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
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
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.

Coffee Break

Tumor and host pathways regulating anti-tumor immunity and immunotherapy efficacy
Thomas Gajewski  [20’+5]
Presenter affiliation: University of Chicago, Chicago, Illinois.

New immune checkpoint pathways—HHLA2 and its receptors including TMIGD2
Xingxing Zang  [20’+5]
Presenter affiliation: Albert Einstein College of Medicine, New York, New York.

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.

B7H3 and B7S1 as promising candidate targets for immunotherapy of HCC
Jing Li, Wenjuan Zang, Liguod Liu, Haidong Tan, Zhiying Yang, Ling Ni, Chen Dong  [10’+5]
Presenter affiliation: Tsinghua University, Beijing, China.
### SESSION 3 POSTER SESSION

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Presenter affiliation</th>
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<td>Src kinase inhibitor dasatinib sensitized TRAIL-mediated apoptosis through regulation of c-FLIP expression in human cancer cells</td>
<td>Chia-Yun Lin, Jun-Jie Chen</td>
<td>E-Da Cancer Hospital, Kaohsiung, Taiwan.</td>
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<td>A biomolecule counter for rare mutant DNA in blood</td>
<td>Lei Chen, Johan Björkesten, Di Wu, Ulf Landegren</td>
<td>Uppsala University, Uppsala, Sweden.</td>
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<td>Etomoxir induces cell cycle arrest and inhibits growth and migration of human bladder cancer cells.</td>
<td>Songtao Cheng, Yu Xiao, Xinghuan Wang</td>
<td>Zhongnan Hospital of Wuhan University, Wuhan, China.</td>
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<td>Targeting the pro-survival BCL2 proteins with BH3 mimetic compounds for treating multiple myeloma</td>
<td>Jia-Nan Gong, Tiffany Khong, David Segal, Yuan Yao, Mark v. Delft, Andrew Spencer, Olivier Geneste, Andrew Roberts, David Huang</td>
<td>The Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia; University of Melbourne, Melbourne, Australia.</td>
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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.

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.

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.

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.

Inferring cellular signaling networks based on single-cell RNA-seq data
Xianwen Ren, Zemin Zhang
Presenter affiliation: Peking University, Beijing, China.

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.

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.
Plasticity of mammary epithelial cells following EGF withdrawal or EGFR inhibition
Wai Ying Yvonne Tang, Sylvie Urbé, Michael J. Clague
Presenter affiliation: University of Liverpool, Liverpool, United Kingdom.

PHLDA3 is a novel tumor suppressor of castration resistant prostate cancer
Gang Wang, Liang Chen, Yu Xiao, Xinghuan Wang
Presenter affiliation: Zhongnan Hospital of Wuhan University, Wuhan, China.

Highly efficient double-stranded molecular tagging and consensus read reconstruction strategy enhances accuracy of ultra-low frequency mutation detection
Jiashi Wang, Kevin Lai, Kristina Giorda, Mirna Jarosz
Presenter affiliation: Integrated DNA Technologies, Redwood City, California.

Inhibition of p21 activated kinases enhances chemo-therapeutic effects of multiple reagents on patient's derived pancreatic cancer cell lines
Kai Wang, Nhi Huynh, Marina Pajik, Hong He, Mehrdad Nikfarjam
Presenter affiliation: University of Melbourne, Melbourne, Australia.

Keys to accelerated production of the right protein from the right cells
Weili Wang
Presenter affiliation: MaxCyte, Inc., Gaithersburg, Maryland.

Prostate cancer stem cells and castration-resistant prostate cancer cells exhibit distinct expression patterns of nuclear receptors
Zhu Wang, Dinglan Wu, Yuliang Wang, Shan Yu, Franky L. Chan
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.

The spleen mediates a distinct hematopoietic stem/progenitor cell response to support the tumor-promoting myelopoiesis
Chong Wu, Limin Zheng
Presenter affiliation: Sun Yat-sen University, Guangzhou, China.
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.

A phosphotyrosine switch controls antitumor activity of estrogen receptor β
Bin Yuan, Curtis A. Clark, Yanfen Hu, Tyler J. Curiel, Rong Li
Presenter affiliation: University of Texas Health Science Center, San Antonio, Texas.

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.

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.

Functional transcription factor prediction using BART
Zhenjia Wang, Chongzhi Zang
Presenter affiliation: University of Virginia, Charlottesville, Virginia.

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.

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.
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
Tatsuhiro 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, Xirong 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, Yiping Huang, Erik Eastlund, Jacob Lamberth, Caitlin McCann, Daniel Taglicht, Nurit Becker, Sophie Raizman, Corinne Sagron, Pierre Potier, Qingzhou Ji
Presenter affiliation: MilliporeSigma, a business of Merck KGaA, St. Louis, Missouri.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Understanding and modulating tumor microenvironment
Chen Dong [20'+5]
Presenter affiliation: Tsinghua University, Beijing, China.

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 β-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 PPARγ/RXRα in bladder cancer
Manav Korpal, 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, Zhen 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.

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.

Drivers of endocrine resistance and synthetic lethal vulnerabilities in breast cancer
Wei Li [10'+5']
Presenter affiliation: Dana-Farber Cancer Institute, Boston, Massachusetts.

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.

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.
Intestinal stem cell plasticity and its chromatin basis
Unmesh Jadhav, Ramesh A. Shivdasani [20'+5]
Presenter affiliation: Dana-Farber Cancer Institute and Harvard Medical School, Boston, Massachusetts.

Evolving clinical paradigms in metastatic brain tumors—Genomics as a tool
Priscilla Brastianos [20'+5]
Presenter affiliation: Dana Farber Cancer Institute/Harvard Medical School, Boston, Massachusetts.

The biology and function of exosomes in cancer
Raghu Kalluri [20'+5]
Presenter affiliation: MD Anderson Cancer Center, Houston, Texas.

Coffee Break

Cancer cell terminal differentiation discloses the nature of tumorigenesis—An uncontrolled neural specification/development
Zan Zhang, Anhua Lei, Liyang Xu, Lu Chen, Yonglong Chen, Xuena Zhang, Yan Gao, Xiaoli Yang, Min Zhang, Ying Cao [10'+5]
Presenter affiliation: Nanjing University, Nanjing, China.

Nuclear receptor LRH-1 plays a regulatory role in human prostate cancer stem cell maintenance
Yuliang Wang, Zhu Wang, Franky L. Chan [10'+5]
Presenter affiliation: The Chinese University of Hong Kong, Shatin, Hong Kong.

The role of Eyes Absent gene (EYA1) in melanoma pathogenesis and progression
Xiaosong Liu, Yabin Cheng [10'+5]
Presenter affiliation: Xiamen University, Xiamen, China.

Closing Remarks
Frederic de Sauvage
Genentech