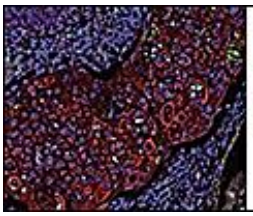

11th AACR-JCA Joint Conference
Breakthroughs in Cancer Research
Feb. 8-12, 2019 | Westin Maui, Maui, HI

AACR American Association for Cancer Research
JCA 日本癌学会 JAPANESE CANCER ASSOCIATION

Poster Session B
Sunday, February 10, 2019
5:30 p.m.-7:30 p.m.
Haleakala Ballroom

Cancer biology

B01 HERC2 ubiquitinates RPA2 in ATR dependent manner and promotes RPA to suppress G-quadruplex DNA. Yongqiang Lai, Mingzhang Zhu, Wenwen Wu, Yukiko Togashi, Tomohiko Ohta. St. Marianna University Graduate School of Medicine, Kawasaki, Japan.

B02 Exosomal microRNA derived from hepatocellular carcinoma cells regulates pathways associated with cancer progression. Hyo Jung Cho[1], Jin Young Nam[1], Soon Sun Kim[1], Jae Youn Cheong[1], Jungwoo Eun[1], Minsu Kwon[2]. [1]Ajou University School of Medicine, Suwon, Republic of Korea, [2]Eulji University School of Medicine, Seoul, Republic of Korea.

B03 The role of AXL in erlotinib-resistant non-small cell lung cancer cell lines. Nam Gilyeong[1], Moon Ejung[2], Lee Ikjae[1], Amato Giaccia[2]. [1]Gangnam severance hospital, Seoul, Republic of Korea, [2]Stanford University School of Medicine, Stanford, CA, USA.

B04 Comparison of gene aberrations and gene expression profiles between PDX and organoids from surgical specimens of colorectal cancer. Toshio Imai[1], Mie Naruse[1], Masako Ochiai[1], Hirokazu Taniguchi[2], Atsushi Ochiai[3]. [1]Dep. Anim. Exp., Natl. Cancer Ctr. Res. Inst., Tokyo, Japan, [2]Dept. Pathol., Natl Cancer Ctr. Hosp., Tokyo, Japan, [3]Exploratory Oncol. Res. and Clin. Trial Ctr., Natl. Cancer Ctr., Tokyo, Japan.

B05 Role of claudin-18 on malignant potentials of bile duct cancer. Kumi Takasawa, Akira Takasawa, Makoto Osanai. Sapporo Medical University, Sapporo, Japan.

B07 IL-6/gp130 axis promotes neural invasion in pancreatic cancer. Hidetaka Suzuki, Shuichi Mitsunaga, Masafumi Ikeda, Toshikatsu Kawasaki, Atsushi Ochiai. National Cancer Center Hospital East, Kashiwa, Chiba, Japan.

B08 Identification of Bcl11b+ metastasis-initiating cells in breast cancer. Shang Cai[1], Zhen Qi[2], Dalong Qian[2], Frederick Dirbas[3], Aaron Newman[2], Michael Clarke[2]. [1]Westlake University, Hang Zhou, China, [2]Stanford Institute for Stem Cell Biology and Regenerative Medicine, Stanford, CA, USA, [3]Stanford University, Stanford, CA, USA.

B09 DYRK2 contributes to the tumor cell proliferation and invasion through CDK14 in breast cancer cells. Yoshimi Imawari, Rei Mimoto, Noriko Yamaguchi, Hiroshi Takeyama, Kiyotsugu Yoshida. Jikei

University School of Medicine, Tokyo, Japan.

B10 Mitochondrial fission induced by EphB6 controls apoptotic response in triple-negative breast cancer cells. Amr El Zawily, Behzad Tossi, Tanya Freywald, Vijaya Indukuri, Franco Vizeacoumar, Scot Leary, Andrew Freywald. University of Saskatchewan, Saskatoon, SK, Canada.

B11 HER2 regulates the cancer stem cell activities by Wnt signaling pathway in gastric cancer cell. YooJin Bae, Jung DaHyun, Chung HeeCheul, Shin YouKeun, Kim JieHyun. Gangnam Severance Hospital, Seoul, Republic of Korea.

B12 Generation of novel *PIK3CA*-induced gastric cancer mouse model and basic study for clinical application of PI3K inhibitor. Makoto Sugimori, Chiaya Jimbo, Hirofumi Kuwashima, Hiroaki Yamada, Hiroaki Kaneko, Yoko Hikiba, Wataru Shibata, Shin Maeda. Gastroenterology, Yokohama City Univ., Yokohama, Japan.

B13 TMEPAI drives anchorage-independent growth in breast cancer cells through its SIM and PY motifs. Yukihide Watanabe, Meidi U. Puteri, Riezki Amalia, Mohammed Abdelaziz, Bantari W. K. Wardhani, Femmi Anwar, Mitsuyasu Kato. University of Tsukuba, Tsukuba, Ibaraki, Japan.

B14 Single-cell transcriptomic analysis reveals the early separation of neuroblastoma fate in Th-MYCN mice. Shoma Tsubota[1], David A. duVerle[2], Fanny Perraudeau[3], Yukie Kashima[2], Satoshi Kishida[1], Yutaka Suzuki[2], Koji Tsuda[2], Kenji Kadomatsu[1]. [1]Department of Molecular Biology, Nagoya University Graduate School of Medicine, Nagoya, Japan, [2]Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, the University of Tokyo, Tokyo, Japan, [3]Division of Biostatistics, School of Public Health, University of California, Berkeley, CA, USA.

B15 Identification of key gene in castration-resistant prostate cancer using computational analysis. Aiko Sugiyama. Kyoto University, Kyoto, Japan.

B16 Contribution of the RNA binding protein with multiple splicing (RBPMS) to the cisplatin resistance of ovarian cancer cells. Robert J. Rabelo-Fernandez[1], Andrea Rosado- Albacarys[1], Fatma Valiyeva[2], Pablo Vivas-Mejia[3]. [1]University of Puerto Rico at Rio Piedras, San Juan, Puerto Rico, USA, [2]Comprehensive Cancer Center, San Juan, Puerto Rico, USA, [3]University of Puerto Rico Medical Science Campus, San Juan, Puerto Rico, USA.

B17 Expression of the bile acid receptor TGR5 in gallbladder cancer. Kee-Hwan Kim, Soo-Ho Lee. Uijeongbu St. Mary's Hospital, Uijeongbu, Gyeonggi-do, South Korea.

Epigenetics

B18 The correlation between LINE-1 methylation level and copy number in gastrointestinal cancers. Hideo Baba, Yoshifumi Baba, Noriko Yasuda, Takatsugu Ishimoto, Naoya Yoshida. Kumamoto university, Kumamoto, Japan.

B19 The relation with tumor EZH2 expression and survival in colorectal cancer patients treated with anti-EGFR therapeutics. Katsuhiko Nosho, Itaru Yamamoto, Hisayoshi Igarashi, Shinichi Kanno, Kei Mitsuhashi, Keisuke Ishigami, Hiroyoshi Kurihara, Hiroshi Nakase. Department of Gastroenterology and

Hepatology, Sapporo Medical University School of Medicine, Sapporo, Japan.

B20 The association between breast cancer risk factors and tissue-specific epigenetic age in normal breast. James Castle[1], Nan Lin[1], Jinpeng Liu[1], Chi Wang[1], Yunlong Liu[2], Chunyan He[1]. [1]University of Kentucky, Lexington, KY, USA, [2]Indiana University, Indianapolis, IN, USA.

B21 CXCR4 gene methylation in colorectal cancer. Alexei Stuckel[1], Qiong Zhang[1], Urszula Dougherty[2], Reba Mustafi[2], Trupti Joshi[1], Tripti Khare[1], Marc Bissonnette[2], Sharad Khare[1,3]. [1]University of Missouri, Columbia, MO, USA, [2]University of Chicago, Chicago, IL, USA, [3]Harry S. Truman Memorial Veterans' Hospital, Columbia, MO, USA.

B22 Evaluation of potential cell-free epigenetic biomarkers for hepatocellular carcinoma: Is there a gender effect? Sandi A. Kwee[1], Maarit Tiirikainen[1], Karolina Peplowska[1], Min Ae Song[2], Linda L. Wong[1]. [1]University of Hawaii Cancer Center, Honolulu, HI, USA, [2]The Ohio State University, Columbus, OH, USA.

B23 Methylation-silencing in high-risk oral leukoplakia. Masanobu Abe[1], Satoshi Yamashita[2], Takahiro Abe[3], Toshikazu Ushijima[2], Kazuto Hoshi[3]. [1]Division for Health Service Promotion, University of Tokyo, Tokyo, Japan, [2]Division of Epigenomics, National Cancer Center Research Institute, Tokyo, Japan, [3]Department of Oral & Maxillofacial Surgery, University of Tokyo Hospital, Tokyo, Japan.

B24 Long noncoding RNAs contribute to the epigenetic progression of epithelial-mesenchymal transition (EMT) of cancer cells. Takeshi Suzuki, Minoru Terashima, Akihiko Ishimura. Kanazawa University, Kanazawa, Japan.

B25 Comprehensive epigenetic classification of HPV-associated oropharyngeal cancer. Takuya Nakagawa[1], Keisuke Matsusaka[1], Kiyoshi Misawa[2], Masaki Fukuyo[1], Masato Mima[2], Tomoya Kurokawa[1], Daiju Sakurai[1], Toyoyuki Hanazawa[1], Yoshitaka Okamoto[1], Atsushi Kaneda[1]. [1]Chiba University, Chiba, Japan, [2]Hamamatsu University, Hamamatsu, Japan.

B26 DOT1L inhibition blocks multiple myeloma cell proliferation by suppressing IRF4-MYC signaling. Kazuya Ishiguro[1], Hiroshi Kitajima[1], Takeshi Niinuma[1], Tadao Ishida[2], Reo Maruyama[3], Hiroshi Ikeda[4], Eiichiro Yamamoto[1], Masahiro Kai[1], Yasushi Sasaki[5], Takashi Tokino[6], Hiroshi Nakase[4], Hiromu Suzuki[1]. [1]Department of Molecular Biology, Sapporo Medical University School of Medicine, Sapporo, Japan, [2]Department of Hematology, Japanese Red Cross Medical Center, Tokyo, Japan, [3]Project for Cancer Epigenomics, Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan, [4]Department of Gastroenterology and Hepatology, Sapporo Medical University School of Medicine, Sapporo, Japan, [5]Center for Medical Education, Sapporo Medical University , Sapporo, Japan, [6]Department of Medical Genome Sciences, Research Institute for Frontier Medicine, Sapporo Medical University School of Medicine, Sapporo, Japan.

B27 Genome-wide DNA methylation analysis in nonalcoholic steatohepatitis-related hepatocellular carcinomas. Ying Tian[1], Eri Arai[1], Junko Kuramoto[1], Satomi Makiuchi[1], Noboru Tsuda[1], Hidenori Ojima[1], Yukihiro Fukamachi[2], Yoriko Takahashi[2], Nobuyoshi Hiraoka[3], Teruhiko Yoshida[4], Yae Kanai[1]. [1]Department of Pathology, Keio University School of Medicine, Tokyo, Japan, [2]Biomedical Department, Solution Center, Mitsui Knowledge Industry Co., Ltd., Tokyo, Japan, [3]Department of Pathology and Clinical Laboratory, National Cancer Center Hospital, Tokyo, Japan, [4]Fundamental Innovative Oncology Core, National Cancer Center Research Institute, Tokyo, Japan.

B28 Intratumor DNA methylation heterogeneity reflects differentiation plasticity and malignant

progression of human glioblastoma: A methylome analysis using microdissected specimens. Kentaro Ohara[1], Eri Arai[1], Hikaru Sasaki[2], Masashi Nakatsukasa[3], Kazunari Yoshida[2], Yae Kanai[1]. [1]Department of Pathology, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan, [2]Department of Neurosurgery, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan, [3]Department of Neurosurgery, Saiseikai Utsunomiya Hospital, Utsunomiya-shi, Tochigi, Japan.

B29 Developing artificial catalyst system for epigenome manipulation. Shigehiro A. Kawashima, Akiko Fujimura, Wataru Hamajima, Kenzo Yamatsugu, Motomu Kanai. The University of Tokyo, Tokyo, Japan.

B30 Epigenetic landscape of alveolar soft part sarcoma. Miwa Tanaka, Rikuka Shimizu, Yasuyo Teramura, Mizuki Homme, Yukari Yamazaki, Takuro Nakamura. Cancer Inst, JFCR, Tokyo, Japan.

B31 Induction of dynamic epigenomic activation and inactivation by Epstein-Barr virus infection in gastric cancer. Atsushi Okabe[1], Keisuke Matsusaka[1], Masaki Fukuyo[1], Sayaka Funata[1], Hiroe Namba[1], Masashi Fukayama[2], Atsushi Kaneda[1]. [1]Graduate School of Medicine, Chiba University, Chiba, Japan, [2]Graduate School of Medicine, The University of Tokyo, Tokyo, Japan.

B32 Acetylation of CCAR2 establishes a BET/BRD9 acetyl switch in response to combined deacetylase and bromodomain inhibition. Praveen Rajendran[1], Gavin S. Johnson[1], Li Li[1], Ying-Shiuan Chen[1], W. Mohaiza Dashwood[1], Nhung Nguyen[1], Ahmet M. Ulusan[1], Furkan U. Ertem[1], Mutian Zhang[1], Jai Li[1], Deqiang Sun[1], Yun Huang[1], Shan Wang[1], Hon-Chiu Eastwood Leung[2], David A. Lieberman[3], Laura M. Beaver[4], Emily Ho[4], Mark T. Bedford[5], Kyle Chang[5], Eduardo Vilar[5], Roderick H. Dashwood[6]. [1]Center for Epigenetics & Disease Prevention, Texas A&M College of Medicine, Houston, TX, USA, [2]2Mass Spectrometry-Proteomics Core, Baylor College of Medicine, Houston, TX, USA, [3]Division of Gastroenterology and Hepatology, Oregon Health & Science University, Portland, OR, USA, [4]College of Public Health and Human Sciences, Oregon State University, Corvallis, OR, USA, [5]The University of Texas MD Anderson Cancer Center, Houston, TX, USA, [6]Center for Epigenetics & Disease Prevention, Texas A&M College of Medicine; The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

Genomics

B33 Genetic profile of butterfly GBMs centered at the midline of corpus callosum. Ryohei Otani[1], Masashi Nomura[2], Takeo Uzuka[3], Fumi Higuchi[3], Hadzuki Matsuda[3], Phyo Kim[3], Hiroyuki Aburatani[2], Keisuke Ueki[3]. [1]Metropolitan Komagome Hospital, Tokyo, Tokyo, Japan, [2]The University of Tokyo, Tokyo, Tokyo, Japan, [3]Dokkyo Medical University, Mibu, Tochigi, Japan.

B34 Amplicon-based targeted sequencing identifies promising markers in oral squamous cell carcinoma from Japanese patients. Takashi Tokino, Takafumi Nakagaki, Masashi Idogawa, Yasushi Sasaki. Sapporo Medical University, Sapporo, Japan.

B35 Characterization of somatic mutation spectrum on the road to carcinogenesis in a patient with multiple colorectal laterally spreading tumors by targeted sequencing analysis. Moriya Iwaizumi, Terumi Taniguchi, Tomohiro Sugiyama, Kiyotaka Kurachi, Masayoshi Yamamoto, Satoshi Osawa, Ken Sugimoto, Haruhiko Sugimura, Masato Maekawa. Hamamatsu University School of Medicine, Hamamatsu, Japan.

B36 A frameshift mutation of SGO1 independent of MSI-H/dMMR has a potential of resistance for taxane in gastric cancer. Tomohiro Sugiyama[1], Moriya Iwaizumi[1], Satoshi Suzuki[2], Ken Sugimoto[1],

Masato Maekawa[1], Haruhiko Sugimura[1]. [1]Hamamatsu University School of Medicine, Hamamatsu, Japan, [2]University of Michigan, Ann Arbor, MI, USA.

B37 Two distinct tumorigenic processes of endometrial endometrioid carcinoma. Seiichi Mori, Yuko Sugiyama, Osamu Gotoh, Katsuhiko Hasumi, Yutaka Takazawa, Teiichi Motoyama, Testuo Noda. Japanese Foundation for Cancer Research, Tokyo, Japan.

B38 Whole-genome Sleeping Beauty mutagenesis screens identify the Hippo pathway as the driver of NAFLD-related hepatocellular carcinoma. Takahiro Kodama[1], Jing Yi[2], Justin Y. Newberg[3], Jean C. Tien[4], Hao Wu[5], Milton J. Finegold[5], Michiko Kodama[6], Takeshi Tamura[1], Randy L. Johnson[2], Nancy A. Jenkins[7], Tetsuo Takehara[1], Neal G. Copeland[7]. [1]Department of Gastroenterology and Hepatology, Graduate School of Medicine, Osaka University, Suita, Japan, [2]Department of Cancer Biology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA, [3]Department of Molecular Oncology, Moffitt Cancer Center, Tampa, FL, USA, [4]Michigan Center for Translational Pathology, Department of Pathology, University of Michigan, Ann Arbor, MI, USA, [5]Department of Pathology, Texas Children's Hospital and Baylor College of Medicine, Houston, TX, USA, [6]Department of Obstetrics and Gynecology, Graduate School of Medicine, Osaka University, Suita, Japan, [7]Genetics Department, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

B39 Sleeping Beauty transposon insertional mutagenesis screen of uterine leiomyosarcoma identified cancer genes driving sarcomagenesis. Michiko Kodama[1], Takahiro Kodama[1], Justin Y. Newberg[2], Jean C. Tien[3], Roberto Rangel[4], Aya Nakae[1], Tadashi Kimura[1], Neal G. Copeland[4], Nancy A. Jenkins[4]. [1]Osaka Graduate School of Medicine, Suita, Japan, [2]Moffitt Cancer Center, Tampa, FL, USA, [3]Michigan Center of Translational Pathology, Ann Arbor, MI, USA, [4]The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

B40 *SDH* mutations in hereditary pheochromocytoma/paraganglioma syndrome in four Japanese pedigrees. Mie Yamanaka[1], Kiyoto Shiga[2], Sho Fujiwara[1], Yasuhiko Mizuguchi[1], Sari Yasuda[1], Kota Ishizawa[1], Yuriko Saiki[1], Kenjiro Higashi[3], Takenori Ogawa[3], Noriko Kimura[4], Akira Horii[1]. [1]Tohoku University School of Medicine, Department of Molecular Pathology, Sendai, Miyagi, Japan, [2]Iwate Medical University School of Medicine, Department of Head and Neck Surgery, Morioka, Iwate, Japan, [3]Tohoku University School of Medicine, Departments of Molecular Pathology and Otolaryngology-Head and Neck Surgery, Sendai, Miyagi, Japan, [4]National Hospital Organization Hakodate National Hospital, Department of Clinical Research, Pathology Division, Hakodate, Hokkaido, Japan.

B41 Multiple genetic factors affecting nonalcoholic fatty liver disease and nonalcoholic steatohepatitis-related hepatocellular carcinoma in the Japanese population. Daiki Miki[1], Yuichi Hiyama[1], Atsushi Ono[1], Masami Yamauchi[1], Masataka Tsuge[1], Hiroshi Aikata[1], Tatsuhiko Tsunoda[2], Kazuaki Chayama[3]. [1]Hiroshima University, Hiroshima, Japan, [2]Tokyo Medical and Dental University & RIKEN, Tokyo & Yokohama, Japan, [3]Hiroshima University & RIKEN, Hiroshima & Yokohama, Japan.

B42 Genomic characterization of early-stage esophageal squamous cell carcinoma in a Japanese population. Yuji Urabe, Kenichi Kagemoto, Koki Nakamura, Kazuhiko Masuda, Atsushi Ono, Shinji Tanaka, Koji Arihiro, Kazuaki Chayama. Hiroshima University Hospital, Hiroshima, Japan.

B43 Comprehensive sequencing analyses of uterine and ovarian carcinosarcoma. Osamu Gotoh[1], Yuko Sugiyama[2], Nobuhiro Takeshima[2], Yutaka Takazawa[3], Kosei Hasegawa[4], Keiichi Fujiwara[4], Mana Taki[5], Noriomi Matsumura[5], Tetsuo Noda[1], Seiichi Mori[1]. [1]JFCR. CPM Ctr., Koto, Tokyo, Japan, [2]JFCR. Ariake Hosp., Koto, Tokyo, Japan, [3]JFCR. Cancer Inst., Koto, Tokyo, Japan, [4]Saitama Med. Univ. Intl. Med. Ctr., Hidaka, Saitama, Japan, [5]Kyoto Univ. Hosp., Kyoto, Kyoto, Japan.

B44 Relapse glioblastoma mechanism revealed by single-cell molecular analysis. Andres Stucky[1], Calvin Li[2], Xuelian Chen[1], Qin Wen[1], William Loudon[2], Hector Ho[3], Mustafa Kabeer[2], Xi Zhang[4], Richard Pestell[5], Jiang Zhong[3]. [1]USC, Los Angeles, CA, USA, [2]CHOC, Irvine, CA, USA, [3]Saint joseph Hospital, Irvine, CA, USA, [4]Army Medical University, Chongqing, China, [5]Pennsylvania Biotechnology Center, Doylestown, PA, USA.

B45 "PleSSision": A pathologist-edited multigene genomic test promotes cancer precision medicine in Japan. Eriko Aimono[1], Emmy Yanagita[1], Ryosuke Matsuoka[2], Yasutaka Kato[1], Hideyuki Hayashi[1], Mitsuho Imai[1], Tomoko Akahane[1], Kaori Mochida[1], Aki Iguchi[1], Shigeki Tanishima[3], Hiroshi Nishihara[1]. [1]Keio University, Tokyo, Japan, [2]International University of Health and Welfare, Tokyo, Japan, [3]Mitsubishi Space Software Inc, Amagasaki, Japan.

Immunotherapy (including immunogenomics and the immune microenvironment)

B46 Cancer stem cell-targeted immunotherapeutic strategy: cancer stem antigens and fibroblastic niche. Toshihiko Torigoe[1], Yoshihiko Hirohashi[1], Tomohide Tsukahara[1], Takayuki Kanaseki[1], Munehide Nakatsugawa[1], Terufumi Kubo[1], Shinichi Hashimoto[2]. [1]Sapporo Medical University, Sapporo, Japan, [2]Kanazawa University, Kanazawa, Japan.

B47 Targeted inhibition of the epithelial-to-mesenchymal transition-associated factor AXL enhances lymphocyte-mediated cytotoxicity of lung cancer cells. Salem Chouaib[1], Stephane Terry[1], James Lorens[2], Jean Paul Thierry[1], Fathia Mami-Chouaib[1]. [1]Gustave Roussy, Villejuif, France, [2]Bergen University, Bergen, Norway.

B48 Near-infrared photoimmunotherapy (NIR-PIT) for cancer; Enhanced antitumor immunity when combined with immuno-activation therapies. Hisataka Kobayashi. NCI/NIH, Bethesda, MD, USA.

B49 Combination of radiotherapy and complement-mediated immunotherapy. Yingying Liang[1], Michael Kirschfink[2], Peter E. Huber[3]. [1]Mol Radiation Oncology, dkfz, Heidelberg, Germany, [2]Immunology, Heidelberg University, Heidelberg, Germany, [3]Mol Radiation Oncology, dkfz and University Hospital, Heidelberg, Germany.

B50 First-in-human CAR T for solid tumors targets the MUC1 transmembrane cleavage product. Cynthia C. Bamdad, Nelson D. Glennie, Andrew K. Stewart, Pengyu Huang, Benoit J. Smagghe, Tyler E. Swanson, Erin K. Hanahoe, Gregory L. Riley. Minerva Biotechnologies, Waltham, MA, USA.

B51 A proteogenomics approach reveals unique HLA class I neoepitopes that elicit anticancer CD8+ T cell responses. Takayuki Kanaseki, Serina Tokita, Toshihiko Torigoe. Sapporo Medical University, Sapporo, Japan.

B52 MICA immune complex formed with α3 domain-specific antibody activates NK function in a Fc-dependent manner. Changchun Du[1], Jack Bevers III[1], Ryan Cook[1], T. Noelle Lombana[1], Kamalakannan Rajasekaran[1], Marissa Matsumoto[1], Christoph Spiess[1], Jeong Kim[2], Zhengmao Zhengmao Ye Ye[1]. [1]Genentech, South San Francisco, CA, USA, [2]Genentech, NGM, South San Francisco, USA.

B53 Antitumor effect of anti-erbB-2 trifunctional antibody. Yasuo Kato[1], Yuji Hinoda[2], Hiromi Hirata[3], Masayuki Tsujisaki[4], Toshio Matsune[5], Shigeru Sasaki[6], Kohzoh Imai[7]. [1]Sapporo Shirakabadai Hospital, Sapporo,

Japan, [2]Teishinkai Hospital, Sapporo, Japan, [3]Hirata Hiromi Clinic, Hakodate, Japan, [4]Tenshi Hospital, Sapporo, Japan, [5]Shirakaba Pharmacy, Sapporo, Japan, [6]Sapporo Medical University, Sapporo, Japan, [7]University of Tokyo, Tokyo, Japan.

B54 Targeting peptide-loaded-DC CIK cells induces a specific antitumor response. Yimin Zhu, Xueyuan Cui, Cuijuan Liu. Suzhou Institute of Nano-Tech and Nano-Bionics, CAS, Suzhou, China.

B55 4-1BBL/CD40L virotherapy sensitizes PD1 antibody-resistant mouse melanoma to checkpoint blockade therapy. Jessica Wenthe, Sedigheh Naseri, Ann-Charlotte Hellström, Emma Eriksson, Angelica Loskog. Uppsala University, Uppsala, Sweden.

B56 NKG2A blockade potentiates CD8 T-cell immunity induced by cancer vaccines. Nadine Montfoort[1], Linda Borst[1], Michael Korrer[2], Margolein Sluijter[3], Koen Marijt[1], Saskia Santegoets[1], van Ham Vanessa[1], Illina Ehrsan[1], Kay Pornpimol[4], Georgios Zervakis[1], Marij Welters[1], Pascale Andre[5], Nicolai Wagtmann[5], Sytse Piersma[6], Sjoerd van der Burg[1], Thorbald van Hall[7], Young Kim[2]. [1]Leiden U MC, Leiden, Netherlands, [2]Vanderbilt University Medical Center, Nashville, TN, USA, [3]Leiden, Leiden, Netherlands, [4]Innate Pharma, Marseille, France, [5]Innate, Marseille, France, [6]Washington University, St. Louis, MO, USA, [7]Leident U MC, Leiden, Netherlands.

B57 Automated cell type assignment of single-cell transcriptomic data reveals temporal microenvironmental dynamics in follicular lymphoma. Allen W. Zhang[1], Elizabeth Chavez[2], Jamie L.P. Lim[1], Ciara O'Flanagan[2], Matt Wiens[2], Xuehai Wang[2], Andrew Weng[2], Christian Steidl[2], Kieran R. Campbell[2], Sohrab P. Shah[1]. [1]Memorial Sloan Kettering Cancer Center, New York, NY, USA, [2]BC Cancer, Vancouver, BC, Canada.

B58 Mapping long noncoding RNA expression in the tumor immune microenvironment. Adam P. Sage, Kevin W. Ng, Brenda C. Minatel, Erin A. Marshall, Greg L. Stewart, Wan L. Lam. BC Cancer Research Centre, Vancouver, BC, Canada.

B59 PD-1 expression of tumor-infiltrating lymphocytes and clinical outcome in patients with esophageal cancer. Taisuke Tagi, Hideo Baba, Kazuo Okadome, Tomoyuki Uchihara, Yuki Kiyozumi, Kojiro Eto, Yukiharu Hiyoshi, Masaaki Iwatsuki, Takatsugu Ishimoto, Shiro Iwagami, Yuji Miyamoto, Naoya Yoshida. Department of Gastroenterological Surgery, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan.

B60 Defective localization with impaired tumor cytotoxicity contributes to the immune escape of NK cells in pancreatic cancer patients. Seon Ah Lim[1], Jungwon Kim[1], Seunghyun Jeon[1], Min Hwa Shin[1], Joonha Kwon[1], Tae-Jin Kim[1], Youngmin Han[2], Hongeun Lee[2], Wooil Kwon[2], Sun-Whe Kim[2], Cassian Yee[3], Seong-Jin Kim[2], Jin-Young Jang[2], Kyung-Mi Lee[1]. [1]Korea University, Seoul, South Korea, [2]Seoul National University, Seoul, South Korea, [3]University of Texas MD Anderson Cancer Center, Houston, TX, USA.

B61 IL-35+ B cells establish immunosuppressive network in pancreatic ductal adenocarcinoma. Bhalchandra Mirlekar, Yuliya Pylayeva-Gupta. The Lineberger Comprehensive Cancer Center, University of North Carolina School of Medicine, Chapel Hill, NC, USA.

B62 The involvement of IL-22 in intestinal epithelial hyperplasia. Takayuki Ogino, Shingo Noura, Tsukasa Tanida, Hirotsugu Nagase, Kozo Noguchi, Masashi Hirota, Kazuteru Oshima, Yoshito Tomimaru, Hiroshi Imamura, Kenzo Akagi, Takashi Iwazawa, Keizo Dono. Toyonaka Municipal Hospital, Toyonaka, Japan.

B63 Sequence-specific alkylating pyrrole-imidazole polyamide conjugates targeting multiple immune checkpoints. Hiroki Nagase[1], Keiko Fukushima[2], Asuka Hattori[1], Mayu Shinohara[1], Atsushi Takatori[1], Takayoshi Watanabe[1], Nobuko Koshikawa[1], Takahiro Inoue[1], Jason Lin[1], Yoshinao Shinozaki[1]. [1]Chiba Cancer Center Research Institute, Chiba, Japan, [2]Zenyaku Kogyo Co., Ltd., Tokyo, Japan.

B64 Mismatch repair deficiency as a biomarker of response to immune checkpoint inhibition therapy in glioblastoma multiforme. Kimia Ghannad-Zadeh[1], Megan YiJun Wu[2], Taylor Wilson[3], Angela Celebre[4], David Munoz[5], Jason Karamchandani[6], Sunit Das[7]. [1]Institute of Medical Science, Department of Medicine, University of Toronto. The Arthur and Sonia Labatt Brain Tumor Research Centre, The Hospital for Sick Children, Toronto, ON, Canada, [2]The Arthur and Sonia Labatt Brain Tumor Research Centre, The Hospital for Sick Children, Toronto, ON, Canada, [3]Institute of Medical Science, Department of Medicine, University of Toronto. The Arthur and Sonia Labatt Brain Tumor Research Centre, The Hospital for Sick Children, Toronto, ON, Canada, [4]Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, ON, Canada, [5]Department of Laboratory Medicine and Pathobiology, University of Toronto. Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada, [6]Department of Pathology, Montreal Neurological Institute and Hospital, McGill University, Montreal, QC, Canada, [7]Institute of Medical Science, Department of Medicine, University of Toronto. The Arthur and Sonia Labatt Brain Tumor Research Centre, The Hospital for Sick Children. Department of Laboratory Medicine and Pathobiology, University of Toronto. Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada.

B65 Remarkable alteration of PD-L1 expression after immune checkpoint therapy in patients with non-small cell lung carcinoma: Two autopsy case reports. Toshiaki Takahashi, Akiko Tateishi, Andrey Bychkov, Junya Fukuoka. Kameda Medical Center, Kamogawa, Japan.

B66 Immunologic analysis for personalized immunotherapy in cancer patients. Tomoko Yoshida[1], Taizo Hoshino[2]. [1]Premier Clinic Laboratory, Minato-ku, Tokyo, Japan, [2]Premiere Clinic, Chiyoda-ku, Tokyo, Japan.

B67 Anti-glypican-1(GPC-1)-CAR-T cells can completely eradicate established solid tumor without adverse effects. Tomonori Yaguchi[1], Daiki Kato[1], Kenji Morii[1], Satoshi Serada[2], Tetsuji Naka[2], Yutaka Kawakami[1]. [1]Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, Shinjuku, Tokyo, Japan, [2]Center for Intractable Immune Disease, Kochi University, Nankoku, Kochi, Japan.

B68 Investigating tumor immunosurveillance in genetically engineered autochthonous mouse models of cancer. Kelli Connolly[1], Brittany Fitzgerald[1], Martina Damo[1], Mursal Nader[1], Tyler Jacks[2], Nikhil S. Joshi[1]. [1]Yale University, New Haven, CT, USA, [2]MIT, Cambridge, MA, USA.

B69 STING signaling has a favorable clinical implication in colorectal cancer. Joo Hoon Kim, Hyojoong Kim, Kwang-il Kim, Hong Jae Chon, Chan Kim. CHA Bundang Medical Center, Seongnam, Republic of Korea.

B70 Combination immunotherapy with Smac mimetics and immune checkpoint blockade to treat bladder cancer. Tarun Sanda[1], Shawn Beug[1], Eric LaCasse[2], Robert G. Korneluk[1]. [1]Children's Hospital of Eastern Ontario Research Institute and University of Ottawa, Ottawa, ON, Canada, [2]Children's Hospital of Eastern Ontario Research Institute, Ottawa, ON, Canada.

B71 Clinical efficacy of OT-101 a TGF-β2 antisense and proposed confirmatory phase 2/3 trial in glioblastoma. Larn Hwang, David Nam, Vuong Trieu. Oncotelic Inc., Costa Mesa, CA, USA.

Metabolism

B72 Diet modification enhances efficacy of leukemia therapy in FLT3-ITD bearing acute myeloid leukemia mouse models: Implications for translation and survivorship. Tiewei Cheng, Brianna Murphy, Mary Figueroa, Cavan Bailey, Lisa Wartenberg, Kendra Allton, Keri Schadler, Michelle Barton, Eugenie Kleinerman, Joya Chandra. University of Texas MD Anderson Cancer Center, Houston, TX, USA.

B73 Pre- and postoperative IGF-I, IGFBP-3, and IGFBP-7 levels in relation to endocrine treatment and breast cancer recurrence—a nested case control study. Ann H. Rosendahl[1], Maria Ygland Rödström[1], Signe Borgquist[2], Christian Ingvar[1], Michael N. Pollak[3], Helena Jernström[1]. [1]Lund University and Skane University Hospital, Lund, Sweden, [2]Lund University and Aarhus University and Aarhus University Hospital, Lund and Aarhus, Sweden and Denmark, [3]McGill University, Montreal, QC, Canada.

B74 MYC-driven small cell lung cancer is metabolically distinct and vulnerable to arginine depletion. Milind D Chalishazar[1], Fang Huang[2], Sabina C. Cosulich[3], John Bomalaski[4], Ralph J. DeBerardinis[2], Trudy G. Oliver[1]. [1]University of Utah, Salt Lake City, UT, USA, [2]University of Texas - Southwestern, Dallas, TX, USA, [3]Astra-Zeneca, Cambridge, United Kingdom, [4]Polaris Pharmaceuticals, San Diego, CA, USA.

B75 RKN2381, a small-molecule inhibitor of mitochondrial function, targets cancer metabolism. Amit Subedi[1], Makoto Muroi[1], Yushi Futamura[1], Tatsuro Kawamura[1], Harumi Aono[1], Mayuko Nishi[2], Akihide Ryo[2], Nobumoto Watanabe[1], Hiroyuki Osada[1]. [1]RIKEN, Wako-shi, Saitama, Japan, [2]Yokohama City University, Yokohama-shi, Kanagawa, Japan.

B76 Iron drives Warburg effects in colorectal cancer. Xiang Xue[1], Daniel Falcon[1], Ho Joon Lee[2], Michael K. Dame[2], Costas Lyssiotis[2], Yatrik M. Shah[2]. [1]University of New Mexico, Albuquerque, NM, USA, [2]University of Michigan, Ann Arbor, MI, USA.

B77 PKM1 mediates metabolic advantages and promotes cell-autonomous tumor cell growth. Mami Morita, Taku Sato, Miyuki Nomura, Hiroshi Shima, Nobuhiro Tanuma. MCCRI, Natori, Japan.

B78 Intracellular ATP depletion in cancer cells by a synthetic ATP-binding protein. Eddie Khav[1], Selina Martinez[1], John Chaput[2], Shaleen B. Korch[1]. [1]Midwestern University, Glendale, AZ, USA, [2]University of California Irvine, Irvine, CA, USA.

B79 Multi-omics reveals MYC as a master regulator of colorectal cancer metabolism. Tomoyoshi Soga. Keio University, Tsuruoka, Yamagata, Japan.

B80 Glutamine deprivation promotes tumor progression through downregulation of PCYT2. Tsuyoshi Osawa[1], Teppei Shimamura[2], Hiroyuki Aburatani[1], Tomoyoshi Soga[3], Tatsuhiko Kodama[1]. [1]University of Tokyo, Tokyo, Japan, [2]Nagoya University, Nagoya, Japan, [3]Keio University, Tsuruoka, Japan.

B81 Metabolic reprogramming promotes colon cancer metastasis. Chih-Chia Kuo, Hsiang-Hsi Ling, Ming-Chen Chiang, Cheng-Wei Lin. Taipei Medical University, Taipei, Taiwan.

B82 Metabolic determinants of cancer cells sensitivity to oxidative stress and apoptosis. Jaroslav

Zelenka, Martina Koncošová, Nikola Vrzáčková, Tomáš Ruml. University of Chemistry and Technology Prague, Department of Biochemistry and Microbiology, Prague, Czech Republic.

B83 Assessment of natural products on cancer-related signaling pathways. Premalatha Balachandran, Jin Zhang, David S. Pasco. National Center for Natural Products Research, School of Pharmacy, University of Mississippi, University, MS, USA.

B84 Downregulation of MTHFD2, an enzyme of one-carbon metabolism in mitochondria, inhibits tumor growth and cancer stem-like properties. Tatsunori Nishimura[1], Asuka Nakata[1], Xiaoxi Chen[1], Kurumi Nishi[1], Makiko Meguro-Horike[2], Soichiro Sasaki[1], Kenji Kita[1], Shin-ichi Horike[2], Kaori Saitoh[3], Keiko Kato[3], Kaori Igarashi[3], Takahiko Murayama[4], Susumu Kohno[1], Chiaki Takahashi[1], Naofumi Mukaida[1], Seiji Yano[1], Tomoyoshi Soga[3], Arinobu Tojo[4], Noriko Gotoh[1]. [1]Cancer Research Institute, Kanazawa University, Kanazawa, Japan, [2]Advanced Science Research Center, Kanazawa University, Kanazawa, Japan, [3]Institute for Advanced Biosciences, Keio University, Tsuruoka, Japan, [4]Institute of Medical Science, University of Tokyo, Tokyo, Japan.

B85 Increased tryptophan catabolism via tryptophan hydroxylase 1 induction in remote liver tissue in cancer. Asami Hagiwara[1], Yoshiyasu Nakamura[2], Rumi Nishimoto[3], Satoko Ueno[3], Yohei Miyagi[4]. [1]Research Institute for Bioscience Products & Fine Chemicals, Ajinomoto Co., Inc, Kawasaki, Kanagawa, Japan, [2]Molecular Pathology and Genetics Division, Kanagawa Cancer Center Research Institute, Kanagawa Cancer Center, Yokohama, Kanagawa, Japan, [3]Fundamental Technology Labs, Institute for Innovation, Ajinomoto Co., Inc, Kawasaki, Kanagawa, Japan, [4]Kanagawa Cancer Center Research Institute, Kanagawa Cancer Center, Yokohama, Kanagawa, Japan.

B86 Targeting altered cancer methionine metabolism with recombinant methioninase (rMETase) overcomes gemcitabine resistance and regresses a patient-derived orthotopic xenograft (PDOX) nude mouse model of pancreatic cancer. Kei Kawaguchi[1], Robert Hoffman[2], Michiaki Unno[1]. [1]Tohoku University Graduate School of Medicine, Sendai, Japan, [2]University of California, San Diego, San Diego, CA, USA.