

Posters

The LS² Annual Meeting 2024 offers an spot for 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:

Wednesday, 14th of February, 17:15 to 19:15

(Posters: 17:45 - 18:25 odd numbers, 18:25 - 19:15 even numbers)

Thursday, 15th 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

<u>Category*</u>	<u>Poster Nr.</u>
Bioinformatics	1-7
Biophysics	8-18
Cardiovascular Biology & Physiology	19-39
Experimental Pharmacology	40-46
Ion Channels and Membrane Transporters	47-67
Microscopy	68-74
Molecular and Cellular Biosciences	75-95
Proteomics	96-100
Systems Biology	101-107

*Submitted abstract categories were rearranged by the scientific committee to better match meeting poster categories.

*= last author(s)

°= shared authorships

1

Bioinformatics

Rare copy-number variants as modulators of common disease susceptibility

Auwerx, Chiara

Chiara Auwerx (1), Maarja Jõeloo (2), Marie Sadler (1), Nicolò Tesio (3), Sven Ojavee (1), Charlie Clark (3), Reedik Mägi (2), Alexandre Reymond (3), Zoltán Kutalik (1)**

(1) University of Lausanne, Department of Computational Biology

(2) University of Tartu, Estonian

Genome Centre

(3) University of Lausanne, Center for Integrative Genomics

2

Bioinformatics

Structural and functional evolution of C2 domains proteins involved in Ca²⁺-dependent neurosecretion

Dall'Angelo, Michela

Michela Dall'Angelo (1)

(1) University of Lausanne, Department of Computational Biology

3

Bioinformatics

Detecting high resolution copy number variations (CNV) from visium spatial gene expression data

Maurya, Arun Singh

Arun Singh Maurya (1), Sina Majidian

(1)°, Christophe Dessimoz (1)°

(1) University of Lausanne, Department of Computational Biology

4

Bioinformatics

First steps in Sperm-Egg Adhesion: Molecular Dynamics of JUNO-IZUMO1 complexation

Pacak, Paulina

Paulina Pacak (1), Carleen Kluger (2),

*Viola Vogel (1)**

(1) ETH Zürich, Health Sciences and Technology

(2) Evotec München

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Bioinformatics

Autoencoder-based recovery of epigenomic signatures from low-pass cell-free DNA sequencing

Radig, Jean

Jean Radig (1), Noah Wolford (1),

Michael Krauthammer (1), Zsolt Balazs (1)

(1) University of Zurich, Department for Quantitative Biomedicine

6

Bioinformatics

Detection of mosaic Loss of Y chromosome from Exome sequencing data

Timonina, Valeria

Valeriia Timonina (1), Jacques Fellay

*(1)**

(1) EPFL, SV GHI GR-FE

7

Bioinformatics

Rabies awareness in schools: exploring educators' perspective

Tiwari, Harish

*Harish Tiwari (1), Samira Heydtmann (2)^o, Parimala Mohanty (1)^o, Sounika Karmakar (1)^o, Amrita Sarkar (3)^o, Dipankar Gogoi (1)^o, Salome Durr (4)**
(1) Indian Institute of Technology Guwahati, School of Health Science and Technology
(2) University of Zurich, Vetsuisse Faculty
(3) Tomo Riba Institute of Health, and Medical Sciences (TRIHMS), Arunachal Pradesh, India, Department of Community Medicine
(4) University of Bern, Veterinary Public Health Institute

8

Biophysics

Controlling morpho- electrophysiological variability of neurons with detailed biophysical models

Arnaudon, Alexis

Alexis Arnaudon (1), Maria Reva (1), Mickael Zbili (1), Henry Markram (1), Werner Van Geit (1), Lida Kanari (1)
(1) EPFL, BBP

9

Biophysics

Exploring SNARE-Like Proteins in Heimdall Archaea: Insights into

Evolution and Structural Conformation

Bentahar, Iman

Iman Bentahar (1)
(1) University of Lausanne, DBC

10

Biophysics

Structural basis of the regulation of human chemokine receptor and HIV- 1 co-receptor CCR5

Isaikina, Polina

Polina Isaikina (1), Ivana Petrovic (2), Ching-Ju Tsai (1), Stephan Grzesiek (2)**
(1) Paul Scherrer Institute, Biology and Chemistry
(2) University of Basel, Biozentrum

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Biophysics

Of mice and men: Unique human networks arise from topologically complex dendrites

Kanari, Lida

Lida Kanari (1)^o, Ying Shi (1), Alexis Arnaudon (1), Natali Barros-Zulaica (1), Ruth Benavides-Piccione (2), Jay S. Coggan (1), Javier DeFelipe (2), Kathryn Hess (3), Huib Mansvelder (4), Eline J. Mertens (4), Idan Segev (5), Henry Markram (1), Christiaan P.j. de Kock (4)**
(1) EPFL, Blue Brain Project
(2) Laboratorio Cajal de Circuitos Corticales, CSIC
(3) EPFL, Laboratory for Topology and Neuroscience

(4) *Vrije Universiteit Amsterdam, Department of Integrative Neurophysiology*
(5) *The Hebrew University of Jerusalem, Edmond and Lily Safra Center for Brain Sciences*

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Biophysics

Determining how physical constraints shape organism behaviour

Laan, Daphne

*Daphne Laan (1), Merih Özberk (1)^o, Cristine Le (2)^o, Guillermina Ramirez-San-Juan (1)**

(1) EPF Lausanne, Experimental biophysics

(2) Brandeis University, Waltham, MA, USA

13

Biophysics

Dynamic single cell analysis of a MAPK signalling cascade, impact on transcriptional output and heterogeneity of the stress response.

Lieb, Guillaume

*Guillaume Lieb (1), Serge Pelet (1)**

(1) Université de Lausanne, Department of Fundamental Microbiology

14

Biophysics

Geometric Effects Position Renal Vesicles During Kidney Development

Mederacke, Malte

*Malte Mederacke (1)^o, Lisa Conrad (2)^o, Nikolaos Dumpas (1), Roman Vetter (1), Dagmar Iber (1)**

(1) ETH Zurich, D-BSSE

(2) University Bern, Department for BioMedical Research

15

Biophysics

The herpes simplex virus type 1 origin binding protein UL9 promotes DNA loop formation

Meier, Anita

*Anita Meier (1), David Rueda (1)**

(1) Imperial College London, Infectious Disease

16

Biophysics

Single-molecule enzymology of chromatin ubiquitination by PRC1: Unraveling the dynamics in real-time

Teslenko, Alexandra

*Alexandra Teslenko (1), Beat Fierz (1)**

(1) École Polytechnique Fédérale de Lausanne (EPFL), Laboratory of Biophysical Chemistry of Macromolecules (LCBM), SB ISIC

17

Biophysics

Roles for macromolecular crowding during ESCRT-dependent membrane remodelling

Tran, Joshua

*Joshua Tran (1), Aurélien Roux (1)**

(1) Université de Genève, Département de Biochimie

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Biophysics

Deciphering Neuronal Signals with the Electrophys Feature Extraction Library (eFEL)

Tuncel, Anil

Anil Tuncel (1), Aurélien Jaquier (1), Rajnish Ranjan (1), Werner Van Geit (1), Henry Markam (1), Lida Kanari (1) (1) Ecole Polytechnique Fédérale de Lausanne, Blue Brain Project

19

Cardiovascular Biology & Physiology

Oligodendrocytes in Painful Diabetic Neuropathy: The Effect of Diabetes on Myelin Homeostasis

Alappat, Melvin

Melvin Alappat (1) (1) University of Zürich, Institute of Pharmacology and Toxicology

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Cardiovascular Biology & Physiology

Smooth muscle cell-specific deletion of S100A4 modifies smooth muscle cell fate and inflammation in murine atherosclerotic lesions

Azar, Pascal

Pascal Azar (1)^o, Luis Miguel Cardoso Dos Santos (1)^o, Marta Correia de Sousa (2), Marie-Luce Bochaton Pierrat (1) (1) University of Geneva, Department of Pathology and immunology (2) University of Geneva, Department of Physiology and Metabolism*

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Cardiovascular Biology & Physiology

Short-term carboloading diet promotes formation of natural bypass in a mouse model of hindlimb ischemia

Bechelli, Clémence

Clémence Bechelli (1), Thomas Agius (1), Diane Macabrey (1), Séverine Urfer (1), Martine Lambelet (1), Sébastien Déglise (1), Alban Longchamp (1), Florent Allagnat (1) (1) Lausanne University Hospital, Vascular surgery*

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Cardiovascular Biology & Physiology

Evaluating the role of circadian clock genes period 1 and 2 in dopaminergic neurodegeneration.

Duret, Lou

Lou C. Duret (1), Emi Nagoshi (1) (1) University of Geneva, Department of Genetics and Evolution and Institute of Genetics and Genomics of Geneva (iGE3)*

23

Cardiovascular Biology & Physiology

Orai3 and its partner AHNAK2 regulate the activation of human skeletal muscle stem cells in vitro

Fourgeaud, Mélanie

Mélanie Fourgeaud (1), Axel Tollance (1), Stéphane Koenig (1), Maud Frieden (1)

(1) University of Geneva, Department of Cell Physiology and Metabolism

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Cardiovascular Biology & Physiology

Role of S100A4 in the crosstalk between smooth muscle and inflammatory cells in atherosclerosis

Kapitanova, Ksenia

Ksenia Kapitanova (1), Pascal Azar (1)^o, Marie-Luce Bochaton-Piallat (1) (1) UNIGE, PATIM*

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Cardiovascular Biology & Physiology

Targeting the S-Acylation of Ora1 β calcium channel and STIM1 protein in triple negative breast cancer

Kouba, Sana

Sana Kouba (1)^o, Raphaël Nere (1)^o, Amado Carreras Sureda (1)^o, Nicolas Demaurex (1) (1) University of Geneva, Cell physiology and metabolism*

26

Cardiovascular Biology & Physiology

Investigating the molecular mechanisms underlying the rhythmic gene expression in the mushroom body

Lago Solis, Blanca

Blanca Lago Solis (1), Emi Nagoshi (1) (1) University of Geneva, Genetics and Evolution*

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Cardiovascular Biology & Physiology

A sexually dimorphic hepatic cycle of very low density lipoprotein uptake and assembly

Martini, Tomaz

Tomaz Martini (1), Cedric Gobet (1), Andrea Salati (1), Jerome Blanc (2), Aart Mookhoek (3), Graham Knott (2), Jessica Sordet-Dessimoz (4), Felix Naef (1) (1) Ecole Polytechnique Fédérale de Lausanne, Institute of Bioengineering (2) Ecole Polytechnique Fédérale de Lausanne, Bioelectron Microscopy Core Facility (3) University of Bern, Institute of Tissue Medicine and Pathology (4) Ecole Polytechnique Fédérale de Lausanne, Histology Core Facility*

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Cardiovascular Biology & Physiology

The role of oligodendrocytes in painful diabetic neuropathy

Mazurkiewicz, Marta

Marta Mazurkiewicz (1), Sevasti Gaspari (1), Melvin Alappat (1) (1) University of Zurich, Institute of Pharmacology and Toxicology*

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Cardiovascular Biology & Physiology

Non-redundant functions of PI3K γ complexes in obesity and metaflammation

Oparija Rogenmozere, Lalita

Lalita Oparija-Rogenmozere (1)^o, Julie R. Jin (1)^o, Ana R. Xavier (1), Matthias P. Wymann (1) (1) University of Basel, Department of Biomedicine*

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Cardiovascular Biology & Physiology

Long-lasting pathway shutdown upon covalent PI3K α inhibition boosts therapeutic response

Orbegozo, Clara

Clara Orbegozo (1), Lukas Bissegger (1)^o, Theodora Constantin (1)^o, Luka Raguž (1)^o, Chiara Borsari (1)^o, Matthias P. Wymann

(1), Erhan Keles (1)^o*

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Cardiovascular Biology & Physiology

Stim1/2 genetic ablation abrogates Ca $^{2+}$ elevations and impairs neutrophil spreading

Rabesahala de Meritens, Camille

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

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Cardiovascular Biology & Physiology

Epigenomic profiling identifies a non-coding region that calibrates Tbx5 gene dosage in the developing heart and limb.

Rapp, Vincent

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Cardiovascular Biology & Physiology

Cardiac cell type enhancers in the Gata4-Hand2 regulatory module shape mammalian heart development

Roland, Virginia

*Virginia Roland (1), Matteo Zoia (1)^o, Ekapaksi Wisnumurti (1)^o, Andrea Esposito (2)^o, Mattia Conte (2)^o, Johannes Tüchler (3)^o, Raquel Rouco (4)^o, Virginie Tissières (1)^o, Julie Gamart (1)^o, Vincent Rapp (1)^o, Ines Marques (5)^o, Gretel Nusspaumer (6)^o, Guillaume Andrey (7)^o, Nadia Mercader (8)^o, Javier Lopez-Rios (6)^o, Mario Nicodemi (2)^o, Iros Barozzi (3)^o, Marco Osterwalder (1)**

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(6) Universidad Pablo de Olavide-Junta de Andalucía, Seville, Spain, Centro Andaluz de Biología del Desarrollo (CABD), CSIC

(7) University of Geneva, Geneva, Switzerland, Department of Genetic Medicine and Development and iGE₃, Faculty of Medicine

(8) Institute of Anatomy, University of Bern, Bern, Switzerland

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Cardiovascular Biology & Physiology

Deciphering and Targeting ALK-driven Pediatric Gliomas

Sanchez Bergman, Astrid

Astrid Sanchez Bergman (1), Andreas Postlmayr (1)^o, Andrea De Micheli (1)^o, Samanta Kisele (1)^o, Ana Guerreiro Stücklin (1)

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Cardiovascular Biology & Physiology

Impact of *Withania somnifera* testosterone booster supplement on androgen signalling pathways

Sousa Barata, Isabel

*Isabel S. Barata (1), Jibira Yakubu (1), Therina Du Toit (1), Amit V. Pandey (1)**

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Cardiovascular Biology & Physiology

Evaluation of the effect of human follicular fluid EVs as a medium component on the cultured primary granulosa cells

Volkova, Nataliia

Nataliia Volkova (1), Inge Varik (1)^o, Kristine Roos (1)^o, Katariina Johanna Saretok (1)^o, Aleksander Trošin (2)^o, Paolo Guazzi

*(3)^o, Agne Velthut-Meikas (1)**

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(2) East Tallinn Central Hospital

(3) HansaBioMed Life Sciences

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Cardiovascular Biology & Physiology

p84 adapter subunit of PI3K γ defines mast cell proinflammatory role in IgE-dependent inflammation

Xavier, Ana

*Ana R. Xavier (1), Matthias Wymann (1)**

(1) University of Basel, Department of Biomedicine

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Cardiovascular Biology & Physiology

Oncogenic DMTF1 β supports a breast and prostate cancer tumor-initiating cell phenotype

Yi, Shun

*Shun Yi, Nicolas J Niklaus (1), Jun Xu (1), Anna Bill (1), Mengyu Zhou (1), Mario P. Tschan (1)**

(1) Institute of Tissue Medicine and Pathology, Division of Experimental Pathology

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Cardiovascular Biology & Physiology

Sequential post-translational modifications of DMTF1 β

Zhou, Mengyu

Mengyu Zhou (1)^o, Jun Xu (1)^o, Anna Bill (1), Jörn Dengjel (2), Mario Tschan (1) (1) University of Bern, Institute of Tissue Medicine and Pathology (2) University of Fribourg, Department of Biology

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Experimental Pharmacology

Recombinant IgG1 Fc hexamer and neutrophils: Kill or not to kill

Hevia Hernandez, Giselle

Giselle Hevia Hernandez (1), Stephan von Gunten (1), Darko Stojkov (1)^o (1) University of Bern, Institute of Pharmacology*

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Experimental Pharmacology

Peripheral administration of amylin and salmon calcitonin induces hippocampus activity alterations in the mouse brain

Mazzini, Giulia

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

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Experimental Pharmacology

The Momordica balsamina methanol extract inhibits the interleukin-6-induced invasive, migratory, and adhesive

effects of MDA-MB-231 breast cancer cells via the inhibition of the IL-6/JAK2/STAT3 pathway.

Mohale, Tshwarelo

Tshwarelo Mohale (1), Vusi Mbazima (1)^o, Kgomotso Poopedi (1)^o, Sylvia Riedel (2)^o (1) University of Limpopo, Biochemistry, Microbiology and Biotechnology (2) SAMRC*

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Experimental Pharmacology

ESTABLISHING A MICROBIAL CO-CULTURE FOR PRODUCTION OF CELLULASE

Mulaudzi, Mulanga Luscius

Mulanga Luscius Mulaudzi (1)^o, Ignitius Ncube (1) (1) University of Limpopo, Biochemistry, Microbiology and Biotechnology*

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Experimental Pharmacology

Exosomes containing sialoglycans in cancer

Toledo Santamaría, Darien

Darien Toledo Santamaria (1)^o, Stephan von Gunten (1) (1) University of Bern, Pharmacology Institute*

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Experimental Pharmacology

Targeting programmed death with small molecule inhibitors in non-small cell lung cancer

Wu, Liyang

Liyang Wu (1), Anthony Marchand (2), Daniel Bachmann (1), Thomas Kaufmann (1)*

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(2) École Polytechnique Fédérale de Lausanne (EPFL), School of Life Sciences

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Experimental Pharmacology

Curcumin nanoformulation improves in-vitro suppression of steroidogenic Cytochrome P450s in dehydroepiandrosterone synthesis.

Yakubu, Jibira

Jibira Yakubu (1), Amit V. Pandey (2)*, Oya Tagit (3)°, Evangelos Natsaridis (3)°

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(3) University of Life Sciences FHNW, Biointerfaces, Institute of Chemistry and Bioanalytics.

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Ion Channels and Membrane Transporters

Identification of the structural elements responsible for metal ion binding, enhanced metal selectivity

and HCO₃⁻ / divalent metal ion co-transport on the basis of a new structural model of the human zinc transporter ZIP8 (SLC39A8)

Baumann, Sven

Jonai Pujol-Giménez (1)°, Gergely Gyimesi (1)°, Matthias Hediger (1)*

(1) University of Bern, DBMR

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Ion Channels and Membrane Transporters

Impact of calcium on the pain-sensing ion channel hASIC3

Bohnet, Marc

Marc Bohnet (1)°, Stephan Kellenberger (1)*

(1) University of Lausanne, Department of Biomedical Sciences

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Ion Channels and Membrane Transporters

ER-Golgi-localized proteins TMED2 and TMED10 control the formation of plasma membrane lipid nanodomains

Anwar, Muhammad Umair

Muhammad Umair Anwar (1), Oksana Sergeeva (1)°, Laurence Abrami (1)°, Giovanni D'Angelo (1)°, Gisou van der Goot (1)*

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Ion Channels and Membrane Transporters

Mito-CaMPAR1₂, a novel reporter of ER-mitochondria function

Carreras, Amado

*Xin Zhang (1)^o, Benjamin James Seiple (1)^o, Richard Fish (2), Nicolas Demaurex (1), Amado Carreras Sureda (1)**
(1) University of Geneva, Department of Cell Physiology and Metabolism
(2) University of Geneva, Department of Genetic Medicine and Development

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Ion Channels and Membrane Transporters

Probing protonation-driven conformational changes in the ASIC1a β -turn domain through fluorescence measurements

Centonze, Eleonora

*Eleonora Centonze (1), Stephan Kellenberger (1)**
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Ion Channels and Membrane Transporters

Investigating phosphatidic acid signalling specificity through targeted elevation of native lipid species

Domeniconi, Gary

Gary Domeniconi (1)
(1) EPFL, Institute of Bioengineering

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Ion Channels and Membrane Transporters

The role of lupus-associated SLC15A4-TASL-IRF5 signaling axis in TLR7/9 dependent immune responses

Drobek, Ales

*Ales Drobek (1), Léa Bernaleau (1)^o, Maeva Delacrétaz (1)^o, Jakub Korzeniowski (1)^o, Marta Monguio Tortajada (1)^o, Mélissa Longepierre (1)^o, Manuele Rebsamen (1)**
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Ion Channels and Membrane Transporters

The architecture and mechanism of lipid transfer at interfaces between lipid droplets

Ganeva, Iva

Iva Ganeva (1), Koini Lim (2)^o, Jerome Boulanger (3)^o, Patrick Hoffmann (3)^o, Alicia Borgeaud (1)^o, David Savage (2), Wanda Kukulski (1)**
(1) University of Bern, Institute of Biochemistry and Molecular Medicine
(2) University of Cambridge, Wellcome Trust-Medical Research Council Institute of Metabolic Science
(3) MRC Laboratory of Molecular Biology, Cell Biology Unit

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Ion Channels and Membrane Transporters

A feedback loop between cholesterol and ESCRT-o protein HRS promotes assembly of flat clathrin lattices on endosomes

Hakala, Markku

*Markku Hakala (1), Satish Moparthy (2), Stéphane Vassilopoulos (2), Marko Kaksonen (1), Aurélien Roux (1)**
(1) University of Geneva, Department of Biochemistry
(2) Sorbonne Université, Institute de Myologie

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Ion Channels and Membrane Transporters

What should we be careful about when studying endosomal escape of cell-penetrating peptides

Hallaj, Ali

*Ali Hallaj (1), Christian Widmann (1)**
(1) University of Lausanne, Department of Biomedical Sciences

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Ion Channels and Membrane Transporters

Optimization of human acid-sensing ion channel 1a (hASIC1a) for ion channel-based biosensor development

Hanna, Mina

Mina Hanna (1), Ruud Hovius (2), Stephan Kellenberger**
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(2) École Polytechnique Fédérale de Lausanne, Institute of Chemical Sciences & Engineering: Laboratory of Biophysical Chemistry of Macromolecules

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Ion Channels and Membrane Transporters

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)**
(1) University of Geneva, Department of Cell Physiology and Metabolism

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Ion Channels and Membrane Transporters

Nutrient-genetic screens highlight the role for mitochondrial transporter in surviving glutamine deprivation

Lisci, Miriam

*Miriam Lisci (1), Fanny Vericel (1), Julijana Ivanisevic (2), Manfredo Quadroni (3), Alexis Jourdain (1)**
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(2) University of Lausanne, Metabolomics Platform
(3) University of Lausanne, Protein Analysis Facility

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Ion Channels and Membrane Transporters

Context-dependent mapping of ER-mitochondria-junction-specific stress sensors and their signaling activities

Miranda Herrera, Pierre Alexander

*Pierre Alexander Miranda Herrera (1), Yimon Aye (1)**
(1) Swiss Federal Institute of Technology Lausanne (EPFL), Institute of Chemical Sciences and Engineering

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Ion Channels and Membrane Transporters

Identifying new pH-sensing residues involved in the gating of acid-sensing ion channel 1a (ASIC1a)

Molton, Ophélie

Olivier Bignucolo (1), Ophélie Molton (2), Ivan Gautschi (2), Stephan Kellenberger (2)

(1) University of Lausanne, Swiss Institute of Bioinformatics

(2) University of Lausanne, Department of biomedical Sciences

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Ion Channels and Membrane Transporters

STIM1 S-acylation by PAT2o enhances store-operated calcium entry

Néré, Raphaël

*Raphaël Néré (1), Sana Kouba (1)°, Amado Carreras-Sureda (1)°, Laurence Abrami (2)°, Gisou Van Der Goot (2)°, Nicolas Demaurex (1)**

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(2) École polytechnique fédérale de Lausanne

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Ion Channels and Membrane Transporters

The $\alpha 5$ subunit in nAChRs promotes the proliferation and migration of human cancer cells via nicotine activation

Papapostolou, Irida

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Ion Channels and Membrane Transporters

Role of mechanosensitive Piezo1 Ca²⁺ channels in phagocytosis by neutrophils

Rosa, Nicolas

*Nicolas Rosa (1), Camille Rabesahala de Meritens (1)°, Cyril Castelbou (1)°, Amado Carreras Sureda (1)°, Nicolas Demaurex (1)**

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Ion Channels and Membrane Transporters

Cell cycle impacts Cell-Penetrating Peptide direct translocation

Tomás Ribeiro, Francisco

*Francisco Tomás Ribeiro (1), Christian Widmann (1)**

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Ion Channels and Membrane Transporters

A lysosome-Golgi connection corrects Cohen Syndrome cellular phenotype

Vacca, Fabrizio

*Fabrizio Vacca (1), Romain Da Costa (1), Mi Sun Choung (1), Huda Barakullah (1), Howard Riezman (2), Muhammad Ansar (1)**

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Ion Channels and Membrane Transporters

Tracking the secrets of diacylglycerol transport and metabolism in the cell

Wedemann, Linda

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Microscopy

Fast Viral Dynamics Revealed by Microsecond Time-Resolved Cryo-EM

Barrass, Sarah

*Sarah V. Barrass (1), Oliver F. Harder (1), Marcel Drabbels (1), Ulrich J. Lorenz (1)
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Microscopy

Fluorescent labeling of cellular DNA for an exploration of in-situ chromatin structure

Cai, Wei

Wei Cai (1), Maxime Mivelaz (1)^o, Beat Fierz (1)
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Microscopy

Characterization of the dynamic behaviour of clathrin and its adaptors along the endocytic timeline in yeast

Boinet, Anne-laure

Anne-Laure Boinet (1), Aurélien Roux (1), Marko Kaksonen (1)
(1) University of Geneva, Biochemistry*

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Microscopy

The behaviour of Apaf1 in apoptotic cells unveil apoptosome organization and dynamics in vivo

Borgeaud, Alicia

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Implementing and supporting imaging-based spatial transcriptomics in core-facilities

Schlaeppi, Anjalie

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Microscopy

Overcoming preferred orientation in cryo-EM samples through microsecond melting and revitrication

Straub, Monique

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Mowry (1)^o, Oliver F. Harder (1)^o,
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Microscopy

Mitochondrial dynamics in cell fate decisions

Wentinck, Koen

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Molecular and Cellular Biosciences

SARS-CoV-2 shifts transcription of host gene to increase Spike acylation and boost infectivity

Abrami, Laurence

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Mequita (1), Lucie Bracq (1),
Nattawadee Panyain (1), Vincent
Mercier (2), Béatrice Kunz (1), Audrey
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Molecular and Cellular Biosciences

Investigating the heterochromatin model of *C. elegans* aging using ChromID proximity labeling

Aksianiuk, Valeryia

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Molecular and Cellular Biosciences

**Determining kindlin/talin
interactions that control integrin
activation**

Burri, Elisa

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Bernhard Wehrle-Haller (1)*
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Cell Physiology and Metabolism*

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Molecular and Cellular Biosciences

**Reprogramming Protein translation
in spatiotemporal stress response**

Chang, Dalu

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Uttamapinant (2), Yimon Aye (1)*
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and Engineering
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Molecular and Cellular Biosciences

**Cell-cell fusion in fission yeast is
ensured by the Cdc42 effector Pak2
through kinase-dependent and
independent mechanisms.**

Coronas-Serna, Julia María

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G. Martin (1)**

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Molecular and Cellular Biosciences

**Advancing Cystic Fibrosis Molecular
Diagnostics in Africa**

El Makhzen, Nada

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and Molecular Medicine, University of
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Molecular and Cellular Biosciences

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

Jazaeri Jouneghani, Ali

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Bachmann (1), Yuniel Fernandez
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Molecular and Cellular Biosciences

The link of BOK to Uridine metabolism and mitochondrial function in cancer

JeanRichard, Philippe

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Molecular and Cellular Biosciences

New aspects of TGF β signaling in muscle regeneration

Kessler, Jérémy

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Molecular and Cellular Biosciences

Deconstructing Precision Electrophile Regulatory Mechanisms in Protease-Mediated Neutrophil Apoptosis

Ly, Phillippe

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Development and evaluation of metagenomics approaches for pathogen surveillance at the human-animal interface in limited-resource countries

Makangara Cigolo, Jean Claude

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Molecular and Cellular Biosciences

Death Decisions From Morphogen Fields

Merino, Marisa

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Molecular and Cellular Biosciences

Establishment of vascularized bone marrow niches on poly(ethylene glycol) (PEG) hydrogels pre-cast in imaging microplates

Mitsi, Maria

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Molecular and Cellular Biosciences

Transcriptional control of early nephrogenesis in *Xenopus tropicalis***Ogar, Paulina**

*Paulina Ogar (1), Maïke Getwan (1), Yuya Takaba (1), Thomas Naert (1), Soeren Lienkamp (1)**
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Characterizing PIWI-interacting RNAs in mouse sperm and oocytes**Perillo, Giulia**

*Giulia Perillo (1), Keigo Shibata (1), Pei-Hsuan Wu (1)**
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Molecular and Cellular Biosciences

How old yeast decide**Peskett, Thomas**

Thomas Peskett (1), Sung Sik Lee (1)°, Yves Barral (1)
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Molecular and Cellular Biosciences

Unravelling differences in SNRPB and SNRPN gene paralogues for RNA splicing**Polat, Feyza**

Feyza Polat (1), Maria Felicia Basilicata (1), Claudia Keller-Valsecchi (1)**
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Molecular and Cellular Biosciences

From mouse testis to embryo: The intriguing journey of piRNAs**Shehzada, Salman**

*Salman Shehzada (1)°, Giulia Perillo (1), Stéphanie Conzelmann-Prin (1), Pei-Hsuan Wu (1)**
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Molecular and Cellular Biosciences

Transcriptomic Insights into the Role of Paternal pi6 piRNAs in Mouse Embryogenesis**Shibata, Keigo**

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Molecular and Cellular Biosciences

Cells under pressure — Elucidating cellular signaling mechanisms activated by compressive mechanical stress

Srejjic, Nevena

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Molecular and Cellular Biosciences

Controlling the activity of the mitotic kinase Plk1 with light

von Glasenapp, Victoria

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Proteomics

Mass spectrometry-based identification of allergen proteins involved in seafood related allergic reactions

Barletta, Elena

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Proteomics

Dissecting neuronal cell type-specific roles of reactive lipid-derived electrophiles leveraging C. elegans neurodegenerative disease models.

Gao, Yong-Qi

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Proteomics

Elucidation of Cell Surface Proteotypes Using LUX-CSC

Hammer, Jacqueline

Jacqueline Hammer (1), Bernd Wollscheid (1)
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Proteomics

Function-guided Proximity Mapping in C. elegans Directed by Local Electrophile Responsivity

Liu, Jinmin

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Proteomics

Probing protein interactome dynamics using an experimental library of protein complex interfaces

Marulli, Cathy

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Systems Biology

Elevated tumor content in cell-free DNA is associated with systemic progression

Balázs, Zsolt

Zsolt Balázs (1)°, Panagiotis Balcermpas (2)°, Ivna Ivankovic (1), Jonas Willmann (2), Todor Gitchev (1), Asher Bryant (3), Nicolaus Andratschke (2)*, Michael Krauthammer (1)*
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Systems Biology

Seroprevalence and risk factors associated with fasciolosis in nomadic livestock populations across the Lake Chad region using multiple diagnostic methods

Dürr, Salome

Rahila Loum Gazida (1), Dima Farra (2)°, Helena Greter (3)°, Caroline Frey (4)°, Britta Lundström-Stadelmann (4)°, Annour Adoum Batil (1)°, Roland Naïngam Djeria (1)°, Richard Ngandolo Bongo Naré (1)°, Salome Dürr (2)*
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Systems Biology

Continuous evolution of dynamic, multi-state, and computational protein functionalities

Gligorovski, Vojislav

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Systems Biology

Mammalian adipogenesis regulators (Aregs) exhibit robust non- and anti-adipogenic properties that arise with

age and involve retinoic acid signalling

Hashimi, Horia

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Systems Biology

High nucleotide diversity accompanies differential DNA methylation in naturally diverging populations

Kalchhauser, Irene

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Systems Biology

Evaluation of One Health initiatives: A case study from the DR Congo

Yambayamba, Marc

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Systems Biology

Multioptome profiling identifies the cardiac enhancer landscapes underlying mammalian heart morphogenesis

Zoia, Matteo

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