrial transcripts and fission sites)
- 16:15 - 16:25 **Miriam Valera-Alberni** (EPF Lausanne - CH) - *Selected from abstract. Poster #54*
Crosstalk between Drp1 phosphorylations during mitochondrial remodeling and their impact on metabolic adaptation.
- 16:25 - 16:45 **Stephen Helliwell** (Rejuveron Life Sciences AG, Zürich - CH) - *Industry talk*
Ageing and mitochondria
- 16:45 - 17:10 **Ana Wredenberg** (Karolinska Institut, Sweden)
The role of mitochondrial SAM in health and disease
- 17:10 - 17:15 Q&A
- 17:15 - 17:20 Closing remarks

