

## PROGRAM

MONDAY, April 10—7:00 PM

### Welcome Remarks

**Peng Li**

Tsinghua University

### SESSION 1 SPECIAL OPENING SESSION

**Chairperson:** **Xiao-Wei Chen**, Peking University, Beijing, China

#### **E3 ligase MG53 and metabolic syndrome**

Yan Zhang, Fengxiang Lv, Xinli Hu, Rui-ping Xiao [20'+10']

Presenter affiliation: Peking University, Beijing, China.

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#### **Transcriptional control of lipid metabolism**

Peter Tontonoz, [20'+10']

Presenter affiliation: UCLA, Los Angeles, California.

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#### **Agilent Seahorse metabolic analyzers enable rapid, quantitative measurement of cellular bioenergetics**

Jiesi Wang, [20'+10']

Presenter affiliation: Agilent Technologies, Shanghai, China.

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TUESDAY, April 11—9:00 AM

### SESSION 2 CELLULAR LIPID TRAFFICKING AND CHOLESTEROL HOMEOSTASIS

**Chairperson:** **Will Prinz**, NIDDK, National Institutes of Health, Bethesda, Maryland, USA

### KEYNOTE SPEAKER

#### **Cholesterol transportation at lysosome and brush border membrane**

Bao-Liang Song, [35'+10']

Presenter affiliation: Wuhan University, Wuhan, China.

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<b>Structural insights into the Niemann-Pick C1 (NPC1)-mediated cholesterol transfer and Ebola infection</b> <u>Xin Gong</u> , Hongwu Qian, Xinhui Zhou, Jianping Wu, Tao Wan, George F. Gao, Qiang Zhou, Nieng Yan [10'+5'] Presenter affiliation: Tsinghua University, Beijing, China.	5
<b>Sterol transport by ORP/Osh and STARD proteins at contact sites—Role of metabolic energy and distance</b> <u>Guillaume Drin</u> , [20'+10'] Presenter affiliation: Université Côte d'Azur & CNRS, Valbonne, France.	6
<b>Coffee / Tea Break</b>	
<b>Lipid storage and trafficking in human metabolic disorders</b> <u>Hongyuan Yang</u> , [20'+10'] Presenter affiliation: University of New South Wales, Sydney, Australia.	7
<b>Two-year clinical follow-up of a familial hypercholesterolemia child diagnosed by clinical examination and DNA sequencing</b> <u>Hongwen Zhou</u> , [10'+5'] Presenter affiliation: the First Affiliated Hospital of Nanjing Medical University, Nanjing, China.	8
<b>Quantitative control of lipid transport by the CMRD gene SAR1B</b> <u>Xiao-Wei Chen</u> , [10'+5'] Presenter affiliation: Peking University, Beijing, China.	9
<b>Coming to grips with the greasy handle of a key cholesterol synthesis enzyme</b> <u>Andrew J. Brown</u> , [20'+10'] Presenter affiliation: UNSW, Sydney, Australia.	10
<b>OCT1 is a high capacity thiamine transporter regulating liver lipid metabolism</b> <u>Ligong Chen</u> , [10'+5'] Presenter affiliation: Tsinghua University, Beijing, China.	11

**SESSION 3**      **POSTER SESSION**

- Ontogenetic metabolome and transcriptome changes in human, rhesus macaque and mouse prefrontal cortex**  
Hindrike Bammann, Masahiro Sugimoto, Masaru Tomita, Xi Jiang, Philipp Khaitovich  
Presenter affiliation: CAS-MPG Partner Institute for Computational Biology, Chinese Academy of Sciences, Shanghai, China; Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany. 12
- The Ral GAP complex as a molecular brake in insulin action**  
Jia Lu, Huan Fang, Han Gao, Xiao-Wei Chen  
Presenter affiliation: Peking University, Beijing, China. 13
- Genome-wide identification of novel regulators in the differentiation of hPSCs into human hepatocytes**  
Shuang Li, Mushan Li, Yuanyuan Yang, Yanhao Chen, Zhen Shao, Qiorong Ding  
Presenter affiliation: Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China. 14
- Genetic architecture of visceral fat deposition in a chicken model**  
Zhi-Qiang Du, Ning Wang, Hui Li  
Presenter affiliation: Key Laboratory of Chicken Genetics and Breeding, Ministry of Agriculture, Harbin, China; Key Laboratory of Animal Genetics, Breeding and Reproduction, Harbin, China; College of Animal Science and Technology, Northeast Agricultural University, Harbin, China. 15
- Coupling of mitochondrial function and skeletal muscle fiber type by a miR-499/Fnrip1/AMPK circuit**  
Jing Liu, Xijun Liang, Danxia Zhou, Ling Lai, Liwei Xiao, Lin Liu, Tingting Fu, Yan Kong, Qian Zhou, Rick B. Vega, Min-Sheng Zhu, Daniel P. Kelly, Xiang Gao, Zhenji Gan  
Presenter affiliation: State Key Laboratory of Pharmaceutical Biotechnology and MOE Key Laboratory of Model Animals for Disease Study, Nanjing, China. 16

- MEK-ERK signaling regulates adipose tissue lipolysis and insulin sensitivity by phosphorylating  $\beta$ 3-adrenergic receptor**  
Shangyu Hong, Alexander S. Banks  
 Presenter affiliation: Harvard Medical School, Boston, Massachusetts. 17
- Hepatic KLF2 regulates lipids metabolism in obese mice**  
Yuhong Huang,  
 Presenter affiliation: Chinese University of Hong Kong, Hong Kong. 18
- Ultraviolet-induced loss of subcutaneous fat may lead to the deterioration of skin function**  
Eun Ju Kim, Yeon kyung Kim, Sungsoo Kim, Ji Eun Kim, Yu Dan Tian, Dong Hun Lee  
 Presenter affiliation: Seoul National University College of Medicine, Seoul, South Korea; Seoul National University Hospital, Seoul, South Korea; Seoul National University, Seoul, South Korea. 19
- Anacardic acid reduces lipogenesis in human differentiated adipocytes via inhibition of histone acetylation**  
Min-Kyoung Kim, Eun Ju Kim, Yeon Kyung Kim, Dong Hun Lee, Jin Ho Chung  
 Presenter affiliation: Seoul National University College of Medicine, Seoul, South Korea; Seoul National University Hospital, Seoul, South Korea; Seoul National University, Seoul, South Korea. 20
- IL-10-producing iNKT cells prevent obesity-induced hepatitis in a C-C chemokine receptor 7-dependent manner**  
 Jae-Hee Ahn, Hong Min Kim, Bo Ra Lee, Eun-Hye Hong, Eun-Kyeong Park, Jae-won Cho, Sung-Hoon Ahn, ChoonHee Chung, Hyun-Jeong Ko  
 Presenter affiliation: Kangwon National University, Chuncheon, South Korea. 21
- C1q/TNF-related protein 6 links obesity to adipose tissue inflammation and insulin resistance**  
Xia Lei, Marcus M. Seldin, Hannah C. Little, Nicholas Choy, Thomas Klönisch, G. William Wong  
 Presenter affiliation: The Johns Hopkins University School of Medicine, Baltimore, Maryland. 22
- Changes in lipidome composition during brain development in humans, chimpanzees, and macaque monkeys**  
Qian Li, Katarzyna Bozek, Chuan Xu, Yanan Guo, Patrick Gialvalisco, Philipp Khaitovich  
 Presenter affiliation: CAS-MPG Partner Institute for Computational Biology, Shanghai, China. 23

- Cholesterol esterifying subdomains of the endoplasmic reticulum**  
Shigian Li, Veijo T. Salo, Johan Peränen, Elina Ikonen  
 Presenter affiliation: University of Helsinki, Helsinki, Finland; Minerva Foundation, Helsinki, Finland. 24
- High carbohydrate diet is associated with de novo lipogenesis and the development of NAFLD**  
 Xuelian Xiong, Yan Lu, Xiaoying Li  
 Presenter affiliation: Zhongshan Hospital affiliated Fudan University, Shanghai, China. 25
- Saturated fatty acid induces inflammation and myocardial inflammatory injuries through direct binding to TLR4 accessory protein MD2**  
 Yi Wang, Lintao Wang, Yali Zhang, Zheng Xu, Guang Liang  
 Presenter affiliation: Wenzhou Medical University, Wenzhou, China. 26
- Ghrelin receptor deletion in AgRP neurons mitigates diet-induced obesity by activating thermogenesis**  
Ligen Lin, Chia-Shan Wu, Jong Han Lee, Allison W. Xu, Yong Xu, Yuxiang Sun  
 Presenter affiliation: University of Macau, Taipa, Macau; Baylor College of Medicine, Houston, Texas. 27
- 5-HT2C receptors in brainstem neurons regulate glucose homeostasis**  
Tiemin Liu, Ting Yao, Jia Sun, Kevin Williams, Joel Elmquist  
 Presenter affiliation: Harbin Medical University, Harbin, China; UT Southwestern Medical Center, Dallas, Texas. 28
- An N-end rule-mediated proteasomal degradation of ATGL promotes lipid storage**  
Zhenglong Liu, Wei Wang, Xuefan Zhao, Mei Zhen, Xun Huang  
 Presenter affiliation: State Key Laboratory of Molecular and Developmental Biology, Beijing, China; University of Chinese Academy of Sciences, Beijing, China. 29
- A MARCH6 and IDOL E3 ubiquitin ligase circuit uncouples cholesterol synthesis from lipoprotein uptake in hepatocytes**  
Anke Loregger-Wiesmann, Emma Cook, Jessica Nelson, Martina Morton, Laura Sharpe, Susanna Engberg, Madina Karimova, Gilles Lambert, Andrew Brown, Noam Zelcer  
 Presenter affiliation: Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands. 30

- RNA binding protein QKI is a novel regulator in adipose energy homeostasis by forming a negative-feedback loop with Pgc1 $\alpha$  related signaling**  
 Huanyu Lu, Zichen Ye, Jingyuan Chen, Zifan Lu  
 Presenter affiliation: 4th Military Medical University, Xian, China. 31
- Overexpression of calreticulin induces Resistin-like  $\alpha$  overexpression and metabolic syndrome**  
 Rashmi Kulkarni, Nasrin Mesaeli  
 Presenter affiliation: Weill Cornell Medicine Qatar, Doha, Qatar. 32
- The free fatty acid receptor GPR84—A new player in glucose tolerance and mitochondrial function?**  
Magdalene K. Montgomery, Amanda E. Brandon, Liam O'Reilly, Brenna Osborne, Corrine E. Fiveash, Simon H. Brown, Nicola J. Smith, Todd W. Mitchell, Trevor J. Biden, Gregory J. Cooney, Nigel Turner  
 Presenter affiliation: University of New South Wales, Sydney, Australia; Monash University, Melbourne, Australia. 33
- Discovering new metformin regulated metabolic pathways through metabolomics and lipidomics**  
 Min Yan, Wen Wang, Hai-long Piao  
 Presenter affiliation: Scientific Research Center for Translational Medicine, Dalian, China; Key Laboratory of Separation Science for Analytical Chemistry, Dalian, China; University of Chinese Academy of Sciences, Beijing, China. 34
- Docosahexaenoic acid reduces expression of sterol regulatory element binding protein-1 and fatty acid synthase expression and inhibits cell proliferation by inhibiting pAkt signaling in a human breast cancer cell line**  
Hui-Min Su, Li-Syuan Huang, Hsin-Yun Chung  
 Presenter affiliation: National Taiwan University, Taipei, Taiwan. 35
- CIDE proteins facilitate SCAP Endoplasmic Reticulum budding to promote SREBP maturation**  
Lu Su, Hui Qian, Linkang Zhou, Yuanyuan Sheng, Feng-Jung Chen, Huimin Wang, Xiaowei Chen, Peng Li  
 Presenter affiliation: MOE key laboratory of Bioinformatics and Tsinghua-Peking Center for Life Sciences, Beijing, China. 36

**Leucine catabolites promote adipogenesis**

Jing Shao, Meiyi Zhou, Jiayu Yu, Weibing Dong, Yunxia Liu, Haipeng Sun

Presenter affiliation: Shanghai Jiao Tong University School of Medicine, Shanghai, China.

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**Inter-organ communication—Muscle aging driven by Cisd2 deficiency regulates the homeostasis of adipose tissues**

Yuan-chi Teng, Chia-Yu Wu, Yi-Fan Chen, Ting-Fen Tsai

Presenter affiliation: National Yang-Ming University and Academia Sinica, Taipei, Taiwan.

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**Dissecting the role of the unfolded protein response during lipid perturbation**

Guillaume Thibault,

Presenter affiliation: Nanyang Technological University, Singapore.

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**GSK3 activity is involved in the regulation of adipogenesis, energy metabolism and insulin action in adipocytes in *vitro* and obesity associated metabolic disorders in *vivo***

Li Wang, Zhiqiang Zhao, Lijun Di

Presenter affiliation: University of Macau, Macau, Macau.

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**The hypoxia-inducible factor 1 $\alpha$ -lysophosphatidylcholine axis orchestrates homocysteine-mediated activation of the adipocyte NLRP3 inflammasome**

Xian Wang, Yongqiang Dong, Changtao Jiang

Presenter affiliation: Peking University, Beijing, China.

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**Macrophage IRE1 $\alpha$  links metabolic ER stress to energy imbalance in obesity**

Xiaoxia Wang, Bo Shan, Ying Wu, Yong Liu

Presenter affiliation: SIBS, Chinese Academy of Sciences, Shanghai, China.

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**Effects of adipose tissue-specific GHR knockout on the lipid metabolism in mice**

Xiaoshuang Wang, Xiangdong Liu, Shuang Wang, Liyuan Ran, Yingjie Wu

Presenter affiliation: Dalian Medical University, Dalian, China.

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- Integrative analyses of translome and transcriptome reveal important translational controls in brown and white adipose regulated by microRNAs**  
David W. Reid, Dan Xu, Hongyuan Yang, Lei Sun  
Presenter affiliation: Duke-NUS Medical School, Singapore. 44
- Narciclasine attenuates diet-induced obesity by promoting oxidative metabolism in skeletal muscle**  
Sofi G. Julien, Feng Xu  
Presenter affiliation: Singapore Institute for Clinical Sciences, Singapore. 45
- Carboxylesterase 1 deficiency protects against atherosclerosis in Ldlr<sup>-/-</sup> mice**  
Jiesi Xu, Yang Xu, Liya Yin, Yanqiao Zhang  
Presenter affiliation: Institute of Genetics and Developmental Biology Chinese Academy of Sciences, Beijing, China; Northeast Ohio Medical University, Rootstown, Ohio. 46
- Anhydrocaritin improves diet-induced obesity and alleviates insulin resistance by suppressing SREBPs**  
Zuguo Zheng, Yaping Zhou, Huijun Li, Xiaojun Xu  
Presenter affiliation: China Pharmaceutical University, Nanjing, China. 47
- Long-term impairment of calcium signaling promotes *Drosophila* obesity**  
Yanjun Xu, Ronald P. Kuehnlein  
Presenter affiliation: Max Planck Institute for Biophysical Chemistry, Goettingen, Germany. 48
- Phosphatidylserine synthetase regulates lipid storage and cell size**  
Xiao Yang, Xia Li, Xun Huang  
Presenter affiliation: State Key Laboratory of Molecular Developmental Biology, Beijing, China; Institute of Genetics and Developmental Biology, Beijing, China. 49
- MST1 is a novel regulator in hepatic lipid and glucose homeostasis**  
Li F. Jia, Wang M. Li, Yansong M. Luan, Hanyu F. Li, Jianning M. Li, Lirong F. Ma, Hui M. Song, Yan M. Li, Bo M. Sun, Peng F. Zhang, Wufan M. Tao, Yi F. Yang  
Presenter affiliation: Basical Medicine College, Ningxia Medical University, YInChuan, China. 50



**Identification of a novel regulator of cholesterol metabolism with therapeutic potential for cardiovascular disease**

Eser J. Zerenturk, Thomas Q. Vallim, Benjamin L. Parker, Elizabeth J. Tarling, Yingying Liu, Michael F. Keating, Ross Lazarus, Calvin Pan, Marcus Seldin, Marcio Almeida, Juan Peralta, Joanne E. Curran, John Blangero, Peter J. Meikle, David E. James, Aldons J. Lusis, Brian G. Drew, Anna C. Calkin

Presenter affiliation: Baker Heart and Diabetes Institute, Melbourne, Australia.

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**PET/CT and SPECT/CT based identification of rodent BAT and beige depots—Image guided exploration of human-like thermogenic tissues in mice**

Fang Zhang, Guiyang Hao, Mengle Shao, Gedaa Hassan, Yu An, Qiong Wang, Christine M. Kusminski, Kien Nham, Rana K. Gupta, Qiwei Zhai, Orhan Oz, Philipp E. Scherer

Presenter affiliation: Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China; The University of Texas Southwestern Medical Center, Dallas, Texas.

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**Heat treatment and exercise prevents skeletal muscle insulin resistance in Wistar rats fed high-fat diet**

Jiexiu Zhao, Fei Qin, Minxiao Xu, Chaoyi Qu, Zhongwei Wang, Yanan Dong

Presenter affiliation: China Institute of Sport Science, Beijing, China.

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**MetAP2 inhibition attenuates de novo lipogenesis in HFD-induced DIO mice—An in vivo fatty acid and albumin production-tracing study using D2O water**

Haixia Zou, Jianfeng Xu, Huachuan Cao, Zheng Huang

Presenter affiliation: Lilly China Research and Development Center, Shanghai, China.

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TUESDAY, April 11—4:30 PM

**Chinese Tea and Beer Tasting**

**SESSION 4** ADIPOSE TISSUE AND ADIPOKINES

**Chairperson:** **Jun Liu**, Mayo Clinic College of Medicine, Scottsdale, Arizona, USA

**Adiponectin/T-cadherin system exerts vascular protection and exosome biogenesis**

Ichiro Shimomura, [20'+10']

Presenter affiliation: Osaka University, Medical School, Osaka, Japan. 55

**The brown fat-enriched secreted factor Nrg4 is an endocrine checkpoint for NASH progression**

Guo-xiao Wang, Liang Guo, Jiandie Lin [20'+10']

Presenter affiliation: University of Michigan, Ann Arbor, Michigan. 56

**Brown fat dysfunction induces skeletal muscle myopathy via an IRF4-myostatin-mediated pathway**

Xingxing Kong, Tiemin Liu, Evan Rosen [10'+5']

Presenter affiliation: HMS-BIDMC, Boston, Massachusetts. 57

***Coffee / Tea Break***

**BMP4 cross-talks with estrogen/ER $\alpha$  signaling to regulate adiposity and glucose metabolism in females**

Qi-Qun Tang, Shu-Wen Qian, Yan Tang [20'+10']

Presenter affiliation: Key Lab of Metabolism and Molecular Medicine, Ministry of Education, Shanghai, China. 58

**Signaling functions of adipocyte-originated fatty acid derivatives**

Xiong Su, [10'+5']

Presenter affiliation: Soochow University Medical College, Suzhou, China. 59

**The adipocyte—Impact on systemic energy homeostasis**

Philipp E. Scherer, [20'+10']

Presenter affiliation: University of Texas Southwestern Medical Center, Dallas, Texas. 60

**SESSION 5**      LIPID SYNTHESIS AND STORAGE

**Chairperson:**    **Pingsheng Liu**, Institute of Biophysics, CAS, Beijing, China

**How we deal with excess metabolic energy**

Robert V. Farese, Tobias C. Walther [20'+10']

Presenter affiliation: Harvard T.H. Chan School of Public Health, Boston, Massachusetts.

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**FOXA/PHA-4 mediated lipogenesis links nucleolus stress to fat accumulation in *Caenorhabditis elegans***

Jieyu Wu, Xue Jiang, Bin Liang [10'+5']

Presenter affiliation: Key Laboratory of Animal Models and Human Disease Mechanisms of the Chinese Academy of Sciences and Yunnan Province, Kunming, China.

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**Chaperone-dependent coordination of nutrient sensing and energy metabolism by mTORC2**

Fangfang Sun, Suneng Fu [10'+5']

Presenter affiliation: Tsinghua University, Beijing, China.

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**The biology and mechanism of lipid storage**

Peng Li, [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

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***Coffee / Tea Break***

**Role for formin-like 1-dependent acto-myosin assembly in lipid droplet dynamics and lipid storage**

Simon G. Pfisterer, Gergana Gateva, Peter Horvath, Juho Pirhonen, Veijo T. Salo, Leena Karhinen, Markku Varjosalo, Samppa J. Ryhänen, Pekka Lappalainen, Elina Ikonen [20'+10']

Presenter affiliation: University of Helsinki, Helsinki, Finland; Minerva Foundation Institute for Medical Research, Helsinki, Finland.

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**Growth hormone receptor plays a key role in the pathogenesis of nonalcoholic fatty liver disease**

Dong Yu, Xiaoxin Wang, Yan Liu, Jin Wu, Rujiao Jiang, Yingjie Wu [10'+5']

Presenter affiliation: Dalian Medical University, Dalian, China.

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**Regulation of hepatic lipogenesis by the zinc finger protein ZBTB20**

Gan Liu, Luting Zhou, Hai Zhang, Rong Chen, Yu-Xia Chen, Weiping Zhang [10'+5']

Presenter affiliation: Second Military Medical Univeristy, Shanghai, China.

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**Lipid droplet budding from the ER**

Will Prinz, [20'+10']

Presenter affiliation: NIH/NIDDK, Bethesda, Maryland.

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**Hypolipidemic effect of oleanolic acid is mediated by the miR-98-5p/PGC-1 $\beta$  axis in high-fat diet-induced hyperlipidemic mice**

Siyu Chen, Xiaon Wen, Wenxiang Zhang, Chen Wang, Jun Liu, Chang Liu [10'+5']

Presenter affiliation: State Key Laboratory of Natural Medicines, Nanjing, China; China Pharmaceutical University, Nanjing, China; Nanjing Normal University, Nanjing, China

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WEDNESDAY, APRIL 12—1:30 PM

**Visit to Old Suzhou**

WEDNESDAY, April 12—7:00 PM

**SESSION 6** LIPID SYNTHESIS, SIGNALLING, ATHEROSCLEROSIS AND CANCER

**Chairperson:** **Xingxing Kong**, Harvard Medical School, BIDMC, Boston, Massachusetts, USA

**A critical role for lipin proteins in intestinal lipid synthesis and chylomicron formation**

Karen Reue, [20'+10']

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

70

**TIP60-mediated lipin 1 acetylation links fatty acid sensing to adiposity**

Sheng-Cai Lin, [20'+10']

Presenter affiliation: Xiamen University, Xiamen, China.

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**Pharmaceutical inhibition of MEK/ERK cascade alleviates tumor-induced systemic metabolic abnormalities**

Wei Song, Shangyu Hong, Alexander Banks, Norbert Perrimon  
[10'+5']

Presenter affiliation: Harvard Medical School, Boston, Massachusetts. 72

**Coffee / Tea Break**

**Generation of human-like small rodent models for dyslipidemic and atherosclerotic studies—CRISPR/Cas9 mediated gene targeting of Syrian golden hamsters**

Guoqing Liu, [20'+10']

Presenter affiliation: Peking University, Beijing, China. 73

**Abiraterone metabolism and its clinical implication in prostate cancer therapy**

Zhenfei Li, [10'+5']

Presenter affiliation: Chinese Academy of Sciences, Shanghai, China. 74

**Downregulation of RNF20 promotes tumorigenesis through SREBP1c-mediated lipogenesis and cell cycle regulation in kidney cancer**

Jae H. Lee, Yong G. Jeon, Hagoon Jang, Jae B. Kim [20'+10']

Presenter affiliation: Seoul National University, Seoul, South Korea. 75

THURSDAY, April 13—9:00 AM

**SESSION 7** HEPATOCYTES, NAFLD AND LIPOLYSIS

**Chairperson:** **Li Qiang**, Columbia University, New York, New York, USA

**Regulators of lipid metabolism in NAFLD**

Jay D. Horton, [20'+10']

Presenter affiliation: UT Southwestern, Dallas, Texas. 76

**Gut-derived signaling orchestrates non-alcoholic fatty liver disease**

Changtao Jiang, Cen Xie, Frank Gonzalez, Xian Wang [10'+5']

Presenter affiliation: Peking University, Beijing, China. 77

**Genetic regulation of proteome and lipidome diversity and its contribution to hepatic lipid accumulation in mice**

Thomas Q. de Aguiar Vallim, Benjamin L. Parker, Elizabeth J. Tarling, Michael F. Keating, Eser J. Zerenturk, Marcus Seldin, Calvin Pan, Marcio A. Almeida, Juan M. Peralta, Joanne E. Curran, John Blangero, Natalie A. Mellet, Ross Lazarus, Aldons J. Lusis, Peter J. Meikle, David E. James, Brian G. Drew, Anna C. Calkin [10'+5']

Presenter affiliation: Baker Heart and Diabetes Institute, Melbourne, Australia.

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**An N-end rule-mediated proteasomal degradation of ATGL promotes lipid storage**

Zhenglong Liu, Wei Wang, Xuefan Zhao, Mei Zhen, Xun Huang [20'+10']

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

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***Coffee / Tea Break***

**Role of hepatokines in linking fatty liver to diabetes**

Matthew J. Watt, Magda K. Montgomery, Ruth C. Meex [20'+10']

Presenter affiliation: Monash University, Melbourne, Australia.

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**Distinctive effects of metformin and mitochondrial glycerol-3-phosphate dehydrogenase inhibitor on mitochondrial activities and gluconeogenesis in mouse primary hepatocytes**

Yang Li, SongTing Shi, Xiaoyun Jia, Qinghua Meng, Guirui Yan, Koc-Kan Ho, James X. Rong [10'+5']

Presenter affiliation: Lilly China R&D Center, Shanghai, China.

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**Lipolytic control and adaptive response of cancer cells to hypoxia**

Jun Liu, [20'+10']

Presenter affiliation: Mayo Clinic College of Medicine, Scottsdale, Arizona.

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**Mice deficient in brown fat lipolysis are not cold sensitive**

Hyunsu Shin, Yinyan Ma, Bingzhong Xue, Hang Shi, Oksana Gavrilova, Liqing Yu [20'+10']

Presenter affiliation: University of Maryland, College Park, Maryland; Georgia State University, Atlanta, Georgia.

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THURSDAY, April 13—2:00 PM

**SESSION 8** ADIPOGENESIS AND ADIPOCYTES

**Chairperson:** **Haipeng Sun**, Shanghai Jiao Tong University School of Medicine, Shanghai, China

**Dynamic transcriptome changes in adipose tissue during obesity reveal critical roles of lncRNA regulators**

Lei Sun, [20'+10']

Presenter affiliation: Duke-NUS Graduate Medical School, Singapore. 84

**Crosstalk between IKK $\beta$  and Wnt/ $\beta$ -catenin signaling regulates adipogenesis and osteogenesis in mesenchymal stem cells**

Changcheng Zhou, [10'+5']

Presenter affiliation: University of Kentucky, Lexington, Kentucky. 85

**Non-thermogenic functions of brown/beige adipocytes**

Biao Wang, [10'+5']

Presenter affiliation: University of California, San Francisco, San Francisco, California. 86

**Rewiring of the 3D chromatin structure during adipocyte differentiation**

Susanne Mandrup, [20'+10']

Presenter affiliation: University of Southern Denmark, Odense, Denmark. 87

THURSDAY, April 13—4:00 PM

**SESSION 9** SIGNALLING AND INFLAMMATION

**Chairperson:** **Suneng Fu**, Tsinghua University, Beijing, China

**The role of mitochondrial stress-activated cGAS/STING signaling pathway in obesity-induced inflammation and insulin resistance**

Juli bai, Christopher Cervantes, Huan Cai, Meilian Liu, Lily Dong, Feng Liu [20'+10']

Presenter affiliation: University of Texas Health, San Antonio, Texas; Central South University, Changsha, China. 88

**Crosstalk among innate immunity, autophagy and energy metabolism**

Qing Zhong, Yueguang Rong [20'+10']

Presenter affiliation: UT Southwestern Medical Center, Dallas, Texas. 89

**The chameleon role TLR4 in lipid-induced macrophage inflammation**

Mark A. Febbraio, [20'+10']

Presenter affiliation: Garvan Institute of Medical Research, Sydney, Australia. 90

THURSDAY, APRIL 13—6:00 PM

**Poster Awards**

Hosted by

**Peng Li, Peter Tontonoz, Tobias Walter, Hongyuan Yang**

**COCKTAILS and BANQUET**

FRIDAY, April 14—9:00 AM

**SESSION 10** NEURONAL REGULATION OF METABOLISM

**Chairperson:** **Tiemin Liu**, Harbin Medical University, Harbin, China

**KEYNOTE SPEAKER**

**Leptin and the regulation of food intake and body weight**

Jeffrey M. Freidman, [35'+10']

Presenter affiliation: Rockefeller University, New York, New York. 91

**Disruption of Grb10 in Pomc neurons improves energy homeostasis by promoting beigeing and energy expenditure**

Fang Hu, Hailan Liu, Feng Liu [10'+5']

Presenter affiliation: the Second Xiangya Hospital of Central South University, Changsha, China. 92



**A hypothalamic circuit that controls body temperature**

Wen Yang, Qian Zhou, Wei Shen [10'+5']

Presenter affiliation: ShanghaiTech University, Shanghai, China. 93

**IRE1α/XBP1s in Pomc neurons connects ER stress with energy balance and glucose homeostasis**

Ting Yao, Yong Gao, Yiru Huang, Jia Sun, Zhenyan He, Tiemin Liu, Kevin W. Williams [10'+5']

Presenter affiliation: UT Southwestern Medical Center, Dallas, Texas. 94

**Lipoprotein lipase maintains microglial innate immunity in obesity**

Yuanqing Gao, Andrés Vidal-Itriago, Martin J. Kalsbeek, Clarita Layritz, Cristina García-Cáceres, Thomas O. Eichmann, Frédéric M. Vaz, Riekelt H. Houtkooper, Nicole van der Wel, Arthur J. Verhoeven, Andries Kalsbeek, Robert H. Eckel, Matthias H. Tschöp, Chun-Xia Yi [10'+5']

Presenter affiliation: Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands. 95

FRIDAY, April 14—11:00 AM

**SESSION 11**      OMICS AND TECHNOLOGIES

**Chairperson:**      **Hongyuan Yang**, University of New South Wales, Australia

**Natural variation of blood plasma lipids in healthy Asian individuals**

Markus R. Wenk, [20'+10']

Presenter affiliation: National University of Singapore, Singapore. 96

**Towards ultrasensitive quantitative metabolomic phenotyping for mammals**

Huiru Tang, Yulan Wang [10'+5']

Presenter affiliation: Fudan University, Shanghai, China. 97

**Omic studies reveal the pathogenic lipid droplet proteins**

Pingsheng Liu, [20'+10']

Presenter affiliation: Institute of Biophysics, Beijing, China. 98

**Concluding Remarks**