

EMBO at BASEL LIFE 2018 Programme

Tuesday, 11 September 2018

16.45 – 18.00 EMBO Session Kunstmuseum Basel

Welcome and Opening session

Chair:

Maria Leptin (EMBO, Heidelberg, Germany)

16.45

Welcome

Josef Helfenstein (Kunstmuseum Basel, Basel, Switzerland)

Susan Gasser (Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland)

Gerd Folkers (ETH, Zürich, Switzerland)

17.00

Art and Science

Michael N. Hall (University of Basel, Switzerland)

Jacques Herzog (Herzog & de Meuron, Basel, Switzerland)

18.00 – 19.30

EMBO Session

Kunstmuseum Basel

Welcome reception

Attendees are invited to visit the art galleries of the museum (18:30 – 19:30, free admission)

Discover the art galleries of the *Kunstmuseum*: Ask Me Guides will be happy to answer your questions.

Wednesday, 12 September 2018

09.00 – 09.45

EMBO Scientific Session

Montreal

Keynote lecture 1

Chair:

René Bernards (Netherlands Cancer Institute, Amsterdam, Netherlands)

09.00

Novel therapeutic approaches

Jeffrey Engelman (Novartis, Boston, United States)

09.45 – 10.15

Coffee break at the exhibition

10.15 – 12.00

EMBO Scientific Session

Montreal

Plenary session 1: Cancer I

Chair:

René Bernards (Netherlands Cancer Institute, Amsterdam, Netherlands)

10.15

Tumour-stroma interactions in breast cancer metastasis

Clare Isacke (The Institute of Cancer Research, London, United Kingdom)

10.40

Translation control in melanoma

Caroline Robert (Institut Gustave Roussy, Paris, France)

11.05

Cancer evolution as a therapeutic target

Alberto Bardelli (University of Torino, Candiolo, Italy)

- 11.30 **Cell plasticity and lineage commitment in liver tumorigenesis**
Lars Zender (Tübingen University, Germany)
- 12.00 – 13.45 **Lunch break**
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- 13.45 – 15.30 EMBO Scientific Session Montreal
Parallel session 1: Plant disease and pathogens
Chair:
Regine Kahmann (Max Planck Institute for Terrestrial Microbiology, Marburg, Germany)
- 13.45 **Effectors to go: unexpected insights from a plant pathogenic fungus**
Regine Kahmann (Max Planck Institute for Terrestrial Microbiology, Marburg, Germany)
- 14.10 **Dynamics of host adaptation in fungal pathogens**
Antonio Di Pietro (University of Cordoba, Cordoba, Spain)
- 14.35 **Secretion and delivery of effector proteins from a plant pathogen to its host**
Paul Birch (The James Hutton Institute, Dundee, United Kingdom)
- 15.00 **Determination of the host range of the fungal plant pathogen *Verticillium***
Bart Thomma (University of Wageningen, Netherlands)
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- 13.45 – 15.30 EMBO Scientific Session Singapore
Parallel session 2: Cancer II
Chair:
Charles Swanton (The Francis Crick Institute, London, United Kingdom)
- 13.45 **Cancer evolution, adaptation and immune evasion**
Charles Swanton (The Francis Crick Institute, London, United Kingdom)
- 14.10 **Understanding the role of metabolism in cancer**
Matthew G. Vander Heiden (Koch Institute for Integrative Cancer Research, Cambridge, United States)
- 14.35 **Circulating tumour cells: a multi-use biomarker**
Caroline Dive (The University of Manchester, United Kingdom)
- Abstract presentations**
- 15.00 **The protein histidine phosphatase LHPP is a tumor suppressor**
S.K. Hindupur¹, M. Colombi¹, S.R. Fuhs², M.S. Matter³, Y. Guri¹, K. Adam², M. Cornu¹, S. Piscuoglio³, C.Y. Ng³, C. Betz¹, D. Liko¹, L. Quagliata³, S. Moes¹, P. Jenoe¹, L.M. Terracciano³, M.H. Heim⁴, T. Hunter², M.N. Hall¹
¹University of Basel / Biozentrum, Basel, Switzerland, ²Salk Institute for Biological Studies, California, CA, United States, ³Universitätsspital Basel / Institute of Pathology, ⁴Universitätsspital Basel / Department of Biomedicine, Basel, Switzerland
- 15.15 **Modelling mutant IDH2 leukemia evolution identifies vulnerabilities and effective combination therapy**
V. Mugoni^{1,2}, R. Panella¹, G. Cheloni¹, M. Chen¹, O. Pozdnyakova³, D. Stroopinsky¹, J. Guarnerio¹, E. Monteleone^{1,4}, J.D. Lee¹, L. Mendez¹, A. Venugopal Menon¹, J.C. Aster³, A. Lane⁵, R.M. Stone⁵, I. Galinsky⁵, J.C. Zamora⁶, F. Lo-Coco^{7,8}, M.K. Bhasin⁹, D. Avigan¹, L. Longo¹, J. Clohessy^{1,2,10}, P.P. Pandolfi²
¹Cancer Research Institute, Beth Israel Deaconess Cancer Center, Department of Medicine and Pathology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts, USA., ²Ludwig Center at Harvard, Harvard Medical School, ³Department of Pathology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States, ⁴Molecular Biotechnology Center and Department of Molecular Biotechnology and Health Sciences, University of Turin, Turin, Italy, ⁵Department of Medical Oncology, Dana-Farber Cancer Institute; Harvard Medical School, Boston, MA, United States, ⁶Biobanco La Fe - Instituto de Investigación Sanitaria La Fe (IIS-LA FE), Valencia, Spain, ⁷Department of Biomedicine and Prevention, University of Rome 'Tor Vergata', ⁸Neuro-Oncohematology Unit, Santa Lucia Foundation, Rome, Italy, ⁹Division of IMBIO, Department of Medicine, BIDMC Genomics, Proteomics, Bioinformatics and Systems Biology Center, Harvard Medical School and Beth Israel Deaconess Medical Center, ¹⁰Preclinical Murine

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| 15.30 – 16.30 | EMBO Flash Talks & Posters | MipTec stage |
| EMBO Flash talks (session 1) | | |
| Cancer | | |
| 15.30 | P110 | Mechanisms of oncogene-induced DNA replication stress <i>M. Macheret, T.D. Halazonetis</i> Molecular Biology, University of Geneva, Geneva, Switzerland |
| 15.34 | P111 | DNA-PK regulates the radiosensitivity and oncogenicity of MET-addicted cancer cell lines via a novel MET phosphosite <i>J. Koch¹, S.M. Roth¹, A. Quintin¹, J. Gavini², E. Orlando¹, M. Medo¹, R. Aebersold^{3,4}, D.M. Stroka², D.M. Aebersold¹, Y. Zimmer¹, M. Medová¹</i> ¹ Department for BioMedical Research, Radiation Oncology, Inselspital, Bern University Hospital, and University of Bern, ² Department for BioMedical Research, Visceral Surgery, Inselspital, Bern University Hospital and University of Bern, Bern, ³ Department of Biology, Institute of Molecular Systems Biology, ETH Zürich, ⁴ Faculty of Science, University of Zürich, Zürich, Switzerland |
| 15.38 | P112 | The mammalian Target of Rapamycin Complex 2 (mTORC2) promotes tumorigenesis via lipid synthesis <i>Y. Guri¹, M. Colombi¹, E. Dazert¹, S. Kumar¹, S. Moes², P. Jenoe², J. Roszik³, M. Heim⁴, H. Riezman⁵, I. Riezman⁵, M.N. Hall¹</i> , Biozentrum, University of Basel, Basel, Switzerland ¹ Biozentrum Growth and Development, University of Basel, ² University of Basel / Biozentrum, Basel, Switzerland, ³ Melanoma Medical Oncology and Genomic Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, United States, ⁴ Hepatology, Universitätsspital Basel, Basel, ⁵ University of Geneva, Geneva, Switzerland |
| 15.42 | P113 | Molecular mechanisms mediating responsiveness to targeted cancer therapy <i>E. Dazert¹, M. Colombi¹, T. Boldanova², C. Etter¹, C.K.Y. Ng³, T. Habluetzel¹, S. Wieland², S. Ketterer², T. Bock¹, S. Moes¹, P. Jenoe¹, A. Schmidt¹, L. Terracciano³, M. Heim², M.N. Hall¹</i> ¹ Biozentrum / University of Basel, ² Department of Biomedicine / University Hospital Basel, ³ Molecular Pathology / University Hospital Basel, Basel, Switzerland |
| 15.46 | P114 | A highly miniaturized system for anti-cancer compound screening on primary cells and cancer spheroids <i>A. Popova¹, S. Dietrich², P. Levkin¹</i> ¹ Institute for Toxicology and Genetics, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, ² Hematology and Oncology, University Hospital Heidelberg, Heidelberg, Germany |
| 15.50 | P115 | Role of CDK8 in hepatocellular carcinoma <i>K. Bacevic, S. Prieto, J. Ursic-Bedoya, C. Dohet, A. Camasses, D. Fisher, U. Hibner, D. Gregoire</i> Institute of Molecular Genetics, Montpellier, France |
| 15.54 | P116 | Potassium channels and membrane polarization control membrane translocation of cell-penetrating peptides <i>E. Trofimenko¹, M. Heulot¹, N. Chevalier¹, S. Michel¹, M. Serulla Llorens¹, G. Vantomme², Y. Arribat¹, G. Dubuis¹, J. Puyal², F. Amati¹, A. Luthi², C. Widmann¹</i> ¹ Department of Physiology, ² Department of Fundamental Neurosciences, University of Lausanne, Lausanne, Switzerland |
| Metabolic disorders – diabetes/obesity | | |
| 15.58 | P117 | Insulin resistance causes inflammation in adipose tissue <i>M. Shimobayashi¹, V. Albert¹, B. Woelnerhanssen², I.C. Frei¹, D. Weissenberger¹, A.C. Meyer-Gerspach², N. Clement², S. Moes¹, M. Colombi¹, J.A. Meier¹, M.M. Swierczynska¹, P. Jenö¹, C. Beglinger², R. Peterli¹, M.N. Hall¹</i> ¹ University of Basel / Biozentrum, ² St. Claraspital, Basel, Switzerland |
| 16.02 | P118 | Lipid metabolism and intestinal organoid development <i>A. Xavier da Silveira dos Santos¹, F. Maurer¹, S. Iftkhar^{1,2}, K. Volkmann¹, C. Genoud¹, P. Liberali¹</i> ¹ Quantitative Biology, Friedrich Miescher Institute for Biomedical Research, ² Biozentrum / University of Basel, Basel, Switzerland |

Inflammation

- 16.06 P119 **T cell costimulation blockade blunts pressure overload-induced heart failure**
E. Martini¹, M. Kallikourdis^{1,2}, P. Carullo^{3,4}, C. Sardi¹, C.M. Greco³, G. Roselli¹, F. Riva⁵, A.M. Ornbostad Berre⁶, T.O. Stølen⁶, A. Fumero⁷, G. Faggian⁸, E. Di Pasquale^{3,4}, L. Elia³, C. Rumio⁹, D. Catalucci^{4,10}, R. Papait³, G. Condorelli^{2,3}
¹Adaptive Immunity Laboratory, Humanitas Research Hospital, ²Department of Biomedical Sciences, Humanitas University, ³Department of Cardiovascular Medicine, Humanitas Research Hospital, ⁴Institute of Genetic and Biomedical Research (IRGB), National Research Council of Italy, Rozzano, ⁵Department of Veterinary Sciences and Public Health (DIVET), University of Milan, Milano, Italy, ⁶Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Trondheim, Norway, ⁷Cardiac Surgery, Humanitas Research Hospital, Rozzano, ⁸Department of Cardiac Surgery, University of Verona, Verona, ⁹Dipartimento di Scienze Farmacologiche e Biomolecolari, University of Milan, Milano, ¹⁰Laboratory of Signal Transduction in Cardiac Pathologies, Humanitas Research Hospital, Rozzano, Italy

Neurodegenerative disease

- 16.10 P120 **In vitro Labeling of Human Wharton's Jelly-derived Mesenchymal Stem Cells with Dextran-coated Superparamagnetic Iron Oxide Nanoparticles by a New Bio-Mimicry Method**
M. Mehdizadeh¹, R. Shabani², F. Ghiami²
¹Cellular and Molecular Research Center, Faculty of Advanced Technologies in Medicine, Department of Anatomical Sciences, ²Department of Anatomical Sciences, School of Medicine, Iran University of Medical Sciences, Tehran, Islamic Republic of Iran
- 16.14 P121 **Comparative in silico analysis of bacterial and human neutral sphingomyelinases**
B. Yagci, E. Ozkirimli Olmez, K. Ulgen
 Chemical Engineering, Bogazici University, Istanbul, Turkey

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- 16.30 – 17.30 EMBO Scientific Session Montreal
Louis-Jeantet Prize lectures
 Chair:
Paul Nurse (The Francis Crick Institute, London, United Kingdom)
- 16.30 **Deconstructing and reconstructing the vasculature**
Christer Betsholtz (Uppsala University, Sweden)
- 17.00 **Dissecting human antibody responses: useful, basic and surprising findings**
Antonio Lanzavecchia (Institute for Research in Biomedicine, Bellinzona, Switzerland)

Thursday, 13 September 2018

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- 09.00 – 09.45 EMBO Scientific Session Montreal
Keynote lecture 2
 Chair:
Karen Avraham (Tel Aviv University, Israel)
- 09.00 **Space and memory in the brain**
May-Britt Moser (NTNU, Trondheim, Norway)
- 09.45 – 10.15 **Coffee break at the exhibition**
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- 10.15 – 12.00 EMBO Scientific Sessions Montreal
Plenary session 2: Microbial disease and pathogens

Chair:
Philippe Sansonetti (Insitut Pasteur, Paris, France)

10.15 **Gut microbiome and intestinal epithelial regeneration: decrypting signals in the crypt**
Philippe Sansonetti (Insitut Pasteur, Paris, France)

10.40 **Pathoecology and evolution of the cholera-causing pathogen *Vibrio cholerae***
Melanie Blokesch (EPFL, Lausanne, Switzerland)

11.05 **Programmable RNA antibiotics for microbiome editing**
Jörg Vogel (Helmholtz Centre for Infection Research, Germany)

11.30 **How *Salmonella* deals with host immune responses**
David Holden (Imperial College London, United Kingdom)

12.00 – 13.45 **Lunch break**

13.45 – 15.30 EMBO Scientific Session Montreal

Parallel session 3: Microbiota

Chair:
François Leulier (IGFL, Lyon, France)

13.45 **The microbiome and animal linear growth promotion**
François Leulier (IGFL, Lyon, France)

14.10 **Personalizing treatments using microbiome and clinical data**
Eran Segal (Weizmann Institute of Science, Rehovot, Israel)

14.35 **tba**
Ami Bhatt (Stanford University, Palo Alto, United States)

15.00 **Innovation in nutrition and health based on microbiome research**
Nathalie Delzenne (UCLouvain/Louvain Drug Research Institute, Brussels, Belgium)

13.45 – 15.30 EMBO Scientific Session Singapore

Parallel session 4: Sensory function and deficit

Chair:
Karen Avraham (Tel Aviv University, Israel)

13.45 **Epigenomics of the auditory system: Implications for deafness**
Karen Avraham (Tel Aviv University, Israel)

14.10 **Gut feelings: delineating sensory signaling pathways in the intestine**
David Julius (University of California, San Francisco, United States)

14.35 **Optogenetics for vision restoration - translation from mice to primates**
Deniz Dalkara (Institut de la Vision, Paris, France)

15.00 **Cell type specification during development of proprioception - the body's 'Sixth Sense'**
Yoram Groner (The Weizmann Institute of Science, Rehovot, Israel)

15.30 – 16.00 **Coffee break at the exhibition**

16.00 – 17.15 EMBO Scientific Session Montreal

Plenary session 3: Inflammation

Chair:
Yinon Ben-Neriah (The Hebrew University Hadassah Medical School, Jerusalem, Israel)

- 16.00 **CKI alpha inhibition-mediated p53 activation and parainflammation – implications for cancer therapy**
Yinon Ben-Neriah (The Hebrew University Hadassah Medical School, Jerusalem, Israel)
- 16.25 **Inflammation: linking homeostasis and defense**
Ruslan Medzhitov (Yale University, New Haven, United States)
- 16.50 **Immune suppression: how to convert conventional T cells into regulatory T cells**
Shimon Sakaguchi (Osaka University, Japan)
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- 17.30 – 18.30 EMBO Flash Talks & Posters MipTec stage
- EMBO Flash talks (session 2)**
- Microbiota**
- 17.30 **P122** **Cancer Cell-Microbiota Interactions in the Human Skin Microbiome of Cutaneous T Cell Lymphoma**
C. Dehner, W. Ruff, F. Foss, M. Girardi, M. Kriegel
Yale School of Medicine, New Haven, CT, United States
- 17.34 **P123** **Experimental evolution of a fungal pathogen into a gut symbiont**
G.H.W. Tso¹, J.A. Reales-Calderon¹, A.S.M. Tan¹, X.H. Sem¹, G.T.T. Le¹, T.G. Tan¹, G.C. Lai¹, K.G. Srinivasan¹, M. Yurieva¹, W. Liao¹, M. Poidinger¹, F. Zolezzi¹, G. Rancati², N. Pavelka¹
*¹Singapore Immunology Network (SigN), Agency of Science, Technology and Research (A*STAR), ²Institute of Medical Biology, Agency of Science, Technology and Research (A*STAR), 8A Biomedical Grove, Immunos #05, Singapore, Singapore*
- Aging/senescence**
- 17.38 **P124** **Identifying the multidimensional controllers of aging**
S. Maudsley¹, J. van Gastel¹, H. Leysen², J. Hendrickx¹
¹Department of Biomedical Sciences, VIB - University of Antwerp, ²Department of Biomedical Sciences, University of Antwerp, Antwerp, Belgium
- 17.42 **P125** **mTOR regulates mRNA metabolism via mRNA binding proteins**
S. Shetty, M.N. Hall
Biozentrum, University of Basel, Basel, Switzerland
- 17.46 **P126** **Sarcopenia chronicles: dynamics of gene expression during aging of rat skeletal muscles**
A. Börsch¹, J. Feige², M. Rüegg¹, M. Zavanoli¹
¹Biozentrum, University of Basel, Basel, ²Nestlé Institute of Health Sciences, Lausanne, Switzerland
- Model systems in disease**
- 17.50 **P127** **Single cell RNA sequencing identifies novel cell types and distinct, transcriptional programs in the developing Drosophila ovary.**
M. Slaidina, T. Banisch, R. Lehmann
Skirball Institute, New York University School of Medicine, New York, NY, United States
- 17.54 **P128** **The role for coronin 1 in homeostatic CD4+ T cell expansion and survival in peripheral lymphoid organs**
M. Mori, J. Ruer-Laventie, J. Pieters
Biozentrum, University of Basel, Basel, Switzerland
- Microbial disease/pathogens**
- 17.58 **P129** **NCS1 regulates Ca²⁺-Dependent Focal Exocytosis of Golgi-derived Vesicles to Help Phagocytic uptake in Macrophages**
N. Vashi^{1,2}
¹National Institute of Immunology, Delhi, ²International Centre for Genetic Engineering & Biotechnology, New Delhi, India
- 18.02 **P130** **A strategic application of computational tools for the identification enoyl-acyl carrier protein reductase inhibitors**
M.Y. Lone^{1,2}, A. Manhas², P.C. Jha³
¹Department of Chemistry, Indian Institute of Technology Gandhinagar, ²School of Chemical Sciences, ³Centre for Applied Chemistry, Central University of Gujarat, Gandhinagar, India

- 18.06 **P131** **Conformational Sampling of the Intrinsically Disordered C-Terminal Tail of DERA Is Important for Enzyme Catalysis**
M. Schulte^{1,2}, *D. Petrovic*², *P. Neudecker*^{1,2}, *R. Hartmann*², *J. Pietruszka*^{3,4}, *S. Willbold*⁵, *D. Willbold*^{1,2}, *V. Panwalkar*^{1,2}
¹Institut für Physikalische Biologie, Heinrich-Heine-Universität Düsseldorf, Düsseldorf, ²Institute of Complex Systems 6, Forschungszentrum Jülich, Jülich, ³Institute of Bioorganic Chemistry, Heinrich-Heine-Universität Düsseldorf, Düsseldorf, ⁴Institute of Bio- and Geosciences 1: Biotechnology, ⁵Central Institute of Engineering, Electronics and Analytics, Forschungszentrum Jülich, Jülich, Germany
- 18.10 **P132** **Uptake of pVEC Examined by Microfluidic Technology**
*M. Yuce*¹, *K. Ulgen*¹, *B. Sariyar Akbulut*², *E. Ozkirimli Olmez*¹
¹Chemical Engineering, Bogazici University, ²Bioengineering, Marmara University, Istanbul, Turkey
- 18.14 **P133** **A Microfluidic Device to Study Chemotaxis by High-Throughput Single-Cell Tracking**
F. Wyss, *M. Sangermani*, *U. Jenal*
 University of Basel / Biozentrum, Basel, Switzerland

Friday, 14 September 2018

09.00 – 10.15 EMBO Scientific Session Montreal

Plenary session 4: Neurodegenerative Disease

Chair:

John Hardy (University College London, United Kingdom)

09.00 **Presenilin metastability in Alzheimer's disease, implications for drug discovery**
Lucía Chávez Gutiérrez (Catholic University Leuven, Leuven, Belgium)

09.25 **Microglial dysfunction in neurodegenerative disorders**
Christian Haass (Ludwig-Maximilians-University, Munich, Germany)

09.50 **Gene silencing therapy for human neurodegenerative disease**
Don W. Cleveland (Ludwig Institute for Cancer Research, La Jolla, United States)

10.15 – 10.45 **Coffee break at the exhibition**

10.45 – 12.30 EMBO Scientific Session Montreal

Parallel session 5: Aging and senescence

Chair:

Judith Campisi (Buck Institute for Research on Aging, Novato, United States)

10.45 **Cellular senescence, aging and longevity**
Judith Campisi (Buck Institute for Research on Aging, Novato, United States)

11.10 **Senescence in cancer therapy – not too bad, if not for good**
Clemens A. Schmitt (Max Delbrück Center for Molecular Medicine, Berlin, Germany)

11.35 **An integrated view of cellular senescence and in vivo reprogramming**
Manuel Serrano (Institute for Research in Biomedicine, Barcelona, Spain)

Abstract presentations

12.00 **Longitudinal analysis of gene expression reveals widespread pleiotropic antagonism during aging of the short-lived fish *Nothobranchius furzeri*.**
M. Mazzetto^{1,2}, *M. Baumgart*², *M. Groth*², *A. Martirosyan*², *M. Ermolaeva*², *M. Platzer*², *A. Cellerino*^{1,2}
¹Scuola Normale Superiore, Pisa, Italy, ²Fritz-Lipmann Institute, Jena, Germany

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| 12.15 | <p>Identification and application of gene expression signatures of lifespan-extending interventions <u>A. Tyshkovskiy</u>^{1,2}, R.A. Miller³, V.N. Gladyshev¹ ¹Division of Genetics, Department of Medicine, Brigham & Women's Hospital and Harvard Medical School, Boston, MA, United States, ²Center for Data-Intensive Biomedicine and Biotechnology, Skolkovo Institute of Science and Technology, Moscow, Russian Federation, ³Department of Pathology and Geriatrics Center, University of Michigan, Ann Arbor, MI, United States</p> | |
| 10.45 – 12.30 | <p>EMBO Scientific Session</p> <p>Parallel session 6: Model systems in disease</p> <p>Chair: Cayetano Gonzalez (<i>Institute for Research in Biomedicine, Barcelona, Barcelona, Spain</i>)</p> | Singapore |
| 10.45 | <p>Using Drosophila tumours to understand malignant and normal growth during development Cayetano Gonzalez (<i>Institute for Research in Biomedicine, Barcelona, Barcelona, Spain</i>)</p> | |
| 11.10 | <p>Models and model systems: the nutritional geometry of health and ageing Stephen Simpson (<i>University of Sydney, Sydney, Australia</i>)</p> | |
| 11.35 | <p>When the young die old: the premature aging disease Progeria and Lamin A processing by ZMPSTE24 Susan Michaelis (<i>Johns Hopkins University, Baltimore, United States</i>)</p> <p>Abstract presentations</p> | |
| 12.00 | <p>Active chromatin markers H3K36me and MRG-1 drive heterochromatin spatial sequestration in differentiated cells in C. elegans <u>D.S. Cabianca</u>¹, C. Muñoz Jiménez², V. Kalck¹, D. Gaidatzis¹, J. Padeken¹, A. Seeber¹, P. Askjaer², S.M. Gasser¹ ¹Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland, ²Andalusian Center for Developmental Biology, Sevilla, Spain</p> | |
| 12.30 | <p>Human brain organoids with functional eyecups <u>J. Gopalakrishnan</u> <i>University of Cologne, Cologne, Germany</i></p> | |
| 12.25 – 14.00 | Lunch break | |
| 14.00 – 15.40 | <p>EMBO Scientific Session</p> <p>Plenary session 5: Metabolic disorders – Diabetes and obesity</p> <p>Chair: Helena Edlund (<i>University of Umeå, Sweden</i>)</p> | Montreal |
| 14.00 | <p>PAN-AMPK activator O304 improves glucose homeostasis and microvascular perfusion in mice and type2 diabetes patients Helena Edlund (<i>University of Umeå, Sweden</i>)</p> | |
| 14.25 | <p>Obesity and its metabolic consequences: lessons from human genetics Stephen O'Rahilly (<i>University of Cambridge, United Kingdom</i>)</p> | |
| 14.50 | <p>MicroRNAs and RNA-binding proteins as regulators of metabolism Markus Stoffel (<i>ETH, Zurich, Switzerland</i>)</p> | |
| 15.15 | <p>Adipose tissue expandability, lipotoxicity and the metabolic syndrome Antonio Vidal-Puig (<i>University of Cambridge, United Kingdom</i>)</p> | |
| 15.40 – 15.55 | <p>EMBO Session</p> <p>Closing address</p> | Montreal |

POSTER SESSIONS

Wednesday, 12 September 2018

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|---------------|---|-------------------|
| 10.00 – 16.30 | EMBO poster exhibition Poster exhibition | Poster exhibition |
| 15.30 – 16.30 | EMBO Poster Session EMBO Poster session 1 Same posters are presented during both EMBO Poster sessions. | Poster exhibition |
- P47 Tracing epithelial-to-mesenchymal transition in breast cancer**
F. Löönd¹, N. Sugiyama¹, R. Bill¹, H. Oller², P. Pelczar², G. Christofori¹
¹Department of Biomedicine, ²Center for Transgenic Models, University of Basel, Basel, Switzerland
- P48 Structural basis for regulation of Acetyl-CoA Carboxylase**
M. Hunkeler^{1,2}, A. Hagmann¹, L. Anton¹, E. Stutfeld¹, M. Cham³, Y. Guri¹, H. Stahlberg³, T. Maier¹
¹University of Basel / Biozentrum, Basel, Switzerland, ²Department of Cancer Biology, Dana-Farber Cancer Institute, Boston, MA, United States, ³C-CINA, University of Basel / Biozentrum, Basel, Switzerland
- P49 Histone acetylation is altered in HCC**
S. Park¹, S. Hindupur¹, D. Mossman¹, E. Dazert¹, Y. Guri¹, M. Colombi¹, M. Matter², M. Hall¹
¹Biozentrum | Univ. of Basel, Biozentrum, ²Institut für Pathologie, Universitätsspital Basel, Basel, Switzerland
- P50 Syrosingopine is a dual inhibitor of the MCT1/MCT4 lactate transporters and potentiates killing by metformin in cancer cells**
D. Benjamin, M. Hall
Biozentrum, Basel, Switzerland
- P51 Alterations in amino acid metabolism in liver cancer**
D. Mossman¹, B.M. Rybeck², S.K. Hindupur¹, E. Dazert¹, M. Colombi¹, M.H. Heim³, U. Sauer², M.N. Hall¹
¹Biozentrum der Universität Basel, Basel, ²ETH Zurich, Zürich, ³Universitätsspital Basel, Basel, Switzerland
- P52 Evaluation of potential factors contributing to the exhaustion of T lymphocytes in the tumor microenvironment**
U. Harms¹, A. Laeremans², N. Li², X.-J. Ma², E. Park²
¹Advanced Cell Diagnostics – A Bio-Techne Brand, Zug, Switzerland, ²Advanced Cell Diagnostics, Inc., Newark, CA, United States
- P53 LIMK1 regulates centrosomal dynamics during mitosis**
C.-G. Koh, S. Ou, M.-H. Tan, T. Weng, H.-Y. Li
Nanyang Technological University, Singapore, Singapore
- P54 AAA-ATPase p97/VCP regulates actin cytoskeleton and cell motility through Plk1-dependent ROCK pathway in cancer metastasis**
H.Y. Li, Z.-J. Khong, C.-G. Koh, S. Schochat
School of Biological Sciences, Nanyang Technological University, Singapore, Singapore
- P55 Investigating the RNA-binding protein NONO in high-risk neuroblastoma**
A. Naveed¹, J. Cooper¹, R. Li¹, S. Kobelke¹, S. Wilton², S. Fletcher², A. Fox¹
¹School of Human Sciences - Anatomy, Physiology and Human Biology, The University of Western Australia, ²Centre for Comparative Genomics, Murdoch University, Perth, WA, Australia
- P56 Breast tumor derived exosomes mediate tumor infiltrated CD8+T cell dysfunction to promote breast cancer**
S. Chatterjee¹, A. Chatterjee¹, S. Jana¹, H. Roy², A. Bhattacharyya¹
¹Zoology, University of Calcutta, Kolkata, ²Surgery, Calcutta Medical College, Kolkata, India

- P57 Rational design and validation of F2i: A novel adapter protein inhibitor**
K. Santhana Kumar¹, D. Bruns², C. Brunner², R. Byrne², G. Schneider², T. Kockmann³, M.A. Grotzer^{4,5}, M. Baumgartner⁵
¹Neuro-Oncology, University of Zürich, ²Department of Chemistry and Applied Biosciences, ETH Zürich, ³Functional Genomics Center Zürich, ETH Zürich / University of Zürich, ⁴Department of Oncology, University Children's Hospital Zürich, ⁵Experimental Infectious Disease and Cancer Research, University Children's Hospital, Zürich, Switzerland
- P58 Exosomal Transfer of miR-27b from Breast Cancer Cells Reprogram the Fibroblasts into Cancer Associated Fibroblasts to Promote Breast Cancer Growth and Metastasis**
S. Jana^{1,2}, A. Chatterjee¹, L.M. Wastall², S. Chatterjee¹, H. Roy³, T.A. Hughes², A. Bhattacharyya¹
¹Department of Zoology, University of Calcutta, Kolkata, India, ²School of Medicine, University of Leeds, Leeds, United Kingdom, ³Department of Surgery, Medical College Kolkata, Kolkata, India
- P59 DNA editing of Bcr/Abl hybrid gene in k562**
O. Zimina, I. Kravchuk
Molecular Genetics, Institute of Molecular Biology & Genetics, Kyiv, Ukraine
- P60 Interplay between epithelial-mesenchymal transition and reactive oxygen species**
A. Morand, F. Tang, S. Piller, H. Antoniadis-Panoussis, G. Christofori
Department of Biomedicine, Universitätsspital Basel, Basel, Switzerland
- P61 Isorhapontigenin as a potential Candidate against breast cancer: via regulating SPHK1/SPHK2 signaling & tubulin stabilization**
L. Subedi, A. Parveen, S.E. Lee, S.Y. Kim
College of Pharmacy, Gachon University, Incheon, Republic of Korea
- P62 Amino acid composition of conditional media reveals components enhancing aggressiveness in early stage human melanoma cells, but not in metastatic cells**
M. Hohenegger¹, C. Wasinger¹, A. Hofer², O. Spadiut²
¹Experimental Pharmacology, Medical University Vienna/Institute of Pharmacology, ²Technical University Vienna/Institute for Chemical, Environmental and Biological Engineering, Vienna, Austria
- P63 CDK5 involvement in the tumor microenvironment**
F. Farina^{1,2}, M. Quintavalle¹, M. Locati^{1,2}
¹Leukocyte Biology Lab, Humanitas Research Hospital, Rozzano, ²Medical Biotechnology and Translational Medicine, Università degli Studi di Milano, Milano, Italy
- P64 Super-resolution imaging of intracellular distribution of PH domain of BCR in HEK293T cells.**
D. Gurianov, G. Telegeev
Molecular Genetics, Institute of Molecular Biology and Genetics NASU, Kyiv, Ukraine
- P65 Automated Monitoring and Analysis of Kinetic Live Cell 3D Spheroid-Based Tumor Invasion within a Hydrogel Matrix**
G. Prescott, B. Larson
BioTek Instruments, Inc., Winooski, VT, United States
- P66 A Novel Signaling Pathway that Governs Tumor Metastasis: TGF- β receptor I/II trafficking and signaling at primary cilia are inhibited by ceramide to attenuate cell migration and tumor metastasis**
S. Gencer^{1,2}, B. Ogretmen²
¹Uskudar University, Molecular Biology and Genetics, Uskudar University, Istanbul, Turkey, ²Medical University of South Carolina, Charleston, SC, United States
- P67 Conformational thermo-stabilisation as an aid for structure determination of GPCRs bound to allosteric modulators**
N. Solcan, C. Fiez-Vandal, N. Robertson, O. Schlenker, A.S. Doré, M. Rappas, J. Brown, B. Tehan, G. Bottegoni, A. Zhukov, M. Koglin, A. Jazayeri, J.C. Errey, R.M. Cooke, F.H. Marshall, M. Weir
Heptares Therapeutics Ltd, Cambridge, United Kingdom
- P68 Targeting MET modulates global metabolic pathways and induces dNTPs depletion in MET-addicted cellular systems**
M. Poliakova¹, N. Zamboni², J. Koch¹, M. Medo¹, B. Kim³, S.A.A. Coggins³, D.A. Aabersold¹, Y. Zimmer¹, M. Medova¹
¹Radiation Oncology, University of Bern, Inselspital, Bern, ²Institute of Molecular Systems Biology, ETH Zurich, Zurich, Switzerland, ³Department of Pediatrics, Emory University School of Medicine, Center for Drug Discovery, Atlanta, GA, United States

- P69 The role of microtubule-associated protein TPX2 in sensitizing head and neck cancer cells to ionizing radiation**
S. Roth¹, P. Francica², D.M. Aebersold¹, M. Medová¹, Y. Zimmer¹
¹Department for BioMedical Research, Radiation Oncology, Inselspital, Bern University Hospital, and University of Bern, ²University of Bern / Institute of Animal Pathology, Vetsuisse Faculty, Bern, Switzerland
- P70 The aging synapse: decoupling between transcriptome and proteome and between somatic and local regulation**
C. Caterino^{1,2}, J. Kirkpatrick², M. Baumgart², M. Groth², M. Görlach², A. Ori², A. Cellarino^{1,2}
¹Scuola Normale Superiore, Pisa, Italy, ²Fritz-Lipmann Institute, Jena, Germany
- P71 Transcriptome analysis by CAGE-seq in the young and aged primary cultured neurons**
N. Mori¹, K. Murai²
¹Anatomy and Neurobiology, ²Nagasaki University School of Medicine, Nagasaki, Japan
- P72 Role of mTOR in regulation of Dlk1-Dio3 cluster miRNAs**
D. Liko¹, A. Rzepiela¹, P. Knuckles², M. Buhler², M. Zavolan¹, M.N. Hall¹
¹University of Basel, ²Friedrich Miescher Institute, Basel, Switzerland
- P73 Role of the vacuolar membrane-associated protein Pib2 in TORC1 regulation**
A. González¹, W. Oppliger¹, S. Moes¹, P. Jenö¹, K.W. Cunningham², M.N. Hall¹
¹University of Basel / Biozentrum, Basel, Switzerland, ²Johns Hopkins University / Department of Biology, Baltimore, MD, United States
- P74 Determination of insecticide fenprothrin in different environmental samples by spectrophotometry**
K. Wani¹, M. Rai²
¹School of Studies in Chemistry, Pt. Ravishankar Shukla University Raipur, ²Pt. Ravishankar Shukla University, Raipur, India
- P75 The neurodevelopmental 16p11.2 CNVs have, as yet overlooked, mirror effect on sexual development in humans and animal models**
K. Mannik^{1,2}, M. Lepamets^{2,3}, A. Mikhaleva¹, K. Lepik^{4,5,6}, Z. Kupchinsky⁷, H. Ademi⁸, T. Arbogast⁷, C. Attanasio¹, A. Messina⁹, S. Rotman¹⁰, E. Dubruc¹⁰, J. Chrast¹, S. Martin-Brevet¹¹, T. Laisk-Podar¹², Y. Herval¹³, C. Lindgren^{14,15,16}, Z. Kutalik^{5,6}, J.-C. Stehle¹⁰, N. Katsanis⁷, S. Neff⁸, B. Draganski¹¹, E. Davis⁷, A. Reymond¹, R. Mägi², The 16p11.2 European Consortium, The Simons VIP Consortium, The eQTLGen Consortium
¹Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland, ²Estonian Genome Center, Institute of Genomics, ³Institute of Molecular and Cell Biology, ⁴Institute of Computer Science, University of Tartu, Tartu, Estonia, ⁵Institute of Social and Preventive Medicine, Lausanne University Hospital, ⁶Swiss Institute of Bioinformatics, Lausanne, Switzerland, ⁷Center for Human Disease Modeling, Duke University, Durham, NC, United States, ⁸Department of Genetic Medicine and Development, University of Geneva, Geneva, ⁹Endocrinology, Diabetes & Metabolism Service, ¹⁰Service of Clinical Pathology, ¹¹LREN, Department of Clinical Neuroscience, Lausanne University Hospital, Lausanne, Switzerland, ¹²Women's Clinic, Institute of Clinical Medicine, University of Tartu, Tartu, Estonia, ¹³Institute of Genetics and Molecular and Cellular Biology, Illkirch, France, ¹⁴Program in Medical and Population Genetics, Broad Institute, Cambridge, MA, United States, ¹⁵Wellcome Trust Centre for Human Genetics, Nuffield Department of Medicine, ¹⁶The Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, University of Oxford, Oxford, United Kingdom
- P76 Automated Media Exchange for Spheroid Cultures Using a Novel MultiFlo (TM) FX Accessory**
P. Kramer, B. Larson
BioTek Instruments, Inc., Winooski, VT, United States
- P77 Fatty acid metabolism is regulated by PTC-3 via modulation of cholesterol.**
C.E. Cadena del Castillo¹, T. Hannich², A. Kaech³, N. Faergeman⁴, H. Riezman², A. Spang¹
¹University of Basel / Biozentrum, Basel, ²Université de Genève, Genève, ³Center for Microscopy and Image Analysis, University of Zürich, Zürich, Switzerland, ⁴Department of Biochemistry and Molecular Biology, University of Southern Denmark, Odense, Denmark
- P78 Control of the hemolytic behavior of the pathogenic bacterium Pseudomonas aeruginosa**
V. Ivancevic¹, P. Manfredi², U. Jenal²
¹University of Basel / Biozentrum, ²Biozentrum / University of Basel, Basel, Switzerland
- P79 Modulation of PD-L1:PD-1 axis by Mycobacterium tuberculosis protein Rv2463 to establish early infection**
M. Vashishta^{1,2}, K. Natarajan², S. Mehto²
¹International Center for Genetic Eng, Malaria Biology Group, International Center for Genetic Engineering

and Biotechnology, New Delhi, ²Infectious Diseases Immunology Lab, Dr. B R. Ambedkar Center for Biomedical Research, Delhi University, Delhi, India

- P80** **Settle or wander: Bacterial surface colonization strategies**
F. Estermann, B.-J. Laventie, M. Sangermani, U. Jenal
Biozentrum, University of Basel, Basel, Switzerland
- P81** **Towards identification of novel inhibitors against Plasmodium falciparum Sir2A – a unique Histone Deacetylase and deciphering the molecular basis of its interaction.**
D. Patel¹, K. Dave², B. Patel¹
¹Bioinformatics and Structural Biology, Institute of Advanced Research, Gandhinagar, ²Dept. of Bioinformatics, Sardar Patel University, Centre for Interdisciplinary Studies in Science and Technology, Anand, India
- P82** **Prevalence of Class 1 Integron, Resistance Gene Cassettes and Antimicrobial Susceptibility Profiles among Isolates of Pseudomonas aeruginosa in Iran**
A. Khorshidi^{1,2}, M.M. Mirahsani², R. Moniri², M.R. Gilasi², I. Khorshidi³, S. Sima³, A. Hosseini Nejad²
¹Microbiology Dep, ²Kashan University of Medical Sciences, ³Esfahan University of Medical Sciences, Kashan, Islamic Republic of Iran
- P83** **mTORC2 inhibition in adipose tissue promotes pancreatic β -cells to secrete insulin**
I.C. Freij, D. Weissenberger, M. Swierczynska, M. Shimobayashi, M.N. Hall
Biozentrum, Growth and Development, University of Basel, Basel, Switzerland
- P84** **Apolipoprotein A1 as a novel anti-implantation biomarker in polycystic ovary syndrome: A case-control study**
M. Mehdizadeh¹, F. Amjadi², R. Afatoonian³
¹Cellular and Molecular Research Center, Faculty of Advanced Technologies in Medicine, Department of Anatomical Sciences, Iran University of Medical Sciences, ²Department of Anatomy, School of Medicine, Iran University of Medical Science, ³Department of Endocrinology and Female Infertility, Reproductive Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, The Academic Center for Education Culture and Research (ACECR), Tehran, Islamic Republic of Iran
- P85** **Protein tyrosine phosphatase, receptor type B (PTPRB) inhibits brown adipocyte differentiation through regulation of VEGFR2 phosphorylation.**
J. Kim, K.-J. Oh
Metabolic Regulation Research Center, KRIBB, Daejeon, Republic of Korea
- P86** **Computational study of HMG CoA reductase inhibitors and analysis of natural product compounds**
N.H.N. Moorthy
Department of Pharmacy, Indira Gandhi National Tribal University, Amarkantak, India
- P87** **Platform comparison for multiple Cytokines between ELISA, Simple PlexTM and Simple WesternTM**
A. Bogue, C. Heger, F. Ramirez, A. Pabler
R&D, ProteinSimple - a Bio-Techne division, San Jose, CA, United States
- P88** **Adenosine-mediated immunomodulatory action on alveolar macrophages during Klebsiella pneumoniae B5055 induced acute lung infection**
V. Kumar¹, S. Chhibber²
¹Microbiology, ²Panjab University, Chandigarh, India
- P89** **Non-variable cyclic stretching affects Amphiregulin levels and endosome trafficking in Rat Alveolar Epithelial Cells Type II**
J.M. Ferreira¹, S. Müller¹, R. Huhle¹, T. Koch^{1,2}, E. Koch², P.D.M. Gama de Abreu¹
¹Department of Anesthesiology and Intensive Care, Pulmonary Engineering Group, ²Clinical Sensing and Monitoring Group, University Hospital Carl Gustav Carus, TU Dresden, Dresden, Germany
- P90** **Inhibition of Lymphotoxin-a protects C57BL/6 mice from Experimental Cerebral malaria and neuronal cell death during Plasmodium berghei ANKA infection**
P. Eeka¹, P.B. Phanithi²
¹Biophysics, Tata Institute of Fundamental Research Center for Interdisciplinary Sciences, ²Department of Biotechnology and Bioinformatics, School of Life Sciences, University of Hyderabad, Hyderabad, India
- P91** **Effect of Heparin Trisulfated Disaccharide (TD) in neuronal death triggered by calcium overload**
G. Chiarantini¹, L. Delgado-Garcia¹, M. Lima², H. Nader¹, M. Porcionatto¹, I. Tersario¹
¹Biochemistry, Federal University of Sao Paulo, ²Biochemistry, Federal University of ABC, São Paulo, Brazil

- P92 An objective characterization of f-actin structures in spines imaged with single molecule localization microscopy.**
S. Nanguneri, R. Pramod, D. Nair
Center for Neuroscience, Indian Institute of Science, Bangalore, India
- P93 Aristaless-related homeobox gene disruption leads to abnormal distribution of GABAergic interneurons in human neocortex**
M. Itoh
Mental Retardation and Birth Defect, National Center of Neurology and PSY, Kodaira, Japan
- P94 Evolutionary Interlinking Pathway in Neuroimmunology of Parkinson's Disease: A Therapeutic Strategies of miRNA Mediated Autophagic Dysregulation in Fruit Fly Drosophila**
S. Daluj, S. Chatterjee, A. Bhattacharyya
Zoology, University of Calcutta, Kolkata, India
- P95 Real-time breath analysis of antiepileptic drugs.**
K.D. Singh^{1,2}, V. Ziesenitz¹, J. Usemann¹, U. Frey¹, J.N. Van den Anker¹, A.N. Datta³, P. Sinues^{1,2}
¹University Children's Hospital Basel, ²Department of Biomedical Engineering, ³Child Neurology and Developmental Medicine Department, University Children's Hospital, University of Basel, Basel, Switzerland
- P96 Phosphatases of the thiamin-binding proteomes**
V.A. Aleshin¹, T. Kaehne², O.A. Mezhenkaya³, Y.M. Parkhomenko³, V.I. Bunik^{1,4}
¹Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russian Federation, ²Institute of Experimental Internal Medicine, Otto-von-Guericke University, Magdeburg, Germany, ³Department of Vitamin and Coenzyme Biochemistry, Palladin Institute of Biochemistry, Kyiv, Ukraine, ⁴Belozersky Institute of Physicochemical Biology, Lomonosov Moscow State University, Moscow, Russian Federation
- P97 Endosome maturation: coordination of acidification and Rab5-Rab7 conversion**
M. Podinovskaya, A. Spang
Biozentrum, University of Basel, Basel, Switzerland
- P124 Identifying the multidimensional controllers of aging**
S. Maudsley¹, J. van Gastel¹, H. Leysen², J. Hendrickx¹
¹Department of Biomedical Sciences, VIB - University of Antwerp, ²Department of Biomedical Sciences, University of Antwerp, Antwerp, Belgium
- P99 Selective loss of histone H3K9 di- methylation triggers satellite repeat transcription, R-loop formation, genome instability and BRCA-1 addiction**
J. Padeken¹, P. Zeller¹, B. Towbin¹, I. Katic¹, V. Kalck¹, S. Gasser^{1,2}
¹Friedrich Miescher Institute for Biomedical Research, ²Faculty of Natural Sciences, University of Basel, Basel, Switzerland
- P100 Epistasis Analysis Reveals Distinct Roles of Non-homologous End Joining Factors in Human HAP1 Cells**
M. Xing¹, M. Bjørås^{1,2}, V. Oksenysh^{1,3}
¹IKOM, Norwegian University of Science and Technology, Trondheim, ²Department of Microbiology, Oslo University Hospital, University of Oslo, Oslo, ³St. Olavs Hospital, Clinic of Medicine, Trondheim University Hospital, Trondheim, Norway
- P101 Functional dissection of MIEN1 trans-regulation provides new evidence for colorectal cancer genome editing-based therapeutics**
D.C. Sierra-Diaz, A. Morel, O. Ortega-Recalde, J.C. Buitrago, D. Valero-Rubio, K.M. Jiménez, N.C. Contreras, R. Parra-Medina, P. Laissue
Universidad del Rosario, Bogota, Colombia
- P102 DNA repair gene discovery using genome-scale CRISPR/Cas9 screens**
N. Hustedt¹, M. Zimmermann¹, T. Hart², M. Olivieri^{1,3}, Y. Zhao^{1,3}, S. Angers⁴, J. Moffat^{3,5}, D. Durocher^{1,3}
¹Lunenfeld-Tanenbaum Research Institute, Toronto, ON, Canada, ²MD Anderson Cancer Center, University of Texas, Houston, TX, United States, ³Department of Molecular Genetics, ⁴Leslie Dan Faculty of Pharmacy, ⁵Donnelly Center, University of Toronto, Toronto, ON, Canada
- P103 Sesn2 protects sensory hair cells against cisplatin via modulation of AMPK/mTOR pathway**
S. Levano, D. Bodmer
Biomedicine, University Basel Hospital, Basel, Switzerland
- P104 Exercise training causes a partial improvement through increasing testosterone and eNOS for erectile function in middle-aged rats**

D.Y. Seo¹, J.R. Ko², H.S. Bang³, H.B. Kwak⁴, J. Han⁵

¹College of Medicine, Cardiovascular and Metabolic Disease Center, ²College of Medicine, Cardiovascular and Metabolic Disease Center, Inje University, ³Department of Physical Education, College of Health, Social Welfare and Education, Tong Myong University, Busan, ⁴Department of Kinesiology, Inha University, Incheon, Republic of Korea, Incheon, ⁵National Research Laboratory for Mitochondrial Signaling, Department of Physiology, Department of Health Sciences and Technology, BK21 Plus Team, College of Medicine, Cardiovascular and Metabolic Disease Center, Inje University, Busan, Republic of Korea

P105 Eosinophils restore age-related adipose tissue dysfunction and sustain immunological fitness in old age

D. Brigger^{1,2}, C. Riether^{3,4}, R. van Brummelen^{1,2}, J. Auwerx⁵, T. Wyss-Coray^{6,7}, M. Noti⁸, A. Eggele^{1,2}

¹Department of Rheumatology, Immunology and Allergology / University Hospital, University of Bern, ²Department for BioMedical Research, University of Bern, ³Tumor Immunology, Department of Clinical Research / University of Bern, ⁴Department of Medical Oncology, Inselspital, University Hospital and University of Bern, Bern, ⁵Laboratory of Integrative and Systems Physiology, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, ⁶Department of Neurology and Neurological Sciences, Stanford University School of Medicine, Stanford, ⁷Center for Tissue Regeneration, Repair, and Restoration, VA Palo Alto Health Care System, Palo Alto, CA, United States, ⁸Institute of Pathology, Division of Experimental Pathology / University of Bern, Bern, Switzerland

P106 Interferon-driven deletion of antiviral B cells at the onset of chronic infection

K. Narr¹, B. Fallet¹, Y.I. Ertuna¹, M. Remy¹, R. Sommerstein², K. Cornille¹, M. Kreutzfeldt^{2,3}, N. Page², G. Zimmer⁴, F. Geier⁵, T. Straub⁶, H. Pircher⁶, K. Larimore^{7,8}, P.D. Greenberg^{7,8}, D. Merkler^{2,3}, D.D. Pinschewer¹, Pinschewer

¹Department of Biomedicine, University of Basel, Experimental Virology, Basel, ²Department of Pathology and Immunology, Geneva Faculty of Medicine, ³Division of Clinical Pathology, University Hospital Geneva, Geneva, ⁴Institute of Virology and Immunology IVI, Mittelhäusern, ⁵Department of Biomedicine, Bioinformatics Core Facility, University Hospital Basel, Basel, Switzerland, ⁶Institute for Immunology, Department for Medical Microbiology and Hygiene, University Medical Center Freiburg, Freiburg, Germany, ⁷Fred Hutchinson Cancer Research Center, ⁸Department of Immunology, University of Washington, Seattle, WA, United States

P107 Comparative effect of green tea polyphenols as modulators of human prion protein aggregation.

N. Admane¹, A. Grover²

¹School of Biotechnology, Jawaharlal Nehru University, Lab 107, ²School of Biotechnology, JNU, Delhi, India

P108 Effect of GAA expansion on Iron Copper metabolism and cell free nucleic acids (cfNA) levels in plasma of Friedreich's ataxia (FRDA) patients and its co relation with FARS scores

D. Pathak, M.R. Rajeswari

Biochemistry, All India Institute of Medical Sciences, New Delhi, India

P109 The role of the NF-κB activating enzyme IκB kinase-2 in atherosclerosis

M. Mussbacher, M. Salzmann, J. Basílio, A. Assinger, J. Schmid

Inst. of Vascular Biology, Medical University of Vienna, Vienna, Austria

Thursday, 13 September 2018

09.30 – 16.45 EMBO poster exhibition Poster exhibition

Poster exhibition

17.30 – 18.30 EMBO Poster Session Poster exhibition

EMBO Poster session 2

Same posters are presented during both EMBO Poster sessions.

P47 Tracing epithelial-to-mesenchymal transition in breast cancer

F. Löönd¹, N. Sugiyama¹, R. Bill¹, H. Oller², P. Pelczar², G. Christofori¹

¹Department of Biomedicine, ²Center for Transgenic Models, University of Basel, Basel, Switzerland

P48 Structural basis for regulation of Acetyl-CoA Carboxylase

M. Hunkeler^{1,2}, A. Hagmann¹, L. Anton¹, E. Stutfeld¹, M. Chami³, Y. Guri¹, H. Stahlberg³, T. Maier¹

¹University of Basel / Biozentrum, Basel, Switzerland, ²Department of Cancer Biology, Dana-Farber Cancer Institute, Boston, MA, United States, ³C-CINA, University of Basel / Biozentrum, Basel, Switzerland

- P49 Histone acetylation is altered in HCC**
S. Park¹, S. Hindupur¹, D. Mossmann¹, E. Dazert¹, Y. Guri¹, M. Colombi¹, M. Matter², M. Hall¹
¹Biozentrum | Univ. of Basel, Biozentrum, ²Institut für Pathologie, Universitätsspital Basel, Basel, Switzerland
- P50 Syringopine is a dual inhibitor of the MCT1/MCT4 lactate transporters and potentiates killing by metformin in cancer cells**
D. Benjamin, M. Hall
Biozentrum, Basel, Switzerland
- P51 Alterations in amino acid metabolism in liver cancer**
D. Mossmann¹, B.M. Rybeck², S.K. Hindupur¹, E. Dazert¹, M. Colombi¹, M.H. Heim³, U. Sauer², M.N. Hall¹
¹Biozentrum der Universität Basel, Basel, ²ETH Zurich, Zürich, ³Universitätsspital Basel, Basel, Switzerland
- P52 Evaluation of potential factors contributing to the exhaustion of T lymphocytes in the tumor microenvironment**
U. Harms¹, A. Laeremans², N. Li², X.-J. Ma², E. Park²
¹Advanced Cell Diagnostics – A Bio-Techne Brand, Zug, Switzerland, ²Advanced Cell Diagnostics, Inc., Newark, CA, United States
- P53 LIMK1 regulates centrosomal dynamics during mitosis**
C.-G. Koh, S. Ou, M.-H. Tan, T. Weng, H.-Y. Li
Nanyang Technological University, Singapore, Singapore
- P54 AAA-ATPase p97/VCP regulates actin cytoskeleton and cell motility through Plk1-dependent ROCK pathway in cancer metastasis**
H.Y. Li, Z.-J. Khong, C.-G. Koh, S. Schochat
School of Biological Sciences, Nanyang Technological University, Singapore, Singapore
- P55 Investigating the RNA-binding protein NONO in high-risk neuroblastoma**
A. Naveed¹, J. Cooper¹, R. Li¹, S. Kobelke¹, S. Wilton², S. Fletcher², A. Fox¹
¹School of Human Sciences - Anatomy, Physiology and Human Biology, The University of Western Australia, ²Centre for Comparative Genomics, Murdoch University, Perth, WA, Australia
- P56 Breast tumor derived exosomes mediate tumor infiltrated CD8+T cell dysfunction to promote breast cancer**
S. Chatterjee¹, A. Chatterjee¹, S. Jana¹, H. Roy², A. Bhattacharyya¹
¹Zoology, University of Calcutta, Kolkata, ²Surgery, Calcutta Medical College, Kolkata, India
- P57 Rational design and validation of F2i: A novel adapter protein inhibitor**
K. Santhana Kumar¹, D. Bruns², C. Brunner², R. Byrne², G. Schneider², T. Kockmann³, M.A. Grotzer^{4,5}, M. Baumgartner⁵
¹Neuro-Oncology, University of Zürich, ²Department of Chemistry and Applied Biosciences, ETH Zürich, ³Functional Genomics Center Zürich, ETH Zürich / University of Zürich, ⁴Department of Oncology, University Children's Hospital Zürich, ⁵Experimental Infectious Disease and Cancer Research, University Children's Hospital, Zürich, Switzerland
- P58 Exosomal Transfer of miR-27b from Breast Cancer Cells Reprogram the Fibroblasts into Cancer Associated Fibroblasts to Promote Breast Cancer Growth and Metastasis**
S. Jana^{1,2}, A. Chatterjee¹, L.M. Wastall², S. Chatterjee¹, H. Roy³, T.A. Hughes², A. Bhattacharyya¹
¹Department of Zoology, University of Calcutta, Kolkata, India, ²School of Medicine, University of Leeds, Leeds, United Kingdom, ³Department of Surgery, Medical College Kolkata, Kolkata, India
- P59 DNA editing of Bcr/Abl hybrid gene in k562**
O. Zimina, I. Kravchuk
Molecular Genetics, Institute of Molecular Biology & Genetics, Kyiv, Ukraine
- P60 Interplay between epithelial-mesenchymal transition and reactive oxygen species**
A. Morand, F. Tang, S. Piller, H. Antoniadis-Panoussis, G. Christofori
Department of Biomedicine, Universitätsspital Basel, Basel, Switzerland
- P61 Isorhapontigenin as a potential Candidate against breast cancer: via regulating SPHK1/SPHK2 signaling & tubulin stabilization**
L. Subedj, A. Parveen, S.E. Lee, S.Y. Kim
College of Pharmacy, Gachon University, Incheon, Republic of Korea
- P62 Amino acid composition of conditional media reveals components enhancing aggressiveness in early stage human melanoma cells, but not in metastatic cells**

M. Hohenegger¹, C. Wasinger¹, A. Hofer², O. Spadiut²

¹Experimental Pharmacology, Medical University Vienna/Institute of Pharmacology, ²Technical University Vienna/Institute for Chemical, Environmental and Biological Engineering, Vienna, Austria

P63 CDK5 involvement in the tumor microenvironment

F. Farina^{1,2}, M. Quintavalle¹, M. Locati^{1,2}

¹Leukocyte Biology Lab, Humanitas Research Hospital, Rozzano, ²Medical Biotechnology and Translational Medicine, Università degli Studi di Milano, Milano, Italy

P64 Super-resolution imaging of intracellular distribution of PH domain of BCR in HEK293T cells.

D. Gurianov, G. Telegeev

Molecular Genetics, Institute of Molecular Biology and Genetics NASU, Kyiv, Ukraine

P65 Automated Monitoring and Analysis of Kinetic Live Cell 3D Spheroid-Based Tumor Invasion within a Hydrogel Matrix

G. Prescott, B. Larson

BioTek Instruments, Inc., Winooski, VT, United States

P66 A Novel Signaling Pathway that Governs Tumor Metastasis: TGF- β receptor I/II trafficking and signaling at primary cilia are inhibited by ceramide to attenuate cell migration and tumor metastasis

S. Gencer^{1,2}, B. Ogretmen²

¹Uskudar University, Molecular Biology and Genetics, Uskudar University, Istanbul, Turkey, ²Medical University of South Carolina, Charleston, SC, United States

P67 Conformational thermo-stabilisation as an aid for structure determination of GPCRs bound to allosteric modulators

N. Solcan, C. Fiez-Vandal, N. Robertson, O. Schlenker, A.S. Doré, M. Rappas, J. Brown, B. Tehan, G. Bottegoni, A. Zhukov, M. Koglin, A. Jazayeri, J.C. Errey, R.M. Cooke, F.H. Marshall, M. Weir
Heptares Therapeutics Ltd, Cambridge, United Kingdom

P68 Targeting MET modulates global metabolic pathways and induces dNTPs depletion in MET-addicted cellular systems

M. Poliakov¹, N. Zamboni², J. Koch¹, M. Medo¹, B. Kim³, S.A.A. Coggins³, D.A. Aabersold¹, Y. Zimmer¹, M. Medova¹

¹Radiation Oncology, University of Bern, Inselspital, Bern, ²Institute of Molecular Systems Biology, ETH Zurich, Zurich, Switzerland, ³Department of Pediatrics, Emory University School of Medicine, Center for Drug Discovery, Atlanta, GA, United States

P69 The role of microtubule-associated protein TPX2 in sensitizing head and neck cancer cells to ionizing radiation

S. Roth¹, P. Francica², D.M. Aabersold¹, M. Medová¹, Y. Zimmer¹

¹Department for BioMedical Research, Radiation Oncology, Inselspital, Bern University Hospital, and University of Bern, ²University of Bern / Institute of Animal Pathology, Vetsuisse Faculty, Bern, Switzerland

P70 The aging synapse: decoupling between transcriptome and proteome and between somatic and local regulation

C. Caterino^{1,2}, J. Kirkpatrick², M. Baumgart², M. Groth², M. Görlach², A. Ori², A. Cellerino^{1,2}

¹Scuola Normale Superiore, Pisa, Italy, ²Fritz-Lipmann Institute, Jena, Germany

P71 Transcriptome analysis by CAGE-seq in the young and aged primary cultured neurons

N. Mori¹, K. Mura²

¹Anatomy and Neurobiology, ²Nagasaki University School of Medicine, Nagasaki, Japan

P72 Role of mTOR in regulation of Dlk1-Dio3 cluster miRNAs

D. Liko¹, A. Rzepiela¹, P. Knuckles², M. Buhler², M. Zavolan¹, M.N. Hall¹

¹University of Basel, ²Friedrich Miescher Institute, Basel, Switzerland

P73 Role of the vacuolar membrane-associated protein Pib2 in TORC1 regulation

A. González¹, W. Oppliger¹, S. Moes¹, P. Jenö¹, K.W. Cunningham², M.N. Hall¹

¹University of Basel / Biozentrum, Basel, Switzerland, ²Johns Hopkins University / Department of Biology, Baltimore, MD, United States

P74 Determination of insecticide fenprothrin in different environmental samples by spectrophotometry

K. Wani¹, M. Rai²

¹School of Studies in Chemistry, Pt. Ravishankar Shukla University Raipur, ²Pt. Ravishankar Shukla University, Raipur, India

- P75 The neurodevelopmental 16p11.2 CNVs have, as yet overlooked, mirror effect on sexual development in humans and animal models**
K. Mannik^{1,2}, M. Lepamets^{2,3}, A. Mikhaleva¹, K. Lepik^{4,5,6}, Z. Kupchinsky⁷, H. Ademi⁸, T. Arbogast⁷, C. Attanasio¹, A. Messina⁹, S. Rotman¹⁰, E. Dubruc¹⁰, J. Chrast¹, S. Martin-Brevet¹¹, T. Laisk-Podar¹², Y. Herault¹³, C. Lindgren^{14,15,16}, Z. Kutalik^{5,6}, J.-C. Stehle¹⁰, N. Katsanis⁷, S. Neff⁸, B. Draganski¹¹, E. Davis⁷, A. Reymond¹, R. Mägi², The 16p11.2 European Consortium, The Simons VIP Consortium, The eQTLGen Consortium
¹Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland, ²Estonian Genome Center, Institute of Genomics, ³Institute of Molecular and Cell Biology, ⁴Institute of Computer Science, University of Tartu, Tartu, Estonia, ⁵Institute of Social and Preventive Medicine, Lausanne University Hospital, ⁶Swiss Institute of Bioinformatics, Lausanne, Switzerland, ⁷Center for Human Disease Modeling, Duke University, Durham, NC, United States, ⁸Department of Genetic Medicine and Development, University of Geneva, Geneva, ⁹Endocrinology, Diabetes & Metabolism Service, ¹⁰Service of Clinical Pathology, ¹¹LREN, Department of Clinical Neuroscience, Lausanne University Hospital, Lausanne, Switzerland, ¹²Women's Clinic, Institute of Clinical Medicine, University of Tartu, Tartu, Estonia, ¹³Institute of Genetics and Molecular and Cellular Biology, Illkirch, France, ¹⁴Program in Medical and Population Genetics, Broad Institute, Cambridge, MA, United States, ¹⁵Wellcome Trust Centre for Human Genetics, Nuffield Department of Medicine, ¹⁶The Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, University of Oxford, Oxford, United Kingdom
- P76 Automated Media Exchange for Spheroid Cultures Using a Novel MultiFlo (TM) FX Accessory**
P. Kramer, B. Larson
 BioTek Instruments, Inc., Winooski, VT, United States
- P77 Fatty acid metabolism is regulated by PTC-3 via modulation of cholesterol.**
C.E. Cadena del Castillo¹, T. Hannich², A. Kaech³, N. Faergeman⁴, H. Riezman², A. Spang¹
¹University of Basel / Biozentrum, Basel, ²Université de Genève, Genève, ³Center for Microscopy and Image Analysis, University of Zürich, Zürich, Switzerland, ⁴Department of Biochemistry and Molecular Biology, University of Southern Denmark, Odense, Denmark
- P78 Control of the hemolytic behavior of the pathogenic bacterium Pseudomonas aeruginosa**
V. Ivancevic¹, P. Manfredi², U. Jenal²
¹University of Basel / Biozentrum, ²Biozentrum / University of Basel, Basel, Switzerland
- P79 Modulation of PD-L1:PD-1 axis by Mycobacterium tuberculosis protein Rv2463 to establish early infection**
M. Vashishta^{1,2}, K. Natarajan², S. Mehto²
¹International Center for Genetic Eng, Malaria Biology Group, International Center for Genetic Engineering and Biotechnology, New Delhi, ²Infectious Diseases Immunology Lab, Dr. B R. Ambedkar Center for Biomedical Research, Delhi University, Delhi, India
- P80 Settle or wander: Bacterial surface colonization strategies**
F. Estermann, B.-J. Laventie, M. Sangermani, U. Jenal
 Biozentrum, University of Basel, Basel, Switzerland
- P81 Towards identification of novel inhibitors against Plasmodium falciparum Sir2A – a unique Histone Deacetylase and deciphering the molecular basis of its interaction.**
D. Patel¹, K. Dave², B. Patel¹
¹Bioinformatics and Structural Biology, Institute of Advanced Research, Gandhinagar, ²Dept. of Bioinformatics, Sardar Patel University, Centre for Interdisciplinary Studies in Science and Technology, Anand, India
- P82 Prevalence of Class 1 Integron, Resistance Gene Cassettes and Antimicrobial Susceptibility Profiles among Isolates of Pseudomonas aeruginosa in Iran**
A. Khorshidi^{1,2}, M.M. Mirahsani², R. Moniri², M.R. Gilasi², I. Khorshidi³, S. Sima³, A. Hosseini Nejad²
¹Microbiology Dep, ²Kashan University of Medical Sciences, ³Esfahan University of Medical Sciences, Kashan, Islamic Republic of Iran
- P83 mTORC2 inhibition in adipose tissue promotes pancreatic β -cells to secrete insulin**
I.C. Frej, D. Weissenberger, M. Swierczynska, M. Shimobayashi, M.N. Hall
 Biozentrum, Growth and Development, University of Basel, Basel, Switzerland
- P84 Apolipoprotein A1 as a novel anti-implantation biomarker in polycystic ovary syndrome: A case-control study**
M. Mehdizadeh¹, F. Amjadi², R. Afatoonian³
¹Cellular and Molecular Research Center, Faculty of Advanced Technologies in Medicine, Department of Anatomical Sciences, Iran University of Medical Sciences, ²Department of Anatomy, School of Medicine, Iran University of Medical Science, ³Department of Endocrinology and Female Infertility, Reproductive

Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, The Academic Center for Education Culture and Research (ACECR), Tehran, Islamic Republic of Iran

- P85 Protein tyrosine phosphatase, receptor type B (PTPRB) inhibits brown adipocyte differentiation through regulation of VEGFR2 phosphorylation.**
J. Kim, K.-J. Oh
Metabolic Regulation Research Center, KRIBB, Daejeon, Republic of Korea
- P86 Computational study of HMG CoA reductase inhibitors and analysis of natural product compounds**
N.H.N. Moorthy
Department of Pharmacy, Indira Gandhi National Tribal University, Amarkantak, India
- P87 Platform comparison for multiple Cytokines between ELISA, Simple Plex™ and Simple Western™**
A. Boge, C. Heger, F. Ramirez, A. Pabler
R&D, ProteinSimple - a Bio-Techne division, San Jose, CA, United States
- P88 Adenosine-mediated immunomodulatory action on alveolar macrophages during Klebsiella pneumoniae B5055 induced acute lung infection**
V. Kumar¹, S. Chhibber²
¹Microbiology, ²Panjab University, Chandigarh, India
- P89 Non-variable cyclic stretching affects Amphiregulin levels and endosome trafficking in Rat Alveolar Epithelial Cells Type II**
J.M. Ferreira¹, S. Müller¹, R. Huhle¹, T. Koch^{1,2}, E. Koch², P.D.M. Gama de Abreu¹
¹Department of Anesthesiology and Intensive Care, Pulmonary Engineering Group, ²Clinical Sensing and Monitoring Group, University Hospital Carl Gustav Carus, TU Dresden, Dresden, Germany
- P90 Inhibition of Lymphotoxin-a protects C57BL/6 mice from Experimental Cerebral malaria and neuronal cell death during Plasmodium berghei ANKA infection**
P. Eeka¹, P.B. Phanithi²
¹Biophysics, Tata Institute of Fundamental Research Center for Interdisciplinary Sciences, ²Department of Biotechnology and Bioinformatics, School of Life Sciences, University of Hyderabad, Hyderabad, India
- P91 Effect of Heparin Trisulfated Disaccharide (TD) in neuronal death triggered by calcium overload**
G. Chiarantin¹, L. Delgado-Garcia¹, M. Lima², H. Nader¹, M. Porcionatto¹, I. Tersario¹
¹Biochemistry, Federal University of Sao Paulo, ²Biochemistry, Federal University of ABC, São Paulo, Brazil
- P92 An objective characterization of f-actin structures in spines imaged with single molecule localization microscopy.**
S. Nanquneri, R. Pramod, D. Nair
Center for Neuroscience, Indian Institute of Science, Bangalore, India
- P93 Aristaless-related homeobox gene disruption leads to abnormal distribution of GABAergic interneurons in human neocortex**
M. Itoh
Mental Retardation and Birth Defect, National Center of Neurology and PSY, Kodaira, Japan
- P94 Evolutionary Interlinking Pathway in Neuroimmunology of Parkinson's Disease: A Therapeutic Strategies of miRNA Mediated Autophagic Dysregulation in Fruit Fly Drosophila**
S. Dalui, S. Chatterjee, A. Bhattacharyya
Zoology, University of Calcutta, Kolkata, India
- P95 Real-time breath analysis of antiepileptic drugs.**
K.D. Singh^{1,2}, V. Ziesenitz¹, J. Usemann¹, U. Frey¹, J.N. Van den Anker¹, A.N. Datta³, P. Sinues^{1,2}
¹University Children's Hospital Basel, ²Department of Biomedical Engineering, ³Child Neurology and Developmental Medicine Department, University Children's Hospital, University of Basel, Basel, Switzerland
- P96 Phosphatases of the thiamin-binding proteomes**
V.A. Aleshin¹, T. Kaehne², O.A. Mezhenskaya³, Y.M. Parkhomenko³, V.I. Bunik^{1,4}
¹Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russian Federation, ²Institute of Experimental Internal Medicine, Otto-von-Guericke University, Magdeburg, Germany, ³Department of Vitamin and Coenzyme Biochemistry, Palladin Institute of Biochemistry, Kyiv, Ukraine, ⁴Belozersky Institute of Physicochemical Biology, Lomonosov Moscow State University, Moscow, Russian Federation

- P97 Endosome maturation: coordination of acidification and Rab5-Rab7 conversion**
M. Podinovskaya, A. Spang
Biozentrum, University of Basel, Basel, Switzerland
- P99 Selective loss of histone H3K9 di- methylation triggers satellite repeat transcription, R-loop formation, genome instability and BRCA-1 addition**
J. Padeken¹, P. Zeller¹, B. Towbin¹, I. Katic¹, V. Kalck¹, S. Gasser^{1,2}
¹Friedrich Miescher Institute for Biomedical Research, ²Faculty of Natural Sciences, University of Basel, Basel, Switzerland
- P100 Epistasis Analysis Reveals Distinct Roles of Non-homologous End Joining Factors in Human HAP1 Cells**
M. Xing¹, M. Bjørås^{1,2}, V. Oksenysh^{1,3}
¹IKOM, Norwegian University of Science and Technology, Trondheim, ²Department of Microbiology, Oslo University Hospital, University of Oslo, Oslo, ³St. Olavs Hospital, Clinic of Medicine, Trondheim University Hospital, Trondheim, Norway
- P101 Functional dissection of MIEN1 trans-regulation provides new evidence for colorectal cancer genome editing-based therapeutics**
D.C. Sierra-Diaz, A. Morel, O. Ortega-Recalde, J.C. Buitrago, D. Valero-Rubio, K.M. Jiménez, N.C. Contreras, R. Parra-Medina, P. Laissue
Universidad del Rosario, Bogota, Colombia
- P102 DNA repair gene discovery using genome-scale CRISPR/Cas9 screens**
N. Hustedt¹, M. Zimmermann¹, T. Hart², M. Olivieri^{1,3}, Y. Zhao^{1,3}, S. Angers⁴, J. Moffat^{3,5}, D. Durocher^{1,3}
¹Lunenfeld-Tanenbaum Research Institute, Toronto, ON, Canada, ²MD Anderson Cancer Center, University of Texas, Houston, TX, United States, ³Department of Molecular Genetics, ⁴Leslie Dan Faculty of Pharmacy, ⁵Donnelly Center, University of Toronto, Toronto, ON, Canada
- P103 Sesn2 protects sensory hair cells against cisplatin via modulation of AMPK/mTOR pathway**
S. Levano, D. Bodmer
Biomedicine, University Basel Hospital, Basel, Switzerland
- P104 Exercise training causes a partial improvement through increasing testosterone and eNOS for erectile function in middle-aged rats**
D.Y. Seo¹, J.R. Ko², H.S. Bang³, H.B. Kwak⁴, J. Han⁵
¹College of Medicine, Cardiovascular and Metabolic Disease Center, ²College of Medicine, Cardiovascular and Metabolic Disease Center, Inje University, ³Department of Physical Education, College of Health, Social Welfare and Education, Tong Myong University, Busan, ⁴Department of Kinesiology, Inha University, Incheon, Republic of Korea, Incheon, ⁵National Research Laboratory for Mitochondrial Signaling, Department of Physiology, Department of Health Sciences and Technology, BK21 Plus Team, College of Medicine, Cardiovascular and Metabolic Disease Center, Inje University, Busan, Republic of Korea
- P105 Eosinophils restore age-related adipose tissue dysfunction and sustain immunological fitness in old age**
D. Brigger^{1,2}, C. Riether^{3,4}, R. van Brummelen^{1,2}, J. Auwerx⁵, T. Wyss-Coray^{6,7}, M. Noti⁸, A. Egger^{1,2}
¹Department of Rheumatology, Immunology and Allergology / University Hospital, University of Bern, ²Department for BioMedical Research, University of Bern, ³Tumor Immunology, Department of Clinical Research / University of Bern, ⁴Department of Medical Oncology, Inselspital, University Hospital and University of Bern, Bern, ⁵Laboratory of Integrative and Systems Physiology, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, ⁶Department of Neurology and Neurological Sciences, Stanford University School of Medicine, Stanford, ⁷Center for Tissue Regeneration, Repair, and Restoration, VA Palo Alto Health Care System, Palo Alto, CA, United States, ⁸Institute of Pathology, Division of Experimental Pathology / University of Bern, Bern, Switzerland
- P106 Interferon-driven deletion of antiviral B cells at the onset of chronic infection**
K. Narr¹, B. Fallet¹, Y.I. Ertuna¹, M. Remy¹, R. Sommerstein², K. Cornille¹, M. Kreutzfeldt^{2,3}, N. Page², G. Zimmer⁴, F. Geier⁵, T. Straub⁶, H. Pircher⁶, K. Larimore^{7,8}, P.D. Greenberg^{7,8}, D. Merkler^{2,3}, D.D. Pinschewer¹, Pinschewer
¹Department of Biomedicine, University of Basel, Experimental Virology, Basel, ²Department of Pathology and Immunology, Geneva Faculty of Medicine, ³Division of Clinical Pathology, University Hospital Geneva, Geneva, ⁴Institute of Virology and Immunology IVI, Mithelhäusern, ⁵Department of Biomedicine, Bioinformatics Core Facility, University Hospital Basel, Basel, Switzerland, ⁶Institute for Immunology, Department for Medical Microbiology and Hygiene, University Medical Center Freiburg, Freiburg, Germany, ⁷Fred Hutchinson Cancer Research Center, ⁸Department of Immunology, University of Washington, Seattle, WA, United States

- P107** **Comparative effect of green tea polyphenols as modulators of human prion protein aggregation.**
N. Admane¹, A. Grover²
¹School of Biotechnology, Jawaharlal Nehru University, Lab 107, ²School of Biotechnology, JNU, Delhi, India
- P108** **Effect of GAA expansion on Iron Copper metabolism and cell free nucleic acids (cfNA) levels in plasma of Friedreich's ataxia (FRDA) patients and its co relation with FARS scores**
D. Pathak, M.R. Rajeswari
Biochemistry, All India Institute of Medical Sciences, New Delhi, India
- P109** **The role of the NF- κ B activating enzyme I κ B kinase-2 in atherosclerosis**
M. Mussbacher, M. Salzmann, J. Basilio, A. Assinger, J. Schmid
Inst. of Vascular Biology, Medical University of Vienna, Vienna, Austria
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