

PROGRAM

MONDAY, November 11—7:00 PM

SESSION 1 KEYNOTE SESSION

Chairperson: **Xiaodong Wang**, National Institute of Biological Sciences, Beijing, China

Keeping mitochondria in shape

Aleksandra Trifunovic [35'+10'+5']

Presenter affiliation: University of Cologne, Cologne, Germany. 1

Affairs of mitochondria with calcium

Gyorgy Hajnoczky [35'+10'+5']

Presenter affiliation: Thomas Jefferson University, Philadelphia, Pennsylvania. 2

TUESDAY, November 12—9:00 AM

SESSION 2 MITOCHONDRIAL BIOGENESIS AND PROTEIN HOMEOSTASIS

Chairperson: **Nika Danial**, Dana-Farber Cancer Institute, Harvard Medical School, Boston, Massachusetts, USA

The guided tour of proteins to mitochondria

Agnieszka Chacinska [20'+10']

Presenter affiliation: Centre of New Technologies University of Warsaw, Warsaw, Poland. 3

Molecular coupling of mitochondrial protein translocases

Thomas Becker [20'+10']

Presenter affiliation: University of Freiburg, Freiburg, Germany. 4

Tetrahydrobiopterin stimulates mitochondrial biogenesis through increased PGC-1alpha expression in mice hearts

Hyoung Kyu Kim, Jin Han [20'+10']

Presenter affiliation: Inje University, Busan, South Korea. 5

The PINK1 kinase-driven ubiquitin ligase Parkin promotes mitochondrial protein import through the presequence pathway in living cells

Emeline Hamon-Keromen, Maxime Jacoupy, Alban Ordureau, J.W Harper, Clément Gautier, Olga Corti [10'+5']

Presenter affiliation: Brain and Spine Institute, ICM, Paris, France.

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Tissue-specific effects of mitochondrial import proteostasis

Yang Yang, Nirajan Neupane, Jayasimman Rajendran, Jouni Kvist, Pooja Manjunath, Ruben Torregrosa-Muñumer, Veijo Kinnunen, Eija Pirinen, Svetlana Konovalova, Henna Tynismaa [10'+5']

Presenter affiliation: University of Helsinki Faculty of Medicine, Helsinki, Finland.

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TUESDAY, November 12—11:15 AM

SESSION 3 REGULATION OF MITOCHONDRIAL GENE EXPRESSION

Chairperson: Naotada Ishihara, Osaka University, Osaka, Japan

Targeted disruption of mitochondrial genes associated with cytoplasmic male sterility in rice and rapeseed.=

Shin-ichi Arimura [20'+10']

Presenter affiliation: University of Tokyo, Tokyo, Japan.

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Co-regulation of mitochondrial and cytosolic translation programs

Stirling Churchman [20'+10']

Presenter affiliation: Harvard Medical School, Boston, Massachusetts.

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TUESDAY, November 12—2:00 PM

SESSION 4 POSTER SESSION

Transcription initiation defines both mRNA termini in mitochondria of trypanosomes

Ruslan Aphasizhev

Presenter affiliation: Boston University, Boston, Massachusetts.

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PPR-based mechanisms of mitochondrial editing surveillance in trypanosomes <u>Inna Aphasizheva</u> Presenter affiliation: Boston University, Boston, Massachusetts.	11
Bioenergetic and redox state mitochondrial alterations along the progression to chronic kidney insufficiency induced by folic acid administration <u>Omar Emiliano Aparicio-Trejo</u> , Edilia Tapia, José Pedraza-Chaverri Presenter affiliation: Faculty of Chemistry, National Autonomous University of Mexico (UNAM), Mexico City, Mexico.	12
PCR-free method reveals a highly brain region-specific mtDNA mutation spectrum in response to mtDNA replication instability <u>Emilie K. Bagge</u> , Mie Kubota-Sakashita, Noriko Fujimori-Tonou, Takaaki Kasahara, Tadafumi Kato Presenter affiliation: RIKEN, Wako, Japan.	13
Enhancing glycolysis attenuates Parkinson's disease progression in models and clinical databases <u>Rong Cai</u> , Yu Zhang Presenter affiliation: Capital Medical University, Beijing, China.	14
<i>Pink1</i> mRNA is transported with mitochondria and translated locally to support axonal mitophagy Angelika B. Harbauer, Martha Ordonez, <u>Zerong Cai</u> , Ghazaleh Ashrafi, Romain Cartoni, Zhigang He, Thomas L. Schwarz Presenter affiliation: Boston Children's Hospital, Boston, Massachusetts; Harvard Medical School, Boston, Massachusetts; Zhejiang University, Jiaying, China.	15
Electrophysiological characterization of channels formed by F-ATP synthases <u>Andrea Carrer</u> , Andrea Urbani, Chiara Galber, Michela Carraro, Lishu Guo, Francesco Ciscato, Valentina Giorgio, Ildikò Szabò, Paolo Bernardi Presenter affiliation: University of Padova, Padova, Italy.	16
Activated Drp1 regulates ischemia-induced mitochondrial dysfunctions through glutathione metabolism pathway <u>Chenyang Duan</u> , Lei Kuang, Tao Li, Liangming Liu Presenter affiliation: Army Medical Center of PLA, Chongqing, China.	17

Metabolic rewiring by histone variant macroH2A1.2 links lipid pathway to mitochondria function <u>Chee Wai Fhu</u> , Jun Ting Teoh, Li Ren Kong, Boon Cher Goh, Azhar Ali Presenter affiliation: Cancer Science Institute Singapore, Singapore.	18
Role of F-ATP synthase f subunit in dimer formation and PTP modulation <u>Chiara Galber</u> , Giovanni Minervini, Andrea Carrer, Giuseppe Cannino, Valeria Petronilli, Silvio Tosatto, Ildikò Szabò, Giovanna Lippe, Valentina Giorgio, Paolo Bernardi Presenter affiliation: University of Padova and CNR Neuroscience Institute, Padova, Italy.	19
The interaction of the inhibitor protein IF1 with F-ATP synthase modulates the permeability transition pore in a human cancer cell model Chiara Galber, Manuel J. Acosta, Victoria Burchell, Valeria Petronilli, Giovanna Lippe, <u>Valentina Giorgio</u> Presenter affiliation: University of Padova and Neuroscience Institute (CNR), Padova, Italy.	20
Role MOF acetyl transferase in mitochondrial homeostasis <u>Sukanya Guhathakurta</u> , Christoph U. Martensson, Alexander Schendzielorz, Bettina Warsheid, Thomas Becker, Asifa Akhtar Presenter affiliation: Max Planck Institute for Immunobiology and Epigenetics, Freiburg, Germany.	21
Effects of electromagnetic radiation on mitophagy and its potential regulatory mechanisms <u>Yanhui Hao</u> , Li Zhao, Yang Li, Ruiyun Peng Presenter affiliation: Beijing Institute of Radiation Medicine, Beijing, China.	22
Identification of potential substrates of membrane ubiquitin ligases <u>Yinbo Huo</u> , Jun Zheng, Min Zhuang Presenter affiliation: School of Life Science and Technology, Shanghai, China.	23
The role of mitochondrial membrane potential in regulating macrophage inflammatory response Emily M. Fouts, <u>W.K. Eddie Ip</u> Presenter affiliation: Mayo Clinic, Rochester, Minnesota.	24

COMP-Prohibitin 2 interaction maintains mitochondrial homeostasis and controls smooth muscle cell identity <u>Yiting Jia</u> , Meili Wang, Chengfeng Mao, Wei Kong Presenter affiliation: Peking University, Beijing, China.	25
Dinucleotide degradation by REXO2 maintains promoter specificity in mammalian mitochondria <u>Shan Jiang</u> , Thomas J. Nicholls, Henrik Spåhr, Stefan J. Siira, Camilla Koolmeister, Min Jiang, Aleksandra Filipovska, Claes M. Gustafsson, Nils-Göran Larsson Presenter affiliation: Karolinska Institutet, Stockholm, Sweden.	26
Live imaging of mitochondrial nucleoid fission in living mammalian cells <u>Hirota Kanon</u> , Takaya Ishihara, Naotada Ishihara Presenter affiliation: Osaka University, Osaka, Japan.	27
RNA binding protein HuD contributes to β-cell dysfunction by impairing mitochondria dynamics Youlim Hong, Chongtae Kim, Myeongwoo Jung, <u>Eun Kyung Lee</u> Presenter affiliation: The Catholic University of Korea College of Medicine, Seoul, South Korea.	28
Mitochondrial dysfunction by exposure of organochlorine pesticide in an early-staged zebrafish <u>Hyojin Lee</u> , Ki-Tae Kim Presenter affiliation: Seoul National Univ. of S&T, Seoul, South Korea.	29
Investigation of safety of mitochondrial replacement therapy using mouse ESCs <u>Yeonmi Lee</u> , Jumi Park, Doin Kim, Yuri Han, Eunju Kang Presenter affiliation: Asan Medical Center, Seoul, South Korea.	30
Precancerous lesion reversal with mitochondrial rejuvenation therapy—A case report <u>Dan Li</u> , Lihong Fan Presenter affiliation: Shanghai 10th People's Hospital, Shanghai, China.	31
Mitochondrial signaling in health and neurodegenerative disease <u>Lian Li</u> , Qi Zhang, Lih-Shen Chin Presenter affiliation: Emory University, Atlanta, Georgia.	32

Protein disulfide isomerase PDI-6 controls mitochondrial unfolded protein response through regulating the function of Wnt protein	
<u>Xinyu Li</u> , Jiasheng Li, Qian Zhang, Yangli Liu, Ye Tian Presenter affiliation: Institute of Genetics and Developmental Biology, Beijing, China.	33
SIRT3 acts as a positive autophagy regulator to promote lipid mobilization in adipocytes via activating AMPK	
Tian Zhang, Jingxin Liu, <u>Ligen Lin</u> Presenter affiliation: University of Macau, Taipa, Macau.	34
The conserved Arg-8 of yeast subunit e is important for the stability of F-ATP synthase dimers and for generation of the full-conductance mitochondrial megachannel	
Lishu Guo, Michela Carraro, Andrea Carrer, Giovanni Minervini, Andrea Urbani, Ionica Masgras, Silvio C. Tosatto, Ildikò Szabò, Paolo Bernardi, <u>Giovanna Lippe</u> Presenter affiliation: University of Udine, Udine, Italy.	35
Glycerol-3-phosphate metabolism alleviates NADH reductive stress under mitochondrial respiratory failure and hypoxia	
<u>Shanshan Liu</u> , Song Fu, Lanlan Li, Yu Cao, Ning Li, Yan Ma, Hui Jiang Presenter affiliation: Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; National Institute of Biological Sciences, Beijing, China.	36
Heterogeneous mitochondrial stress responses convergently maintain mitochondrial membrane potential	
<u>Siqi Liu</u> , Shanshan Liu, Baiyu He, Lanlan Li, Lin Li, Tao Cai, She Che, Hui Jiang Presenter affiliation: Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; National Institute of Biological Sciences, Beijing, China.	37
A pilot study on the mitophagy of bone marrow mesenchymal stem cells in chondrogenic differentiation	
<u>Hongrong Luo</u> , Yuanqi Li, Hai Lin, Xingdong Zhang Presenter affiliation: Sichuan University, Chengdu, China.	38
Mitochondrial DNA-LL-37 complex prompt rheumatoid arthritis by induce neutrophil extracellular traps	
<u>Ping Meng</u> , Gan Wang, Yan L. Chen, Xiong Y. Li, Ren Lai Presenter affiliation: Yan'an Affiliated Hospital of Kunming Medical University, Kunming, China; Kunming Institute of Zoology, CAS, Kunming, China.	39

- Regulation of pathogenicity by dynamics of mutated mitochondrial DNA heteroplasmy**
Emi Ogasawara, Kazuto Nakada, Naotada Ishihara
 Presenter affiliation: Osaka University, Osaka, Japan. 40
- Mitochondrial DNA mutations in iPSCs from Alzheimer’s disease patients**
Jumi Park, Ling Li, Yeonmi Lee, Dukhoon Kim, Jihwan Song, Eunju Kang
 Presenter affiliation: Stem Cell Center, Asan Institute for Life Sciences, Seoul, South Korea. 41
- A high throughput screening identifies a small molecule inhibitor of the GTPase activity of OPA1 that enhances apoptotic release of cytochrome c**
Anna Pellattiero, Charlotte Quirin, Stéphanie Herkenne, Nikolaos Biris, Laura Cendron, Evripidis Gavathiotis, Luca Scorrano
 Presenter affiliation: University of Padova, Padova, Italy; Veneto Institute of Molecular Medicine, Padova, Italy. 42
- Probing interaction partners of a dually localized ion channel via BiOLD**
Elena Prosdocimi, Roberta Peruzzo, Jesusa Capera Aragones, Luigi Leanza, Antonio Felipe, Ildiko Szabo, Vanessa Checchetto
 Presenter affiliation: Univeristy of Padova, Padova, Italy. 43
- A mitochondrial therapy for Duchenne muscular dystrophy**
Marco Schiavone, Anna Stocco, Jelle de Jong, Valeria Petronilli, Justina Sileikyte, Michael Forte, Francesco Argenton, Luciano Merlini, Patrizia Sabatelli, Paolo Bernardi
 Presenter affiliation: University of Padova, Padova, Italy. 44
- Dimerization of MICU proteins controls Ca²⁺ influx through the mitochondrial Ca²⁺ uniporter**
Yuequan Shen
 Presenter affiliation: Nankai University, Tianjin, China. 45
- Mitochondrial dysfunction in the aged lung and COPD—A role for mitochondrial calcium?**
Salil Srivastava, Khaushik Subramanian, Katherine Choy, Adriana Martinez Ledo, Olivier Bonneau, Rayman Choo-Wing, Melody Morris, Tea Shavlakadze, David J. Rowlands
 Presenter affiliation: Novartis Institutes for Biomedical Research, Cambridge, Massachusetts. 46

- A mitochondrial therapy for Duchenne muscular dystrophy**
 Marco Schiavone, Anna Stocco, Jelle de Jong, Valeria Petronilli,
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 Patrizia Sabatelli, Paolo Bernardi
 Presenter affiliation: University of Padova, Padova, Italy. 47
- Construction of a mitochondrial permeability transition pore-
 dependent death initiation model based on single-mitochondrion
 analysis by nano-flow cytometry**
Liyun Su, Jingyi Xu, Kaimin Gao, Xiaomei Yan
 Presenter affiliation: Xiamen University, Xiamen, China. 48
- Upregulation of Cisd2 attenuates cognitive impairment and
 ameliorates Alzheimer's related brain damage in mice**
 Ting-Kuan Chu, Ting-Fen Tsai
 Presenter affiliation: National Yang-Ming University, Taipei, Taiwan;
 National Health Research Institutes, Zhunan, Taiwan. 49
- Trials of mitochondrial genome editing by mitoTALEN in
Arabidopsis thaliana—Targeted gene disruption of *ATP6-1* and
*ATP6-2***
Yu Tsuruta, Hajime Sugaya, Syungo Yanase, Yuta Watari, Nobuhiro
 Tsutsumi, Shin-ichi Arimura
 Presenter affiliation: The University of Tokyo, Tokyo, Japan. 50
- The nucleosome remodeling and deacetylase (NuRD) complex
 mediates the mitochondrial unfolded protein response and
 longevity in *C. elegans***
 Di Zhu, Xueying Wu, Ye Tian
 Presenter affiliation: Chinese Academy of Sciences, Beijing, China. 51
- Sulforaphane inhibits NLRP3 inflammasome activation by
 enhancing mitophagy**
Gabsik Yang, Jin Kyung Seok, Hye Eun Lee, Joo Young Lee
 Presenter affiliation: The Catholic University of Korea, Bucheon, South
 Korea. 52
- A mammalian autophagy related gene localizes to the
 mitochondria and regulates lung tumorigenesis**
 Lixia Guo, Ting Zhang, Yanan Yang
 Presenter affiliation: Mayo Clinic, Rochester, Minnesota. 53

- Characterising the function of mammalian AAA+ protein SKD3**
Hanmiao Zhan, Sara Oveissi, Pierrer Faou, Weisan Chen, David
 Dougan, Kaye Truscott
 Presenter affiliation: La Trobe University, Melbourne, Australia. 54
- Wnt signaling mediates transgenerational mitochondrial unfolded
 protein response and longevity in *C. elegans***
Qian Zhang, Zihao Wang, Xinyu Li, Jun Zhou, Ye Tian
 Presenter affiliation: State Key Laboratory of Molecular Developmental
 Biology, Beijing, China; UCAS, Beijing, China. 55
- Approach on mechanism of *Bifidobacterium longum* in the
 treatment of lung cancer**
Xu Zhang, Tiansheng Zheng, Xiao Xu, Ming Li, Lihong Fan
 Presenter affiliation: Shanghai 10th People's Hospital, Shanghai,
 China. 56
- Liver governs adipose remodelling via extracellular vesicles in
 response to lipid overload**
Yue Zhao, Mengfei Zhao, Shan Jiang, Jing Wu, Jia Liu, Chaojun Li
 Presenter affiliation: Nanjing University, Nanjing, China. 57
- Identification of an ubiquitin ligase essential for peroxisome *de
 novo* biogenesis and degradation**
Jun Zheng, Qiang Liu, Min Zhuang
 Presenter affiliation: School of Life Science and Technology,
 Shanghai, China; University of Chinese Academy of Sciences, Beijing, 58
 China.
- Nrf2 protects mitochondrial decay by oxidative stress in
 cardiomyocytes**
Chao Zhu, Joshua Strom, Beibei Xu, Xiuqing Tian, Qin M. Chen
 Presenter affiliation: University of Arizona College of Medicine,
 Tucson, Arizona. 59

TUESDAY, November 12—4:30 PM

Chinese Tea and Beer Tasting

SESSION 5 **METABOLISM**

Chairperson: **Ildikò Szabò**, University of Padova, Padova, Italy

MTCH2—How does it regulate mitochondria?

Atan Gross [20'+10']

Presenter affiliation: Weizmann Institute of Science, Rehovot, Israel. 60

Systematic approaches to study cancer cell metabolism

Kivanc Birsoy [20'+10']

Presenter affiliation: Rockefeller University, New York, New York. 61

Mitochondrial role in quantitative allometric scaling of cellular metabolism

Mikael Bjorklund [10'+5']

Presenter affiliation: Zhejiang University, Haining, China; Zhejiang University, Hangzhou, China. 62

Mitochondria binding to lipid droplets—Identification of binding regulators using chemical genomics and reconstitution in a cell-free assay

Anton Petcherski, Rebeca Acin-Perez, Alexandra J. Brownstein, Michaela Veliova, Robert Damoiseaux, Amy Wang, Marc Liesa-Roig, Orian S. Shirihai [10'+5']

Presenter affiliation: University of California Los Angeles, Los Angeles, California. 63

Mitochondrial pyruvate handling and cellular responses to inflammation

Nika N. Danial [20'+10']

Presenter affiliation: Dana-Farber Cancer Institute, Harvard Medical School, Boston, Massachusetts. 64

WEDNESDAY, November 13—9:00 AM

SESSION 6 MITOCHONDRIAL DYNAMICS AND ER INTERACTIONS

Chairperson: **Aleksandra Trifunovic**, University of Cologne,
Cologne, Germany

**A genome wide high content screening illuminates the
architecture of the endoplasmic reticulum-mitochondria interface**

Luca Scorrano [20'+10']

Presenter affiliation: University of Padova, Padova, Italy.

**Dynamic regulation of mitochondrial double membranes and
genome**

Naotada Ishihara [20'+10']

Presenter affiliation: Osaka University, Toyonaka, Japan.

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**Mitochondrial checkpoint kinase PDK4 plays a key role in
regulating mitochondrial dynamics and bioenergetics**

In-Kyu Lee [20'+10']

Presenter affiliation: Kyungpook National University, Kyungpook
National University Hospital, Daegu, South Korea.

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**They take up calcium, depolarize and fragment, yet they do not
lead to apoptosis—The survival story of brown adipocytes
mitochondria**

Orian Shirihai [20'+10']

Presenter affiliation: David Geffen School of Medicine at UCLA, Los
Angeles, California.

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WEDNESDAY, November 13—11:15 AM

SESSION 7 MECHANISTIC BASIS OF MITOCHONDRIAL DISEASES

Chairperson: **Agnieszka Chacinska**, University of Warsaw,
Warsaw, Poland

**Metabolic and proteomic adaptations to maintain proliferation of
OXPHOS-deficient cells**

Hui Jiang [20'+10']

Presenter affiliation: National Institute of Biological Sciences, Beijing,
China.

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Expression of the mutant *MFN2* induces different severity of neurodegeneration depends on its expression timing
Kaori Ishikawa, Satoshi Yamamoto, Satoko Hattori, Naoya Nishimura, Hirokazu Matsumoto, Tsuyoshi Miyakawa, Kazuto Nakada [20'+10']
Presenter affiliation: University of Tsukuba, Tsukuba, Japan. 69

Tune the metabolic drivers of immune cell potency, fate and fitness
David Ferrick [20'+10']
Presenter affiliation: Agilent Cell Analysis, Lexington, Massachusetts. 70

WEDNESDAY, November 13—2:00 PM

Visit to Old Suzhou

WEDNESDAY, November 13—7:00 PM

SESSION 8 MITOPHAGY AND INFLAMMATION

Chairperson: **György Hajnoczky**, Thomas Jefferson University, Philadelphia, Pennsylvania, USA

Regulation of mitophagy via endoplasmic reticulum membrane-bound factors
Koji Okamoto [20'+10']
Presenter affiliation: Osaka University, Suita, Japan. 71

Mitochondrial FUNDC1 regulates selective mitophagy and proteostatic stress response
Yanjun Li, Quan Chen [20'+10']
Presenter affiliation: Nankai University, Tianjin, China. 72

Glycerol phosphate shuttle enzyme GPD2 regulates macrophage inflammatory responses
P. Kent Langston, Tiffany Horng [10'+5']
Presenter affiliation: ShanghaiTech University, Shanghai, China. 73

Calcineurin regulates Parkin-translocation to mitochondria and mitophagy
Elena Ziviani [10'+5']
Presenter affiliation: University of Padova, Padova, Italy. 74

Mitochondrial dysfunction is the downstream event of K⁺ efflux during NLRP3 inflammasome activation

Tan Zhang, Shuzhe Ding, Sankar Ghosh [10'+5']

Presenter affiliation: Columbia University, New York, New York; East China Normal University, Shanghai, China.

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Functional characterization of the role of SOD2 rs4880 in asparaginase-induced hepatotoxicity

Sharon Wu, Houda Alachkar [10'+5']

Presenter affiliation: University of Southern California, Los Angeles, California.

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THURSDAY, November 14—9:00 AM

SESSION 9 STRUCTURE AND FUNCTIONS OF ENERGY-CONSERVING COMPLEXES AND CARRIERS

Chairperson: **Orian Shirihai**, University of California, Los Angeles, Los Angeles, California, USA

Common features and diversity of rotation dynamics of F₁-ATPase among species

Hiroyuki Noji [20'+10']

Presenter affiliation: The University of Tokyo, Tokyo, Japan.

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Assembly of yeast ATP synthase in *atp10* mutants can be rescued by Atp23p

Guangying Yang, Yuanyuan Ding, Xiaomei Zeng [10'+5']

Presenter affiliation: Huazhong University of Science and Technology, Wuhan, China.

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Purified F-ATP synthase forms a Ca²⁺-dependent high-conductance channel matching the mitochondrial permeability transition pore

Andrea Urbani, Valentina Giorgio, Andrea Carrer, Cinzia Franchin, Giorgio Arrigoni, Chimari Jiko, Kazuhiro Abe, Shintaro Maeda, Kyoko Shinzawa-Itoh, Janna Bogers, Duncan McMillan, Ildiko Szabo, Paolo Bernardi, Christoph Gerle [10'+5']

Presenter affiliation: Osaka University, Suita, Japan.

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The unique conserved arginine in subunit g of F-ATP synthase mediates sensitivity of the mitochondrial permeability transition pore by arginine modification

Lishu Guo, Michela Carraro, Geppo Sartori, Giovanni Minervini, Andrea Carrer, Michael A. Forte, Giovanna Lippe, Ove Eriksson, Valeria Petronilli, Paolo Bernardi [10'+5']

Presenter affiliation: University of Padova, Padova, Italy; Tongji University, Shanghai, China.

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The molecular nature of the permeability transition pore—Where do we stand?

Paolo Bernardi [20'+10']

Presenter affiliation: Università di Padova, Padova, Italy.

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Impaired transient opening of the mitochondrial permeability transition pore reveals the molecular mechanism of hereditary spastic paraplegia (SPG7)

Irene Sambri, Filomena Massa, Francesca Gullo, Simone Meneghini, Laura Cassina, Lorenzo Patanella, Filippo Santorelli, Fabio Grohovaz, Paolo Bernardi, Andrea Becchetti, Giorgio Casari [10'+5']

Presenter affiliation: TIGEM-Telethon Institute of Genetics and Medicine, Pozzuoli, Italy; Vita-Salute San Raffaele University, Milan, Italy.

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Molecular identity and regulatory mechanisms of the mitochondrial uncoupling protein of non-adipose tissues

Ambre M. Bertholet, Edward T. Chouchani, Lawrence Kazak, Alessia Angelin, Andriy Fedorenko, Jonathan Z. Long, Sara Vidoni, Ryan Garrity, Joonseok Cho, Naohiro Terada, Douglas C. Wallace, Bruce M. Spiegelman, Yuriy Kirichok [10'+5']

Presenter affiliation: University of California, San Francisco, San Francisco, California.

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Unraveling the pathophysiological role of the mitochondrial chaperone TRAP1

Claudio Laquatra, Ionica Masgras, Rosanna Gissi, Marco Schiavone, Giovanni Minervini, Alessandra Castegna, Silvio Tosatto, Francesco Argenton, Andrea Rasola [10'+5']

Presenter affiliation: University of Padua, Padova, Italy.

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Discovery the composition of mitochondrial respiratory chain

Maojun Yang [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

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SESSION 10 SIGNALING AND STRESS RESPONSE

Chairperson: **Luca Scorrano**, University of Padova, Padova, Italy

Epigenetic regulation of mitochondrial stress response

Li-Wa Shao, Chengchuan Ma, Ying Liu [20'+10']

Presenter affiliation: Peking University, Beijing, China.

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Mitochondrial unfolded protein response in neurodegenerative diseases

Jane Wu [20'+10']

Presenter affiliation: Northwestern University, Chicago, Illinois.

The intercellular regulation of mitochondrial homeostasis and aging

Ye Tian [20'+10']

Presenter affiliation: Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China.

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Impaired mitochondrial ATP production downregulates Wnt signaling via ER stress induction

Roberto Costa, Roberta Peruzzo, Magdalena Bachmann, Andrea Mattarei, Enrico Moro, Ruben Quintana-Cabrera, Luca Scorrano, Massimo Zeviani, Mario Zoratti, Cristina Paradisi, Francesco Argenton, Marisa Brini, Tito Cali, Sirio Dupont, Ildiko Szabo, Luigi Leanza [10'+5']

Presenter affiliation: University of Padova, Padova, Italy.

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The core clock protein BMAL1 regulates antigen processing in dendritic cells by altering cellular calcium location to control mitochondrial morphology

Mariana P. Cervantes-Silva, Richard G. Carroll, Mieszko M. Wilk, James O. Early, George A. Timmons, Cathy Wyse, Kingston H. Mills, Francisco J. Sánchez-García, Annie M. Curtis [10'+5']

Presenter affiliation: Royal College of Surgeons in Ireland, Dublin, Ireland; Trinity College Dublin, Dublin, Ireland.

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Nuclear epigenetic reprogramming by developmental exposure to a mitochondrial toxicant

Oswaldo Lozoya, Fuhua Xu, Dagoberto Grenet, Tianyuan Wang, Sara Grimm, Veronica Godfrey, Suramya Waidyanatha, Richard Woychik, Janine Santos [10'+5']

Presenter affiliation: NIEHS, RTP, North Carolina.

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**Actin(g) on mitochondria—Role of the actin-binding proteins
cofilin1 and INF-2 for mitochondrial calcium regulation and
cellular resilience**

Lena Hoffmann, Marcel S. Waclawczyk, Eva-Maria Hanschmann,
Marco Rust, Carsten Culmsee [10'+5']
Presenter affiliation: University of Marburg, Marburg, Germany.

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BacFlash signals acid-resistance gene expression in bacteria

Di Wu, Wenfeng Qi, Zhengyuan Lu, Yongxin Ye, Jinghang Li, Tao
Sun, Heping Cheng, Xianhua Wang [20'+10']
Presenter affiliation: Peking-Tsinghua Center for Life Sciences,
Institute of Molecular Medicine, Peking University, Beijing, China.

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THURSDAY, November 14—6:00 PM

COCKTAILS and BANQUET

FRIDAY, November 15—9:00 AM

SESSION 11 MITOCHONDRIA IN CELL DEATH AND CANCER

Chairperson: **Paolo Bernardi**, University of Padova, Padova, Italy

Mitochondrial potassium channels control cell survival

Vanessa Checchetto, Luigi Leanza, Diego De Stefani, Rosario Rizzuto,
Fabio Di Lisa, Michael Edwards, Erich Gulbins, Andrea Mattarei,
Cristina Paradisi, Ildiko Szabo [20'+10']
Presenter affiliation: University of Padova, Padova, Italy.

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**A human iPSC-derived hepatocyte model reveals ferroptosis in
DGUOK mutant mtDNA depletion syndrome**

Xingguo Liu [10'+5']
Presenter affiliation: Guangzhou Institutes of Biomedicine and Health,
Chinese Academy of Sciences, Guangzhou, China.

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**Androgen-induced expression of DRP1 regulates mitochondrial
metabolic reprogramming in prostate cancer**

Yu Geon Lee, YeJi Nam, Kyeong Jin Shin, Young Chan Chae
[10'+5']
Presenter affiliation: Ulsan National University of Science and
Technology, Ulsan, South Korea.

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Decoding the role of glutaminolysis in developmental and tumor angiogenesis

Giovanna Pontarin, Roxana Oberkersch, Matteo Astone, Liasian Arslanbaeva, Marianna Spizzotin, Saverio Tardito, Massimo Santoro [10'+5']

Presenter affiliation: University of Padova, Padova, Italy.

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New mitochondrial pathways in apoptosis and pyroptosis

Judy Lieberman, Xing Liu, Winston Chang, Caroline Junqueira, Zhibin Zhang, Hao Wu [20'+10']

Presenter affiliation: Boston Children's Hospital, Harvard Medical School, Boston, Massachusetts.

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Granzyme B enters mitochondria in a Sam50, Tim22 and mtHsp70-dependent manner to induce apoptosis

Denis Martinvalet [10'+5']

Presenter affiliation: University of Padova, Padova, Italy; Veneto Institute of Molecular Medicine, Padova, Italy.

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A mitochondrial Ca²⁺ transient connects energy sensing to mitotic progression

Haixin Zhao, Teng Li, Kai Wang, Fei Zhao, Jiayi Chen, Guang Xu, Jie Zhao, Ting Li, Liang Chen, Lin Li, Qing Xia, Tao Zhou, Hui-Yan Li, Ai-Ling Li, Toren Finkel, Xue-Min Zhang, Xin Pan [10'+5']

Presenter affiliation: National Center of Biomedical Analysis, Beijing, China.

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Inhibition of the mitochondrial Fe²⁺ influx-CypD acetylation positive feedback loop decreases regulated neuronal necrosis and improves the outcome of intracerebral hemorrhage in mice

Weixiang Chen, Hua Feng [10'+5']

Presenter affiliation: Third Military Medical University (Army Medical University), Chongqing, China.

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Mitochondrial signaling to apoptosis and inflammation

Xiaodong Wang [20'+10']

Presenter affiliation: National Institute of Biological Sciences, Beijing, China.