

## PROGRAM

MONDAY, September 18—7:00 PM

### Welcome Remarks

**Zemin Zhang**  
Peking University

### SESSION 1 FROM TARGETED TO IMMUNE CANCER THERAPIES

**Chairperson:** **Zemin Zhang**, Peking University, Beijing, China

#### **Beyond targeting oncogenes—Emerging anti-cancer strategies**

Tak Mak [20'+5]

Presenter affiliation: Ontario Cancer Institute, Toronto, Canada. 1

#### **Cancer whole genome sequencing for precision oncology and cancer immunology**

Hidewaki Nakagawa [20'+5]

Presenter affiliation: RIKEN, Tokyo, Japan. 2

#### **Engineering T cells to eradicate tumors in the age of synthetic biology**

Philip D. Greenberg, Kristin G. Anderson, Dan N. Egan, Shannon K. Oda, Tom M. Schmitt, Aude G. Chapuis, Sunil R. Hingorani, Rachel Perret, Ingunn M. Stromnes, Meah M. Schmidt [20'+5]

Presenter affiliation: Fred Hutchinson Cancer Research Center, Seattle, Washington; University of Washington, Seattle, Washington. 3

TUESDAY, September 19—9:00 AM

### KEYNOTE SPEAKER

**Introduction by: Thomas Gajewski**, University of Chicago, Illinois, USA

#### **Immune checkpoint blockade in cancer therapy—New insights and opportunities, and prospects for cures**

James P. Allison [40'+10']

Presenter affiliation: MD Anderson Cancer Center, Houston, Texas. 4

TUESDAY, September 19—10:00 AM

**SESSION 2** CHECKPOINT BLOCKADE AND CANCER  
IMMUNOTHERAPY

**Chairperson:** **Thomas Gajewski**, University of Chicago, Illinois, USA

**Biology of PD-1 checkpoint blockade**

Arlene H. Sharpe [20'+5]

Presenter affiliation: Harvard Medical School and Brigham and Women's Hospital, Boston, Massachusetts.

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**Coffee Break**

**Tumor and host pathways regulating anti-tumor immunity and immunotherapy efficacy**

Thomas Gajewski [20'+5]

Presenter affiliation: University of Chicago, Chicago, Illinois.

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**New immune checkpoint pathways—HLA2 and its receptors including TMIGD2**

Xingxing Zang [20'+5]

Presenter affiliation: Albert Einstein College of Medicine, New York, New York.

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**Searching for better and safer anti-CTLA4 antibody for cancer immunotherapy**

Xuexiang Du, Mingyue Liu, Fei Tang, Yan Zhang, Yang Liu, Pan Zheng [20'+5]

Presenter affiliation: Children's National Medical Center, Washington, DC.

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**B7H3 and B7S1 as promising candidate targets for immunotherapy of HCC**

Jing Li, Wenjuan Zang, Liguang Liu, Haidong Tan, Zhiying Yang, Ling Ni, Chen Dong [10'+5]

Presenter affiliation: Tsinghua University, Beijing, China.

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**SESSION 3**      POSTER SESSION

**Src kinase inhibitor dasatinib sensitized TRAIL-mediated apoptosis through regulation of c-FLIP expression in human cancer cells**

Chia-Yun Lin, Jun-Jie Chen

Presenter affiliation: E-Da Cancer Hospital, Kaohsiung, Taiwan. 10

**A biomolecule counter for rare mutant DNA in blood**

Lei Chen, Johan Björkesten, Di Wu, Ulf Landegren

Presenter affiliation: Uppsala University, Uppsala, Sweden. 11

**Etomoxir induces cell cycle arrest and inhibits growth and migration of human bladder cancer cells.**

Songtao Cheng, Yu Xiao, Xinghuan Wang

Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China. 12

**Chromatin run-on reveals nascent RNAs that differentiate normal and malignant brain tissue**

Tinyi Chu, Edward J. Rice, Gregory T. Booth, Hans H. Salamanca, Zhong Wang, Leighton J. Core, Sharon L. Longo, Robert J. Corona, Lawrence S. Chin, John T. Lis, Hojoong Kwak, Charles G. Danko

Presenter affiliation: Cornell University, Ithaca, New York. 13

**Targeting the pro-survival BCL2 proteins with BH3 mimetic compounds for treating multiple myeloma**

Jia-Nan Gong, Tiffany Khong, David Segal, Yuan Yao, Mark v. Delft,

Andrew Spencer, Olivier Geneste, Andrew Roberts, David Huang  
Presenter affiliation: The Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia; University of Melbourne, Melbourne, Australia. 14

**Global characterization of T cells in non-small cell lung cancer by single-cell sequencing**

Xinyi Guo, Yuanyuan Zhang, Liangtao Zheng, Chunhong Zheng, Zemin Zhang

Presenter affiliation: Biopic, School of Life Sciences, Beijing, China. 15

- C14ORF1 as a novel diagnostic and therapeutic mAb targeting pancreatic cancer stem cells**  
Hyekang Kim, Seungwon Lee, Ji-Hae Kim, Han WooK Park, Sora Kim, Young Min Kim, Gihoon You, Sung Hyo Park, Jin-Young Jang, Seong-Jin Kim, Seung-Woo Lee  
 Presenter affiliation: Pohang University of Science and Technology, Pohang, South Korea. 16
- Systematic identification of regulatory variants associated with cancer risk**  
Song Liu, Yuwen Liu, Qin Zhang, Jiayu Wu, Junbo Liang, Shan Yu, Gonghong Wei, Kevin P. White, Xiaoyue Wang  
 Presenter affiliation: Institute of Basic Medical Sciences, Beijing, China. 17
- Loss of CHIP/STUB1 ubiquitin ligase in breast cancer unleashes an invasion program mediated by MZF1-cathepsin axis**  
Haitao Luan, Bhopal Mohapatra, Timothy Bielecki, Sameer Mirza, Tameka Bailey, Wei An, Jane Meza, Matthew Storck, Yuri Sheinin, Denna Ahmed, Emad Rakham, Srikuma Raja, Vimla Band, Hamid Band  
 Presenter affiliation: Jilin University, Changchun, China; University of Nebraska Medical Center, Omaha, Nebraska. 18
- Capsaicin suppresses cell proliferation, induces cell cycle arrest and ROS production in bladder cancer cells through FOXO3a-mediated pathways**  
Kaiyu Qian  
 Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China. 19
- Inferring cellular signaling networks based on single-cell RNA-seq data**  
Xianwen Ren, Zemin Zhang [10'+5']  
 Presenter affiliation: Peking University, Beijing, China. 20
- PHRF1 promotes migration and invasion by regulating ZEB1 transcription in lung cancer**  
Hsin-An Shih, Mau-Sun Chang  
 Presenter affiliation: National Taiwan University, Taipei, Taiwan. 21
- A comprehensive function analysis of LMO2 in different breast cancer subtypes**  
Wei Sun, Ye Liu, Chao Wu, Tianhui Zhu  
 Presenter affiliation: Nankai University, Tianjin, China. 22

<b>Plasticity of mammary epithelial cells following EGF withdrawal or EGFR inhibition</b>	
<u>Wai Ying Yvonne Tang</u> , Sylvie Urbé, Michael J. Clague	
Presenter affiliation: University of Liverpool, Liverpool, United Kingdom.	23
<b>PHLDA3 is a novel tumor suppressor of castration resistant prostate cancer</b>	
<u>Gang Wang</u> , Liang Chen, Yu Xiao, Xinghuan Wang	
Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China.	24
<b>Highly efficient double-stranded molecular tagging and consensus read reconstruction strategy enhances accuracy of ultra-low frequency mutation detection</b>	
<u>Jiashi Wang</u> , Kevin Lai, Kristina Giorda, Mirna Jarosz	
Presenter affiliation: Integrated DNA Technologies, Redwood City, California.	25
<b>Inhibition of p21 activated kinases enhances chemo-therapeutic effects of multiple reagents on patient's derived pancreatic cancer cell lines</b>	
<u>Kai Wang</u> , Nhi Huynh, Marina Pajik, Hong He, Mehrdad Nikfarjam	
Presenter affiliation: University of Melbourne, Melbourne, Australia.	26
<b>Keys to accelerated production of the right protein from the right cells</b>	
<u>Weili Wang</u>	
Presenter affiliation: MaxCyte, Inc., Gaithersburg, Maryland.	27
<b>Prostate cancer stem cells and castration-resistant prostate cancer cells exhibit distinct expression patterns of nuclear receptors</b>	
<u>Zhu Wang</u> , Dinglan Wu, Yuliang Wang, Shan Yu, Franky L. Chan	
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.	28
<b>The spleen mediates a distinct hematopoietic stem/progenitor cell response to support the tumor-promoting myelopoiesis</b>	
<u>Chong Wu</u> , Limin Zheng	
Presenter affiliation: Sun Yat-sen University, Guangzhou, China.	29

- Decreased KNSTRN inhibits activities and induces apoptosis of bladder cancer cells via PI3K/AKT pathway**  
Yaoyi Xiong, Xinghuan Wang  
 Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China. 30
- A phosphotyrosine switch controls antitumor activity of estrogen receptor  $\beta$**   
Bin Yuan, Curtis A. Clark, Yanfen Hu, Tyler J. Curiel, Rong Li  
 Presenter affiliation: University of Texas Health Science Center, San Antonio, Texas. 31
- Acetylation accumulates PFKFB3 in the cytoplasm to promote glycolysis and protects cells from apoptosis induced by cisplatin**  
 Fu-Long Li, Jin-Ping Liu, Ruo-Xuan Bao, GuoQuan Yan, Xu Feng, Yan-Ping Xu, Yi-Ping Sun, Weili Yan, Zhi-Qiang Ling, Yue Xiong, Kun-Liang Guan, Hai-Xin Yuan  
 Presenter affiliation: Fudan University, Shanghai, China. 32
- Down-regulation of LAPTM4B suppresses cell proliferation and migration, as well as induces cell cycle arrest at G0/G1 phase of bladder cancer cells**  
Lushun Yuan  
 Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China. 33
- Functional transcription factor prediction using BART**  
 Zhenjia Wang, Chongzhi Zang  
 Presenter affiliation: University of Virginia, Charlottesville, Virginia. 34
- Attenuation of RNA polymerase II pausing mitigates BRCA1-associated R-loop accumulation and tumorigenesis**  
Xiaowen Zhang, Huai-Chin Chiang, Yao Wang, Victor Jin, Yanfen Hu, Rong Li  
 Presenter affiliation: University of Texas Health Science Center at San Antonio, San Antonio, Texas. 35
- Neoantigens derived from six recurrently mutated genes as ideal potential targets for further immunotherapy against gastric cancer**  
Jie Zhou, Wenyi Zhao, Jingcheng Wu, Jun Lu, Shanshan Wu, Haiyong Wang, Zhan Zhou, Lisong Teng, Shuqing Chen  
 Presenter affiliation: Zhejiang Provincial Key Laboratory of Anti-Cancer Drug Research, College of Pharmaceutical Sciences, Hangzhou, China. 36

TUESDAY, September 19—4:30 PM

### Chinese Tea and Beer Tasting

TUESDAY, September 19—7:00 PM

#### SESSION 4 TECHNOLOGY AND LARGE SCALE BIOLOGY

**Chairperson:** **Frederic de Sauvage**, Genentech, South San Francisco, California, USA

#### **Single cell genomics—When stochasticity meets precision**

Sunney Xie [20'+5]

Presenter affiliation: Harvard University, Cambridge, Massachusetts; Peking University, Beijing, China. 37

#### **Intersection of genome and immunological microenvironments in human hepatobiliary cancer**

Tatsuhiko Shibata [20'+5]

Presenter affiliation: The Institute of Medical Science, The University of Tokyo, Tokyo, Japan; National Cancer Center, Tokyo, Japan. 38

#### **Genomic and epigenomic profiles of Asian endemic cancers**

Patrick Tan [20'+5]

Presenter affiliation: Duke-NUS Medical School, Singapore. 39

#### **Inference of gene signatures associated with response and resistance to targeted and immunotherapies**

Peng Jiang, X Shirley Liu [20'+5]

Presenter affiliation: Dana-Farber Cancer Institute and Harvard T.H.Chan School of Public Health, Boston, Massachusetts. 40

#### **Quantitative proteomics reveals that long non-coding RNA MALAT1 interacts with DBC1 to regulate p53 acetylation**

Ruibing Chen, Yun Liu, Hao Zhuang, Baicai Yang, Kaiwen Hei, Mingming Xiao, Chunyu Hou, Huajun Gao, Xinran Zhang, Chenxi Jia, Lingjun Li, Yongmei Li, Ning Zhang [10'+5']

Presenter affiliation: Tianjin Medical University, Tianjin, China. 41

**High specificity and enhanced integration efficiency  
CRISPR/Cas9 systems for precise genome editing**

Fuqing Chen, Gregory D. Davis, Yuping Huang, Erik Eastlund, Jacob Lamberth, Caitlin McCann, Daniel Taglicht, Nurit Becker, Sophie Raizman, Corinne Sagron, Pierre Potier, Qingzhou Ji [10'+5']  
Presenter affiliation: MilliporeSigma, a business of Merck KGaA, St. Louis, Missouri.

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WEDNESDAY, September 20—9:00 AM

**SESSION 5 TUMOR MICROENVIRONMENT AND  
IMMUNOTHERAPY**

**Chairperson:** **Zemin Zhang**, Peking University, Beijing, China

**The immune contexture and immunoscore in the era of cancer immunotherapy**

Jérôme Galon [20'+5]

Presenter affiliation: French National Institute of the Health and Medical Research (INSERM) , Paris, France.

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**Single cell analysis of tumor microenvironment reveals distinct patterns of clonal expansion and functional states of immune cells**

Zemin Zhang [20'+5]

Presenter affiliation: Peking University , Beijing, China.

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**IL-27 drives a transcriptional program that sets the stage for T cell dysfunction**

Vijay K. Kuchroo [20'+5]

Presenter affiliation: Harvard Medical School and Brigham and Women's Hospital, Boston, Massachusetts; Massachusetts Institute of Technology, Cambridge, Massachusetts.

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**Widespread B cell clonal expansions and related mechanisms of immune evasions in human cancers**

Bo Li [10'+5']

Presenter affiliation: Dana-Farber Cancer Institute, Boston, Massachusetts.

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**Coffee Break**



**Engage and enhance the functions of T cells in cancer immunotherapies**

Wenjun Ouyang [20'+5]

Presenter affiliation: Amgen Inc, South San Francisco, California. 47

**From the clinic to the lab—Investigating response and resistance mechanisms to immune checkpoint therapy**

Padmanee Sharma [20'+5]

Presenter affiliation: The University of Texas MD Anderson Cancer Center, Houston, Texas. 48

David Ferrick [20'+5]

Presenter affiliation: Agilent Technologies, Lexington, Massachusetts.

WEDNESDAY, September 20—1:30 PM

**Visit to Old Suzhou**

WEDNESDAY, September 20—7:00 PM

**SESSION 6** CANCER GENOMICS AND TARGETED THERAPIES

**Chairperson:** **Yutaka Kawakami**, Keio University School of Medicine, Tokyo, Japan

**Targetable activating Her2 transmembrane domain mutations in human cancers**

Somasekar Seshagiri [20'+5]

Presenter affiliation: Genentech Inc, South San Francisco, California. 49

**Genomic classification of gastric cancer for treatment selection**

Akihiro Suzuki, Miwako Kakiuchi, Shogo Yamamoto, Kenji Tatsuno, Takashi Ohshima, Yasushi Rino, Atsushi Nakajima, Masashi Fukayama, Shumpei Ishikawa, Hiroyuki Aburatani [20'+5]

Presenter affiliation: The University of Tokyo, Tokyo, Japan. 50

**Supercomputer challenges for cancer genomics and TCR data analysis**

Satoru Miyano [20'+5]

Presenter affiliation: The University of Tokyo, Tokyo, Japan. 51

**A novel mechanism of cancer immune evasion via the disruption of PD-L1 3'-UTR**

Seishi Ogawa [20'+5]

Presenter affiliation: Kyoto University Graduate School of Medicine, Kyoto, Japan.

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**Genomic comparison of esophageal squamous cell carcinoma and its precursor lesions by multi-region whole exome sequencing**

Xixi Chen, Qian Zhong, Yang Liu, Shu-Mei Yan, Zhang-Hua Chen, Shan-Zhao Jin, Tian-Liang Xia, Ruo-Yan Li, Ai-Jun Zhou, Zhe Su, Yu-Hua Huang, Qi-Tao Huang, Li-Yun Huang, Jin-Pin Yun, Qiu-Liang Wu, Dong-Xin Lin, Fan Bai, Mu-Sheng Zeng [10'+5']

Presenter affiliation: Peking University, Beijing, China.

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**AKTing with precision—A journey from bench to bedside for the development of selective AKT inhibitors in cancer**

Kui Lin [10'+5']

Presenter affiliation: Genentech, South San Francisco, California.

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THURSDAY, September 21—9:00 AM

**SESSION 7 TUMOR IMMUNOLOGY**

**Chairperson:** **Yutaka Kawakami**, Keio University School of Medicine, Tokyo, Japan

**Mechanisms of action of talimogene laherparepvec—From bench to bedside.**

Flavius Martin [20'+5]

Presenter affiliation: Amgen, South San Francisco, California.

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**Heterogeneity in the tumor-immune-microenvironments in human cancers and its personalized modulation**

Yutaka Kawakami [20'+5]

Presenter affiliation: Keio University School of Medicine, Tokyo, Japan.

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**Understanding and modulating tumor microenvironment**

Chen Dong [20'+5]

Presenter affiliation: Tsinghua University, Beijing, China.

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**Coffee Break**

**An immunogram for the cancer-immunity cycle—Towards personalized immunotherapy**  
Kazuhiro Kakimi [20'+5]  
Presenter affiliation: The University of Tokyo Hospital, Tokyo, Japan. 58

**Targeted therapies that bridge innate and adaptive immunity**  
Yang-Xin Fu [20'+5]  
Presenter affiliation: UT Southwestern Medical Center, Dallas, Texas. 59

**CUB domain-containing protein 1 mediates  $\beta$ -catenin localization in colorectal cancer**  
Yaowu He, John D. Hooper  
Presenter affiliation: Mater Research Institute-University of Queensland, Brisbane, Australia. 60

**Evasion of immunosurveillance by genomic alterations of PPAR $\gamma$ /RXR $\alpha$  in bladder cancer**  
Manav Korpai, Xiaoling Puyang, Jeremy Wu, Craig Furman, Nicolas Larsen, Ping Zhu [10'+5']  
Presenter affiliation: H3 Biomedicine, Inc., Cambridge, Massachusetts. 61

THURSDAY, September 21—2:00 PM

**SESSION 8**      CANCER PATHWAYS AND METASTASIS

**Chairperson:**      **Thomas Gajewski**, University of Chicago, Illinois, USA

**Immune control of liver tumorigenesis – basic concepts and implications for treatment**  
Michael Karin, Shabnam Shalapour [20'+5]  
Presenter affiliation: UCSD, San Diego, California. 62

**T-ALL leukemia stem cell fate is epigenetically controlled by the master regulator PU.1**  
Haichuan Zhu, Weilong Guo, Xiaoying Fan, Liuzhen Zhang, Yuliang Tang, Yilin Wu, Ziwen Li, Lu Yang, Ningning Yao, Xiaoguang Lei, Fuchou Tang, Hong Wu [20'+5]  
Presenter affiliation: Peking University, Beijing, China. 63

**ITIM receptors—Immune checkpoint proteins and tumor supporting factors**  
Chengcheng Zhang [20'+5]  
Presenter affiliation: UT Southwestern Medical Center, Dallas, Texas. 64

**Coffee Break**

**Phenotypic transition contributes to small cell lung carcinoma metastasis through TAZ down-regulation**

Yujuan Jin, Yan Feng, Tian Xiao, Chenchen Guo, Xin-Yuan Liu, Hongbin Ji [20'+5]

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

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**Manufacturing, regulatory and logistical challenges in clinical cell and gene therapies**

John E. Rasko, and the JULIET Study Investigators [20'+5]

Presenter affiliation: Royal Prince Alfred Hospital, University of Sydney, Sydney, Australia; Centenary Institute, Sydney, Australia.

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**Drivers of endocrine resistance and synthetic lethal vulnerabilities in breast cancer**

Wei Li [10'+5']

Presenter affiliation: Dana-Farber Cancer Institute, Boston, Massachusetts.

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**Knocking down a novel long noncoding RNA in neuroblastoma causes complete tumor regression**

Pei Y. Liu, Andrew Tee, Giorgio Milazzo, E-Young Tan, Sujanna Mondal, Bernard Atmadibrata, Yuting Sun, Murray Norris, Michelle Haber, Glenn M. Marshall, Marcel Dinger, Giovanni Perini, Pieter Mestdagh, Tao Liu [10'+5']

Presenter affiliation: Children's Cancer Institute Australia, Sydney, Australia.

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FRIDAY, September 22—9:00 AM

**SESSION 9**      CANCER STEM CELLS, DIFFERENTIATION

**Chairperson:**      **Frederic de Sauvage**, Genentech, South San Francisco, California, USA

**Targeting intestinal stem cells in cancer**

Frederic de Sauvage [20'+5]

Presenter affiliation: Genentech, San Francisco, California.

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<b>Intestinal stem cell plasticity and its chromatin basis</b> Unmesh Jadhav, <u>Ramesh A. Shivdasani</u> [20'+5] Presenter affiliation: Dana-Farber Cancer Institute and Harvard Medical School, Boston, Massachusetts.	70
<b>Evolving clinical paradigms in metastatic brain tumors— Genomics as a tool</b> <u>Priscilla Brastianos</u> [20'+5] Presenter affiliation: Dana Farber Cancer Institute/Harvard Medical School, Boston, Massachusetts.	71
<b>The biology and function of exosomes in cancer</b> <u>Raghu Kalluri</u> [20'+5] Presenter affiliation: MD Anderson Cancer Center, Houston, Texas.	72
<b><i>Coffee Break</i></b>	
<b>Cancer cell terminal differentiation discloses the nature of tumorigenesis—An uncontrolled neural specification/development</b> Zan Zhang, Anhua Lei, Liyang Xu, Lu Chen, Yonglong Chen, Xuena Zhang, Yan Gao, Xiaoli Yang, Min Zhang, <u>Ying Cao</u> [10'+5'] Presenter affiliation: Nanjing University, Nanjing, China.	73
<b>Nuclear receptor LRH-1 plays a regulatory role in human prostate cancer stem cell maintenance</b> <u>Yuliang Wang</u> , Zhu Wang, Franky L. Chan [10'+5'] Presenter affiliation: The Chinese University of Hong Kong, Shatin, Hong Kong.	74
<b>The role of Eyes Absent gene (EYA1) in melanoma pathogenesis and progression</b> Xiaosong Liu, <u>Yabin Cheng</u> [10'+5'] Presenter affiliation: Xiamen University, Xiamen, China.	75

### **Closing Remarks**

**Frederic de Sauvage**  
Genentech