Molecular Biology

A01 ALK L1198F and G1201E mutations identified in anaplastic thyroid cancer patients are not ligand-independent. Jikui Guan, Georg Wolfstetter, Joachim Siaw, Damini Chand, Fredrik Hugosson, Ruth Palmer and Bengt Hallberg. Department of Medical Biochemistry and Cell Biology, Institute of Biomedicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden.

A02 Enhanced ulcerative colitis in alkaline sphingomyelinase (NPP7) knockout mice: A potential link to the increased risk of colitis-associated colon cancer by NPP7 deficiency. Ping Zhang1, Ying Chen2, Siqi Zhu1, Jintong Li1, Ju Guan1, Åke Nilsson3, Rui Dong Duan1. 1Medical Laboratory Technology College, Harbin Medical University, Daqing Campus, Daqing, China, 2Gastroenterology, Tongji Hospital, Tongji University, Shanghai, China, 3Gastroenterology and Nutrition Lab, Department of Clinical Sciences, University of Lund, Lund, Sweden.

A03 Arginine and its ‘downstream’ molecules can separate breast cancer from benign breast disease. Lu Hu1, Yu Gao1, Yufeng Cao1, 2, 3, Yinxu Zhang1, Minghao Xu1, Yuanyuan Wang1, Yu Jing1, Shengnan Guo1, Fangyu Jing1, Xiaodan Hu1, Zhitu Zhu1. 1First Affiliated Hospital of Jinzhou Medical University, Jinzhou, P.R. China, 2Joint Center for Translational Medicine, The First Affiliated Hospital of Jinzhou Medical University, Jinzhou, P.R. China, 3Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, P.R. China.

A04 Myosin VI is overexpressed in human colorectal cancer and mediates cell growth. Gewen Tan, Weiqiang You, Nengquan Sheng, Yi Yang, Jianfeng Gong, Jun Yan, Zhigang Wang. Department of General Surgery, Shanghai Jiao Tong University Affiliated Sixth People’s Hospital, Shanghai, China.

A05 Activation of the convergent HOX-AIR-HOXC11 locus in cancer cells. Xiaohann Qu1, Yan Wang1, Janarthanan Jayawickramarajah3, Emily N Schmidt2, Bin Shan1. 1Washington State University 2Tulane University, New Orleans, LA, 3Washington State University ESF College of Medicine, Pullman, WA.

A06 Integrative genomic and transcriptomic analysis for pinpointing recurrent alterations of Tudor domain genes and their clinical significance in breast cancer. Yuanyuan Jiang, Lanxin Liu, Wenqi Shan, Zengquan Yang. Barbara Ann Karmanos Cancer Institute, Wayne State University, Detroit, MI, USA.
A07  Evaluation of the anticancer effects of sodium channel amine ligands against prostate cancer in vitro and in vivo. Zongliang Lu, Kong Ya, Jiayi Wang, Song Wei, Wang He, Hongxia Xu. Department of Nutrition, Daping Hospital and Research Institute of Surgery, Third Military Medical University, Chongqing, China.

A08  The Sall2 transcription factor, a key regulator of cell cycle progression and cellular transformation in mouse embryonic fibroblasts. Elizabeth Riffo, Ginessa Salgado, Viviana Hermosilla, David Escobar, Violeta Morín, Mario Galindo, Ariel Castro, Roxana Pincheira. 1Department of Biochemistry and Molecular Biology, Faculty of Biological Sciences, Universidad de Concepción, Concepción, Chile. 2Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile, Santiago, Chile.

Tumor Biology

A09  LDHAα, a lactate dehydrogenase A (LDHA) isoform, promotes tumor progression through energy metabolism and transcriptional regulation. Bingqing Huang, Xiaobao Dong, Yujiao Jia, Kun Ru. Department of Pathology, Institute of Hematology and Blood Diseases Hospital, Chinese Academy of Medical Sciences.

A10  Fibronectin expression is up-regulated by Akt activation in tamoxifen-resistant breast cancer cells. Daen You, Myeongjin Jeon, Taewan Kim, Soo Youn Bae, Seung Pil Jung, Jeong Eon Lee, Sangmin Kim. 1Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University, Seoul, Korea, 2Department of Surgery, Samsung Medical Center, Seoul, Korea, 3Division of Breast and Endocrine Surgery, Department of Surgery, Korea University College of Medicine, Seoul, South Korea.

A11  MicroRNA-346 facilitates cell growth and metastasis, and suppresses cell apoptosis in human non-small cell lung cancer by regulation of XPC/ERK/Snail/E-cadherin pathway. Cheng-Cao Sun, Shu-Jun Li, De-Jia Li. 1Department of Occupational and Environmental Health, School of Public Health, Wuhan University, Wuhan, P. R. China, 2Wuhan Hospital for the Prevention and Treatment of Occupational Diseases, Wuhan, P. R. China.

A12  Combination of hemocoagulase with microbubbles enhanced ultrasound cavitation and augmented ablative effect in microvasculature in rabbit VX2 liver tumor. Qian Yang, Peng Tang, Jianguo He, Liwen Liu, Chunmei Wang, Fen Gu, Xiaodong Zhou. 1Department of Ultrasound, Xijing Hospital, Xi’an, China, 2Department of Orthopedics, Xijing Hospital, Xi’an, China, 3Department of Pathology, Xijing Hospital, Xi’an, China.

Epigenetic dysregulation of MIR-34A is a critical path in TP53-associated human cancer susceptibility. Nardin Samuel1,2, Gavin Wilson3, Mathieu Lemire3, Badr Id Said2, Ana Novokmet2, Thomas J. Hudson4, David Malkin1,2,5. 1Department of Medical Biophysics, University of Toronto, Toronto ON, 2Department of Genetics and Genome Biology, The Hospital for Sick Children, Toronto ON, 3Ontario Institute for Cancer Research, Toronto ON, 4AbbVie Inc., Redwood City, CA, 5Department of Pediatrics, The Hospital for Sick Children, Toronto, ON, Canada.

RUNX 1 & RUNX 3 contribute to neurofibromagenesis. Hongzhu Liu1, Eva Dombi2, Wei Liu1,3, Kwangmin Choi1, P. Paul Liu4, Gang Huang1, and Jiangiang Wu1. 1Division of Experimental Hematology and Cancer Biology, Cancer and Blood Diseases Institute, Cincinnati Children’s Hospital Research Foundation, Cincinnati Children’s Hospital, Cincinnati, OH, USA, 2Pediatric Oncology Branch, National Cancer Institute, Bethesda, MD, USA, 3Department of Pediatric Surgery, Provincial Hospital affiliated to Shandong University, P. R. China, 4National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, USA.

Silencing of LAPTM5 inhibited bladder cancer cell proliferation and metastasis. Liang Chen1, Rui Cao1, Gang Wang1, Yu Xiao1,2, Xinghuan Wang1. 1Zhongnan Hospital of Wuhan University, Department of Urology, Wuhan, China, 2Center for Medical Science Research, Zhongnan Hospital of Wuhan University, Wuhan, China.

SORBS1 suppresses tumor metastasis and improves the sensitivity of cancer to chemotherapy drug. Lele Song, Lixing Zhan. Institute for Nutritional Sciences, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Beijing, China.

IDB enhances NK cell mediated lysis of cancer cells through activating PKC pathway. Chenyuan Gong, Xiaowen Zhu, Chao Yao, Zhongya Ni, Lixin Wang, Lulu Ni, Shiguo Zhu. Laboratory of Integrative Medicine, School of Basic Medical Science, Shanghai University of Traditional Chinese Medicine, Shanghai, China.

PKCε phosphorylates MIIP and promotes colorectal cancer metastasis through inhibition of p65 deacetylation. Tao Chen1, Yu-Hui Jiang2. 1Zhongshan Hospital of Fudan University, 2First People’s Hospital, School of Medicine, Shanghai Jiaotong University, Shanghai, China.

Exosome transfer-induced dedifferentiation of colorectal cancer cells contributes to chemotherapy resistance. Yibing Hu, Chang Yan, Lei Mu, Kesheng Huang, Xiaolan Li, Deding Tao, Yaqun Wu, Jianping Gong, Jichao Qin. Molecular Medicine Center, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.
A23  Decreased HJURP induced cell cycle arrest and apoptosis through ROS generation in bladder cancer cells via PPARy-SIRT1 pathway. Rui Cao1, Kaiyu Qian1, Gang Wang1, Xinyuan Guan2, Yu Xiao1,3, Xinghuan Wang1. 1Department of Urology, Zhongnan Hospital of Wuhan University, Wuhan, China, 2Department of Clinical Oncology, Li Ka Shing Faculty of Medicine, University of Hong Kong, Hong Kong SAR, 3Center for Medical Science Research, Zhongnan Hospital of Wuhan University, Wuhan, China.

A24  Evaluation of combination treatment efficacy of PI3K inhibitors utilizing the labcyte echo liquid handler and echo combination screen software in PC-3 and MCF7 cell viability assays. Charline Hsieh1, Tim Allison1, Linda Orren1, John Lesnick1, Carl Peters2. 1Labcyte, 2BMG LABTECH, Cary, NC, USA.

A25  The changing 50% inhibitory concentration (IC50) of cisplatin: A pilot study on the artifacts of the MTT assay and the precise measurement of density-dependent chemoresistance in ovarian cancer. Yifeng He. Department of Obstetrics and Gynecology, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, China.

A26  The CEA-/lo colorectal cancer cell population harbors cancer stem cells and metastatic cells. Chang Yan1,2, Yibing Hu1,2, Bo Zhang1,2, Lei Mu1,2, Kaiyu Huang1,2, Hui Zhao2, Xiaolan Li2, Deding Tao2, Jianping Gong1,2, and Jichao Qin1,2. 1Department of Surgery, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China, 2Molecular Medicine Center, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

A27  The involvement of DNA methyltransferase 1-mediated transcription of insulin-like growth factor 2 in resistance to histone deacetylase inhibitors. Ho-Young Lee1,2,3, Rang-Woon Park4, Hye-Young Min1,2, Su-Chan Lee1, Kwan Hee Park1,3, Seung Yeob Hyun1, Jaebeom Cho1, Xiao Ni5, Faye M. Johnson6, Madeleine Duvic5. 1Creative Research Initiative Center for Concurrent Control of Emphysema and Lung Cancer, College of Pharmacy, Seoul National University, Seoul, Republic of Korea, 2Department of Molecular Medicine and Biopharmaceutical Science, Graduate School of Convergence Science and Technology, Seoul National University, Suwon, Gyeonggi, Republic of Korea, 3College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul, Republic of Korea, 4Department of Biochemistry and Cell Biology, School of Medicine, and Cell & Matrix Research Institute, Kyungpook National University, Daegu, Republic of Korea, Departments of Dermatology and Thoracic Head & Neck Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

A28  PVN inhibits JAK2/STAT3 and MAPKs signaling in osteosarcoma cells. Kyung-Ran Park, Hyung-Mun Yun. Kyung Hee University, Seoul, South Korea.
A30  Identification of TRA2B-DNAH5 fusion as a novel oncogenic driver in human lung squamous cell carcinoma. Jian Zhang, Fei Li, Jian Zhang, Zhaoyuan Fang, Chenchen Guo, Zhen Qin, Yuetong Wang, Yujuan Jin, Hongbin Ji. Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Science, Shanghai, China.

A31  Activation of YAP suppresses lung squamous cell carcinoma growth by disrupting ROS homeostasis via YAP-DNp63-GPX2 axis. Hsinyi Huang, Hongbin Ji, Wenjing Zhang. Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China.

A32  ChREBP promotes initiation and progression of colorectal cancer. Ming Feng, Jian Meng, Ying Lu, Na Tian, Yakui Li, Yemin Zhu, Lifang Wu, Jie Zhong, Ping Zhang, Minle Li, Hui Ran, Xuemei Tong. Dept. of Biochemistry and Molecular Cell Biology, Institute of Medical Science, Shanghai Jiao Tong University School of Medicine, Shanghai, P.R. China.

A33  Radioresistant non-small cell lung cancer-derived exosomes promote immune evasion. Li Xie, Xianrang Song. Shandong Cancer Hospital & Institute, Shandong, China.

Clinical Research and Clinical Trials

A35  Time to lowest postoperative carcinoembryonic antigen level is predictive on survival outcome in rectal cancer. Huichuan Yu1,2, Yanxin Luo1,2, Xiaolin Wang2, Laiyuan Li2, Liangliang Bai2, Zenghong Huang2, Weida Lin2, Shaoyong Peng2, Zhihuan Yang2, Lei Wang1,2, Meijin Huang1, Liang Kang1, Yanhong Deng2, Jianping Wang2,2. 1Department of Colon and Rectum Surgery, The Sixth Affiliated Hospital (Guangdong Gastrointestinal and Anal Hospital), Sun Yat-sen University, Guangzhou, Guangdong, China, 2Guangdong Provincial Key Laboratory of Colorectal and Pelvic Floor Disease, The Sixth Affiliated Hospital (Guangdong Gastrointestinal and Anal Hospital), Sun Yat-sen University, Guangzhou, Guangdong, China.

A37  The effects of genomic polymorphisms in one-carbon metabolism pathways on survival of gastric cancer patients received fluorouracil-based adjuvant therapy. Tingting Zhao, Jinfei Chen. Department of Oncology, Nanjing First Hospital, Nanjing Medical University, Nanjing, China.

A38  Transarterial ethanol ablation combined with transarterial chemoembolization for hepatocellular carcinoma with portal vein tumor thrombus. Biao-yang, Zheng-yin Liao. Department of Abdominal Oncology, West China Hospital, West China Medical School, Sichuan University, Chengdu, China.

A39  Tumor regression in 1st primary and 3rd refractory early gastric cancer cases from stand-alone oral Pga-Zn supplementation. Jinhyuk Fred Chung1, Norihisa Yoko2. 1Synergy Point Co. Ltd., Seongnam-city, Gyeonggi-do, South Korea, 2Cheongshim International Medical Center, Gyeonggi-do, South Korea.
Immunohistochemical analysis of cancer testis antigens MAGE-A1 and MAGE-A4 in high grade endometrial cancer: A retrospective study. Antonio Juretic, Sanja Srdelić Mihalj, Ivana Kuzmić-Prusac, Giulio C. Spagnoli, Eduard Vrdoljak, Branka Petrić-Miše, Vesna Čapkun. 1Department of Oncology, Zagreb University Hospital Center, and School of Medicine, University of Zagreb, Zagreb, Croatia, 2Department of Gynecology, Split University Hospital Center, Split, Croatia, 3Department of Pathology, Split University Hospital Center, Split, Croatia, 4Department of Biomedicine, University of Basel, Basel, Switzerland, 5Department of Oncology, Split University Hospital Center, Split, Croatia; 6Department of Nuclear Medicine, Split University Hospital Center, Split, Croatia.

Clinical implications of the extent of BRAFV600E alleles in patients with papillary thyroid carcinoma. Lihua Liu, Jae Won Chang, Seung-Nam Jung, Hee Sung Park, Taejeong Oh, Young Chang Lim, and Bon Seok Koo. 1Department of Medical Science, College of Medicine, Chungnam National University, Daejeon, Republic of Korea, 2Department of Otolaryngology-Head and Neck Surgery, Research Institute for Medical Science, Chungnam National University College of Medicine, Daejeon, Republic of Korea, 3Research and Development Center, GenomicTree, Inc. Daejeon Bioventure Town, Daejeon, Republic of Korea, 4Department of Otolaryngology-Head and Neck Surgery, Research Institute for Medical Science, Konkuk University College of Medicine, Seoul, Republic of Korea.

Predictive factors of lateral lymph node recurrence after total thyroidectomy and central neck dissection in patients with papillary thyroid cancer. Lihua Liu, Jae Won Chang, Bon Seok Koo. 1Department of Medical Science, College of Medicine, Chungnam National University, Daejeon, Republic of Korea, 2Department of Otorhinolaryngology-Head and Neck Surgery, Research Institute for Medical Sciences, Chungnam National University College of Medicine, Daejeon, Republic of Korea.

B cell precursor acute lymphoblastic leukemia (ALL) shows similar drug response in PDX mice and the corresponding patient. Wei Ye, Zuliang Zheng, Jingxuan Liu, Weilong Ye, Peng Li. 1Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, Guangzhou, China, 2Chongqing Hichuang Biomedical Corp., Chongqing, China.

Heterogeneity of chemosensitivity of bladder cancer by ex vivo ATP-tumor chemosensitivity assay (ATP-TCA). Wenqing Ge, Jian Chi, Zheng Wang, Jian Shen, Jinxian Pu. 1Chongqing Hichuang Biomedical Corp., Chongqing, China, 2The first Affiliated Hospital of Soochow University, Jiangsu, China.

A pilot safety study of allogeneic nature killer cells to treat the recurrence of hepatocellular carcinoma after transplantation. Guoying Wang, Qi Zhang, Wenjie Chen, Huanxian Luo, Yang Yang, Guihua Chen. Liver Transplantation Center, the Third Affiliated Hospital of Sun Yat-sen University, Guangzhou, China.
A46  Scalable approach for whole-exome sequencing of cell-free DNA from patients with metastatic cancer. Viktor A. Adalsteinsson1,2,8,9, Gavin Ha1,3,4,8, Samuel S. Freeman1,4,8, Atish D. Choudhury3, Daniel G. Stover3,4, Heather A. Parsons3,4, Gregory Gydush1, Sarah C. Reed1, Denis Loginov1,2, Dimitri Livitz1, Daniel Rosebrock1,4, Ignaty Leshchiner1, Jaegil Kim1, Chip Stewart1, Mara Rosenberg1, Joshua M. Francis1,3, Cheng-Zhong Zhang1,3,4, Ofir Cohen1,3, Coiyin Oh1, Huiming Ding1, Paz Polak1, Max Lloyd3, Sairah Mahmud3, Karla Helvie3, Margaret S. Merrill1, Rebecca A. Santiago3, Edward P. O’Connor3, Seong H Jeong3, Rachel Leeson2, Rachel M. Barry1, Denis Loginov1,2

A47  A tumor-penetrating recombinant protein anti-EGFR-iRGD enhance efficacy of antigen-specific CTL in gastric cancer in vivo. Huizi Sha, Shu Su, Naiqing Ding, Baorui Liu. The Comprehensive Cancer Center of Drum-Tower Hospital, Medical School of Nanjing University & Clinical Cancer Institute of Nanjing University, Nanjing, China.

A49  A panel of well-characterized syngeneic models for in vivo screening: MuScreenTM. Ying Jin, Lan Zhang, Juan Zhang, Eric Murphy, Zhongliang Li, Meng Qiao, Qian Shi. Cancer Pharmacology, Crown Bioscience, Inc., Santa Clara, CA, USA.

A50  Immunophenotyping in immunotherapy development. Annie Xiaoyu An1,2, Bin Chen1, Jie Cai1, Zhun Wang1, Davy Ouyang1, Henry Q.X. Li1,2. 1Crown Bioscience, Inc., Santa Clara, CA, USA, 2State Key Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing, China.

A51  R-Ras regulates murine T cell functions and implicates a role in anti-tumor immunity. Xiaocai Yan1, Mingfei Yan2, Yihe Guo3, Gobind Singh4, Yuhong Chen3, Mei Yu3, Demin Wang3, Cheryl A. Hillery1, Wai Nam Liu2, and Andrew M. Chan1. 1Department of Pediatrics, The Medical College of Wisconsin, Milwaukee, Wisconsin, U.S.A., 2School of Biomedical Sciences, The Chinese University of Hong Kong, Shatin, Hong Kong SAR, 3Blood Research Institute, BloodCenter of Wisconsin, Milwaukee, Wisconsin, U.S.A., 4Department of Oncological Sciences, The Mount Sinai School of Medicine, New York, New York, U.S.A.
A52 Loss of MondoA in regulatory T cells promotes colorectal carcinogenesis. Ying Lu1, Yangyang Li1, Na Tian1, Xuerui Luo1, Bin Li1, Xuemei Tong1. 1Shanghai Key Laboratory for Tumor Microenvironment and Inflammation, Shanghai Jiao Tong University School of Medicine, Department of biochemistry and Molecular Cell Biology, Shanghai, China.

A53 A humanized anti-CD24 antibody targeting hepatocellular carcinoma with high affinity and reduced immunogenicity. Fumou Sun1, Tong Wang1, Zhaoxiong Ma1, Yang Wang1, Jiahao Jiang1, Yuexing Ma1, Min Wang1, Juan Zhang2. 1School of Life Science & Technology, China Pharmaceutical University, 2China Pharmaceutical University, Nanjing, China.

A54 In vivo efficacy models for development of immuno-oncology drugs. Yun Zhang, Yanan Guo, Jichun Wen, Min Wu, Youqiang Yu, Yunping Wen, Xiaoming Du, Shuwen Huang, Yuelei Shen, Yuanhao Li. Beijing Biocytogen Co Ltd., Beijing, China.

A55 Depletion of myeloid-derived suppressor cells potentiates robust anti-tumor immunity against metastasis of IL17A-enriched mammary carcinoma. Bassel Dawod1,2, Simon Gebremeskel1, Chi Yan1,2, Brent Johnston3,4,6, David Hoskin2,3,4,6, Jun Wang1,2,3,5,6. 1Canadian Center for Vaccinology, 2Department of Microbiology & Immunology, 3Department of Pediatrics, 4Department of Pathology, Faculty of Medicine, Dalhousie University, 5IWK Health Centre, 6Beatrice Hunter Cancer Research Institute, Halifax, Nova Scotia, Canada.

A56 Notch-Wnt interaction regulates the proliferation of Kupffer cells in the progression of hepatocellular carcinoma (HCC) in mice. Yuchen Ye1,2, Fei He1,2, Lin Wang1, Shiqian Liang2, Junlong Zhao2, Pengfei Ma1,2, Kefeng Dou1, Hua Han2, Hongyan Qin2. 1Department of Hepatobiliary Surgery, Xijing Hospital, The Fourth Military Medical University, Xi’an, China, 2Department of Medical Genetics and Developmental Biology, The Fourth Military Medical University, Xi’an, China.

A57 Quantification of natural killer cell-mediated ADCC using celigo imaging cytometry. Ting Zhang1, Ruwei Li1, Mingwei Sun1, Leo Chan1, Jiaying Hao2, and Tao Zhao2. 1Nexcelom Bioscience Instruments (Shanghai) Co. Ltd., Shanghai, China, 2GenScript (Najing) Co., Ltd., Nanjing, Jiangsu, China.

A58 Evaluation of immune functions and immune checkpoint expression profiles in tumor microenvironment. Tangping Li, Na Li, Jeff Kim, Yuling Luo, Xiao-Jun Ma, Emily Park. Advanced Cell Diagnostics Inc., Newark, CA, USA.
Cellular Biology

**B01** Activation transcription factor-4 induced by ionizing radiation regulates vascular endothelial growth factor-A transcription in human vascular endothelial cells. Eun Ju Kim¹, Jong Kyung Sonn², and Young-Bin Lim¹. ¹Division of Basic Radiation Bioscience, Korea Institute of Radiological and Medical Sciences, Seoul, Republic of Korea. ²Department of Biology, College of Natural Sciences, Kyungpook National University, Daegu, Republic of Korea.

**B02** Semaphorin 3C drives invasiveness in prostate cells through epithelial-to-mesenchymal transition and stemness. Kevin J. Tam¹,², Daniel H. F. Hui¹, Wilson W. Lee¹, Mingshu Dong¹, Ivy Z. F. Jiao¹, Shahram Kosravi¹, Ario Takeuchi¹, Jim W. Peacock¹, Tabitha Tombe¹, Larissa Ivanova¹, Michael E. Cox¹,³, Martin E. Gleave¹,³, and Christopher J. Ong¹,². ¹Vancouver Prostate Centre, Vancouver General Hospital, Vancouver, BC, Canada, ²Department of Surgery, University of British Columbia, Vancouver, BC, Canada, ³Department of Urologic Sciences, University of British Columbia, Vancouver, BC, Canada.

Tumor Biology

**B03** Intratumor stromal proportion confers aggressive phenotype of gastric signet ring cell carcinomas. Dakeun Lee¹, In-Hye Ham², Hoon Hur³. ¹Department of Pathology, Ajou University School of Medicine ²Department of Surgery, Ajou University School of Medicine ³Ajou University School of Medicine, Gyeonggi-do, South Korea.

**B04** Targeted sequencing of plasma ctDNAs and primary tumors identified heterogeneity and homogeneity in advanced gastric cancer. Jing Gao, Haixing Wang, Yanyan Li, Jun Zhou, Xicheng Wang, Lin Shen. Department of Gastrointestinal Oncology, Key laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), Peking University Cancer Hospital and Institute, Beijing, China.

**B05** Targeted next-generation sequencing identified genomic alterations of endoscopic biopsies in advanced gastric cancer. Sai Ge, Jiajia Yuan, Jiayuan Wang, Yanyan Li, Jing Gao, Lin Shen. Beijing, Peking University Cancer Hospital and Institute, Beijing, China.
B07 CASZ1 is a novel promoter of metastasis in ovarian cancer. Yi-Ying Wu¹, Yuan-Jhe Chuang¹, Yuh-Ling Chen², Tse-Ming Hong³, Keng-Fu Hsu⁴. ¹Graduate Institute of Clinical Medicine, ²Institute of Oral Medicine, College of Medicine, National Cheng Kung University, ³Graduate Institute of Clinical Medicine, College of Medicine, National Cheng Kung University, ⁴Dept. OBS GYN, National Cheng Kung Univ. Hospital, Tainan City, Taiwan.

B08 Functional diagnostics for cancer precision medicine using patient-derived cell models. Xuefeng Liu. Department of Pathology, Center for Cell Reprogramming, Georgetown University Medical Center, Washington DC, USA.

B09 Activation of aryl hydrocarbon receptor leads to resistance to targeted therapy through contextual phosphorylation of Src by Jak2 kinase. Mingxiang Ye¹,², Yong Zhang¹, Jiàn Zhang², Jian Zhang¹. ¹Department of Pulmonary Medicine, Xijing Hospital, ²State Key Laboratory of Cancer Biology, Department of Biochemistry and Molecular Biology, Fourth Military Medical University, Xi’an, China.

B10 Extracellular matrix remodeling triggered by lysyl oxidase inhibition promotes the lung adenocarcinoma to squamous cell carcinoma transition independent of LKB1 status. Shun Yao¹,², Xiangkun Han¹, Hongbin Ji¹,³. ¹Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Science, Shanghai, China. ²University of Chinese Academy of Sciences, Beijing, China. ³School of Life Science and Technology, Shanghai Tech University, Shanghai, China.

B11 The roles of circular RNA 0000096 in gastric cancer occurrence. Junming Guo, Peifei Li, Shengcan Chen, Xiaoyan Mo, Tianwen Li, Bingxiu Xiao, Rui Yu. Department of Biochemistry and Molecular Biology, and Zhejiang Key Laboratory of Pathophysiology, Ningbo University School of Medicine, Ningbo, China. This work was supported by the Zhejiang Provincial Natural Science Foundation of China (No. LY14C060003), the Applied Research Project on Nonprofit Technology of Zhejiang Province (No. 2016C33177), and the K. C. Wong Magna Fund in Ningbo University.

B12 IncRNA panel to identify lung adenocarcinoma at an early stage in bronchial brushing specimens. Yanan Bai¹,², Zule Cheng¹, Zhenhua Wu¹, Qunying Hong³, Dawei Yang³, Chunxue Bai³, Qinghui Jin², Jianlong Zhao¹, Hongju Mao¹. ¹State Key Laboratory of Transducer Technology, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai 200050, China. ²University of Chinese Academy of Sciences, Beijing, China. ³Department of Pulmonary Medicine, Zhongshan Hospital, Fudan University, Shanghai, China.


B17  Different effects of miR-512-3p and miR-512-5p in colorectal cancer invasion and metastasis. Jie Hong, Tingting Yan, Linlin Ren, Haoyan Chen, Jing-yuan Fang. Gl Division, Shanghai Jiao-Tong University School of Medicine Renji Hospital, Shanghai Institution of Digestive Disease; Key Laboratory of Gastroenterology & Hepatology, Ministry of Health (Shanghai Jiao-Tong University); State Key Laboratory of Oncogene and Related Genes., Shanghai, China.


B21  PURα overexpression promotes esophageal cancer cells migration and invasion through the epithelial-mesenchymal transition. Jiajia Gao, Wei Li, Zhimin Guo, Yulin Sun and Xiaohang Zhao. State Key Laboratory of Molecular Oncology, National Cancer Center/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China.

B23  DOT1L is a melanocyte lineage specific caretaker tumor suppressor. Rutao Cui. Boston University, Boston, MA.

B25 Establishing a reference point: the development of a cfDNA simulate for common cancer hot spots. Chia-hui Lin¹, Li Weng¹, Li Zhang¹, Yi Huang¹, Hongyan Wang¹, Jinhong Chen², Johnny Sun¹, Grace Q. Zhao¹, Shengrong Lin¹, Kang Ying¹.¹ AccuraGen, ²Fudan University, Shanghai, China.

B26 A high-throughput image cytometry-based screening method for the cytotoxic effect of drug compounds on 3D tumor spheroid. Ting Zhang, Ruwei Li, Mingwei Sun, Yulong Cheng, Sarah Kessel, Olivier Déry, Scott Cribbes, Dmitry Kuksin, and Leo L. Chan. Nexcelom Bioscience Instruments (Shanghai) Co. Ltd., Shanghai, China.

B27 Novel kinase regulators of cancer metastasis: Epithelial-mesenchymal Transition and essential kinases. Linna Li¹, Meixiang Sang¹, Mohit Hulsurkar¹, Haiping Song¹, Nanping Ai¹, Dayong Zheng¹, Randolph Watnick², Michael Ittmann³, Jianming Xu⁴, Ed Harlow⁵, Wenliang Li¹.¹ Brown Foundation Institute of Molecular Medicine, University of Texas Health Science Center at Houston, USA, ²Vascular Biology Program, Department of Surgery, Children’s Hospital Boston, Boston, USA, ³Department of Pathology and Immunology, Baylor College of Medicine, and Michael E. DeBakey VAMC, Houston, TX, USA, ⁴Department of Molecular and Cell Biology, Baylor College of Medicine, Houston, TX, USA, ⁵Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, Boston, USA.

B28 Cancer stem cells: A promising field of study in cancer therapy and the key to tumor relapse. Tina S Homayouni¹, Reza Bayat Mokhtari¹,²,³, Zhenya Morgatskaya¹, Narges Baluch⁴, Sushil Kumar¹, Herman Yeger¹,²,³.¹ Developmental and Stem Cell Biology, The Hospital for Sick Children; Toronto, Ontario, Canada; ²Department of Paediatric Laboratory Medicine, The Hospital for Sick Children, Toronto, Ontario, Canada; ³Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada; ⁴Department of Pathology and Molecular Medicine, Queen’s University, Kingston, Ontario, Canada; ⁵Department of Immunology and Infectious Diseases, The Forsyth Institute, Cambridge, MA, USA.

B29 Combination therapy approaches open new horizons in cancer treatment. Zhenya Morgatskaya¹, Reza Bayat Mokhtari¹,²,³, Tina S Homayouni², Narges Baluch⁴, Sushil Kumar¹, Herman Yeger¹,²,³.¹ Developmental and Stem Cell Biology, The Hospital for Sick Children; Toronto, Ontario, Canada; ²Department of Paediatric Laboratory Medicine, The Hospital for Sick Children, Toronto, Ontario, Canada; ³Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada; ⁴Department of Pathology and Molecular Medicine, Queen’s University, Kingston, Ontario, Canada; ⁵Department of Immunology and Infectious Diseases, The Forsyth Institute, Cambridge, MA, USA.


The phenomenon of tumor specifically expressed, evolutionarily novel (TSEEN) genes in tumors. A.P. Kozlov, Biomedical Center and Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia.

Bioinformatics and Computational Biology

Development of molecular pathology for HCC diagnosis and subtyping. Sheng Guo, Wubin Qian, Jia Xue, Jie Cai, Henry Q. X. Li. Crown Bioscience, Inc., Santa Clara, CA, State Key Laboratory of Natural and Biomimetic Drugs, Peking University.


Chemistry

Novel pyrrolomycins as potential anticancer agents in a MYCN amplified neuroblastoma. Rongshi Li, Dachang Bai, Don Coulter, Yan Liu, Zhen Qiao, Jerry Li, Zunhua Yang, Nagesh Gautam, Yazen Alnouti, John G. Sharp, Timothy R. McGuire. UNMC Center for Drug Discovery, Department of Pharmaceutical Sciences, and Pediatric Cancer Research Program, Fred and Pamela Buffet Cancer Center, College of Pharmacy and Medicine, University of Nebraska Medical Center, Omaha, Nebraska, USA.

Epidemiology

Colon cancer susceptibility variant identified from a genome-wide association study in African Americans. Hansong Wang, Stephanie L. Schmit, Christopher A. Haiman, Temitope O. Keku, Ikuko Kato, Julie R. Palmer, David van den Berg, Lynne R. Wilkens, Terrilea Burnett, David V. Conti, Fredrick R. Schumacher, Lisa B. Signorello, William J. Blot, Krista Zanetti, Curtis Harris, Mala Pande, Sonja I. Berndt, Polly A. Newcomb, Dee W. West, Robert Haile, Daniel O. Stram, Jane C. Figueiredo, Loïc Le Marchand. Epidemiology Program, University of Hawaii Cancer Center, Honolulu, HI, Departments of Cancer Epidemiology and Gastrointestinal Oncology, Moffitt Cancer Center, Tampa, FL, Department of Preventive Medicine and Norris Comprehensive Cancer Center, Keck School of Medicine, University of Southern California, Los Angeles, CA, Center for Gastrointestinal Biology and Disease, University of North Carolina, Chapel Hill, NC, Wayne State University Karmanos Cancer Institute, Detroit, MI, Slone Epidemiology Center, Boston University School of Public Health, Boston, MA, Case Western Reserve University, Cleveland, OH, International Epidemiology Institute, Rockville, MD, Division of Epidemiology, Department of Medicine, Vanderbilt Epidemiology Center and Vanderbilt-Ingram Cancer Center, Vanderbilt University, Nashville, TN, Laboratory of Human Carcinogenesis, National Cancer Institute, National Institutes of Health, Bethesda MD, Department of Epidemiology, the University of Texas M. D. Anderson Cancer Center, Houston, TX, Division of Cancer
Experimental Molecular Therapy

**B42** Assessment of dianhydrogalactitol in the treatment of relapsed or refractory non-small cell lung cancer. Anne Steino¹, Guangan He², Beibei Zhai³, Jeffrey A. Bacha¹, Shun Lu⁴, Dennis M. Brown¹, Mads Daugaard³ and Zahid H. Siddik². ¹DelMar Pharmaceuticals, Inc., Vancouver, Canada and Menlo Park, CA, USA; ²The University of Texas MD Anderson Cancer Center, Houston, TX; ³Vancouver Prostate Centre, Vancouver, Canada; ⁴Shanghai Lung Cancer Center, Shanghai, China.

**B43** Valproic acid potentiates efficacy of paclitaxel against triple-negative breast cancer. Weimin Zuo¹, Tingting Lin¹, Rong Lin¹, Ling Zhu¹, Lianghu Huang¹, Lin Deng², Bing Wang², Lie Wang², Jianming Tan¹, and Shuliang Wang¹. ¹Fujian Key Laboratory of Transplant Biology, ²Department of General Surgery, Fuzhou General Hospital, Xiamen University, Fuzhou, Fujian, China.

**B44** Design, synthesis, and biological evaluation of novel pyrazolo [1,5-a] pyrimidine derivatives as potent TRPC6 inhibitors. Yanting Yang¹, Chunrong Qu², Guangyao Lv¹, Xiaoxia Xie¹, Jingwei Tian¹, Fenghua Fu¹, Xuechuan Hong², Hongbo Wang¹. ¹School of Pharmacy, Key Laboratory of Molecular Pharmacology and Drug Evaluation (Yantai University), Ministry of Education, Yantai, China; ²State Key Laboratory of Virology, Key Laboratory of Combinatorial Biosynthesis and Drug Discovery Wuhan University School of Pharmaceutical Sciences, Wuhan, China.

**B45** Compound A ameliorates irinotecan-induced diarrhea without compromising its anti-tumor activity in vivo. Daokun Guang, Jingwen Zhang, Lei Lei, Fenghua Fu, Hongbo Wang. Key Laboratory of Molecular Pharmacology and Drug Evaluation (Ministry of Education), Collaborative Innovation Center of Advanced Drug Delivery System and Biotech Drugs in Universities of Shandong, School of Pharmacy, Yantai University, Yantai, China.


**B47** Synergistically improved antitumor treatment effects of PD-1 adjuvant immunotherapy after surgery in 4T1 breast tumor mouse model. Yang Du, Jie Tian. Key Laboratory of Molecular Imaging of Chinese Academy of Sciences, Institute of Automation, Chinese Academy of Sciences, Beijing, China.
B48 Efficient growth suppression of pancreatic cancer PDX by fully human anti-mesothelin CAR-T cells. Jiang Hua1, Bo Song2, Peng Wang2, Qixiang Li3, Zonghai Li1,2. 1State Key Laboratory of Oncogenes and Related Genes, Shanghai Cancer Institute, Renji Hospital, Shanghai Jiaotong University School of Medicine, Shanghai, 2CARsgen Therapeutics, Xuhui District, Shanghai, China, 3Crown Biosciences, Inc., Santa Clara, CA.

B49 Research of the biological mechanisms and therapeutic effects of recombinant adenoviral p53 on human malignant melanoma. Shan-Wei Shi1,2, Mao-Quan Li1,2, Li-Guang Lu1,2, Long-Jiang Li1,2, Yi Li1,2. 1State Key Laboratory of Oral Disease, Sichuan University, Chengdu, China, 2Department of Head and Neck oncology, West China Hospital of Stomatology, Sichuan University, Chengdu, PR China.

B50 Target DNA-PK to eradicate cancer stem cells. Yanling Wang, Param-Puneet Butter, Yi Fan. Department of Radiation Oncology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA.

B51 EGFR tyrosine kinase inhibitors sensitized TRAIL-mediated cell death by regulating surface DR5 and c-FLIP expression in human hepatocellular carcinoma cells. Wei-Hsuan Wu, Yi-Ching Shen, Chia-Yun Lin, Jun-Jie Chen. Tumor Research Laboratory, Department of Medical Research, E-Da cancer hospital, Kaohsiung City, Taiwan.

B52 Development of therapeutics for renal cell carcinoma with rhabdoid features. Chow Nan-Haw1,2,3, Song Hong-Fang1, Yuh-Shyan Tsai4, Hong-Yi Chang4. 1Institute of Molecular Medicine, School of Medicine, National Cheng Kung University, Tainan, Taiwan, 2Institute of Basic Medical science, National Cheng Kung University, Tainan, Taiwan, 3Department of Pathology, Collage of Medicine, National Cheng Kung University, Tainan, Taiwan, 4Department of Urology, Collage of Medicine, National Cheng Kung University, Tainan, Taiwan.

B53 Akt signaling blockade sensitizes cells to proteasome inhibition induced death in histiocytic sarcoma – a dog model for the human disease. Qizhi Qin1, Irving C. Allen1, Rafael V. Davalos2, Nikolaos G Dervisis3. 1Virginia Maryland Regional College of Veterinary Medicine, 2School of Biomedical Engineering and Sciences Virginia Tech – Wake Forest University, Winston-Salem, NC.

B54 The activity of asymmetrical marinopyrroles and novel pyrrolomycin derivatives in a MYCN amplified neuroblastoma cell line: Potential mechanism of cell death. Timothy McGuire, Dachang Bai, Don Coulter, Zhen Qiao, Jerry Li, Zunhua Yang, Yan Liu, John Sharp, Rongshi Li. UNMC Center for Drug Discovery, Department of Pharmaceutical Sciences, and Pediatric Cancer Research Program, Fred and Pamela Buffet Cancer Center, College of Pharmacy and Medicine, University of Nebraska Medical Center, Nebraska Medical Center, Omaha, Nebraska, USA.
B55  Tumors with class 3 BRAF mutants are RAS dependent and sensitive to its inhibition. Zhan Yao1, Rona Yaeger2, Antony Tao9, Neilawattie M. Torres1, Matthew T. Chang4, 6, 10, Matthias Drosten8, Huiyong Zhao1, Linde Miles3,11, Naomi M. Campbell7, Elisa de Stanchina1, David B. Solit2, 4, 5, Mariano Barbacid8, Barry S. Taylor4, 5, 6 and Neal Rosen1, 2, 3.

1Program in Molecular Pharmacology, 2Department of Medicine, 3Center for Mechanism Based Therapeutics, 4Human Oncology and Pathogenesis Program, 5Center for Molecular Oncology, 6Department of Epidemiology and Biostatistics, 7Department of Radiology, Memorial Sloan-Kettering Cancer Center, New York, NY, USA, 8Molecular Oncology Programme, Centro Nacional de Investigaciones Oncológicas (CNIO), Melchor Fernández Almagro 3, Madrid, Spain, 9Center for Neural Science, College of Arts and Sciences, New York University, New York, NY, USA, 10Department of Bioengineering and Therapeutic Sciences, University of California, San Francisco, CA, USA, 11Anti-Cancer Drug Development Graduate Training Program, Department of Pharmacology and Molecular Sciences, Johns Hopkins University, Baltimore, MD, USA.

B56  Identification of potential chemotherapy resistant markers for glioblastoma.

Fengfei Wang1, Shuang Zhou1, Jonathan Teston1,2,3, Yanfeng Gao4, Xin Shen1, Touradj Solouki5, Batool Kirmani5,6, Jason H. Huang1,7, Erxi Wu1,7,8, Ekokobe Fonkem1,6,7, 1Neuroscience Institute, Baylor Scott & White Health, Temple, Texas; 2Temple College, Temple, Texas; 3Texas Bioscience Institute, Temple, Texas; 4Department of Anesthesiology, First Affiliated Hospital, Xi'an Jiaotong University, Xi'an, China; 5Department of Chemistry and Biochemistry, Baylor University, Waco, Texas; 6Department of Neurology, Baylor Scott & White Health, Temple, Texas; 7Department of Surgery, Texas A & M University Health Science Center College of Medicine, Temple, Texas; 8Department of Pharmaceutic Sciences, Texas A & M University Health Science Center College of Pharmacy, College Station, Texas.

B57  Identification of new mutations in familial glioblastoma. Fengfei Wang1,2, Edana Stroberg3, Sanjib Mukherjee4, Shi-hua Xiang5, Linden Morales3, Arundhati Rao3, M Karen Newell-Rogers4, Jason H. Huang1,4, Erxi Wu1,4,6, Ekokobe Fonkem1,2,4. 1Department of Neurosurgery, Baylor Scott & White Health, Temple, TX, 2Department of Neurology, Baylor Scott & White Health, Temple, TX, 3Department of Pathology, Baylor Scott & White Health, Temple, TX, 4Department of Surgery, Texas A & M Health Science Center College of Medicine, Temple, TX, 5Nebraska Center for Virology, School of Veterinary Medicine and Biomedical Sciences, University of Nebraska-Lincoln, Lincoln, NE, 6Department of Pharmaceutic Sciences, Texas A & M Health Science Center College of Pharmacy, College Station, TX.

Prevention Research

B58  Sulforaphane Inhibits c-Myc-Mediated Prostate Cancer Stem-Like Traits. Shivendra V. Singh. Pharmacology & Chemical Biology, University of Pittsburgh Cancer Institute, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA.
Self-nano emulsifying Drug Delivery Systems (SNEDDS) of curcumin increases its cytotoxicity on various breast cancer cell lines. Retno Murwanti\textsuperscript{1}, Ronny Martien \textsuperscript{2}, Leni Rimaleni \textsuperscript{2}. \textsuperscript{1}Universitas Gadjah Mada, \textsuperscript{2}Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, Indonesia.