

PROGRAM

MONDAY, December 4—7:00 PM

Welcome and Introduction

Maoyen Chi
CSH-Asia

KEYNOTE SPEAKER

Introduction by: Gen-Sheng Feng, University of California, San Diego

Inder M. Verma [35'+10']
The Salk Institute, La Jolla, California

“Cancer stem cells—Learning from gliomas” 1

MONDAY, December 4—8:00 PM

SESSION 1 LIVER INJURIES AND REGENERATION

Chairpersons: **David Brenner**, University of California-San Diego, La Jolla, California, USA
Xin Chen, University of California-San Francisco, San Francisco, California, USA

Roles of hepatic non-parenchymal cells for liver fibrosis

Minoru Tanaka, Michitaka Matsuda, Eiko Saijyo, Tomoki Yagai,
Atsushi Miyajima [20'+10']
Presenter affiliation: University of Tokyo, Tokyo, Japan. 2

Mfsd2a+ hepatocytes repopulate the liver during injury and regeneration

Wenjuan Pu, Bin Zhou [20'+10']
Presenter affiliation: Chinese Academy of Sciences, Shanghai, China. 3

YAP determines the cell fate of injured mouse hepatocytes in vivo

Hiroshi Nishina [10'+5']

Presenter affiliation: Tokyo Medical and Dental University, Tokyo, Japan.

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Pericentral hepatocytes produce IGF-2 to promote liver regeneration during chronic injuries

Pengyu Huang [10'+5']

Presenter affiliation: ShanghaiTech University, Shanghai, China.

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TUESDAY, December 5—9:00 AM

SESSION 2 MECHANISMS AND GENOMICS OF HCC

Chairpersons: **Atsushi Miyajima**, University of Tokyo, Tokyo, Japan
Fu-Sheng Wang, Beijing 302 Hospital, Beijing, China

NADPH oxidase 1 promotes the development of hepatocellular carcinoma.

David A. Brenner, Hsiao-Yen Ma, Jun Xu, Cuili Zhang, Xiao Liu, Tatiana Kisseleva [20'+10']

Presenter affiliation: UC San Diego, La Jolla, California.

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Focal liver inflammation and HCC

Einat Cinnamon, Ela Nazirov, Shlomi Finkin, Mathias Heikenwelder, Ilan Stein, Eli Pikarsky [20'+10']

Presenter affiliation: Hebrew University-Hadassah Medical School, Jerusalem, Israel.

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IRAK1 augments cancer stemness and drug resistance via the AP-1/AKR1B10 signaling cascade in hepatocellular carcinoma

Bowie Lik Ling Cheng, Irene Oi Lin Ng, Terence Kin Wah Lee [10'+5']

Presenter affiliation: Hong Kong Polytechnic University, Hong Kong, Hong Kong.

8

Liver cancer model repository defines the pharmacogenomic landscape in liver cancers

Zhixin Qiu, Hong Li, Zhengtao Zhang, Zhenfeng Zhu, Sheng He, Pengcheng Wang, Jin Cen, Xiaowu Huang, He Zhou, Zhigang Zhang, Zhiqiang Meng, Haibin Zhang, Yixue Li, Lijian Hui [10'+5']

Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

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Coffee / Tea Break

Genomics of liver tumors—Identification of new risk factors

Jessica Zucman-Rossi [20'+10']

Presenter affiliation: INSERM U674, Paris, France.

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Biological and clinical impacts of intertumor and intratumor heterogeneity in liver cancer

Xin W. Wang [20'+10']

Presenter affiliation: National Cancer Institute, Bethesda, Maryland.

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Protein methyltransferase PRMT6 regulates cancer stemness through CRAF arginine methylation in hepatocellular carcinoma

Lok-Hei Chan, Lei Zhou, Kai-Yu Ng, Tin-Lok Wong, Terence K. Lee, Xin-Yuan Guan, Yick-Pang Ching, Yun-Fei Yuan, Dan Xie, Stephane Richard, Michael Huen, Stephanie Ma [10'+5']

Presenter affiliation: University of Hong Kong, Hong Kong.

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TUESDAY, December 5—2:00 PM

SESSION 3 POSTER SESSION

Exploration for the heterogeneity of mature hepatocytes by single cell qRT-PCR from the viewpoint of ploidy status

Kazunori Hosaka, Takeshi Katsuda, Shuji Terai, Takahiro Ochiya

Presenter affiliation: National Cancer Center Research Institute, Tokyo, Japan; Niigata University Medical and Dental Hospital, Niigata, Japan.

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Genome-wide DNA methylation analysis identifies candidate epigenetic markers and drivers of hepatocellular carcinoma

Qiangian Huang, Jin Gu

Presenter affiliation: Tsinghua University, Beijing, China.

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TUG1 regulates HCC progression and tumorigenesis via PRKCI

Xiaoqi Huo, Shuanglin Han, Liang Qiao

Presenter affiliation: The Westmead Institute for Medical Research, The University of Sydney, Westmead, Australia.

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- Development of a human liver model using iPSC-derived parenchymal and non-parenchymal cells**
Yuta Kouji, Taketomo Kido, Hiroki Oyama, Shin-Wei Chen, Atsushi Miyajima
 Presenter affiliation: The University of Tokyo, Tokyo, Japan. 16
- Arid1a-dependent chromatin “preaccessibility” orchestrates hepatocyte plasticity in liver regeneration**
Weiping Li, Liguang Yang, Qiang He, Linying Zhu, Xiaolong Ma, Xin Deng, Xuanyan Ma, Jin Cen, Shujie Bao, Chaobo Hu, Zhong Wang, Hong Li, Xin Zhang, Lei Zhang, Yixue Li, Weifen Xie, Lijian Hui
 Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences, Shanghai, China. 17
- Utilization of multiple datasets to analyze altered metabolic gene pathways in hepatocellular carcinoma**
Qiuyu Lian, Jin Gu
 Presenter affiliation: Tsinghua University, Beijing, China. 18
- Telomerase-expressing distributed hepatocyte stem cells repopulate the liver during homeostasis and injury**
Shengda Lin, Elisabete M. Nascimento, Chandresh Gajera, Lu Chen, Alina Garbuzov, Sui Wang, Steven E. Artandi
 Presenter affiliation: Stanford University, Stanford, California. 19
- Prospective isolation and characterization of the mouse peribiliary gland (PBG)-forming cell based on TROP2 expression.**
Satoshi Matsui, Atsushi Miyajima, Minoru Tanaka
 Presenter affiliation: The University of Tokyo, Tokyo, Japan; National Center for Global Health and Medicine, Tokyo, Japan 20
- Reprogrammed hepatocyte-derived organoids as an ex vivo liver cancer model**
Lulu Sun, Zhengtao Zhang, Zhixin Qiu, Jin Cen, Weiping Li, Xiaolong Ma, Jian-Yun Ge, Daisuke Sako, Nobuhiro Ohkohchi, Min du, Yuan ji, Yun-Wen Zheng, Lijian Hui
 Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China. 21
- Loss of MOAP-1 protects mice from Fas-induced hepatocellular apoptosis and acute liver injury**
Chong Teik Tan, Qi-Ling Zhou, Yu-Chin Su, Nai Yang Fu, Hao-Chun Chang, Ran N. Tao, Sunil K. Sukumaran, Shairaz Baksh, Yee-Joo Tan, Kanaga Sabapathy, Chun-Dong Yu, Victor C. Yu
 Presenter affiliation: National University of Singapore, Singapore. 22

- Development of humanized nonalcoholic steatohepatitis model using chimeric mice with highly repopulated humanized livers**
 Go Sugahara, Yuji Ishida, Yasumi Yoshizane, Suzue Furukawa, Michinori Kohara, Chise Tateno
 Presenter affiliation: PhoenixBio Co., Ltd., Higashihiroshima, Japan; Hiroshima University, Hiroshima, Japan. 23
- HIF/CD39L1 maintains myeloid-derived suppressor cells (MDSCs) in liver cancer**
 David Kung-Chun Chiu, Irene Oi-Lin Ng, Carmen Chak-Lui Wong
 Presenter affiliation: The University of Hong Kong, Hong Kong. 24
- Epigenomic profiling of primary hepatocellular carcinoma reveals super-enhancer-associated chromatin regulator network**
Liangliang Xu, Feng Wu, Otto K.W. Cheung, Lemuel L.M. Szeto, Myth T.S. Mok, Alfred S.L. Cheng
 Presenter affiliation: School of Biomedical Sciences, Hong Kong SAR, Hong Kong. 25
- SOX9 is a crucial transcription factor determining cholangiocarcinoma resistance to chemotherapy**
Xiaodong Yuan, Jun Li, Cédric Coulouarn, Steven Dooley, Hong-Lei Weng
 Presenter affiliation: Medical Faculty Mannheim, Mannheim, Germany. 26
- The generation of liver-humanized rats using *Fah⁺Rag2⁻IL2rg⁻* rats**
Ludi Zhang, Kun Zhang, Yanjiao Shao, Jin Cen, Xiaotao Chen, Dali Li, Lijian Hui
 Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China. 27

TUESDAY, December 5—4:30 PM

Chinese Tea and Beer Tasting

SESSION 4 LIVER FIBROSIS AND DISORDERS

Chairpersons: **Xin-Yuan Guan**, University of Hong Kong, Hong Kong
Lars Zender, University Hospital Tübingen,
Tübingen, Germany

Injury responses in the liver

Markus Grompe, Craig Dorrell, Bin Li [20'+10']

Presenter affiliation: Oregon Health & Science University, Portland,
Oregon.

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Chronic liver injuries induce the reprogramming of CK19⁺ biliary epithelial cells to hepatocytes

Xing Deng, Xin Zhang, Wei-Ping Li, Ren-Xin Feng, Lu Li, Gui-Rong Yi,
Xiao-Nan Zhang, Chuan Yin, Hong-Yu Yu, Li-Jian Hui, Wei-Fen Xie
[20'+10']

Presenter affiliation: Changzheng Hospital, Second Military Medical
University, Shanghai, China.

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A novel LIN28B tumor-specific transcript in hepatocellular carcinoma

Weijie Guo, Zhixiang Hu, Xianghuo He, Shenglin Huang [10'+5']

Presenter affiliation: Fudan University Shanghai Cancer Center and
Institutes of Biomedical Sciences, Shanghai, China.

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Coffee / Tea Break

Stem Cell therapy for liver cirrhosis—From autologous cell to allogeneic cell-

Shuji Terai [20'+10']

Presenter affiliation: Niigata University, Graduate School of Medical
and Dental Sciences, Niigata, Japan.

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Intra-tumor genomic heterogeneity of hepatocellular carcinoma and combined hepatocellular and intrahepatic cholangiocarcinoma

Fan Bai [20'+10']

Presenter affiliation: Peking University, Beijing, China.

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WEDNESDAY, December 6—9:00 AM

KEYNOTE SPEAKER

Introduction by: Lijian Hui, Shanghai Institute for Biological Sciences

Lieping Chen [35'+10']
Yale University, New Haven, Connecticut

WEDNESDAY, December 6—9:45 PM

SESSION 5 CANCER IMMUNOTHERAPY

Chairpersons: **Lijian Hui**, Shanghai Institute for Biological Sciences,
CAS, Shanghai, China
David Moore, Baylor College of Medicine, Houston,
Texas, USA

The "immune" environment of HCC

Tim Greten [20'+10']

Presenter affiliation: National Cancer Institute, Bethesda, Maryland. 33

c-Abl inhibits replication of hepatitis B virus by promoting CRL4-mediated destruction of the viral polymerase

Lidan Hou, Jie Zhao, Yining Li, Shaobing Gao, Tianyu Song, Chenlu Geng, Jiang Chen, Tong Ji, Hui Lin, Xiujun Cai, Yong Cang [10'+5']

Presenter affiliation: Zhejiang University, Hangzhou, China. 34

Coffee / Tea Break

A new preventive therapy for liver cancer by systematic modulation of innate and adaptive immunity

Gen-Sheng Feng [20'+10']

Presenter affiliation: UCSD, La Jolla, California.

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Involvement of the immune system in NASH and NASH-to-HCC transition

Mathias Heikenwalder [20'+10']

Presenter affiliation: German Cancer Research Center (DKFZ), Heidelberg, Germany.

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Tauroursodeoxycholic acid modulates gut microbiota to inhibit intestinal inflammation in NAFLD mice

Weijun Wang, Jinfang Zhao, Qingjing Zhu, Kai Huang, Xiaohua Hou,

Ling Yang [10'+5']

Presenter affiliation: Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

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WEDNESDAY, December 6—1:30 PM

Visit to Old Suzhou

WEDNESDAY, December 6—7:00 PM

SESSION 6

HEPATOCTE PROGENITORS AND REPROGRAMMING, HCC HETEROGENEITY

Chairpersons: **Jessica Zucman-Rossi**, INSERM U674, Paris, France
Inder Verma, The Salk Institute, La Jolla, California, USA

Conversion of mature hepatocytes into liver progenitor cells

Takahiro Ochiya [20'+10']

Presenter affiliation: National Cancer Center Research Institute, Tokyo, Japan.

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Cell identity conversion under epigenetic regulation

Lijian Hui [20'+10']

Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

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Hepatocyte-derived liver progenitor-like cells for regenerative medicine and disease modeling

Gong-Bo Fu, Hong-Yang Wang, He-Xin Yan [10'+5']

Presenter affiliation: Eastern Hepatobiliary Surgery Hospital, Shanghai, China.

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Coffee / Tea Break

Combined CDK4/6 inhibitor and mTOR inhibitor for the treatment of cholangiocarcinoma

Xinhua Song, Xianqiong Liu, Diego F. Calvisi, Matthias Evert, Xin Chen [20'+10']

Presenter affiliation: UCSF, San Francisco, California; Hubei University of Chinese Medicine, Wuhan, China.

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Scalable generation of functional and transplantable hepatic cells from human endoderm stem cells

Sisi Feng, Xiaogang Deng, Jiaying Wu, Li Yang, Ludi zhang, Xiao Li, Xiongzhao Ren, Tianlong Fu, Yini Xiao, Paul Gadue, Lei Yu, Lijian Hui, Chengran Xu, Xin Cheng [10'+5']

Presenter affiliation: Shanghai Institutes for Biological Sciences, Shanghai, China.

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Compensatory biliary epithelial network formation upon hepatocyte canalicular disorganization in liver injury and regeneration

Kenji Kamimoto, Kota Kaneko, Atsushi Miyajima, Tohru Itoh [10'+5']

Presenter affiliation: Institute of Molecular and Cellular Biosciences, The University of Tokyo, Tokyo, Japan.

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THURSDAY, December 7—9:00 AM

SESSION 7 LIVER METABOLISM AND METABOLIC DISEASES

Chairpersons: **Tom Lüdde**, University Hospital RWTH Aachen, Germany
Jian Zhou, Zhongshan Hospital, Fudan University, Shanghai, China

Regulation of liver energy balance by nutrient-sensing nuclear receptors

Geoffery A. Preidis, Kangho Kim, David D. Moore [20'+10']

Presenter affiliation: Baylor College of Medicine, Houston, Texas.

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Metabolism and gender—Hepatic androgen receptor in NAFLD pathogenesis Ya-Wen Cheng, Pei-Jer Chen, Kai-Wei Chen, Ding-Shinn Chen, <u>Shiou-Hwei Yeh</u> [20'+10'] Presenter affiliation: Graduate Institute of Microbiology, Taipei, Taiwan.	45
Elucidating the molecular mechanisms of metabolic disorder and liver cancer in hepatocyte specific Tid1 deficient mice <u>Jeng-Fan Lo</u> [10'+5'] Presenter affiliation: National Yang-Ming University, Taipei, Taiwan.	46
Identification of novel regulators in the differentiation of hPSCs into hepatocytes Shuang Li, Mushan Li, Yongxu Zhao, Xiaojian Liu, Zhen Shao, <u>Qiu rong Ding</u> [10'+5'] Presenter affiliation: Institute for Nutritional Sciences, Shanghai, China.	47
<i>Coffee / Tea Break</i>	
PDSS2 deficiency induces hepatocarcinogenesis by decreasing mitochondrial respiration activity and reprogramming glucose metabolism <u>Xin-Yuan Guan</u> [20'+10'] Presenter affiliation: University of Hong Kong, Hong Kong.	48
<i>In vitro</i> liver models for drug hepatotoxicity evaluation <u>Yunfang Wang</u> , Juan Liu [20'+10'] Presenter affiliation: Beijing Institute of Transfusion Medicine, Beijing, China.	49
HELLS regulates chromatin remodeling is an epigenetic driver for hepatocellular carcinoma progression Cheuk Ting Law, Lai Wei, Felice Tsang, Iris Xu, Robin Lai, Danniell Ho, Joyce Lee, Carmen C. Wong, Irene O. Ng, <u>Chun-Ming Wong</u> [10'+5'] Presenter affiliation: The University of Hong Kong, Hong Kong; The University of Hong Kong, Shenzhen, China.	50
A single-cell transcriptomic analysis reveals precise pathways and regulatory mechanisms underlying hepatoblast differentiation Li Yang, Wei-Hua Wang, Wei-Lin Qiu, Zhen Guo, Erfei Bi, <u>Cheng-Ran Xu</u> [10'+5'] Presenter affiliation: Peking University, Beijing, China.	51

SESSION 8 BASIC AND CLINICAL RESEARCH OF LIVER DISEASES AND CANCER

Chairpersons: **Markus Grompe**, Oregon Health & Science University, Portland, Oregon, USA
Bin Zhou, Shanghai Institutes for Biological Sciences, CAS, Shanghai, China

Functional genetic screening and academic drug discovery to improve treatment of patients with liver disease

Lars Zender [20'+10']

Presenter affiliation: University Hospital Tuebingen, Tuebingen, Germany.

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Finding new vulnerabilities of cancer cells for therapeutic benefit

Cun Wang, Liqin Wang, Rodrigo Leite d'Oliveira, Haojie Jin, Wenxin Qin, Rene Bernards [20'+10']

Presenter affiliation: Netherlands Cancer Institute, Amsterdam, the Netherlands.

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PNPLA3 and TM6SF2 polymorphisms as risk factors of hepatocellular carcinoma across various etiologies and severity of underlying liver diseases

Jie Yang, Eric Trepo, Jean-Charles Nault, Eric Letouzé, Pierre Nahon, Jessica Zucman-Rossi [10'+5']

Presenter affiliation: INSERM UMR-1162, Paris, France.

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HBV integration in contributing to the gender difference of HCC

Chiao-Ling Li, Chen-Yu Li, You-Yu Lin, Ming-Chi Ho, Shiou-Hwei Yeh, Pei-Jer Chen [10'+5']

Presenter affiliation: National Taiwan University College of Medicine, Taipei, Taiwan.

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Coffee / Tea Break

Programmed cell death in inflammation and liver cancer

Tom Lüdde [20'+10']

Presenter affiliation: University Hospital RWTH Aachen, Aachen, Germany.

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Liver cancer—Diagnosis and treatment in China

Jian Zhou [20'+10']

Presenter affiliation: Zhongshan Hospital, Fudan University, Shanghai, China.

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Serum microRNAs for the early-stage detection of hepatocellular carcinoma

Juntaro Matsuzaki, Shunsuke Kondo, Minoru Esaki, Takuji Okusaka, Kazuaki Shimada, Ken Kato, Yoshiaki Aoki, Junpei Kawauchi, Satoko Takizawa, Hiromi Sakamoto, Shumpei Niida, Fumitaka Takeshita, Takahiro Ochiya [10'+5']

Presenter affiliation: National Cancer Center Research Institute, Tokyo, Japan.

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Gene editing in animal models and disease therapy

Dali Li [10'+5']

Presenter affiliation: East China Normal University, Shanghai, China.

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The role of SLC transporters in liver disease

Xin Chen, Ligong Chen [10'+5']

Presenter affiliation: Tsinghua University, Beijing, China.

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THURSDAY, December 7—6:00 PM

COCKTAILS and BANQUET

FRIDAY, December 8—9:00 AM

SESSION 9 LIVER GENOMICS AND PATHOGENESIS

Chairpersons: **Gen-Sheng Feng**, University of California-San Diego, La Jolla, California, USA

Mathias Heikenwälder, Technische Universität München, Neuherberg, Germany

MOAP-1 and Bid co-operate to execute Fas-mediated hepatocellular apoptosis but act paradoxically in regulating tumorigenesis in liver

Chong Teik Tan, Hao-Chun Chang, Qi-Ling Zhou, Fritz S. Lai, Ran N. Tao, Chun-Dong Yu, Kanaga Sabapathy, Nai Yang Fu, Poh Seng Tan, Victor C. Yu [20'+10']

Presenter affiliation: National University of Singapore, Singapore.

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Menin enhances c-Myc-mediated transcription to promote cancer progression

GW Wu, Ping Gao [20'+10']

Presenter affiliation: University of Science & Technology of China, Hefei, China.

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Therapeutic targeting of MKK4 for the treatment of acute and chronic liver diseases

Sabrina Klotz, Wei Cui, Miriam Hoehne, Marco Seehawer, Andreas Peter, Mathias Heikenwalder, Thomas Longerich, Torsten Wustefeld, Wolfgang Albrecht, Stefan Laufer, Lars Zender [10'+5']

Presenter affiliation: University of Tubingen, Tubingen, Germany.

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Coffee / Tea Break

AR and mTOR signaling in hepatocellular carcinoma

X.F. Steven Zheng [20'+10']

Presenter affiliation: Rutgers University, New Brunswick, New Jersey.

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Fu-Sheng Wang [20'+10']

Presenter affiliation: Beijing 302 Hospital, Beijing, China.

Polarity of liver progenitor cell-derived hepatocytes determines the clinical outcome in acute-on-chronic liver failure

Steven Dooley, Xiaodong Yuan, Qiang Xia, Franziska Wandrer, Heike Bantel, Hai Li, Honglei Weng [10'+5']

Presenter affiliation: Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany.

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