



## Posters

The LS<sup>2</sup> Annual Meeting 2023 offers on-site posters to all participants who submitted an abstract through the online registration system (including those who have been selected for a talk).

**Two dedicated poster sessions will take place on:**

**Thursday, 16<sup>th</sup> of February, 17:20 to 18:40**

(Posters: 17:20 - 18:00 odd numbers, 18:00 - 18:40 even numbers)

**Friday, 17<sup>th</sup> of February, 13:05 to 14:05.**

(Posters: 13:05-13:35 odd numbers, 13:35-14:05 even numbers)

**POSTERS SORTED BY PRIMARY CATEGORY & WITHIN CATEGORIES BY FAMILY NAME**

<b>Category</b>	<b>Poster Nr.</b>
Ageing	<b>1-2</b>
Apoptosis	<b>3-4, 50a, 94</b>
Autophagy	<b>5-8</b>
Biochemistry	<b>9-10</b>
Bioinformatics & Biocuration	<b>11-12, 90</b>
Biophysics	<b>13-14</b>
Cancer Biology	<b>15-19</b>
Cardiovascular Biology	<b>20-28</b>
Chemical Biology	<b>29</b>
Computational Biology	<b>30-34</b>
Developmental Biology	<b>35-37</b>
Genetics	<b>38</b>
Genomics & Functional Biology	<b>39-41</b>
Immunology & Infectious Diseases	<b>42-46</b>
Microbiology	<b>47</b>
Microscopy	<b>48-49</b>
Molecular and Cellular Biosciences	<b>50-64</b>
Neuroscience	<b>65-68</b>
Pharmacology	<b>69-72</b>
Physiology	<b>73-83</b>
Proteomics	<b>84</b>
Structural Biology	<b>85</b>
Systems Biology	<b>86-87</b>
Tropical medicine & Parasitology	<b>88</b>
Ion Channels and Membrane Transporters*	<b>89</b>
Institutional	<b>91-93, 95, 96</b>

\*sorted by secondary category

\*= last author(s)  
°= shared authorships

**1**  
*Ageing*

**Hsp90 - Hsf1 axis rewires cellular stress response by coupling cell size increase with translation during the process of stress adaptation**

**Maiti, Samarpan**

*Samarpan Maiti (1), Kaushik Bhattacharya (1)°, Dina Hany (1)°, Diana Wider (1)°, Lilia Bernasconi (1)°, Didier Picard (1)\*  
(1) University of Geneva, Department of Molecular and Cellular Biology*

**2**  
*Ageing*

**Antiaging hormone Klotho derived from renal distal-convolution regulates calcium but not phosphate homeostasis**

**Pathare, Ganesh**

*Ganesh Pathare (1)°\*, Klaudia Kopper (1)°, Adisa Trnjakin (1)°, Dominique Loffing-Cueni (1)°, Agnieszka Wengi (1)°, Johannes Loffing (1)°\*  
(1) University of Zurich, Institute of Anatomy*

**3**  
*Apoptosis*

**Local and global effects of apoptosis-induced survival mediated by ERK/Akt signaling waves in epithelia**

**Gagliardi, Paolo Armando**

*Paolo Armando Gagliardi (1), Maciej Dobrzyński (1), Olivier Pertz (1)  
(1) University of Bern, Institute of cell Biology*

**4**  
*Apoptosis*

**The function of TRIM28 as an RNA binding protein and its role in controlling BOK expression**

**Jazaeri Jouneghani, Ali**

*Ali Jazaeri Jouneghani (1), Daniel Bachmann (1), Yuniel Fernandez-Marrero (1), Thomas Kaufmann (1)\*  
(1) Institute of Pharmacology, University of Bern, Switzerland*

**5**  
*Autophagy*

**Autophagy in parvalbumin interneurons is required for inhibitory transmission and memory via regulation of synaptic proteostasis**

**Chalatsi, Theodora**

*Theodora Chalatsi (1), Laura M.j. Fernandez (1), Jules Scholler (2), Laura Batti (2), Angeliki Kolaxi (1), Leonardo Restivo (1), Anita Lüthi (1), Manuel Mameli (1), Vassiliki Nikoletopoulou (1)  
(1) UNIL, DNF  
(2) WYSS Center*

**6**  
*Autophagy*

**Unravelling the role of atg101 in the brain: generation of the first (hypomorph) atg101 knock-in mouse**

**Daskalaki, Akrivi Dimitra**

Akrivi Dimitra Daskalaki (1),  
Devanarayanan Siva Sankar (2), Jörn  
Dengjel (2), Vassiliki Nikoletopoulou  
(1)\*

(1) University of Lausanne, Department  
of Fundamental Neurosciences

(2) University of Fribourg, Department  
of Biology

**7**  
*Autophagy***Preferential autophagy of  
biosynthesis proteins balances  
organismal starvation survival and  
recovery dynamics****Tuomaala, Joel**

Joel Tuomaala (1), Devanarayanan  
Siva Sankar (2), Julie Perey (1), Jörn  
Dengjel (2), Benjamin Towbin  
Tuomaala (1)\*

(1) University of Bern, IZB  
(2) University of Fribourg, Biology

**8**  
*Autophagy***Investigating the role of secretory  
autophagy as a modulator of the  
neuronal surfaceome****Wosnitzka, Erin**

Erin Wosnitzka (1), Vassiliki  
Nikoletopoulou (1)\*, Emmanouela  
Kallergi (1), Irina Kolotueva (2),  
Christel Genoud (2)  
(1) University of Lausanne, Department  
of Fundamental Neurosciences  
(2) University of Lausanne, Electron  
Microscopy Facility

**9**  
*Biochemistry***Role of 14-3-3 proteins in human  
cardiac sodium channel Nav1.5  
regulation****Hämmerli, Anne-Flore**

Anne-Flore Hämmerli (1)°, Oksana  
Iamshanova (1)°, Elise Ramaye (1)°,  
Arbresh Seljamni (1)°, Daniela Ross-  
Kaschitzka (1)°, Noëlia Schärz (1)°,  
Maria Essers (1)°, Sabrina Guichard  
(1)°, Jean-Sébastien Rougier (1)°,  
Hugues Abriel (1)\*

(1) University of Bern, IBMM

**10**  
*Biochemistry***Targeting androgen production by  
post-translational regulation of  
CYP17A1 lyase activity.****Sharma, Katyayani**

Katyayani Sharma (1), Amit V Pandey  
(1)°

(1) Pediatric Endocrinology,  
Diabetology and Metabolism,  
University Children's Hospital, Bern,  
and University of Bern, Bern,  
Switzerland., Translational Hormone  
Research, Department of BioMedical  
Research

**11**  
*Bioinformatics & Biocuration***Investigating the replicability of  
RNA-Seq differential expression  
results****Degen, Peter Methys**

Peter Degen (1), Matúš Medo (1)°

(1) University of Bern, Department for BioMedical Research

12

*Bioinformatics & Biocuration*

**The neXtProt function prediction project for uncharacterized human proteins**

**Duek Roggli, Paula**

*Paula Duek Roggli (1), Lydie Lane (1), neXtProt Team (2)\**

*(1) University of Geneva, Microbiology and Molecular Medicine*

*(2) Swiss Institute of Bioinformatics*

13

*Biophysics*

**mtDNA nucleoid organization on yeast mitochondrial networks**

**Ben Nejma, Sheda**

*Sheda Ben Nejma (1), Suliana Manley*

*(1)\**

*(1) EPFL*

14

*Biophysics*

**Protein Origami with Armadillo Repeat Fragments**

**Dai, Wenzhao**

*Wenzhao Dai (1), Piotr Szwedziak (2), Kevin Schiefelbein (1), Andreas Plückthun (3), Dek Woolfson (4), Oliver Zerbe (1)\**

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(3) University of Zurich, Switzerland,

*Department of Biochemistry*

(4) University of Bristol, School of Biochemistry

15

*Cancer Biology*

**The molecular basis for rational targeting of FGFR-driven proliferation and motility in Medulloblastoma**

**Baumgartner, Martin**

*Jessica Migliavacca (1)°, Karthiga*

*Santhana Kumar (1)°, Levi Luca Kopp*

*(1)°, Alexandre Gries (1)°, Shen Yan*

*(1)°, Cyril Brunner (2)°, Matthias*

*Schuster (3)°, Oliver Zerbe (3)°,*

*Gisbert Schneider (4)°, Michael*

*Grotzer (5)°, Martin Baumgartner (1)\**

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*Zürich, Oncology*

*(2) ETH Zurich*

*(3) University of Zurich, Department of Chemistry, Zürich*

*(4) ETH Zurich, Department of Chemistry and Applied Biosciences, RETHINK*

*(5) University Children's Hospital Zürich*

16

*Cancer Biology*

**Hexokinase 3 in myeloid malignancies**

**Kalbermatter, Carmen**

*Carmen Kalbermatter (1)°, Tanja*

*Muralt (1)°, Yasmeen Mady (1)°,*

*Kristina Seiler (1), Mario Tschan (1)\*,*

*Bruce E. Torbett (2), Tata Nageswara*

*Rao (3), Ana Quirós González (1)*

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(2) The Scripps Research Institute, Department of Immunology and Microbiology  
(3) Inselspital Bern, Department of Hematology and Central Hematology Laboratory

**17**  
*Cancer Biology*

**Assessing the role of CDX2 in colorectal cancer cell motility and budding**

**Mehmeti, Rina**

Rina Mehmeti (1)<sup>o</sup>, Nils Bodmer (1)<sup>o</sup>, Kristin Uth (1)<sup>o</sup>, Mario P. Tschan (1)\*, Inti Zlobec (1)\*

(1) Institute of Pathology, University of Bern, Experimental Pathology

**18**  
*Cancer Biology*

**Hexokinase 3 (HK3) confers protection to anthracycline treatment by reducing extracellular pH in acute myeloid leukemia (AML) cells**

**Quirós González, Ana**

Ana Quirós González (1), Kristina Seiler (1), Julia Parts (1), Bruce E. Torbett (2), Mario P. Tschan (1)\*  
(1) Institute of Pathology, University of Bern, Division of Experimental Pathology  
(2) The Scripps Research Institute, La Jolla, Department of Immunology and Microbiology

**19**  
*Cancer Biology*

**Erythropoietin receptor regulates tumor mitochondrial biogenesis and cancer cell survival independent of erythropoietin**

**Thiersch, Markus**

Mostafa Aboouf (1)<sup>o</sup>, Franco Gussetti (2)<sup>o</sup>, Nadine von Büren (1)<sup>o</sup>, Larissa Stadelmann (1)<sup>o</sup>, Edith Schneider Gasser (1)<sup>o</sup>, Julian Aragones (3)<sup>o</sup>, Drorit Neumann (4)<sup>o</sup>, Max Gassmann (1)<sup>o</sup>, Markus Thiersch (1)

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(2) University of Zurich, Institut of Veterinary Pathology

(3) Autonomous University of Madrid, Hospital Universitario Santa Cristina

(4) Tel Aviv University, Sackler Faculty of Medicine

**20**  
*Cardiovascular Biology*

**Characterization of electro-mechanical dysfunction and interaction in transgenic long-QT and short-QT rabbits**

**Alemri, Nicolò**

Nicolò Alemri (1)<sup>o</sup>, Saranda Nimani (1)<sup>o</sup>, Tibor Hornyik (1), Julien Louradour (1), Miriam Barbieri (1), Lucilla Giamarino (1), Thomas Hof (1), Stephie Perez-Feliz (2), Lluis Matas (1), Matthias Zehnder (2), Martin Brunner (2), Katja Odening (1)<sup>o</sup>  
(1) University of Bern, Physiology  
(2) University of Freiburg, Germany, Cardiology and Angiology

**21**  
*Cardiovascular Biology*

## **Four patients with genetic TRPM4 variants displaying lethal cardiac conduction disorders**

### **Boukenna, Mey**

*Mey Boukenna (1), Prakash Arullampalam (1)<sup>o</sup>, Daniela Ross-Kaschitzka (1)<sup>o</sup>, Can Hasdemir (2)<sup>o</sup>, Elena Zaklyazminskaya (3)<sup>o</sup>, Anne-Flore Hä默erli (1)<sup>o</sup>, Sabrina Guichard (1)<sup>o</sup>, Choshiman Taib (1)<sup>o</sup>, Jean-Sebastien Rougier (1)<sup>o</sup>, Hugues Abriel (1)\**

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*(3) Petrovsky National Research Center of Surgery, Moscow (Russian Federation)*

**22**

### **Cardiovascular Biology**

## **Investigation of cellular Ca<sup>2+</sup>-handling in rabbit atrial cardiomyocytes**

### **Horvath, Andras**

*Lucilla Giammarino (1)<sup>o</sup>, Julien Louradour (1)<sup>o</sup>, Thomas Hof (1)<sup>o</sup>, Saranda Nimani (1)<sup>o</sup>, Nicolo Alerni (1)<sup>o</sup>, Lluis Matas (1)<sup>o</sup>, Ruben Lopez (1)<sup>o</sup>, Miriam Barbieri (1)<sup>o</sup>, Katja E. Odening (1)\**

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**23**

### **Cardiovascular Biology**

## **Macromolecular complex of the cardiac sodium channel Nav1.5 dimers**

### **Iamshanova, Oksana**

*Oksana Iamshanova (1), Anne-Flore Hä默erli (1), Arbresh Seljmani (1), Sabrina Guichard (1), Jean-Sébastien Rougier (1), Abriel Hugues (1)\**

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**24**

### **Cardiovascular Biology**

## **Arrhythmia or heart failure? – Beneficial APD-shortening effects of DHA-glycine in LQTS are accompanied by detrimental effects on cardiac mechanical function**

### **Louradour, Julien**

*Julien Louradour (1), Nicolò Alerni (1), Tibor Hornyik (2), Saranda Nimani (1), Lluís Matas (1), Miriam Barbieri (1), Lucilla Giammarino (1), Thomas Hof (1), Sara I. Liin (3), H. Peter Larsson (4), Katja E. Odening (1)*

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*(3) Linköping University, Sweden, Department of Biomedical and Clinical Sciences*

*(4) University of Miami, Florida, Department of Physiology and Biophysics*

**25**

### **Cardiovascular Biology**

**Differential glycocalyx dynamics of arterial and venous endothelial cells under inflammatory conditions**

**Milusev, Anastasia**

Anastasia Milusev (1), Alain Despont (1)<sup>o</sup>, Jane Shaw (1)<sup>o</sup>, Robert Rieben (1)\*

(1) University of Bern, Department for BioMedical Research (DBMR)

**26**

*Cardiovascular Biology*

**Arginase II ablation prevents heart remodeling induced by high salt intake**

**Potenza, Duilio Michele**

Duilio Potenza (1), Guillaume Ajalbert (1), Tarik Moufid Trambaty (1), Andrea Brenna (1), Xiu-Fen Ming (2), Zhihong Yang (1)\*

(1) University of Fribourg,  
Cardiovascular and Aging Research,  
EMC department

(2) University of Fribourg, Cardiology,  
EMC department

**27**

*Cardiovascular Biology*

**Cardiac electrophysiological consequences of a new knock-in mouse model for TRPM4 channel**

**Vashanthakumar, Varjany**

Varjany Vashanthakumar (1), Sabrina Guichard (1), Jean-Sébastien Rougier (1), Hugues Abriel (1)

(1) University of Bern, Institute of Biochemistry and Molecular Medicine

**28**

*Cardiovascular Biology*

**Elevated citrullinated fibrinogen delays fibrinolysis in a porcine model of acute limb ischemia reperfusion injury, possibly contributing to the development of thrombo-inflammatory events**

**Zollet, Valentina**

Valentina Zollet (1), Isabel Arenas (2)<sup>o</sup>, Stefanie Hirsiger (2)<sup>o</sup>, Bilal Ben Brahim (1)<sup>o</sup>, Mariafrancesca Petrucci (1)<sup>o</sup>, Josip Mikulic (1)<sup>o</sup>, Daniela Casoni (1)<sup>o</sup>, Junhua Wang (1)<sup>o</sup>, Olgica Beslac (1)<sup>o</sup>, Kay Nettelbeck (1)<sup>o</sup>, Luisana Garcia (1)<sup>o</sup>, Lena Fuest (2), Esther Vögelin (2)<sup>o</sup>, Mihai Constantinescu (2)<sup>o</sup>, Robert Rieben (1)<sup>o</sup>, Nicoletta Sorvillo (1)\*

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(2) Unibe, Inselspital, Department for BioMedical Research (DBMR), University of Bern, Switzerland; Department of Plastic and Hand Surgery, Inselspital, University Hospital Bern, Switzerland

**29**

*Chemical Biology*

**Synthesis of podophyllotoxin-glycosyl triazoles mediated by Silver(I)-N-heterocyclic carbenes and their anti-cancer evaluation**

**Nerella, Srinivas**

Srinivas Nerella (1)

(1) Pingle Government College for Women, Hanumakonda, Kakatiya University, 506370, Warangal, India, chemistry

**30**

*Computational Biology*

**Deciphering the etiology and role in oncogenic transformation of the CpG island methylator phenotype: a pan-cancer analysis**

**Yates, Josephine**

*Josephine Yates (1), Valentina Boeva (1)\**

*(1) ETH Zürich, Computer Science*

**31**

*Computational Biology*

**Pan-microscope image segmentation based on a single training set**

**Gligorovski, Vojislav**

*Vojislav Gligorovski (1)°, Lazar Stojković (1)°, Sahand Rahi (1)\**

*(1) LPBS, EPFL*

**32**

*Computational Biology*

**Atomistic models and signaling mechanism of PhoQ**

**Lazaridi, Symela**

*Symela Lazaridi (1)*

*(1) IBMM, Faculty of Medicine*

**33**

*Computational Biology*

**PERPHECT: Deep Generative Methods to Drive Phage Genetic Edition**

**Pena-Reyes, Carlos**

*Carlos Peña-Reyes (1)\*, Shabnam Ataei (1)°, Xavier Brochet (1)°, Victor Truan, Hoang Anh Mai (2)*

*(1) HEIG-VD + SIB, IICT*

*(2) HEIG-VD*

**34**

*Computational Biology*

**TemBERTure: Discriminating between Mesophilic and Thermophilic proteins using a Deep Language Model**

**Rodella, Chiara**

*Chiara Rodella (1), Symela Lazaridi (1)°*

*(1) University of Bern, IBMM Institute*

**35**

*Developmental Biology*

**Functional architecture of the Hand2 and Gata4 regulatory landscapes in mammalian heart development**

**Osterwalder, Marco**

*Virginia Roland (1), Matteo Zoia (1), Raquel Rouco (2), Ekapaksi Wisnumurti (1), Virginie Tissières (1), Javier Lopez-Rios (3), Guillaume Andrey (2), Marco Osterwalder (1)\**

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*(2) University of Geneva, Department of Genetic Medicine and Development*

*(3) CSIC-Universidad Pablo de Olavide-Junta de Andalucía, Sevilla, Spain, Centro Andaluz de Biología del Desarrollo (CABD)*

**36**

*Developmental Biology*

**Identifying key regulators of the Segmentation Clock in the Mouse Presomitic Mesoderm**

**Pappa, Maria**

*Maria Pappa (1), Charisios D. Tsiairis (1)\**

*(1) Friedrich Miescher Institute for Biomedical Research, Quantitative Biology*

**37**

*Developmental Biology*

**In vivo function of the Top3 $\beta$  topoisomerase activity towards RNAs**

**Teimuri, Shohreh**

*Shohreh Teimuri (1), Beat Suter (1)*

*(1) Institute of Cell Biology*

**38**

*Genetics*

**Long-reads Nanopore-based sequencing to fully sequence the CFTR gene on potential CF African patients**

**El Makhzen, Nada**

*Nada El Makhzen (1), Alexandre Bokhobza (1), Laila Bouguenouch (2), Hugues Abriel (1)*  
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**39**

*Genomics & Functional Biology*

**Readout of histone methylation by Trim24 locally restricts chromatin opening by p53**

**Isbel, Luke**

*Luke Isbel (1), Murat Iskar (1), Sevi Durdu (1), Ralph Grand (2), Joscha Weiss (1), Eric Hettter-Pfeiffer (1), Zuzanna Kozicka (1), Alicia Michael (1), Lukas Burger (1), Nicolas Thoma (1), Dirk Schubeler (1)\**

*(1) Friedrich Miescher Institute , Genome regulation*

*(2) Zentrum für Molekulare Biologie der Universität Heidelberg, Gene regulation*

**40**

*Genomics & Functional Biology*

**Association study of genetic variation and spectroscopic imaging variants**

**Li, Cheng**

*Cheng Li (1), Ewa A. Czyz (1), Rishav Ray (2), Michael E. Schaepman (1), Meredith C. Schuman (3)\**

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*(2) Max Planck Institute for Chemical Ecology, Department of Molecular Ecology*

*(3) University of Zurich, Department of Geography, Department of Chemistry*

**41**

*Genomics & Functional Biology*

**Biodiversity Genomics: data production and management systems to catalogue, explore, and monitor the richness of life on Earth**

**Waterhouse, Robert***Robert Waterhouse (1)\***(1) University of Lausanne, Department of Ecology and Evolution***42***Immunology & Infectious Diseases***Function and regulation of the lupus-associated SLC15A4-TASL complex in TLR-induced immune responses.****Bernaleau, Léa***Léa Bernaleau (1), Maeva Delacrétaz (1), Manuele Rebsamen (1)\*  
(1) University of Lausanne, Department of Immunobiology***43***Immunology & Infectious Diseases***ER-stress sensor IRE1 promotes STIM1-Orai1 coupling favoring SOCE, T cell activation and muscular differentiation****Carreras, Amado***University of Geneva***44***Immunology & Infectious Diseases***Design of antimicrobial protein-lipid complexes: From purification to delivery of cytotoxic immune proteins****Hameed, Owais***Owais Hameed (1), Stefan Salentinig (2)\*, Michael Walch (3)\***(1) University of Fribourg  
(2) University of Fribourg, Chemistry  
(3) University of Fribourg, Immunology***45***Immunology & Infectious Diseases***Targeting HDACs and mitochondria to fight bacterial infections in human and livestock.****Kapetanovic, Ronan***Ronan Kapetanovic (1)\*, Syeda Farhana Afroz (2)\*, Gabrielle Matthias (1)\*, Chun Cao (1)\*, James Eb Curson (2)\*, Matthew J. Sweet (2)\*, Patrick Matthias (1)\***(1) Friedrich Miescher Institute for Biomedical Research, Basel  
(2) Institute for Molecular Bioscience, Brisbane***46***Immunology & Infectious Diseases***The immune serine protease Granzyme B cleaves secreted proteins and extracellular vesicles of Listeria monocytogenes****Lavergne, Marilyne***Marilyne Lavergne (1), Patricia Matthey (1), Michael Stumpe (2), Jörn Dengjel (2), Pierre-Yves Mantel (1), Michael Walch (1)\***(1) University of Fribourg, Department of Oncology, Microbiology and Immunology**(2) University of Fribourg, Department of Biology***47***Microbiology***Unravelling the secrets of the deep lung: from microbial ecology, modulation of host immunity to fighting lung infections**

**Das, Sudip**

Sudip Das (1)\*, Béatrice Tappy (2)°,  
Auriane Form (2)°, Germán Bonilla-  
Rosso (2)°, Slipa Kanungo (3)°, Markus  
Hilty (4)°, Thomas Geiser (1)°, Philipp  
Engel (2)\*

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(2) University of Lausanne,  
Switzerland, Department of  
Fundamental Microbiology  
(3) KIIT University, India, School of  
Biotechnology  
(4) University of Bern, Switzerland,  
Institute for Infectious Diseases

**48***Microscopy***Expansion microscopy reveals  
structural defects of non-  
glutamylated centrioles****Gambarotto, Davide**

Davide Gambarotto (1), Georgios  
Hatzopoulos (1), Pierre Gonczy (1),  
Suliana Manley (1)  
(1) EPFL

**49***Microscopy***Mitochondria move via distinct  
transport modes****Winter, Julius**

Julius Winter (1), Tatjana Kleele (2),  
Emine Berna Durmus (1), Sheda Ben  
Nejma (1), Juan Cruz Landoni (1),  
Suliana Manley (1)\*  
(1) EPFL, SB IPHYS  
(2) ETHZ, Institute of Biochemistry

**50 (cancelled)***Molecular and Cellular Biosciences***A deep dive into *Giardia lamblia*'s  
unique endocytic organelles****Faso, Carmen**

Rui Santos (1), Ásgeir Ástvaldsson (2),  
Shweta V. Pipaliya (3), Jon Paulin  
Zumthor (4), Joel B. Dacks (5), Staffan  
Svärd (6), Adrian B. Hehl (1), Carmen  
Faso (7)\*  
(1) University of Zürich  
(2) University of Uppsala  
(3) École Polytechnique Fédérale de  
Lausanne  
(4) Amt für Lebensmittelsicherheit und  
Tiergesundheit Graubünden  
(5) University of Alberta  
(6) University of Uppsala  
(7) Institute of Cell Biology, University  
of Bern, Multidisciplinary Center for  
Infectious Diseases, University of Bern

**50a***Apoptosis***The link of BOK to uridine  
metabolism and mitochondrial  
function in cancer****Philippe JeanRichard**

Philippe JeanRichard (1), Rahul  
Srivastava (2), Samara Naim (1), Noah  
Schnüriger (1), Daniel Bachmann (1),  
Fabrizio Motta (1), Daniel Murphy (3)  
Hamsa Puthalakath (2), Thomas  
Kaufmann (1)  
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of Medicine, University of Bern, Bern,  
Switzerland  
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Genetics, La Trobe Institute for  
Molecular Science, Melbourne,  
Australia  
(3) CRUK Beatson Institute, Glasgow,  
Scotland, United Kingdom

**51**

*Molecular and Cellular Biosciences*

**Adaptions of aVb6 integrin to achieve TGF $\beta$ 1 activation**

**Bachmann, Michael**

*Michael Bachmann (1), Jérémie Kessler (1), Bernhard Wehrle-Haller (1)\*  
(1) University of Geneva, PHYM*

**52**

*Molecular and Cellular Biosciences*

**Investigating membrane traversal mechanisms of unconventionally secreted virulence factors in Giardia lamblia**

**Balmer, Erina**

*Erina Balmer (1), Corina Wirdnam (1)<sup>o</sup>, Faso Carmen (2)\*  
(1) University of Bern, Institute of cell biology  
(2) University of Bern, MCID*

**53**

*Molecular and Cellular Biosciences*

**Organization of Mitochondrial Gene Expression in Trypanosoma brucei**

**Berger, Bianca Manuela**

*Bianca Manuela Berger (1), Clirim Jetishi (1)  
(1) University of Bern, Department of Biology*

**54**

*Molecular and Cellular Biosciences*

**Determining synergistic Kindlin/Talin interactions that control Integrin activation**

**Burri, Elisa**

*Elisa Burri (1), Michaël Bachmann (1), Bernhard Wehrle-Haller (1)\*  
(1) University of Geneva, Cell physiology and Metabolism (Phym)*

**55**

*Molecular and Cellular Biosciences*

**SARM1 drives a novel form of cell death in eukaryotic cells**

**Espinias, Nino**

*Nino Espinas (1), Petr Broz (1)\*  
(1) University of Lausanne, Immunobiology*

**56**

*Molecular and Cellular Biosciences*

**Recycling of modified H2A-H2B provides short-term memory of chromatin states**

**Flury, Valentin**

*Valentin Flury (1), Nazaret Reverón-Gómez (1), Nicolas Alcaraz (1), Kathleen R. Stewart-Morgan (1), Alice Wenger (1), Robert J. Klose (2), Anja Groth (1)\*  
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(2) University of Oxford, Department of Biochemistry*

**57**

*Molecular and Cellular Biosciences*

**The two adaptors of microtubule motor proteins BicDR and BicD are**

**functionally redundant and essential  
for embryo development**

**Jejina, Aleksandra**

*Aleksandra Jejina (1), Paula Vazquez (1), Beat Suter (1)\**

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**58**

*Molecular and Cellular Biosciences*

**Cell death-dependent and -  
independent mechanisms of  
Interleukin-36 cytokine release in  
skin inflammation**

**Keller, Jennifer**

*Jennifer Keller (1), Judit Danis (2)°,  
Eleftheria Giroussi (1)°, Mark Mellett  
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*Dermatology*

*(2) University of Szeged, Dermatology  
and Allergology*

**59**

*Molecular and Cellular Biosciences*

**New cytokine in muscle homeostasis  
and regeneration**

**Kessler, Jérémie**

*Jérémie Kessler (1), Michael Bachmann  
(1)°, Bernhard Wehrle Haller (1)\*  
(1) UNIGE, PHYM*

**60**

*Molecular and Cellular Biosciences*

**Smart super-resolution microscopy to  
illuminate mitochondrial fission  
dynamics**

**Landoni, Juan Cruz**

*Juan C Landoni (1)°, Willi Stepp (1)°,  
Dafni Roomba (1)°, Julius Winter (1)°,  
Sheda Ben Nejma (1)°, Matthew D  
Lycas (1)°, Suliana Manley (1)\*  
(1) EPFL*

**61**

*Molecular and Cellular Biosciences*

**Transcriptional control of early  
nephrogenesis in *Xenopus tropicalis***

**Ogar, Paulina**

*Paulina Ogar (1), Thomas Naert (1),  
Soeren Lienkamp (1)\*  
(1) University of Zurich, Institute of  
Anatomy*

**62**

*Molecular and Cellular Biosciences*

**mtFociCounter: A simple open-  
source solution for reproducible  
quantitative single-cell analysis of  
mitochondrial nucleoids and other  
foci.**

**Rey, Timo**

*Timo Rey (1), Luis Carlos Tabara (1),  
Michał Minczuk (1)  
(1) Cambridge University, MRC  
Mitochondrial Biology Unit*

**63**

*Molecular and Cellular Biosciences*

**L1CAM plays a role in cancer  
stemness and is a targetable  
biomarker for radioimmunotherapy  
in ovarian cancer**

**Todorov, Tihomir**

*Tihomir Todorov (1), Ricardo Coelho  
(2)°, Francis Jakob (2)°, Roger Schibli  
(3)°, Martin Behe (4)°, Jürgen  
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University of Basel, 4031 Basel,  
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PSI, Switzerland*

**64**  
*Molecular and Cellular Biosciences*

**Quantitative analysis of transcription  
factor search dynamics**

**Vanzan, Ludovica**  
*Ludovica Vanzan (1), Sebastian  
Maerkl (1), David Suter (1)\**  
*(1) EPFL*

**65**  
*Neuroscience*

**Does adenosine diphosphate ribose  
(ADPR) protect against injury-  
induced blood-brain barrier  
permeability in vitro?**

**Leiteritz, Vivian**  
*Vivian Leiteritz (1), Omolara  
Ogunshola (1)\**  
*(1) University of Zurich, Institute of  
Veterinary Physiology*

**66**  
*Neuroscience*

**Investigation of the neuronal  
pathophysiology of tick-borne  
encephalitis virus using infant rat  
models**

**Leoni, Simone**  
*Simone Leoni (1,2), Denis Grandgirard  
(1,3), Stephen Leib (1,3)*  
*(1) Institute for infectious diseases,  
University of Bern, Switzerland*  
*(2) Graduate school for cellular and  
biomedical sciences, University of  
Bern, Switzerland*  
*(3) Multidisciplinary center for  
infectious diseases, University of Bern,  
Switzerland*

**67**  
*Neuroscience*

**Unveiling amylin and salmon  
calcitonin affected brain areas by  
resting state fMRI**

**Mazzini, Giulia**  
*Giulia Mazzini (1), Irmak Gezginer (2),  
Christelle Le Foll (1), Diana Kindler  
(2), Daniel Razansky (2), Thomas Lutz  
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Veterinary Physiology, Vetsuisse  
Faculty*  
*(2) ETH Zurich, Department of  
Information Technologies and  
Electrical Engineering*

**68**

*Neuroscience*

**Hypothalamic Astrocytes: Shadow Directors in the Control of Food Intake and Energy Homeostasis?**

**Navarro I Batista, Keila**

*Keila Navarro I Batista (1), Christelle Le Foll (1)\**

(1) *Institute of Veterinary Physiology*

**69**

*Pharmacology*

**Fractionated radiation therapy increases Siglec-7 and -9 ligands expression in cancer cells**

**Hugonnet, Marjolaine**

*Marjolaine Hugonnet (1), Lusine Hovhannisyan (2), Michaela Medová (2), Yitzhak Zimmer (2), Stephan von Gunten (1)\**

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(2) *University of Bern, Bern, Switzerland, Radiation Oncology, Department for BioMedical Research*

**70**

*Pharmacology*

**Sphk1 and Sphk2 differentially regulate HIF-2 $\alpha$  Stabilization and Erythropoietin Synthesis in Mouse Renal Interstitial Fibroblasts**

**Stepanovska Tanturovska, Bisera**

*Bisera Stepanovska Tanturovska (1)<sup>o</sup>, Redona Hafizi (1)<sup>o</sup>, Faik Imeri (1)<sup>o</sup>, Roxana Manaila (1), Stephanie*

*Schwalm (2), Sandra Trautmann (3), Roland Wenger (4), Josef Pfeilschifter (2), Andrea Huwiler (1)\**

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(2) *Goethe-University Frankfurt am Main, Institute of General Pharmacology and Toxicology*

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(4) *University of Zurich, Institute of Physiology*

**71**

*Pharmacology*

**Reactivation of Epo-producing cells by HIF stabilizers in renal anemia**

**Wenger, Roland**

*Thomas Knöpfel (1)<sup>o</sup>, Olga Lempke (1)<sup>o</sup>, Stana Burger (1)<sup>o</sup>, Małgorzata Wilk (1)<sup>o</sup>, Patrick Spielmann (1)<sup>o</sup>, Roland Wenger (1)\**

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**72**

*Pharmacology*

**The Effect of 7-Ketocholesterol on the Function of Organic Cation Transporter 2**

**Xiu, Fangrui**

*Fangrui Xiu (1)*

(1) *University Hospital Zurich, Department of Clinical Pharmacology and Toxicology*

**73**

*Physiology*

**Role of sex-specific elevation of arginase-II in podocytes in age-associated albuminuria**

**Ajalbert, Guillaume**

*Guillaume Ajalbert (1), Duilio Potenza (1), Xiu-Fen Ming (1), Zhihong Yang (1)\**

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**74**

*Physiology*

**Short-term low protein/high sucrose diet preconditioning improves endothelial cell proliferation and neovascularization in a model of murine hindlimb ischemia**

**Bechelli, Clémence**

*Clémence Bechelli (1), Thomas Agius (1), Diane Macabrey (1), Séverine Urfer (1), Martine Lambelet (1), Sébastien Déglise (1), Florent Allagnat (1)\**

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**75**

*Physiology*

**Role of Arginase-II in the age-dependent decline of physical activity**

**Caretti, Matteo**

*Matteo Caretti (1), Andrea Brenna (1), Duilio Michele Potenza (1), Guillaume Ajalbert (1), Xiu-Fen Ming (1), Zhihong Yang (1)\**

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**76**

*Physiology*

**Sex differences and the role of sex hormones in electrophysiological features in atrial cardiomyocytes and fibroblasts**

**Giammarino, Lucilla**

*Lucilla Giammarino (1), Lluis Matas (1), Saranda Nimani (1), Miriam Barbieri (1), Nicolò Alerni (1), Julien Louradour (1), Ruben Lopez (1), András Horváth (1), Thomas Hof (1), Katja E. Odening (1)\**

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**77**

*Physiology*

**Are STIM1L KO mice fatigued?**

**König, Stephane**

*Stéphane Koenig (1), Olivier Dupont (1), Axel Tollance (1), Maud Frieden (1)\**

*(1) CMU, Cell Physiology and Metabolism*

**78**

*Physiology*

**Studying the role of S-acylation of ORAI1 channel and STIM1 protein in tubular aggregate myopathies**

**Kouba, Sana**

*Sana Kouba (1), Cyril Castelbou (1), Laurence Gouzi Abraham (2), Gisou VAN DER Goot (2), Maud Frieden (1), Amado Carreras Sureda (1), Nicolas Demaurex (1)\**

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(2) Ecole polytechnique Fédérale de Lausanne

**79**  
*Physiology*

**STIM1 and STIM1L in skeletal muscle: central regulators of calcium circuitry?**

**Laubry, Loann**

*Loann Laubry (1), Jessica Brunetti (1), Stéphane Koenig (1), Maud Frieden (1)\**

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**80**  
*Physiology*

**Microangiopathy and arteriole-associated calcifications in the brain of Xpr1 heterozygous mice and humans carrying Xpr1 mutation**

**Maheshwari, Upasana**

*Upasana Maheshwari (1), Jose M.M.Melero (2), Ulrike Weber (3), Ruiqing Ni (4), Annika Keller (5)\**

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*(3) University of Zurich, Veterinary Pharmacology and Toxicology*

*(4) ETH Zurich, Institute of Biomedical Engineering*

*(5) University Hospital Zurich, Neurosurgery*

**81**  
*Physiology*

**Stim proteins sustain low-amplitude spontaneous Ca<sup>2+</sup> oscillations in mouse bone marrow neutrophils**

**Rabesahala de Meritens, Camille**  
*Camille Rabesahala de Meritens (1), Amado Carreras-Sureda (1), Nicolas Demaurex (1)*

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**82**  
*Physiology*

**Pericyte hypoxia-inducible factor-1 (HIF-1) is required for blood-brain barrier recovery during the long-term stroke**

**Tsao, Chih-Chieh**

*Chih-Chieh Tsao (1), Diana Kindler (2), Christina Köster-Hegmann (1), Daniel Razansky (2), Omolara Ogunshola (1)\**

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*(2) ETH Zurich, Institute of Biomedical Engineering*

**83**  
*Physiology*

**Blood-born high density lipoproteins maintain cerebrovascular health**

**Voloviceva, Evelina**

*Evelina Voloviceva (1), Jerome Robert (1)\**

*(1) University Hospital Zurich, Institute of Clinical Chemistry*

**84**  
*Proteomics*

**Combining structural proteomics workflows to understand how the proteome structurally and functionally adapts to perturbations**

**Marulli, Cathy**

*Cathy Marulli (1)*

(1) ETH, Biology

**85**

*Structural Biology*

**The role of Na<sup>+</sup> binding in G protein-coupled receptor**

**Chiang, Wan-Chin**

*Wan-Chin Chiang (1)*

(1) University of Zurich, Department of Chemistry

**86**

*Systems Biology*

**Metabolic programs underlying proliferation and quiescence of different endothelial cell types**

**Durot, Stephan**

*Stephan Durot (1), Peter Doubleday*

(1)<sup>o</sup>, Lydia Schulla (1)<sup>o</sup>, Nicola

Zamboni (1)\*

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**87**

*Systems Biology*

**Multiscale topology characterises dynamic tumour vascular networks**

**Stolz, Bernadette**

*Bernadette Stolz (1)<sup>o</sup>, Jakob Kaepller*

(2)<sup>o</sup>, Bostjan Markelc (3)<sup>o</sup>, Franziska

Mech (4)<sup>o</sup>, Florian Lipsmeier (4)<sup>o</sup>, Ruth

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SV/Mathematical Institute

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(4) Roche, pREDi

(5) University of Oxford, Mathematical Institute

**88**

*Tropical medicine & Parasitology*

**Unraveling the kDNA kinetochore in Trypanosoma brucei**

**Jetishi, Clirim**

*Cirim Jetishi (1)*

(1) University of Bern, Institute of Cell Biology

**89**

*Ion Channels and Membrane Transporters*

**A novel mouse model for an inducible gene-modification in the renal thick ascending limb**

**Bourqui, Laurent**

*Laurent Bourqui (1), Denise V. Winter*

(2)<sup>o</sup>, Alex Odermatt (2)<sup>o</sup>, Dominique

Loffing-Cueni (1)<sup>o</sup>, Johannes Loffing

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(2) University of Basel, Division of Molecular and Systems Toxicology, Department of Pharmaceutical Sciences

(3) University of Zurich, Institut of Anatomy

**90**  
*Bioinformatics*

**Investigating the Impact of Injury Types and Intercellular Communication on Zebrafish Heart Regeneration**

**Prateek, Arora**

*Prateek Arora (1,2), João Carvalho*

*(1,2) #, Marius Botos (1,2) #, Panagiotis*

*Chouvardas (2,3), Nadia Mercader*

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**91**  
*Institutional*

**APC and the atria: High performance automated patch clamp of mammalian atrial cardiomyocytes**

**Seibertz, Fitzwilliam**

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*(2) Nanion Technologies GmbH, Germany*

**92**  
*Institutional*

**Life Sciences Zurich**

**93**  
*Institutional*

**102<sup>nd</sup> Annual Meeting of the German Physiological Society (21-23 Sep. 2023, BERLIN)**

**94**  
*Apoptosis*

**Complexome profiling: A story of dying cells**

**Lisa-Janina Hohorst**

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*Alfredo Cabrera-Orefice (2,3), Ulrich Brandt (2,3), Ana J. Garcia-Saez (1)*

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**95**  
*Institutional*

**Stories about evolution**

**Beatrice Pichon**

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**96**  
*Institutional*

**LS<sup>2</sup> Social Events**