

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 A

Saturday, February 9, 2019

5:30 p.m.-7:30 p.m.

Haleakala Ballroom

Big data

A01 MCAM abnormal expression and pro-progression/metastasis function are highly cancer dependent as revealed through pan-cancer profiling. Yunxia An¹, Nan Wei¹, Xiangsong Cheng¹, Ying Li¹, Haiyang Liu¹, Jia Wang¹, Xiaojun Zhang¹, Zhifu Sun². ¹People's Hospital of Zhengzhou University, Zhengzhou, China, ²Mayo Clinic, Rochester, MN, USA.

A02 Novel insights into immunotherapy by deep mining of big cancer genomic data. Han Liang. University of Texas MD Anderson Cancer Center, Houston, TX, USA.

A03 Prevalence and factors associated with potentially inappropriate medication use in older Medicare beneficiaries with cancer. Xue Feng¹, Gerald M, Higa¹, Fnu Safarudin¹, Usha Sambamoorthi¹, Jongwha Chang², Xi Tan¹. ¹West Virginia University, Morgantown, WV, USA, ²The University of Texas, El Paso, TX, USA.

A04 The miRNA expression profile of inflammatory tumors reveals a unique immune cell profile and potential companion targets for checkpoint blockade immunotherapy. Bjarne Bartlett, Vedbar Khadka, Mark Menor, Youping Deng. University of Hawaii, Honolulu, HI, USA.

A05 Potential applications of DNA, RNA and protein biomarkers in diagnosis, therapy, and prognosis for colorectal cancer: A study from databases to AI-assisted verification. Xueli Zhang¹, Xiao-Feng Sun², Bairong Shen³, Hong Zhang¹. ¹Örebro University, Örebro, Sweden, ²Linköping University, Linköping, Sweden, ³Soochow University, Soochow, China.

A06 Cause of death other than cancer for 323,791 cancer patients: NANDE study, a record linkage of vital statistics data and population-based cancer registry data. Isao Miyashiro¹, Takafumi Shinagawa¹, Makoto Fujii², Toshitaka Morishima¹, Yuko Ohno², Tomotaka Sobue³, Group NANDE¹. ¹Cancer Control Center, Osaka International Cancer Institute, Osaka, Japan, ²Department of Mathematical Health Science, School of Health Sciences, Graduate School of Medicine, Osaka University, Suita, Osaka, Japan, ³Division of Environmental Medicine and Population Sciences, Department of Social and Environmental Medicine, Graduate School of Medicine, Osaka University, Suita, Osaka, Japan.

A07 Cancer-associated mutations in SF3B1 promote MYC stabilization to drive tumorigenesis. Akihide Yoshimi¹, Zhaoqi Liu², Jiguang Wang³, Hana Cho¹, Stanley Chun-Wei Lee¹, Michelle Ki¹, Lillian Bitner¹, Anthony R. Mato¹, Peter Ruvolo⁴, Giulia Fabbri², Laura Pasqualucci², Raul Rabadan², Omar Abdel-Wahab¹. ¹Memorial Sloan Kettering Cancer Center, New York, NY, USA, ²Columbia University, New York, NY, USA, ³The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong, ⁴The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

A08 A metabolic shift in nitrogen flux from glutamine contributes to malignant progression of cancer. Manabu Kodama¹, Kiyotaka Oshikawa¹, Hideyuki Shimizu¹, Susumu Yoshioka¹, Masatomo Takahashi², Yoshihiro Izumi², Takeshi Bamba², Takeshi Tomonaga³, Masaki Matsumoto¹, Keiichi I Nakayama¹.

¹Department of Molecular and Cellular Biology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan, ²Division of Metabolomics, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan, ³Laboratory of Proteome Research, National Institute of Biomedical Innovation, Health, and Nutrition, Fukuoka, Japan.

Cancer biology

A09 TGF- β -induced cell cycle arrest is associated with increased migration and metastasis of oral squamous carcinoma cells. Kazuki Takahashi¹, Katarzyna Inoue¹, Yasuhiro Yoshimatsu¹, Atsushi Kaida¹, Kei Takahashi², Shimpei Kubota², Akinari Sugauchi³, Toshihiro Uchihashi³, Susumu Tanaka³, Mikihiko Kogo³, Masahiro Miura¹, Kohei Miyazono², Tetsuro Watabe¹. ¹Tokyo Medical and Dental University, Bunkyo-ku, Tokyo, Japan, ²The University of Tokyo, Bunkyo-ku, Tokyo, Japan, ³Osaka University, Suita, Osaka, Japan.

A10 Loss of SMAD4 promotes gastric cancer progression and leads to poor prognosis. Meiyong Song¹, Han Hee Lee¹, Sung Hak Lee², Kyo Young Song³, Jae Myung Park¹, Su Young Kim², Eun Sun Jung², Myung-Gyu Choi¹, Cho Hyun Park⁴. ¹Department of Internal Medicine, The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Republic of Korea, ²Department of Hospital Pathology, The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Republic of Korea, ³Department of Surgery, The Catholic University of Korea, Uijeongbu St. Mary's Hospital, Uijeongbu, Republic of Korea, ⁴Department of Surgery, The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Republic of Korea.

Cancer precision medicine, prevention, interception, and early detection

A11 Estrogen receptor β ligand-mediated actions inhibit mammary tumor growth and restore sensitivity to endocrine therapies by acting through multiple pathways. Kumaraguruparan Ramasamu, Cathy Samayoa, Shaorong Chen, Ratna K. Vadlamudi, Rajeshwar Rao Tekmal. UTHSA, San Antonio, Texas, USA.

A12 Immunoprevention of Lynch syndrome mouse model intestinal cancer with recurrent neoantigen vaccination. Ozkan Gelincik¹, Mattias Kloor², Mine Ozcan², Aysel Ahadova², Yan Yuan², Hamza Ibrahim¹, Shizuko Sei³, Robert Shoemaker³, Johannes Gebert⁴, Magnus von Knebel Doeberitz², Steven Lipkin¹. ¹Weill Cornell, New York, NY, USA, ²DKFZ, Heidelberg, Germany, ³NCI, Rockville, MD, USA, ⁴DKFZ, Heidelberg, Germany.

A13 Development of a novel medical treatment to prevent colorectal carcinogenesis in familial adenomatous polyposis patients. Michihiro Mutoh¹, Gen Fujii¹, Hideki Ishikawa², J-FAPP Study IV Group³. ¹National Cancer Center, Tokyo, Japan, ²Kyoto Prefectural University of Medicine, Kyoto, Japan.

A14 Detection of cancer driver and drug resistance mutations with xenonucleic acid powered target amplification technology. Michael J. Powell. DiaCarta, Inc, Richmond, CA, USA.

A15 Cutaneous nevi and cancer risk among US women. Xin Li¹, Wenting Wu¹, Edward Giovannucci², Meir Stampfer², Xiang Gao³, Jiali Han¹. ¹Indiana University, Indianapolis, IN, USA, ²Harvard University, Boston, MA, USA, ³Penn State University, College Park, PA, USA.

A16 Mathematical prediction for precision medicine of CNS glial tumors. Kosuke Aoki¹, Takashi Yamamoto¹, Hiromichi Suzuki¹, Fumiharu Ohka¹, Melissa Ranjit¹, Kazuya Motomura¹, Hideo Nakamura², Yoshitaka Narita³, Masamichi Takahashi³, Koji Yoshimoto⁴, Yasutomo Momii⁵, Yoshihiro Muragaki⁶, Toshihiko Wakabayashi¹, Masahiro Mizuguchi⁷, Akitake Mukasa⁸, Hiroshi Haeno³, Atsushi Natsume¹. ¹Nagoya University, Nagoya, Japan, ²Kurume University, Fukuoka, Japan, ³National Cancer Center, Tokyo, Japan, ⁴Kagoshima University, Kagoshima, Japan, ⁵Oita University, Oita, Japan, ⁶Tokyo Women's Medical University, Tokyo, Japan, ⁷Kyushu University, Fukuoka, Japan, ⁸Kumamoto University, Kumamoto, Japan.

A17 Modeling precursor lesions of ovarian cancer using organoids. Dawn R. Cochrane¹, Germain C. Ho¹, Kieran Campbell², Forouh Kalantari¹, Joyce Zhang², James Hopkins¹, Evan W. Gibbard², Kendall Greening², Genny Trigo-Gonzalez², Winnie Yang¹, Janine Senz², David Farnell², Basile Tessier-Cloutier², Jessica N. McAlpine², Sohrab Shah³, David G. Huntsman². ¹BC Cancer, Vancouver, BC, Canada, ²University of British Columbia, Vancouver, BC, Canada, ³Memorial Sloane Kettering Cancer Center, New York, NY, USA.

A18 Expression and biologic function of ADAM28 in colorectal adenocarcinoma. Naoya Sakamoto¹, Takuya Hattori¹, Masayuki Shimoda², Daiki Taniyama¹, Ririno Honma¹, Takao Hinoi³, Hiroyuki Egi⁴, Hldeki Ohdan⁴, Wataru Yasui¹. ¹Department of Molecular Pathology, Institute of Biomedical & Health Sciences, Hiroshima University, Hiroshima, Japan, ²Department of Pathology, Keio University School of Medicine, Tokyo, Japan, ³Department of Surgery, Institute for Clinical Research, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan, ⁴Department of Gastroenterological and Transplant Surgery, Applied Life Sciences, Institute of Biomedical & Health Sciences, Hiroshima University, Hiroshima, Japan.

A19 Clinical significance of circular RNA as potential biomarker for hepatocellular carcinoma. Gyeonghwa Kim¹, Se Young Jang², Yu Rim Lee², Won Young Tak², Young-Oh Kweon², Jung Gil Park³, Hye Won Lee⁴, Ji-min Kim⁵, Soo Young Park², Keun Hur¹. ¹Department of Biochemistry and Cell Biology, School of Medicine, Kyungpook National University, Daegu, Korea, ²Department of Internal Medicine, Kyungpook National University Hospital, Daegu, Korea, ³Department of Internal Medicine, Yeungnam University Medical Center, Daegu, Korea, ⁴Department of Pathology, Dongsan Medical Center, School of Medicine, Keimyung University, Daegu, Korea, ⁵Division of Rheumatology, Department of Internal Medicine, Dongsan Medical Center, School of Medicine, Keimyung University, Daegu, Korea.

A20 A next-generation sequencing-based platform for quantitative detection of hepatitis B virus pre-S mutants in plasma of hepatocellular carcinoma patients. Chiao-Fang Teng¹, Hsi-Yuan Huang², Tsai-Chung Li³, Woei-Cherng Shyu¹, Han-Chieh Wu⁴, Chien-Yu Lin⁵, Ih-Jen Su⁶, Long-Bin Jeng⁷. ¹Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan, ²Department of Laboratory Medicine, China Medical University Hospital, Taichung, Taiwan, ³Department of Public Health, College of Public Health, China Medical University, Taichung, Taiwan, ⁴National Institute of Infectious Diseases and Vaccinology, National Health Research Institutes, Tainan, Taiwan, ⁵Graduate Institute of Clinical Medical Science and School of Medicine, China Medical University, Taichung, Taiwan, ⁶Department of Biotechnology, Southern Taiwan University of Science and Technology, Tainan, Taiwan, ⁷Organ Transplantation Center, China Medical University Hospital, Taichung, Taiwan.

A21 Early diagnostic markers for refractory heterogeneous breast cancers containing squamous-like cancer cells. Yoshimi Arima, Hideyuki Saya. Keio University, Tokyo, Japan.

A22 Regional differences in BRCA testing in unaffected young women. Fangjian Guo, Abbey B. Berenson, Yong-Fang Kuo. University of Texas Medical Branch, Galveston, TX, USA.

A24 Development of a hepatocyte growth factor classifier in the Carolina Breast Cancer Study. Gieira S. Jones¹, Xuezheng Sun¹, Sanah Vohra¹, Pasangi Perera¹, Erin Kirk¹, Linnea Olsson¹, Mary Beth Bell¹, Jodie Fleming², Melissa Troester¹. ¹University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, ²North Carolina Central University, Durham, NC, USA.

A26 Combined aspirin and statin use is associated with lower risk of gallbladder cancer and improved overall survival in patients with gallbladder cancer. Siddhartha Yadav, Kritika Prasai, Mohamed Mady, Lewis Roberts, Mitesh Borad, Amit Mahipal. Mayo Clinic, Rochester, MN, USA.

A27 Potent tumor suppression by irifolven in an ERCC3 mutant cancer model. Sabine Topka¹, Sara Khalil², Zoe Steinsnyder¹, Vignesh Ravichandran¹, Mogens Winkel Madsen³, Elisa De Stanchina¹, Vijai Joseph¹, Kenneth Offit¹. ¹Memorial Sloan Kettering Cancer Center, New York, NY, USA, ²Gerstner Sloan Kettering Graduate School of Biomedical Sciences, New York, NY, USA, ³Oncology Venture ApS, Horsholm, Denmark.

A28 High-throughput functional evaluation of variants of unknown significance in oncogene. Shinji Kohsaka, Masaaki Nagano, Toshihide Ueno, Hiroyuki Mano. National Cancer Center Research Institute, Tokyo, Japan.

A29 Early detection of ovarian cancer by FSHR-targeted contrast enhanced ultrasound imaging. Itzel Lazzcano¹, Aparna Yellapa¹, Jacques S. Abramowicz², Janice Bahr³, Pincas Bitterman¹, Sanjib Basu¹, Animesh Barua¹. ¹Rush University Medical Center, Chicago, IL, USA, ²University of Chicago, Chicago, IL, USA, ³University of Illinois at Urbana-Champaign, Illinois, Urbana-Champaign, IL, USA.

A30 Identification of circular RNAs as novel diagnostic and therapeutic tools in gastric cancer patients. Akiyuki Sasaki¹, Yuriko Saiki¹, Yulan Cheng², John M. Abraham², Zhe Wang², Steffie Pitts², Akihiro Yamamura³, Michiaki Unno³, Akira Horii¹, Stephen J. Meltzer². ¹Department of Molecular Pathology, Tohoku University School of Medicine, Sendai, Japan, ²Division of Gastroenterology/Hepatology Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA, ³Department of Surgery, Tohoku University Graduate School of Medicine, Sendai, Japan.

A31 Combined copy number variation analyses and immunohistochemical protein expression reveal precision medicine for colorectal cancer liver metastases. Akifumi Sawada¹, Futoshi Kawamata¹, Ann-Marie Patch², Katia Nones², Nobuki Ichikawa¹, Tadashi Yoshida¹, Susumu Shibasaki¹, Shigenori Homma¹, Hideki Kawamura¹, Barbara Leggett³, Nicola Waddell², Vicki Whitehall³, Akinobu Taketomi¹. ¹Department of Gastroenterological Surgery I, Hokkaido University Graduate School of Medicine, Sapporo, Japan, ²Medical Genomics Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Australia, ³Conjoint Gastroenterology Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Australia.

A32 The selective Polo-like kinase (PLK1) inhibitor onvansertib and abiraterone synergize in both prostate and non-prostate cancer cells. Jesse C. Patterson¹, Peter Croucher², Maya Ridinger², Shohreh

Varmeh¹, Brian A. Joughin¹, Mark Erlander², Michael B. Yaffe¹. ¹Koch Institute for Integrative Cancer Biology, MIT, Cambridge, MA, USA, ²Trovogene Inc., San Diego, CA, USA.

A33 Identification of DNA adducts in cancer patients by mass spectrometry. Yuji Iwashita¹, Ippei Ohnishi¹, Shunsuke Ohtsuka¹, Yoshitaka Matsushima², Yukari Totsuka³, Shioto Suzuki⁴, Hiroki Mori⁵, Keisuke Inaba⁴, Keigo Matsumoto⁴, Shohachi Suzuki⁴, Shinichiro Miyazaki⁵, Toshikazu Kanai⁵, Takachika Ozawa⁵, Fumihiko Tanioka⁴, Haruhiko Sugimura¹. ¹Hamamatsu University School of Medicine, Hamamatsu, Japan, ²Tokyo University of Agriculture, Tokyo, Japan, ³National Cancer Center Research Institute, Tokyo, Japan, ⁴Iwata City Hospital, Iwata, Japan, ⁵Hamamatsu Medical Center, Hamamatsu, Japan.

A34 PROFILE study: A prospective observational study of precision medicine approach in solid tumors in Japan. Kenta Takahashi, Yuichi Kumaki, Takahiro Mitsumura, Junko Yokobori, Eriko Takamine, Noriko Oshima, Kimio Wakana, Akihiro Hoshino, Toshiaki Ishikawa, Takeshi Ishii, Hiroaki Ono, Yuusuke Mitsunori, Daisuke Ban, Atsushi Kudo, Iichiroh Onishi, Koichiro Kimura, Kazunori Kubota, Hiroyuki Sakashita, Tsuyoshi Nakagawa, Hiroyuki Uetake, Minoru Tanabe, Satoshi Miyake, Sadakatsu Ikeda. Tokyo Medical and Dental University, Medical Hospital, Tokyo, Japan.

A35 In vivo forward genetic screen of oncogenic biomarkers determining efficacy of multi-kinase inhibitors in hepatocellular carcinoma. Yuta Myojin, Takahiro Kodama, Tetsuo Takehara. Department of Gastroenterology and Hepatology, Osaka University, Graduate School of Medicine, Suita, Osaka, Japan.

A36 Feasibility and utility of a panel testing for 114 cancer-associated genes in a clinical setting: A hospital-based study. Kuniko Sunami¹, Hitoshi Ichikawa², Takashi Kubo², Mamoru Kato², Yutaka Fujiwara¹, Akihiko Shimomura¹, Hiroki Kakishima¹, Mayuko Kitami¹, Hiromichi Matsushita¹, Takafumi Koyama¹, Eisaku Furukawa², Daichi Narushima², Momoko Nagai², Nobuyoshi Hiraoka¹, Atsushi Ochiai³, Noboru Yamamoto¹, Takashi Kohno². ¹National Cancer Center Hospital, Tokyo, Japan, ²National Cancer Center Research Institute, Tokyo, Japan, ³National Cancer Center Hospital East, Kashiwa, Japan.

A37 Clinical application of multigene panel testing and association between germline mutations in predisposition genes and clinicopathologic factors in patients with high risk for hereditary breast cancer. Eun-Shin Lee¹, Jongjin Kim², Wonshik Han¹, Jisong Won³, Sung Min Jang³. ¹Seoul National University Hospital, Seoul, South Korea, ²SMG - SNU Boramae Medical Center, Seoul, South Korea, ³Seoul National University, Seoul, South Korea.

A38 Implications of clock genes in oral cancer and innovative intraoral device to assess patient-specific circadian disruption for precision oncology. Petros Papagerakis¹, Nikos Chronis², Silvana Papagerakis³. ¹University of Saskatchewan; University of Michigan (Affiliate), Saskatoon, SK, Canada, ²University of Michigan, Ann Arbor, MI, USA, ³University of Saskatchewan, Saskatoon, SK, Canada.

A39 A precision oncology therapeutic approach in head and neck cancer: In vitro, in vivo and clinical findings. Silvana Papagerakis¹, Petros Kechagioglou², Ayman El-Saed³, Raed Saed³, Liubov Lobanova³, Lubomir Hadjiyski⁴, Petros Papagerakis¹. ¹University of Saskatchewan; University of Michigan (Affiliate), Saskatoon, SK, Canada, ²University of Saskatchewan, Saskatoon, SK, Canada, ³University of Saskatchewan, Saskatoon, SK, Canada, ⁴University of Michigan, Ann Arbor, MI, USA.

Heterogeneity and clonal evolution

A40 Intratumoral bidirectional transitions between epithelial and mesenchymal cells in triple-negative breast cancer. Mizuki Yamamoto, Jun-ichiro Inoue. Division of Cellular and Molecular Biology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan.

A42 A temporal shift of the evolutionary principle shaping intratumor heterogeneity in colorectal cancer. Atsushi Niida¹, Tomoko Saito², Koshi Mimori², Satoru Miyano¹. ¹Institute of Medical Science, The University of Tokyo, Tokyo, Japan, ²Department of Surgery, Kyushu University Beppu Hospital, Oita, Japan.

A43 Genetic progression of gastric adenoma to carcinoma. Seung-Hyun Jung, Shin Young Kim, Chang Hyeok An, Sung Hak Lee, Hyeon-Chun Park, Min Sung Kim, Juyoun Shin, Yeun-Jun Chung, Sug Hyung Lee. The Catholic University of Korea, Seoul, Republic of Korea.

A44 Integrated tumor heterogeneity of genetic and epigenetic alterations and temporal clonal evolution in diffuse intrinsic pontine glioma. Scott Ryall, Robert Siddaway, Arun Ramani, Andrei Turinsky, Michael Brudno, Cynthia Hawkins. Hospital for Sick Children, Toronto, ON, Canada.

A45 In quest of candidate EMT-associated transcription factors for predicting prognosis in pancreatic ductal adenocarcinomas: What is a key indicator? Sho Fujiwara¹, Yuriko Saiki¹, Kota Ishizawa¹, Shinichi Fukushima¹, Mie Yamanaka¹, Masaki Sato², Masaharu Ishida², Fuyuhiko Motoi², Michiaki Unno², Akira Horii¹. ¹Department of Molecular Pathology, Tohoku University School of Medicine, Sendai, Japan, ²Department of Surgery, Tohoku University Hospital, Sendai, Japan.

Other

A47 Decision tree analysis realized the diagnostic performance of 3-D mammography for breast cancer. Tomoko Takamaru¹, Hiroyuki Takamaru², Miwa Yoshida¹, Hiroki Sato¹, Nana Komatsu¹, Katsutoshi Enokido³, Sadako Akashi-Tanaka⁴, Seigo Nakamura⁴. ¹Showa University Koto Toyosu Hospital, Tokyo, Japan, ²National Cancer Center Hospital, Tokyo, Japan, ³Showa University Fujigaoka Hospital, Tokyo, Japan, ⁴Showa University, Tokyo, Japan.

A48 Preclinical studies for prodrug activator gene therapy of CNS metastatic breast cancer using retroviral replicating vector. Akihito Inagaki¹, Angela M. Richardson², Sara A. Collins¹, Kei Hiraoka³, Shuichi Kamijima⁴, Harry E. Gruber⁵, Douglas J. Jolly⁵, Jaime Merchan⁶, Noriyuki Kasahara¹. ¹University of California San Francisco, San Francisco, CA, USA, ²Department of Neurological Surgery, University of Miami, and Neurosurgery Program, Jackson Health System, Miami, FL, USA, ³Department of Cardiovascular & Thoracic Surgery, Hokkaido University, Sapporo, Hokkaido, Japan, ⁴Department of Urology, Toho University Sakura Medical Center, Chiba, Chiba, Japan, ⁵Tocagen Inc., San Diego, CA, USA, ⁶Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL, USA.

A49 Biased geographical distribution of distinct EBV strains within Asian countries. Misako Yajima, Kazufumi Ikuta, Teru Kanda. Tohoku Medical and Pharmaceutical University, Sendai, Japan.

A50 Differences in oncologic outcomes between Lynch(-like) syndrome and sporadic colorectal cancer with microsatellite instability-high: A retrospective multicenter study. Seong-Taek Oh¹, Il Tae Son¹, Duck-Woo Kim², Hye Seung Lee³, Young-Kyoung Shin⁴, Ja-Lok Ku⁴, Seung-Yong Jeong⁵, Kyu Joo Park⁵, Jae Hwan Oh⁶, Sung-Bum Kang². ¹Department of Surgery, Uijeongbu St. Mary's Hospital, Catholic University, Uijeongbu-si, Korea, ²Department of Surgery, Seoul National University Bundang Hospital, Seongnam, Korea, ³Department of Pathology, Seoul National University Bundang Hospital, Seongnam, Korea, ⁴Laboratory of Cell Biology, Cancer Research Institute, Seoul

National University College of Medicine, Seoul, Korea, ⁵Department of Surgery, Seoul National University Hospital, Seoul, Korea, ⁶Center for Colorectal Cancer, National Cancer Center, Goyang, Korea.

A51 The clinicopathologic variables of familial gastric cancer. Sadaaki Nishimura¹, Masakazu Yashiro¹, Shuhei Kushiyama¹, Shingo Togano¹, Kenji Kuroda¹, Tomohisa Okuno¹, Tatsuro Tamura², Takahiro Toyokawa², Hiroaki Tanaka², Kazuya Muguruma², Kosei Hirakawa², Ohira Masaichi². ¹Molecular Oncology and Therapeutics, Osaka City University Graduate School of Medicine, Osaka City, Osaka, Japan, ²Department of Surgery, Osaka City University Graduate School of Medicine, Osaka City, Osaka, Japan.

A52 Metabolomics analysis on EGFR inhibitors-treated human keratinocytes Ha-Cat cells. Mahiro Iizuka-Ohashi, Midori Morita, Chikage Kato, Yoshimi Ouchi, Koichi Sakaguchi, Tetsuya Taguchi. Dept. of Breast Surgery, Kyoto Prefectural University of Medicine, Kyoto, Japan.

A53 Mathematical modeling for cancer recurrence caused by premalignant lesions formed before the first treatment. Mitsuaki Takaki¹, Shingo Iwami¹, Hiroshi Haeno². ¹Kyushu University, Fukuoka, Fukuoka, Japan, ²National Cancer Center, Kashiwa, Chiba, Japan.

A54 Tissueoid cell culture system: A novel 3D culture system using the silicate fiber scaffold Cellbed. Masaharu Noj¹, Ken-ichi Mukaisho¹, Shoko Murakami¹, Takuya Iwasa², Masaaki Kawabe², Gaku Yamamoto³, Hiroyuki Sugihara¹. ¹Division of Molecular and Diagnostic Pathology, Department of Pathology, Shiga University of Medical Science, Otsu, Shiga, Japan, ²Central Research Laboratory, Japan Vilen, Chuo, Tokyo, Japan, ³Department of Oral and Maxillofacial surgery, Shiga University of Medical Science, Otsu, Shiga, Japan.

A55 PRKCI, SOX2 and GLI1 genes co-expression is a prognostic factor in low differentiated gastric cancer. Itaru Hashimoto¹, Yayoi Kimura², Naohide Oue³, Yohei Miyagi⁴, Yukihiro Hiroshima⁵, Kazuki Kano¹, Toru Aoyama¹, Hiroshi Tamagawa¹, Yasushi Rino¹, Munetaka Masuda¹, Wataru Yasui³, Takashi Oshima⁶. ¹Department of Surgery, Yokohama City University, Yokohama, Japan, ²Advanced Medical Research Center, Yokohama City University, Yokohama, Japan, ³Department of Molecular Pathology, Hiroshima University, Hiroshima, Japan, ⁴Kanagawa Cancer Center Research Institute, Yokohama, Japan, ⁵Department of Clinical Oncology, Yokohama City University, Yokohama, Japan, ⁶Department of Gastrointestinal Surgery, Kanagawa Cancer Center, Yokohama, Japan.

A56 Two ways for Barrett's epithelium to develop: Lessons from experiments using rat gastroduodenal reflux models. Ken-ichi Mukaisho, Shunpei Kanai, Masaharu Noi, Takanori Hattori, Hiroyuki Sugihara. Shiga University of Medical Science, Otsu, Japan.

A57 Therapeutic potential of vocimagene amiretorepvec (Toca 511) prodrug activator gene therapy in peritoneal carcinomatosis models of ovarian cancer. Sara A. Collins¹, Priyanka Kamath², Suzanne Matsuura¹, Douglas J. Jolly³, Brian Slomovitz², Noriyuki Kasahara⁴. ¹Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL, USA, ²Sylvester Comprehensive Cancer Center, Department of Gynecologic Oncology, University of Miami, Miami, FL, USA, ³Tocagen Inc., San Diego, CA, USA, ⁴Sylvester Comprehensive Cancer Center, Department of Pathology, University of Miami, Miami, FL, USA.

A58 Caudal arterial injection easily and reliably develops bone metastasis in mice. Takahiro Kuchimaru¹, Misa Minegishi², Tetsuya Kadonosono², Shinae Kizaka-Kondoh². ¹Jichi Medical University, Shimono, Totigi, Japan, ²Tokyo Institute of Technology, Yokohama, Kanagawa, Japan.

Tumor microenvironment

A59 Highly sensitive in vivo imaging using near-infrared bioluminescence. Shinae Kizaka-Kondoh¹, Hitomi Miyabara¹, Tetsuya Kadonosono¹, Takahiro Kuchimaru². ¹Tokyo Institute of Technology, Yokohama, Japan, ²Jichi Medical University, Shimono, Japan.

A60 Diagnostic applications of N-glycan imaging mass spectrometry to cancer tissues, antibody arrays and serum. Richard R. Drake, Alyson Black, Connor West, Harmin Herrera, Fred David, Peggi Angel, Anand S. Mehta. Medical University of South Carolina, Charleston, SC, USA.

A61 CD9-positive exosomes from cancer-associated fibroblasts (CAFs) stimulate the migration ability of diffuse type of gastric cancer cells. Masakazu Yashiro, Yuichiro Miki, Tomohisa Okuno¹, Kenji Kuroda, Shingo Togano, Sadanori Nishimura, Syuhei Kushiya, Kosei Hirakawa, Masaichi Ohira. Osaka City University Graduate School of Medicine, Osaka, Osaka, Japan.

A62 Unexpected contribution of lymphatic vessels to promotion of distant metastatic tumor spread. Qiaoli Ma¹, Lothar C. Dieterich¹, Mitchell P. Levesque², Peter Baluk³, Donald McDonald³, Michael Detmar¹. ¹ETH Zurich, Zurich, Switzerland, ²University of Zurich, Zurich, Switzerland, ³University of California San Francisco, San Francisco, CA, USA.

A63 The lineage-defining transcription factors SOX2 and NKX2-1 determine lung cancer cell fate and shape the tumor immune microenvironment. Gurkan Mollaoglu, Alex Jones, Sarah J. Wait, Kevin Jones, Eric Snyder, Trudy G. Oliver. University of Utah, Salt Lake City, UT, USA.

A64 Inhibiting metastatic outgrowth of dormant tumor cells using soluble mediators of resolution-promoting macrophages. Odelya Gilon¹, Yonatan Feuermann¹, Sagie Schif-Zuck¹, Keren Weidenfeld¹, Palle Von Huth¹, Simaan Assi¹, Edmond Sabo², Amiram Ariel¹, Dalit Barkan¹. ¹University of Haifa, Haifa, Israel, ²Rambam Medical Center, Haifa, Israel.

A65 Critical roles of luminal progenitor cells in creating the cytokine-rich precancerous niche for mammary tumorigenesis. Natsuko Kimura¹, Takahiko Murayama¹, Yukino Machida², Daisuke Iejima¹, Tatsunori Nishimura³, Mizuki Yamamoto¹, Yusuke Inoue⁴, Nobuaki Yoshida¹, Jun-ichiro Inoue¹, Koichi Akashi⁵, Hideyuki Saya⁶, Masahiko Kuroda⁷, Issay Kitabayashi², Arinobu Tojo¹, Noriko Gotoh³. ¹Institute of Medical Science, University of Tokyo, Tokyo, Japan, ²National Cancer Center Research Institute, Tokyo, Japan, ³Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ⁴Kitasato University, Tokyo, Japan, ⁵Kyushu University, Fukuoka, Japan, ⁶Keio University, Tokyo, Japan, ⁷Tokyo Medical University, Tokyo, Japan.

A66 Osteoblasts regulate myeloid-derived suppressor cell (MDSC) mobilization from the bone marrow of tumor hosts via $\alpha 4\beta 1$ integrin and vascular cell adhesion molecule (VCAM) 1. Kyung Jin Lee¹, Eun Jeong Lee¹, Bo Yeon Seo¹, Young Mi Whang², Sun Wook Cho³, Serk In Park¹. ¹Korea University College of Medicine, Seoul, South Korea, ²Chung-Ang University, Seoul, South Korea, ³Seoul National University, Seoul, South Korea.

A67 Targeting carcinoma-associated fibroblasts (CAFs) for treatment of breast cancer metastasis. Kruthi Suvarna, Kaori Honda, Makoto Muroi, Yasumitsu Kondoh, Hiroyuki Osada, Nobumoto Watanabe. RIKEN CSRS, Wako, Saitama, Japan.

A68 Adrenaline-dependent immunogenic reprogramming in endothelial cells regulate tumor immunity in gastric cancers. Yoku Hayakawa, Mayo Tsuboi, Mitsuru Konishi, Masahiro Hata, Yukiko Oya, Kazuhiko Koike. The University of Tokyo, Tokyo, Japan.

A69 SRGN triggers an aggressive and immunosuppressive phenotype in TTF-1-negative lung adenocarcinomas. Ichidai Tanaka¹, Delphine Dayde¹, Mei Chee Tai¹, Luisa Solis¹, Satyendra Tripathi¹, Johannes Fahrman¹, Nese Unver¹, Edwin Parra Cuentas¹, Hong Wang¹, Hiroyuki Katayama¹, Jennifer Dennison¹, Philip Lorenzi¹, Kim-Anh Do¹, Junya Fujimoto¹, Carmen Behrens¹, Edwin Ostrin¹, Jaime Rodriguez-Canales¹, Yasushi Yatabe², Yoshinori Hasegawa³, Adi Gazdar⁴, Ignacio Wistuba¹, Samir Hanash¹, Ayumu Taguchi¹. ¹University of Texas MD Anderson Cancer Center, Houston, TX, USA, ²Aichi Cancer Center, Nagoya, Japan, ³Nagoya University, Nagoya, Japan, ⁴University of Texas Southwestern, Dallas, TX, USA.

A70 Platelets in the tumor microenvironment contribute to tumor progression in syngeneic murine models. Satoshi Takagi, Sumie Koike, Naoya Fujita, Ryohei Katayama. Japanese Foundation for Cancer Research, Tokyo, Japan.

A71 Extracellular vesicles from cancer-associated fibroblasts induce drug resistance via integrin β 1/FAK signaling in gastric cancer cells. Takatsugu Ishimoto, Tomoyuki Uchihara, Keisuke Miyake, Atsuko Yonemura, Tadahito Yasuda, Rumi Itoyama, Masaaki Iwatsuki, Yoshifumi Baba, Naoya Yoshida, Hideo Baba. Kumamoto university, Kumamoto, Japan.

A72 Senescence-associated noncoding RNA provokes chromosomal instability and tumor formation in microenvironment. Akiko Takahashi, Kenichi Miyata. Project for Cellular Senescence, Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan.

A73 DKK1/CKAP4/PI3K signaling pathway activated PLVAP expression results in worse prognosis of cholangiocarcinoma (CCA) through promoting tumor angiogenic potency. Gang Chen¹, Xiaozai Xie¹, Lijun Wu¹, Jungang Zhao¹, Yifan Tong¹, Mingxun Wang¹, Yi Wang². ¹Department of Hepatobiliary Surgery, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, Zhejiang, China, ²Division of Preventive Medicine, School of Public Health and Management, Wenzhou Medical University, Wenzhou, Zhejiang, China.

A74 EGFR and EGFRvIII drive macrophage infiltration through activating Toll-like receptor 2. Zhenyi An¹, Christiane B Knobbe-Thomsen², Xiaohua Wan¹, Qi Wen Fan¹, Guido Reifenberger², Danielle Swaney¹, David Jimenez-Morales¹, Nicole Nasholm¹, Nevan Krogan¹, William A. Weiss¹. ¹University of California San Francisco, San Francisco, CA, USA, ²Heinrich Heine University, Düsseldorf, Germany.

A75 Targeting acidity at cell surfaces by pHLIP technology. Yana K. Reshetnyak¹, Oleg A. Andreev¹, Donald M. Engelman². ¹University of Rhode Island; pHLIP, Inc, Kingston, RI, USA, ²Yale University; pHLIP, Inc., New Haven, CT; Kingston, RI, USA.

A76 The role of cancer-associated fibroblasts in immune suppressive microenvironment of lung cancer. Eri Sawai¹, Makiko Yamashita¹, Aya Hirata¹, Yukihiro Mizuguchi¹, Makoto Miyazaki¹, Genichiro Ishii², Kazunori Aoki¹. ¹National Cancer Center Research Institute, Tokyo, Japan, ²National Cancer Center, Exploratory Oncology Research and Clinical Trial Center, Tokyo, Japan.

A77 Fibroblast cadherins control Src kinase induced cell motility and transformed cell morphology.

Stephanie A. Sheehan¹, Edward P. Retzbach¹, Yongquan Shen¹, Glenn L. Radice², Gary S. Goldberg¹.

¹Rowan University, Stratford, NJ, USA, ²Thomas Jefferson University, Philadelphia, PA, USA.

A78 Lysyl oxidase induces epithelial-mesenchymal transition and is associated with early recurrence and poor survival in patients with hepatocellular carcinoma after curative hepatectomy. Naoki

Umezaki, Shigeki Nakagawa, Rumi Itoyama, Toshihiko Yusa, Yousuke Nakao, Takanobu Yamao, Tatsunori Miyata, Hirohisa Okabe, Katsunori Imai, Hiromitsu Hayashi, Yo-ichi Yamashita, Akira Chikamoto, Hideo Baba. Department of Gastroenterological Surgery, Graduate School of Life Sciences, Kumamoto University, Kumamoto, Japan.

A79 Autochthonous cholangiocarcinomas in the targeted hepatic KrasG12D-P53-/- murine model are infiltrated with tumor-associated neutrophils and macrophages, which may drive immunosuppression in the tumor immune microenvironment. Luis I. Ruffolo, Katherine M. Jackson, Nathania Figueroa,

Peter Juviler, Booyeon Han, Shuyang Qin, Mary Georger, Rachel Jewell, Brian A. Belt, David C. Linehan, Peter A. Prieto. University of Rochester Medical Center, Rochester, NY, USA.

A80 Characterizing the tumor stroma in an autochthonous murine model of cholangiocarcinoma: A robust model for testing stromal reengineering therapies. Luis I. Ruffolo, Katherine M. Jackson, Peter

Juviler, Mary Georger, Rachel Jewell, Luis De Las Casas, Brian A. Belt, David C. Linehan, Peter A. Prieto. University of Rochester Medical Center, Rochester, NY, USA.

A81 Significant interactions between cancer cells and cancer-associated fibroblasts in the progression of scirrhous gastric cancer. Syuei Kushiya, Masakazu Yashiro, Tomohisa Okuno, Kenji Kuroda, Ryota

Tanaka, Shingo Togano, Sadaaki Nishimura, Takahiro Toyokawa, Hiroaki Tanaka, Kazuya Muguruma, Kosei Hirakawa, Masaichi Ohira. Molecular Oncology and Therapeutics Osaka City University Graduate School of Medicine, Osaka, Japan.

A82 Mapping the cellular microenvironment in human ovarian cancer using single-cell transcriptomics. Susan Olalekan, Bingqing Xie, Anindita Basu. University of Chicago, Chicago, IL, USA.

A83 Inhibitory effect of a redox system by auranofin in pancreatic cancer cells under nutrient-deprived conditions. Takefumi Onodera, Shun-ichi Ohba, Isao Momose, Manabu Kawada. Institute of

Microbial Chemistry (BIKAKEN), Numazu, Japan.

A84 The role of leucine-rich alpha-2 glycoprotein 1 in pancreatic ductal adenocarcinoma tumor microenvironment. Seok Ting Lim, Xiaomeng Wang. Nanyang Technological University, Lee Kong Chian School of

Medicine, Singapore, Singapore.

A85 Orosomucoid is indirectly involved in tumor development via macrophages. Yukio Fujiwara, Koji

Ohnishi, Yoshihiro Komohara, Cheng Pan. Kumamoto university, Kumamoto, Japan.

A87 MSI-L tumors exhibited an intermediate tumor immune microenvironment between MSI-H and MSS in esophagogastric junction adenocarcinoma. Yu Imamura¹, Tasuku Toihata¹, Manabu Takamatsu²,

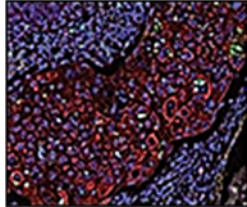
Norio Tanaka³, Shinji Mine¹, Seiichi Mori³, Eiji Oki⁴, Masaru Morita⁵, Hideo Baba⁶, Takeshi Sano¹,

Masayuki Watanabe¹. ¹Department of Gastroenterological Surgery, Cancer Institute Hospital of Japanese Foundation of Cancer Research, Tokyo, Japan, ²Department of pathology, Cancer Institute Hospital of Japanese Foundation of Cancer Research, Tokyo, Japan, ³Cancer Precision Medicine Center, Cancer Institute, Tokyo, Japan, ⁴Department of Surgery and Science, Graduate School of Medical Sciences, Fukuoka, Japan, ⁵Department of Gastroenterological Surgery, National Hospital Organization, Kyushu Cancer Center, Fukuoka, Japan, ⁶Department of Gastroenterological Surgery, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan.

A88 Fibrosis in metastatic lymph nodes is clinically correlated to poor prognosis in colorectal cancer.

Daiji Ikuta¹, Toru Miyake¹, Tomoharu Shimizu¹, Hiromichi Sonoda¹, Ken-ichi Mukaisho², Aya Tokuda¹, Tomoyuki Ueki¹, Hiroyuki Sugihara², Masaji Tani¹. ¹Department of Surgery, Shiga University of Medical Science, Otsu, Shiga, Japan, ²Department of Molecular and diagnostic Pathology, Shiga University of Medical Science, Otsu, Shiga, Japan.

A89 Involvement of PERK in LGR5 depletion under endoplasmic reticulum stress conditions. Yuka Okamoto, Masaru Koido, Akihiro Tomida. Genome Research, Cancer Chemotherapy Center, JFCR, Tokyo, Japan.



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 Cho¹, Jin Young Nam¹, Soon Sun Kim¹, Jae Youn Cheong¹, Jungwoo Eun¹, Minsu Kwon². ¹Ajou University School of Medicine, Suwon, Republic of Korea, ²Eulji University School of Medicine, Seoul, Republic of Korea.

B03 The role of AXL in erlotinib-resistant non-small cell lung cancer cell lines. Nam Gilyeong¹, Moon Ejung², Lee Ikjae¹, Amato Giaccia². ¹Gangnam severance hospital, Seoul, Republic of Korea, ²Stanford 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 Imai¹, Mie Naruse¹, Masako Ochiai¹, Hirokazu Taniguchi², Atsushi Ochiai³. ¹Dep. Anim. Exp., Natl. Cancer Ctr. Res. Inst., Tokyo, Japan, ²Dept. Pathol., Natl Cancer Ctr. Hosp., Tokyo, Japan, ³Exploratory 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 Cai¹, Zhen Qi², Dalong Qian², Frederick Dirbas³, Aaron Newman², Michael Clarke². ¹Westlake University, Hang Zhou, China, ²Stanford Institute for Stem Cell Biology and Regenerative Medicine, Stanford, CA, USA, ³Stanford 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. Bae YooJin, 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 Tsubota¹, David A. duVerle², Fanny Perraudeau³, Yukie Kashima², Satoshi Kishida¹, Yutaka Suzuki², Koji Tsuda², Kenji Kadomatsu¹. ¹Department of Molecular Biology, Nagoya University Graduate School of Medicine, Nagoya, Japan, ²Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, the University of Tokyo, Tokyo, Japan, ³Division 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-Fernandez¹, Andrea Rosado- Albacarys¹, Fatma Valiyeva², Pablo Vivas-Mejia³. ¹University of Puerto Rico at Rio Piedras, San Juan, Puerto Rico, USA, ²Comprehensive Cancer Center, San Juan, Puerto Rico, USA, ³University 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 Noshō, 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 Castle¹, Nan Lin¹, Jinpeng Liu¹, Chi Wang¹, Yunlong Liu², Chunyan He¹. ¹University of Kentucky, Lexington, KY, USA, ²Indiana University, Indianapolis, IN, USA.

B21 CXCR4 gene methylation in colorectal cancer. Alexei Stuckel¹, Qiong Zhang¹, Urszula Dougherty², Reba Mustafi², Trupti Joshi¹, Tripti Khare¹, Marc Bissonnette², Sharad Khare^{1,3}. ¹University of Missouri, Columbia, MO, USA, ²University of Chicago, Chicago, IL, USA, ³Harry 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. Kwee¹, Maarit Tiirikainen¹, Karolina Peplowska¹, Min Ae Song², Linda L. Wong¹. ¹University of Hawaii Cancer Center, Honolulu, HI, USA, ²The Ohio State University, Columbus, OH, USA.

B23 Methylation-silencing in high-risk oral leukoplakia. Masanobu Abe¹, Satoshi Yamashita², Takahiro Abe³, Toshikazu Ushijima², Kazuto Hoshi³. ¹Division for Health Service Promotion, University of Tokyo, Tokyo, Japan, ²Division of Epigenomics, National Cancer Center Research Institute, Tokyo, Japan, ³Department 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 Nakagawa¹, Keisuke Matsusaka¹, Kiyoshi Misawa², Masaki Fukuyo¹, Masato Mima², Tomoya Kurokawa¹, Daiju Sakurai¹, Toyoyuki Hanazawa¹, Yoshitaka Okamoto¹, Atsushi Kaneda¹. ¹Chiba University, Chiba, Japan, ²Hamamatsu University, Hamamatsu, Japan.

B26 DOT1L inhibition blocks multiple myeloma cell proliferation by suppressing IRF4-MYC signaling. Kazuya Ishiguro¹, Hiroshi Kitajima¹, Takeshi Niinuma¹, Tadao Ishida², Reo Maruyama³, Hiroshi Ikeda⁴, Eiichiro Yamamoto¹, Masahiro Kai¹, Yasushi Sasaki⁵, Takashi Tokino⁶, Hiroshi Nakase⁴, Hiromu Suzuki¹. ¹Department of Molecular Biology, Sapporo Medical University School of Medicine, Sapporo, Japan, ²Department of Hematology, Japanese Red Cross Medical Center, Tokyo, Japan, ³Project for Cancer Epigenomics, Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan, ⁴Department of Gastroenterology and Hepatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁵Center for Medical Education, Sapporo Medical University, Sapporo, Japan, ⁶Department 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 Tian¹, Eri Arai¹, Junko Kuramoto¹, Satomi Makiuchi¹, Noboru Tsuda¹, Hidenori Ojima¹, Yukihiko Fukamachi², Yoriko Takahashi², Nobuyoshi Hiraoka³, Teruhiko Yoshida⁴, Yae Kanai¹. ¹Department of Pathology, Keio University School of Medicine, Tokyo, Japan, ²Biomedical Department, Solution Center, Mitsui Knowledge Industry Co., Ltd., Tokyo, Japan, ³Department of Pathology and Clinical Laboratory, National Cancer Center Hospital, Tokyo, Japan, ⁴Fundamental 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 Ohara¹, Eri Arai¹, Hikaru Sasaki², Masashi Nakatsukasa³, Kazunari Yoshida², Yae Kanai¹. ¹Department of Pathology, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan, ²Department of Neurosurgery, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan, ³Department 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 Okabe¹, Keisuke Matsusaka¹, Masaki Fukuyo¹, Sayaka Funata¹, Hiroe Namba¹, Masashi Fukayama², Atsushi Kaneda¹. ¹Graduate School of Medicine, Chiba University, Chiba, Japan, ²Graduate 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 Rajendran¹, Gavin S. Johnson¹, Li Li¹, Ying-Shiuan Chen¹, W. Mohaiza Dashwood¹, Nhung Nguyen¹, Ahmet M. Ulasan¹, Furkan U. Ertem¹, Mutian Zhang¹, Jai Li¹, Deqiang Sun¹, Yun Huang¹, Shan Wang¹, Hon-Chiu Eastwood Leung², David A. Lieberman³, Laura M. Beaver⁴, Emily Ho⁴, Mark T. Bedford⁵, Kyle Chang⁵, Eduardo Vilar⁵, Roderick H. Dashwood⁶. ¹Center for Epigenetics & Disease Prevention, Texas A&M College of Medicine, Houston, TX, USA, ²Mass Spectrometry-Proteomics Core, Baylor College of Medicine, Houston, TX, USA, ³Division of Gastroenterology and Hepatology, Oregon Health & Science University, Portland, OR, USA, ⁴College of Public Health and Human Sciences, Oregon State University, Corvallis, OR, USA, ⁵The University of Texas MD Anderson Cancer Center, Houston, TX, USA, ⁶Center 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 Otani¹, Masashi Nomura², Takeo Uzuka³, Fumi Higuchi³, Hadzuki Matsuda³, Phyo Kim³, Hiroyuki Aburatani², Keisuke Ueki³. ¹Metropolitan Komagome Hospital, Tokyo, Tokyo, Japan, ²The University of Tokyo, Tokyo, Tokyo, Japan, ³Dokkyo 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 Sugiyama¹, Moriya Iwaizumi¹, Satoshi Suzuki², Ken Sugimoto¹,

Masato Maekawa¹, Haruhiko Sugimura¹. ¹Hamamatsu University School of Medicine, Hamamatsu, Japan, ²University 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 Kodama¹, Jing Yi², Justin Y. Newberg³, Jean C. Tien⁴, Hao Wu⁵, Milton J. Finegold⁵, Michiko Kodama⁶, Takeshi Tamura¹, Randy L. Johnson², Nancy A. Jenkins⁷, Tetsuo Takehara¹, Neal G. Copeland⁷. ¹Department of Gastroenterology and Hepatology, Graduate School of Medicine, Osaka University, Suita, Japan, ²Department of Cancer Biology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA, ³Department of Molecular Oncology, Moffitt Cancer Center, Tampa, FL, USA, ⁴Michigan Center for Translational Pathology, Department of Pathology, University of Michigan, Ann Arbor, MI, USA, ⁵Department of Pathology, Texas Children's Hospital and Baylor College of Medicine, Houston, TX, USA, ⁶Department of Obstetrics and Gynecology, Graduate School of Medicine, Osaka University, Suita, Japan, ⁷Genetics 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 Kodama¹, Takahiro Kodama¹, Justin Y. Newberg², Jean C. Tien³, Roberto Rangel⁴, Aya Nakae¹, Tadashi Kimura¹, Neal G. Copeland⁴, Nancy A. Jenkins⁴. ¹Osaka Graduate School of Medicine, Suita, Japan, ²Moffitt Cancer Center, Tampa, FL, USA, ³Michigan Center of Translational Pathology, Ann Arbor, MI, USA, ⁴The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

B40 SDH mutations in hereditary pheochromocytoma/paraganglioma syndrome in four Japanese pedigrees. Mie Yamanaka¹, Kiyoto Shiga², Sho Fujiwara¹, Yasuhiko Mizuguchi¹, Sari Yasuda¹, Kota Ishizawa¹, Yuriko Saiki¹, Kenjiro Higashi³, Takenori Ogawa³, Noriko Kimura⁴, Akira Horii¹. ¹Tohoku University School of Medicine, Department of Molecular Pathology, Sendai, Miyagi, Japan, ²Iwate Medical University School of Medicine, Department of Head and Neck Surgery, Morioka, Iwate, Japan, ³Tohoku University School of Medicine, Departments of Molecular Pathology and Otolaryngology-Head and Neck Surgery, Sendai, Miyagi, Japan, ⁴National 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 Miki¹, Yuichi Hiyama¹, Atsushi Ono¹, Masami Yamauchi¹, Masataka Tsuge¹, Hiroshi Aikata¹, Tatsuhiko Tsunoda², Kazuaki Chayama³. ¹Hiroshima University, Hiroshima, Japan, ²Tokyo Medical and Dental University & RIKEN, Tokyo & Yokohama, Japan, ³Hiroshima 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 Gotoh¹, Yuko Sugiyama², Nobuhiro Takeshima², Yutaka Takazawa³, Kosei Hasegawa⁴, Keiichi Fujiwara⁴, Mana Taki⁵, Noriomi Matsumura⁵, Tetsuo Noda¹, Seiichi Mori¹. ¹JFCR. CPM Ctr., Koto, Tokyo, Japan, ²JFCR. Ariake Hosp., Koto, Tokyo, Japan, ³JFCR. Cancer Inst., Koto, Tokyo, Japan, ⁴Saitama Med. Univ. Intl. Med. Ctr., Hidaka, Saitama, Japan, ⁵Kyoto Univ. Hosp., Kyoto, Kyoto, Japan.

B44 Relapse glioblastoma mechanism revealed by single-cell molecular analysis. Andres Stucky¹, Calvin Li², Xuelian Chen¹, Qin Wen¹, William Loudon², Hector Ho³, Mustafa Kabeer², Xi Zhang⁴, Richard Pestell⁵, Jiang Zhong³. ¹USC, Los Angeles, CA, USA, ²CHOC, Irvine, CA, USA, ³Saint Joseph Hospital, Irvine, CA, USA, ⁴Army Medical University, Chongqing, China, ⁵Pennsylvania Biotechnology Center, Doylestown, PA, USA.

B45 “PleSSision”: A pathologist-edited multigene genomic test promotes cancer precision medicine in Japan. Eriko Aimonio¹, Emmy Yanagita¹, Ryosuke Matsuoka², Yasutaka Kato¹, Hideyuki Hayashi¹, Mitsuho Imai¹, Tomoko Akahane¹, Kaori Mochida¹, Aki Iguchi¹, Shigeki Tanishima³, Hiroshi Nishihara¹. ¹Keio University, Tokyo, Japan, ²International University of Health and Welfare, Tokyo, Japan, ³Mitsubishi 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 Torigoe¹, Yoshihiko Hirohashi¹, Tomohide Tsukahara¹, Takayuki Kanaseki¹, Munehide Nakatsugawa¹, Terufumi Kubo¹, Shinichi Hashimoto². ¹Sapporo Medical University, Sapporo, Japan, ²Kanazawa University, Kanazawa, Japan.

B47 Targeted inhibition of the epithelial-to-mesenchymal transition-associated factor AXL enhances lymphocyte-mediated cytotoxicity of lung cancer cells. Salem Chouaib¹, Stephane Terry¹, James Lorens², Jean Paul Thierry¹, Fathia Mami-Chouaib¹. ¹Gustave Roussy, Villejuif, France, ²Bergen 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 Liang¹, Michael Kirschfink², Peter E. Huber³. ¹Mol Radiation Oncology, dkfz, Heidelberg, Germany, ²Immunology, Heidelberg University, Heidelberg, Germany, ³Mol 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 $\alpha 3$ domain-specific antibody activates NK function in a Fc-dependent manner. Changchun Du¹, Jack Bevers III¹, Ryan Cook¹, T. Noelle Lombana¹, Kamalakannan Rajasekaran¹, Marissa Matsumoto¹, Christoph Spiess¹, Jeong Kim², Zhengmao Zhengmao Ye Ye¹. ¹Genentech, South San Francisco, CA, USA, ²Genentech, NGM, South San Francisco, USA.

B53 Antitumor effect of anti-erbB-2 trifunctional antibody. Yasuo Kato¹, Yuji Hinoda², Hiromi Hirata³, Masayuki Tsujisaki⁴, Toshio Matsune⁵, Shigeru Sasaki⁶, Kohzoh Imai⁷. ¹Sapporo Shirakabadai Hospital, Sapporo,

Japan, ²Teishinkai Hospital, Sapporo, Japan, ³Hirata Hiromi Clinic, Hakodate, Japan, ⁴Tenshi Hospital, Sapporo, Japan, ⁵Shirakaba Pharmacy, Sapporo, Japan, ⁶Sapporo Medical University, Sapporo, Japan, ⁷University 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 Montfoort¹, Linda Borst¹, Michael Korner², Margolein Sluijter³, Koen Marijt¹, Saskia Santegoets¹, van Ham Vanessa¹, Illina Ehrsan¹, Kay Pornpimol⁴, Georgios Zervakis¹, Marij Welters¹, Pascale Andre⁵, Nicolai Wagtmann⁵, Sytse Piersma⁶, Sjoerd van der Burg¹, Thorbald van Hall⁷, Young Kim². ¹Leiden U MC, Leiden, Netherlands, ²Vanderbilt University Medical Center, Nashville, TN, USA, ³Leiden, Leiden, Netherlands, ⁴Innate Pharma, Marseille, France, ⁵Innate, Marseille, France, ⁶Washington University, St. Louis, MO, USA, ⁷Leiden U MC, Leiden, Netherlands.

B57 Automated cell type assignment of single-cell transcriptomic data reveals temporal microenvironmental dynamics in follicular lymphoma. Allen W. Zhang¹, Elizabeth Chavez², Jamie L.P. Lim¹, Ciara O'Flanagan², Matt Wiens², Xuehai Wang², Andrew Weng², Christian Steidl², Kieran R. Campbell², Sohrab P. Shah¹. ¹Memorial Sloan Kettering Cancer Center, New York, NY, USA, ²BC 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 Lim¹, Jungwon Kim¹, Seunghyun Jeon¹, Min Hwa Shin¹, Joonha Kwon¹, Tae-Jin Kim¹, Youngmin Han², Hongeun Lee², Wooil Kwon², Sun-Whe Kim², Cassian Yee³, Seong-Jin Kim², Jin-Young Jang², Kyung-Mi Lee¹. ¹Korea University, Seoul, South Korea, ²Seoul National University, Seoul, South Korea, ³University 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 Ogin, 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 Nagase¹, Keiko Fukushima², Asuka Hattori¹, Mayu Shinohara¹, Atsushi Takatori¹, Takayoshi Watanabe¹, Nobuko Koshikawa¹, Takahiro Inoue¹, Jason Lin¹, Yoshinao Shinozaki¹. ¹Chiba Cancer Center Research Institute, Chiba, Japan, ²Zenyaku Kogyo Co., Ltd., Tokyo, Japan.

B64 Mismatch repair deficiency as a biomarker of response to immune checkpoint inhibition therapy in glioblastoma multiforme. Kimia Ghannad-Zadeh¹, Megan YiJun Wu², Taylor Wilson³, Angela Celebre⁴, David Munoz⁵, Jason Karamchandani⁶, Sunit Das⁷. ¹Institute 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, ²The Arthur and Sonia Labatt Brain Tumor Research Centre, The Hospital for Sick Children, Toronto, ON, Canada, ³Institute 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, ⁴Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, ON, Canada, ⁵Department of Laboratory Medicine and Pathobiology, University of Toronto. Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada, ⁶Department of Pathology, Montreal Neurological Institute and Hospital, McGill University, Montreal, QC, Canada, ⁷Institute 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 Yoshida¹, Taizo Hoshino². ¹Premier Clinic Laboratory, Minato-ku, Tokyo, Japan, ²Premiere Clinic, Chiyoda-ku, Tokyo, Japan.

B67 Anti-glypican-1(GPC-1)-CAR-T cells can completely eradicate established solid tumor without adverse effects. Tomonori Yaguchi¹, Daiki Kato¹, Kenji Morii¹, Satoshi Serada², Tetsuji Naka², Yutaka Kawakami¹. ¹Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, Shinjuku, Tokyo, Japan, ²Center for Intractable Immune Disease, Kochi University, Nankoku, Kochi, Japan.

B68 Investigating tumor immunosurveillance in genetically engineered autochthonous mouse models of cancer. Kelli Connolly¹, Brittany Fitzgerald¹, Martina Damo¹, Mursal Nader¹, Tyler Jacks², Nikhil S. Joshi¹. ¹Yale University, New Haven, CT, USA, ²MIT, 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 Sanda¹, Shawn Beug¹, Eric LaCasse², Robert G. Korneluk¹. ¹Children's Hospital of Eastern Ontario Research Institute and University of Ottawa, Ottawa, ON, Canada, ²Children's Hospital of Eastern Ontario Research Institute, Ottawa, ON, Canada.

B71 Clinical efficacy of OT-101 a TGF- β 2 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. Rosendahl¹, Maria Ygland Rödström¹, Signe Borgquist², Christian Ingvar¹, Michael N. Pollak³, Helena Jernström¹. ¹Lund University and Skane University Hospital, Lund, Sweden, ²Lund University and Aarhus University and Aarhus University Hospital, Lund and Aarhus, Sweden and Denmark, ³McGill University, Montreal, QC, Canada.

B74 MYC-driven small cell lung cancer is metabolically distinct and vulnerable to arginine depletion. Milind D Chalishazar¹, Fang Huang², Sabina C. Cosulich³, John Bomalaski⁴, Ralph J. DeBerardinis², Trudy G. Oliver¹. ¹University of Utah, Salt Lake City, UT, USA, ²University of Texas - Southwestern, Dallas, TX, USA, ³Astra-Zeneca, Cambridge, United Kingdom, ⁴Polaris Pharmaceuticals, San Diego, CA, USA.

B75 RKN2381, a small-molecule inhibitor of mitochondrial function, targets cancer metabolism. Amit Subedi¹, Makoto Muroi¹, Yushi Futamura¹, Tatsuro Kawamura¹, Harumi Aono¹, Mayuko Nishi², Akihito Ryo², Nobumoto Watanabe¹, Hiroyuki Osada¹. ¹RIKEN, Wako-shi, Saitama, Japan, ²Yokohama City University, Yokohama-shi, Kanagawa, Japan.

B76 Iron drives Warburg effects in colorectal cancer. Xiang Xue¹, Daniel Falcon¹, Ho Joon Lee², Michael K. Dame², Costas Lyssiotis², Yatrik M. Shah². ¹University of New Mexico, Albuquerque, NM, USA, ²University 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 Khav¹, Selina Martinez¹, John Chaptut², Shaleen B. Korch¹. ¹Midwestern University, Glendale, AZ, USA, ²University 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 Osawa¹, Teppei Shimamura², Hiroyuki Aburatani¹, Tomoyoshi Soga³, Tatsuhiko Kodama¹. ¹University of Tokyo, Tokyo, Japan, ²Nagoya University, Nagoya, Japan, ³Keio 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

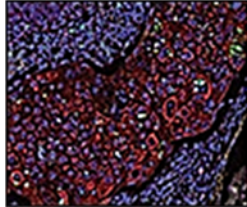
Zelenka, Martina Koncošová, Nikola Vrzáčková, Tomáš Ruml. University of Chemistry and Technology Prague, Department of Biochemistry and Microbiology, Prague, Czech Republic.

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 Nishimura¹, Asuka Nakata¹, Xiaoxi Chen¹, Kurumi Nishi¹, Makiko Meguro-Horike², Soichiro Sasaki¹, Kenji Kita¹, Shin-ichi Horike², Kaori Saitoh³, Keiko Kato³, Kaori Igarashi³, Takahiko Murayama⁴, Susumu Kohno¹, Chiaki Takahashi¹, Naofumi Mukaida¹, Seiji Yano¹, Tomoyoshi Soga³, Arinobu Tojo⁴, Noriko Gotoh¹. ¹Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ²Advanced Science Research Center, Kanazawa University, Kanazawa, Japan, ³Institute for Advanced Biosciences, Keio University, Tsuruoka, Japan, ⁴Institute of Medical Science, University of Tokyo, Tokyo, Japan.

B85 Increased tryptophan catabolism via tryptophan hydroxylase 1 induction in remote liver tissue in cancer. Asami Hagiwara¹, Yoshiyasu Nakamura², Rumi Nishimoto³, Satoko Ueno³, Yohei Miyagi⁴. ¹Research Institute for Bioscience Products & Fine Chemicals, Ajinomoto Co., Inc, Kawasaki, Kanagawa, Japan, ²Molecular Pathology and Genetics Division, Kanagawa Cancer Center Research Institute, Kanagawa Cancer Center, Yokohama, Kanagawa, Japan, ³Fundamental Technology Labs, Institute for Innovation, Ajinomoto Co., Inc, Kawasaki, Kanagawa, Japan, ⁴Kanagawa 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 Kawaguchi¹, Robert Hoffman², Michiaki Unno¹. ¹Tohoku University Graduate School of Medicine, Sendai, Japan, ²University of California, San Diego, San Diego, CA, USA.



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

AAGR American Association
for Cancer Research

JCA 日本癌学会
JAPANESE CANCER ASSOCIATION

Poster Session C

Monday, February 11, 2019

5:30 p.m.-7:30 p.m.

Haleakala Ballroom

Cancer biology

C01 Evaluation of bone marrow mesenchymal stromal cells (BMSC) from Russian healthy donors: Potential of young donor derived BMSC. Nina Gladkova¹, Tomohiro Umezu², Satoshi Imanishi², Chiaki Kawana², Junko H. Ohyashiki², Kazuma Ohyashiki². ¹Kintaro Cells Power Corporation, Tokyo, Japan, ²Tokyo Medical University, Tokyo, Japan.

C02 Environmental pollution-related disease and biomarker development for screening and early diagnosis of asbestos-related mesothelioma. Okio Hino, Yan Yan. Juntendo University School of Medicine, Tokyo, Japan.

C03 The novel p53 family target BRMS1L suppresses cancer cell invasion and migration. Yasushi Sasaki, Ryota Koyama, Miyuki Tamura, Masashi Idogawa, Hiromu Suzuki, Takashi Tokino. Sapporo Medical University, Sapporo, Japan.

C04 Protective role of catechol-O-methyltransferase gene in prostate cancer. Shigekatsu Maekawa¹, Marisa Shiina², Yutaka Hashimoto², Taku Kato³, Ryan K. Wong⁴, Varahram Shahryari⁴, Priyanka Kulkarni², Pritha Dasgupta², Divya Bhagirath², Soichiro Yamamura², Shahana Majid², Sharanjot Saini², Z. Laura Tabatabai², Yukio Homma¹, Rajvir Dahiya², Yuichiro Tanaka². ¹The University of Tokyo, Tokyo, Japan, ²University of California at San Francisco and Veterans Affairs Medical Center, San Francisco, CA, USA, ³Gifu University Graduate school of Medicine, Gifu, Japan, ⁴Veterans Affairs Medical Center, San Francisco, CA, USA.

C05 Target misfolded prion protein in lung cancer. Apar Pataer¹, Bulent Ozpolat¹, Neil R Cashman², Stephen G Swisher¹. ¹University of Texas MD Anderson Cancer Center, Houston, TX, USA, ²University of British Columbia, Vancouver, BC, Canada.

C06 Targeting aryl hydrocarbon receptor (AhR) signaling in castration resistant prostate cancer. Sakura McLaughlin, Tia Jones, Joann B. Powell. Clark Atlanta University, Atlanta, GA, USA.

C07 Identification and functional analysis of FGFR2 binding proteins in scirrhous gastric cancer. Takuya Shirakihara, Ryuichi Sakai. Kitasato University School of Medicine, Sagami, Kanagawa, Japan.

C08 Wnt/ β -catenin signaling controls interferon regulatory factor 1 (IRF1) in colorectal cancer cells.

Kiyoshi Yamaguchi, Tomoyuki Ohsugi, Kiyoko Takane, Tsuneo Ikenoue, Yoichi Furukawa. The University of Tokyo, Tokyo, Japan.

C09 Folate-conjugated liposomal carriers enhance the sensitivity to rapamycin in urothelial carcinoma (URCa) cells and orthotopic bladder cancer mouse model.

Young Mi Whang¹, Myeong Joo Kim¹, Jung Ho Ha¹, Gwang Yong Hwang¹, Hoyub Yoon¹, Serk In Park², Young Wook Choi¹, In Ho Chang¹. ¹Chung-Ang University, Seoul, Republic of Korea, ²Korea University College of Medicine, Seoul, Republic of Korea.

C10 Integrative genomic analyses identifies GGA2 as a modifier of EGFR mutant-driven lung tumorigenesis.

Hannah O'Farrell¹, Bryant Harbourne¹, Zimple Kurlawala², Yusuke Inoue¹, Amy Nagelberg¹, Daniel Lu¹, Min Hee Oh¹, Bradley Coe¹, Kelsie Thu¹, Romel Somwar³, Stephen Lam¹, Wan Lam¹, Arun Unni⁴, Levi Beverly², William Lockwood¹. ¹BC Cancer, Vancouver, BC, Canada, ²University of Louisville, Louisville, KY, USA, ³Memorial Sloan-Kettering Cancer Center, New York, NY, USA, ⁴Weill Cornell Medicine, New York, NY, USA.

C11 IFN/STAT signaling controls tumorigenesis of colorectal cancers.

Ryoji Yao¹, Takuya Okamoto¹, Koichi Nagasaki², Tetsuo Noda¹, Satoshi Nagayama³. ¹Cancer Institute, JFCR, Koto-ku, Tokyo, Japan, ²Cancer Institute, JFCR, Koto-ku, Tokyo, Japan, ³Cancer Institute Hospital, JFCR, Koto-ku, Tokyo, Japan.

C12 Establishment of human gastric organoids as a model of early neoplastic stages.

Akiko Kunita, Miyako Fukasawa, Shu Nishida, Hiroyuki Abe, Tetsuo Ushiku, Masashi Fukayama. University of Tokyo, Tokyo, Japan.

C13 Identification of hub-long noncoding RNAs (lncRNAs) by the network analysis of lncRNA

expression in cancers. Masashi Idogawa, Natsumi Suzuki, Yasushi Sasaki, Takashi Tokino. Dept. of Medical Genome Sciences, Inst. of Frontier Medicine, Sapporo Medical University, Sapporo, Japan.

C14 Deletion of regions 3p22 and 3p22.2 is more closely associated with the carcinogenesis of lung

squamous cell carcinoma. Tomoe Lu¹, Shinichi Hirooka¹, Keishiro Murakami¹, Makoto Odaka², Shigeharu Hamatani¹, Masahiro Ikegami¹, Hiroshi Hano¹. ¹Department of Pathology, The Jikei University School of Medicine, Tokyo, Japan, ²Department of Surgery, The Jikei University Hospital, Tokyo, Japan.

C15 Estrogen receptor alpha (ERa) promotes protein synthesis by fine-tuning the expression of the eukaryotic translation initiation factor 3 subunit f (eIF3f).

Rafael Cuesta, Marina K. Holz. New York Medical College, Valhalla, NY, USA.

C16 HER3 signaling in ER+ and HER2+ breast cancers.

Joan T. Garrett, Rosalin Mishra, Samar Alanazi. University of Cincinnati, Cincinnati, OH, USA.

C17 Deletion of sorting nexin 27 suppresses proliferation and migration in highly aggressive breast cancer cells.

Jilei Zhang¹, Kendy Li², Yongguo Zhang¹, Rong Lu¹, Shaoping Wu³, Jingrong Tang⁴, Yinglin Xia¹, Jun Sun¹. ¹University of Illinois at Chicago (UIC), Chicago, IL, USA, ²Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, ³Rush University, Chicago, IL, USA, ⁴NIH, Bethesda, MD, USA.

C18 RNA exosome component EXOSC9 is indispensable for stress resistance in breast cancer.

Seiko Yoshino¹, Yuya Fukui¹, Yusuke Matsui², Motoharu Seiki³, Yoshinori Murakami¹, Jun-ichiro Inoue¹,

Takeharu Sakamoto¹. ¹The University of Tokyo, Tokyo, Japan, ²Nagoya University, Nagoya, Japan, ³Kanazawa University, Kanazawa, Japan.

C19 The significance of FBXW7, mediating cell proliferation and drug resistance in gastrointestinal stromal tumor. Yuki Koga, Masaaki Iwatsuki, Kohei Yamashita, Shiro Iwagami, Kojiro Eto, Takatsugu Ishimoto, Yoshifumi Baba, Naoya Yoshida, Hideo Baba. Kumamoto University, Kumamoto, Japan.

C20 Establishment of patient-derived cells and xenografts of endometrial cancer using a long-term culture based on spheroid formation. Satoshi Inoue¹, Sachiko Shiba², Kazuhiro Ikeda², Kuniko Horie-Inoue². ¹TMIG, Tokyo, Japan, ²Saitama Medical University, Hidaka, Japan.

C21 Maintenance of HSP90A by PRMT5 arginine methylation by NDRG2-deficient ATLL and other cancers. Kazuhiro Morishita¹, Tomonaga Ichikawa¹, Shingo Nakahata¹, Masaya Ono². ¹University of Miyazaki, Miyazaki, Japan, ²National Cancer Center Research Institute, Tokyo, Japan.

C22 Loss of CAP1 impairs adipocyte-induced stimulation of breast cancer cells. Malin Bergqvist¹, Signe Borgquist², Ann H. Rosendahl¹. ¹Lund University and Skåne University Hospital, Department of Clinical Sciences Lund, Division of Oncology and Pathology, Lund, Sweden, ²Aarhus University and Aarhus University Hospital, Departments of Clinical Medicine/Oncology, Aarhus, Denmark.

C23 Obese breast adipose tissue contributes to DNA damage in breast epithelial cells of BRCA mutation carriers. Priya Bhardwaj¹, Neil M. Iyengar², Sofya Oshchepkova¹, Rohan Bareja¹, Andrew J. Dannenberg¹, Olivier Elemento¹, Monica Morrow², Jason A. Spector¹, Kristy A. Brown¹. ¹Weill Cornell Medicine, New York, NY, USA, ²Memorial Sloan Kettering Cancer Center, New York, NY, USA.

C24 Loss of the transcriptional repressor TGIF1 results in enhanced Kras-driven development of pancreatic cancer. Ching-Chieh Weng, Chia-Chen Wu, Yu-Chun Lin, Kuang-hung Cheng. National Sun Yat-sen University, Kaohsiung, Taiwan.

C25 Overcoming the Limitations of Endocrine Therapy for Ovarian Cancer. Irene Lee, Myles Brown. Dana-Farber Cancer Institute, Boston, MA, USA.

C26 Long noncoding RNA regulates cancer stem cells in colorectal cancer. Masahisa Ohtsuka¹, Naotsugu Haraguchi², Norikatsu Miyoshi², Hidekazu Takahashi², Taishi Hata², Chu Matsuda², Masahiro Tanemura¹, Hiroki Akamatsu¹, Tsunekazu Mizushima², Yuichiro Doki², Masaki Mori², Hirofumi Yamamoto³. ¹Osaka Police Hospital, Department of Surgery, Osaka, Japan, ²Osaka University, Department of Gastroenterological Surgery, Osaka, Japan, ³Osaka University, Department of Molecular Pathology, Osaka, Japan.

C27 Understanding pancreatic cancer metastasis driven by loss of SMAD4. Yue Huang¹, Guangwu Guo², Andrew Aguirre³, Belinda Wang³, Scott Younger², John Doeck², William Hahn³, Chao Dai³. ¹Boston Children's Hospital, Boston, MA, US, ²Broad Institute of Harvard and MIT, Boston, MA, US, ³Dana-Farber Cancer Institute, Boston, MA, US.

C28 Identity fraud: Lineage plasticity as a mechanism of antiandrogen resistance and target for therapy. Alastair Davies¹, Daksh Thaper¹, Shaghayegh Nouruzi¹, Soojin Kim¹, Sahil Kumar¹, Chiara Bostock¹, Loredana Puca², Jennifer Bishop¹, Ladan Fazli¹, Haojie Huang³, David Goodrich⁴, Hansen He⁵, Faraz Hach¹, Himisha Beltran², Amina Zoubeidi¹. ¹Vancouver Prostate Centre, Vancouver, BC, Canada, ²Weill Cornell

Medicine, New York, NY, USA, ³Mayo Clinic Cancer Center, Rochester, MN, USA, ⁴Roswell Park Cancer Institute, Buffalo, NY, USA, ⁵Princess Margaret Cancer Centre, Toronto, ON, Canada.

C29 BET inhibitor sensitivity is mediated by DR5 induction and SPOP mutations in colorectal cancer.

Xiao Tan¹, Jingshan Tong², Yi-Jun Wang², Rochelle Fletcher², Robert E Schoen², Jian Yu², Liangfang Shen¹, Lin Zhang². ¹Central South University, Changsha, Hunan, China, ²UPMC Hillman Cancer Center, Pittsburgh, PA, USA.

C30 PADI2 suppresses proliferation of colon cancer cells through protein citrullination. Keiiko

Nakayama, Ryo Funayama, Hajime Taniguchi. Tohoku University, Sendai, Japan.

C31 Antioxidant activity and cytotoxicity evaluation of guava leaves plant extracts on breast/lung /prostate cancer cell lines. Heba Alhamdi¹, William Boadi¹, Venkataswarup Tiriveedhi¹, Nicole Driggins²,

E. Lewis Myles¹. ¹Tennessee State University, Nashville, TN, USA, ²Allen University, Columbia, SC, USA.

C32 Ezh2 inhibition in Kras-driven lung cancer amplifies inflammation and associated vulnerabilities.

Gaetano Gargiulo, Michela Serresi. Max-Delbrück-Center for Molecular Medicine (MDC), Berlin, Germany.

C33 Functional analysis of the PALB2 tumor suppressor. Amélie Rodrigue¹, Timothy Wiltshire²,

Guillaume Margailan³, Giuliana De-Gregoriis⁴, Yan Coulombe¹, Mandy Ducy¹, Thiago Torres Gomes⁴, Simone Carvalho¹, Penny Soucy³, Graham Dellaire⁵, Marcelo Alex Carvalho⁴, Alvaro Monteiro⁶, Fergus Couch², Jacques Simard³, Jean-Yves Masson¹. ¹Genome Stability Laboratory, CHU de Québec-Université Laval Research Center, Quebec, Canada, ²Mayo Clinic, Rochester, MN, USA, ³Genomics Centre, CHU de Québec-Université Laval Research Center, Quebec, Canada, ⁴Instituto Nacional de Câncer, Rio de Janeiro, Brazil, ⁵Dalhousie University, New Brunswick, Canada, ⁶H. Lee Moffitt Cancer Center, Tampa, FL, USA.

C34 Identifying Nrf2 inhibitors through a high throughput screen. Di Zhang, Corbin Livingston, Thomas

Dexheimer, Edmund Ellsworth, Aaron Odom, Karen Liby. Michigan State University, East Lansing, MI, USA.

C35 Establishment of a new scirrhous gastric cancer cell line with FGFR2 overexpression, OCUM-14.

Tomohisa Okuno¹, Masakazu Yashiro¹, Go Masuda¹, Shuhei Kushiya¹, Sadaaki Nishimura¹, Shingo Togano¹, Kenji Kuroda¹, Yuichiro Miki¹, Kosei Hirakawa¹, Masahiko Ousawa², Hideki Wanibuchi³, Masaichi Ohira¹. ¹Department of Gastroenterological Surgery, Osaka City University Graduate School of Medicine, Osaka, Japan, ²Department of Diagnostic Pathology, Osaka City University Graduate School of Medicine, Osaka, Japan, ³Molecular Pathology, Osaka City University Graduate School of Medicine, Osaka, Japan.

C36 Expanding the liver small-RNA transcriptome: Discovery of novel and oncofetal sncRNAs relevant to hepatocellular carcinoma. Brenda C. Minatel, Adam P. Sage, Erin A. Marshall, Victor D. Martinez,

Wan L. Lam. BC Cancer Research Centre, Vancouver, BC, Canada.

C37 Novel microRNAs as mediators of CRL2^{pVHL} complex disruptions in liver cancer and their relevance to patient outcome. Brenda C. Minatel, Adam P. Sage, Mateus Barros-Filho, Michelle E. Pewarchuk, Erin

A. Marshall, Victor D. Martinez, Wan L. Lam. BC Cancer Research Centre, Vancouver, BC, Canada.

C39 miR-221 enhances functional behaviors of cancer stem cells in human colorectal cancers. Piero

Dalerba¹, Yoshihiro Kakeji², Akira Suzuki², Junko Mukohyama¹, Yohei Shimono³, Taichi Isobe⁴, Qingjiang Hu⁵, Debashis Sahoo⁶, Hironobu Minami², Koshi Mimori⁷. ¹Columbia University, New York, USA, ²Kobe University,

Kobe, Japan, ³Fujita Health University, Aichi, Japan, ⁴Stanford University, Stanford, CA, USA, ⁵Kyushu University Hospital, Fukuoka, Japan, ⁶University of California San Diego, San Diego, CA, USA, ⁷Kyushu University Beppu Hospital, Beppu, Japan.

C40 CRISPR-Cas9 screening in organoids identified *Acvr2a*, *Acvr1b* and *Arid2* as colorectal tumor suppressor genes. Haruna Takeda, Shiho Kataoka, Mizuho Nakayama, Hiroko Oshima, Daisuke Yamamoto, Masanobu Oshima. Kanazawa University, Kanazawa, Japan.

C41 Ethanolamine kinase 2 and hepatic metastasis formation of gastric cancer. Takashi Miwa, Mitsuro Kanda, Shinichi Umeda, Haruyoshi Tanaka, Fuminori Sonohara, Hideki Takami, Masaya Suenaga, Norifumi Hattori, Masamichi Hayashi, Daisuke Kobayashi, Chie Tanaka, Suguru Yamada, Goro Nakayama, Masahiko Koike, Michitaka Fujiwara, Yasuhiro Koderu. Department of Gastroenterological Surgery (Surgery II), Nagoya University Graduate School of Medicine, Nagoya, Japan.

C42 IL-13 plays an important role in the carcinogenesis of obesity-related colorectal cancer in mice. Shimpei Matsui¹, Koji Okabayashi², Masashi Tsuruta², Kohei Shigeta², Takashi Ishida², Takayuki Kondo², Yoshiyuki Suzuki², Masayuki Shimoda³, Shinya Sugimoto⁴, Toshiro Sato⁴, Hiroto Hasegawa⁵, Yuko Kitagawa². ¹Department of Gastroenterological Surgery, Cancer Institute Hospital, Japanese Foundation for Cancer Research, Tokyo, Japan, ²Department of Surgery, Keio University School of Medicine, Tokyo, Japan, ³Department of Pathology, Keio University School of Medicine, Tokyo, Japan, ⁴Department of Gastroenterology, Keio University School of Medicine, Tokyo, Japan, ⁵Department of Surgery, Tokyo Dental College Ichikawa General Hospital, Chiba, Japan.

C43 Roles of N- α -acetyltransferase 10 (*Naa10*) 235 in cell proliferation and tumor development. Mi-Ni Lee, Hyeon Yon Kweon, Goo Taeg Oh. Immune and Vascular Cell Network Research Center, National Creative Initiatives, Department of Life Sciences, Ewha Womans University, Seoul, Republic of Korea.

C44 Tyrosine kinase receptor EphA6 sensitizes glioblastoma cells towards BMP-induced apoptosis. Erna Raja, Masato Morikawa, Ryo Tanabe, Yasushi Ino, Nobuhito Saito, Tomoki Todo, Kohei Miyazono. The University of Tokyo, Tokyo, Japan.

C45 Palbociclib enhances activin-SMAD-induced cytostasis in estrogen receptor-positive breast cancer. Takayuki Ozawa¹, Masumi Harada², Masato Morikawa¹, Mai Kobayashi¹, Yusuke Tamura¹, Kei Takahashi¹, Masahiko Tanabe³, Keiichi Tada⁴, Yasuyuki Seto⁵, Kohei Miyazono¹, Daizo Koinuma¹. ¹Department of Molecular Pathology, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan, ²Department of Breast and Endocrine Surgery and Department of Molecular Pathology, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan, ³Department of Breast and Endocrine Surgery, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan, ⁴Department of Breast Surgery, Center Hospital of the National Center for Global Health and Medicine, Shinjuku-ku, Tokyo, Japan, ⁵Department of Gastrointestinal Surgery, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan.

C46 Expression of SMOC2 and its prognostic significance in colorectal cancers. Bogun Chang, Hyesung Kim. Jeju National University, Jeju, South Korea.

C47 Computer-aided image analysis enables the detection of large oncosome biogenesis associated with nuclear membrane instability in prostate cancer and reveals its clinical significance in prostate cancer progression. Tatiana Novitskaya¹, Mariana Reis-Sobreiro², Michael Freeman², Dolores Di Vizio², Andries Zijlstra¹. ¹Vanderbilt University Medical Center, Nashville, TN, USA, ²Cedars-Sinai Medical Center, Los Angeles, CA, USA.

C48 JUNB governs a feed-forward network of TGF-beta signaling that aggravates breast cancer invasion. Masato Morikawa¹, Anders Sundqvist², Jiang Ren³, Eleftheria Vasilaki², Natsumi Kawasaki¹, Mai Kobayashi¹, Daizo Koinuma¹, Hiroyuki Aburatani¹, Kohei Miyazono¹, Carl-Henrik Heldin², Hans van Dam³, Peter ten Dijke³. ¹The University of Tokyo, Tokyo, Japan, ²Uppsala University, Uppsala, Sweden, ³Leiden University Medical Center, Leiden, The Netherlands.

C49 Clinical validation of the role of the short progesterone receptor isoform in hormone-regulated metastasis of luminal breast cancer. Kailey Oppat, Rayna Rosati, Manohar Ratnam. Department of Oncology, Wayne State University School of Medicine and Barbara Ann Karmanos Cancer Institute, Detroit, MI, USA.

C50 Molecular mechanisms of therapeutic demethylation effects in HPV-associated head and neck cancer. Natalia Issaeva¹, Asel Biktasova², Michael Hajek³, Andrew Sewell⁴, Cyril Gary⁵, Wendell G. Yarbrough¹. ¹UNC, Chapel Hill, NC, USA, ²Children's Cancer Institute, Sydney, Australia, ³Yale, New Haven, CT, USA, ⁴University of Toronto, Toronto, ON, Canada, ⁵Georgetown University, Washington, D.C., USA.

C51 Comprehensive genome-wide gene expression profiling reveals novel signatures of peritoneal metastasis in human scirrhous gastric cancer. Toshifumi Hara¹, Kazuyoshi Yanagihara², Yoshifumi Takei¹. ¹Aichi Gakuin University, Nagoya, Aichi, Japan, ²National Cancer Center, Kashiwa, Chiba, Japan.

C52 Identifying the target sites of interactions ELK1 and its antagonist in the androgen receptor. Claire Soave, Rayna Rosati, Yanfang Huang, Manohar Ratnam. Wayne State University/Barbara Ann Karmanos Cancer Institute, Detroit, MI, USA.

C53 The CRISPR-Cas9-mediated gene knockout system to identify tumor suppressor genes in basal-like breast cancer mouse model. Chiho Abe, Mizuki Yamamoto, Jun-ichiro Inoue. Div. Cell. Mol. Bio., Inst. Med. Sci., Univ. Tokyo, Minatoku, Tokyo, Japan.

C55 Therapeutic strategies for chemoresistant stem-like osteosarcoma cells by inducing terminal adipocyte differentiation based on actin dynamics. Hiroyuki Nobusue¹, Nobuhiro Takahashi¹, Takatsune Shimizu², Eiji Sugihara³, Nobuyuki Onishi¹, Sayaka Yamaguchi-Iwai¹, Haruko Kunitomi¹, Tatsuo Kuroda⁴, Hideyuki Saya¹. ¹Division of Gene Regulation, Institute for Advanced Medical Research, Keio University School of Medicine, Tokyo, Japan, ²Department of Pathophysiology, School of Pharmacy and Pharmaceutical Sciences, Hoshi University, Tokyo, Japan, ³Research and Development Center for Precision Medicine, University of Tsukuba, Ibaraki, Japan, ⁴Department of Pediatric Surgery, Keio University School of Medicine, Tokyo, Japan.

C56 The roles of p120 catenin family protein as a novel p53 target in cancer. Natsumi Suzuki, Masashi Idogawa, Yasushi Sasaki, Takashi Tokino. Department of Medical Genome Sciences, Research Institute for Frontier Medicine, Sapporo Medical University, Sapporo, Japan.

C57 MCM10 maintains breast cancer stem-like cells through contributing to rapid response to DNA replication stress. Takahiko Murayama¹, Toyoaki Natsume², Tatsunori Nishimura³, Masao Yano⁴, Masahiko Tanabe⁵, Kei-ichiro Tada⁵, Masato T Kanemaki², Arinobu Tojo¹, Noriko Gotoh³. ¹Institute of Medical Science, University of Tokyo, Tokyo, Japan, ²National Institute of Genetics, Mishima, Japan, ³Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ⁴Minamimachida Hospital, Tokyo, Japan, ⁵University of Tokyo, Tokyo, Japan.

Engineering and nanotechnology

C58 Self-assembling nanotechnology for cancer theranostics: From in silico to in vivo applications. Erik Laurini, Domenico Marson, Suzana Aulic, Maurizio Fermeglia, Sabrina Pricl. MolBNL@UniTS-DEA University of Trieste, Trieste, Italy.

C60 Rapid induction method of cancer stem cells by double-network hydrogel. Jun Suzuka¹, Masumi Tsuda¹, Lei Wang¹, Shingo Semba¹, Sachiyo Aburatani², Takayuki Kurokawa³, Yoshihiro Ohmiya⁴, Kazunori Yasuda⁵, Jian Ping Gong³, Shinya Tanaka¹. ¹Department of Cancer Pathology, Faculty of Medicine, Hokkaido University, Sapporo, Japan, ²Computational Bio Big-Data Open Innovation Laboratory, National Institute of Advanced Industrial Science and Technology, Tokyo, Japan, ³Laboratory of Soft and Wet Matter, Faculty of Advanced Life Science, Hokkaido University, Sapporo, Japan, ⁴Biomedical Research Institute, National Institute of Advanced Industrial Science and Technology, Tokyo, Japan, ⁵Global Station for Soft Matter, Global Institution for Collaborative Research and Education, Hokkaido University, Sapporo, Japan.

C61 X-ray induced photodynamic therapy of cancer cells with molybdenum cluster nanoparticles. Jaroslav Zelenka¹, Kaplan Kirakci², Kamil Lang², Tomáš Ruml¹. ¹University of Chemistry and Technology Prague, Department of Biochemistry and Microbiology, Prague, Czech Republic, ²Czech Academy of Sciences, Institute of Inorganic Chemistry, Řež, Czech Republic.

C62 Peptide labeled gold liposomal nanoparticles for drug delivery into the brain. Gabriel Martínez-Zayas¹, Nilmary Grafals-Ruiz², Blanca Quiñones-Díaz³, Ricardo Noriega³, Eunice Lozada⁴, Yasmarie Santana², Gabriel L. Barletta-Bonano⁵, Pablo E. Vivas-Mejía³. ¹University of Puerto Rico Rio Piedras Campus, Department of Chemistry; University of Puerto Rico, Comprehensive Cancer Center, San Juan, Puerto Rico, ²University of Puerto Rico, Medical Sciences Campus, Department of Physiology and Biophysics; University of Puerto Rico, Comprehensive Cancer Center, San Juan, Puerto Rico, ³University of Puerto Rico, Medical Sciences Campus, Department of Biochemistry; University of Puerto Rico, Comprehensive Cancer Center, San Juan, Puerto Rico, ⁴University of Puerto Rico Rio Piedras Campus, Department of Biology; University of Puerto Rico, Comprehensive Cancer Center, San Juan, Puerto Rico, ⁵University of Puerto Rico, Humacao Campus, Humacao, Puerto Rico.

Imaging

C65 Preoperative diagnosis of axillary lymph node metastases for breast cancer by FDG PET/CT in combination with OSNA method. Kimito Yamada¹, Keigo Amaya¹, Tatsuhiro Pak¹, Masako Kawasaki¹, Hirotsugu Hirano¹, Midori Wakiya¹, Kei Itoh¹, Takahiko Kawate², Kana Miyahara², Ai Ueda², Saeko Teraoka², Miki Okazaki², Saori Kawai², Natsuki Uenaka², Kyouko Orimoto², Mio Tanaka², Youichi Koyama¹, Youko Go², Hiroshi Kaise², Mitsuhiro Hayashi¹, Takashi Ishikawa². ¹Tokyo Medical University Hachioji Medical Center, Tokyo, Japan, ²Tokyo Medical University Hospital, Tokyo, Japan.

C66 Single-molecule fluorescence microscopy illuminates structure-function relationships in insulin receptor. Harini Krishnan¹, M. Zulema Cabail¹, Frank Mindlin¹, Richard Delle Bovi¹, Stevan R. Hubbard², Mark E. Bowen¹, W. Todd Miller¹. ¹Stony Brook University, Stony Brook, NY, USA, ²New York University School of Medicine, New York, NY, USA.

C67 Fluorescence-based discrimination of breast cancer cells by direct exposure to 5-aminolevulinic acid. Midori Morita, Hideo Tanaka, Yasuaki Kumamoto, Akihiro Nakamura, Yoshinori Harada, Takehiro

Ogata, Koichi Sakaguchi, Tetsuya Taguchi, Tetsuro Takamatsu. Kyoto Prefectural University of Medicine, Kyoto, Japan.

C68 [¹⁸F]FDG uptake of cancer cells is increased by anti PD-1 treatment in a mouse B16F10 melanoma model. Mayu Tomita, Hironobu Yasui, Kei Higashikawa, Kohei Nakajima, Hideo Takakura, Tohru Shiga, Yuji Kuge, Mikako Ogawa. Hokkaido University, Sapporo, Hokkaido, Japan.

Liquid biopsy

C69 A sensitive diagnostic method to detect aberrant DNA methylation in cfDNA of pancreas cancer patients. Keiko Shinjo¹, Keisuke Katsushima¹, Genta Nagae², Hiroyuki Aburatani², Kenji Yamao³, Yutaka Kondo¹. ¹Nagoya University Graduate School of Medicine, Nagoya, Japan, ²Tokyo University Research Center for Advanced Science and Technology, Tokyo, Japan, ³Aichi Cancer Center Hospital, Nagoya, Japan.

C70 Proteome of extracellular vesicles emitted by ErbB2/Her2-positive breast cancer cells signifies their trastuzumab sensitivity. Byong H. Yoo¹, Dongsic Choi², Laura Montermini², Janusz Rak², Kirill V. Rosen¹. ¹Dalhousie University, Halifax, NS, Canada, ²McGill University, Montreal, QC, Canada.

C71 Development of a liquid-biopsy-based technique for the supplementary diagnosis of highly advanced lymph node metastasis in patients with locally advanced gastric cancer. Takashi Oshima¹, Yohei Miyagi², Naohide Oue³, Itaru Hashimoto⁴, Takeharu Imai⁵, Yosuke Atsumi⁶, Takaki Yoshikawa⁷, Toru Aoyama⁸, Yasushi Rino⁸, Munetaka Masuda⁸, Wataru Yasui³, Yayoi Kimura⁹. ¹Department of Gastrointestinal Surgery, Kanagawa Cancer Center, Yokohama, Japan, ²Kanagawa Cancer Center Research Institute, Yokohama, Japan, ³Department of Molecular Pathology, Hiroshima University, Hiroshima, Japan, ⁴Department of Genomic Pathology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, ⁵Department of Surgical Oncology, Gifu University, Gifu, Japan, ⁶Gastroenterological Center, Yokohama City University Medical Center, Yokohama, Japan, ⁷Department of Gastric Surgery, National Cancer Center, Tokyo, Japan, ⁸Department of Surgery, Yokohama City University, Yokohama, Japan, ⁹Advanced Medical Research Center, Yokohama City University, Yokohama, Japan.

C72 Clinical relevance of circulating tumor DNA assessed through amplicon-based next-generation sequencing. Hltoshi Zembutsu¹, Hiroki Osumi², Eiji Shinozaki², Kensei Yamaguchi², Masato Ozaka², Takashi Sasaki², Naoki Sasahira². ¹Cancer Institute, JFCR, Tokyo, Japan, ²Cancer Institute, Ariake, Tokyo, Japan.

C73 Detection of circulating tumor cells (CTCs) with polymeric CTC-chip or LiquidBiopsy™ system in primary lung cancer. Kazue Yoneda¹, Taiji Kuwata¹, Masataka Mori¹, Masatoshi Kanayama¹, Katsuma Yoshimatsu¹, Yusuke Takeda¹, Kasumi Kusanagi¹, Teruaki Ishida¹, Hiroki Matsumiya¹, Yusuke Nabe¹, Akihiro Taira¹, Shinji Shinohara¹, Ayako Hirai¹, Yuko Tashima¹, Naoko Imanishi¹, Koji Kuroda¹, Yoshinobu Ichiki¹, Takashi Ohnaga², Fumihiko Tanaka¹. ¹University of Occupational and Environmental Health, Kitakyushu, Japan, ²Toyama Industrial Technology Center, Takaoka, Japan.

C74 Development of a specificity-enhanced secondary biomarker for prostate cancer: PSA G-Index. Yoshimi Haga¹, Motohide Uemura², Satoko Baba¹, Kentaro Inamura¹, Kengo Takeuchi¹, Norio Nonomura², Koji Ueda¹. ¹Japanese Foundation for Cancer Research, Tokyo, Japan, ²Osaka University Graduate School of Medicine, Osaka, Japan.

C75 Gastric cancer cell-derived exosomes deliver antiapoptotic signals to tumor microenvironment.

Naomi Ohnishi¹, Naomi Saichi¹, Risa Fujii¹, Koji Ueda¹, Kentaro Murakami², Hisahiro Matsubara². ¹Japanese Foundation for Cancer Research, Tokyo, Japan, ²Chiba University, Chiba, Japan.

C76 Expression levels of the estrogen receptor- α (ESR1) and human epidermal growth factor receptor 2 (HER2) in circulating tumor RNA (ctRNA) in various subtypes of breast cancers. Toshiyuki Ishiba¹, Tomoyuki Aruga¹, Chiaki Saida¹, Mai Ohnishi¹, Risa Goto¹, Naoko Iwamoto¹, Yayoi Honda¹, Hiromi Miyamoto¹, Joshua Usher¹, Yolanda Jaimes², Eric Huang², Kathleen Danenberg², Shahrooz Rabizadeh², Goshi Oda³, Tsuyoshi Nakagawa³, Yoshio Miki³, Peter Danenberg⁴, Hiroyuki Uetake³. ¹Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Tokyo, Japan, ²Nanthealth, Los Angeles, CA, USA, ³Tokyo Medical and Dental University, Tokyo, Japan, ⁴University of California Los Angeles, Los Angeles, CA, USA.

C77 Identification of the novel protein markers for hepatocellular carcinoma-derived exosome. Hyo Jung Cho¹, Jungwoo Eun¹, Soon Sun Kim¹, Jae Youn Cheong¹, Minsu Kwon², Jin Young Nam¹. ¹Ajou university school of medicine, Suwon, Republic of Korea, ²Eulji University School of Medicine, Seoul, Republic of Korea.

C78 Clinical significance of ESR1 gene mutation cfDNA analysis for hormone receptor-positive metastatic breast cancer. Tomoko Shibayama¹, Takayuki Kobayashi¹, Shinji Ohno¹, Yoshinori Ito¹, Takayuki Ueno¹, Makiko Ono², Shunji Takahashi², Siew-Kee Low³. ¹Breast Oncology Center, Cancer Institute Hospital, Japanese Foundation for Cancer, Tokyo, Japan, ²Department of Medical Oncology, Cancer Institute Hospital, Japanese Foundation for Cancer Research, Tokyo, Japan, ³Cancer Precision Medicine Center, Japanese Foundation for Cancer Research, Tokyo, Japan.

C79 Method for highly purified extracellular vesicles recovery using immunoaffinity purification from serum, plasma, and urine. Tatsutoshi Inuzuka, Ayako Kurimoto, Yuki Kawasaki. Miraca Research Institute G.K., Tokyo, Japan.

C80 A simple blood-based serologic assay for early detection of multiple cancers. Yisrael Katz¹, Jian Zhang², Luhui Shen², Phillip Stafford², Stephen A. Johnston¹. ¹ASU Biodesign Institute; Calviri Inc, Tempe, AZ, USA, ²ASU Biodesign Institute, Tempe, AZ, USA.

C81 Circulating small noncoding RNAs as biomarker promising for early detection of pancreatic cancer. Yukie Nishiyama¹, Yu Sakuma¹, Toshio Kokuryo², Kazuaki Chayama¹, Tomoyuki Akita¹, Junko Tanaka¹, Toshihiko Masui³, Takayuki Anazawa³, Kazuyuki Nagai³, Mitsuhiro Koizumi⁴, Yoichi Hiasa⁴, Hidetoshi Tahara¹. ¹Hiroshima University, Hiroshima, Hiroshima, Japan, ²Nagoya University, Nagoya, Nagoya, Japan, ³Kyoto University, Kyoto, Kyoto, Japan, ⁴Ehime University, Ehime, Ehime, Japan.

Microbiome

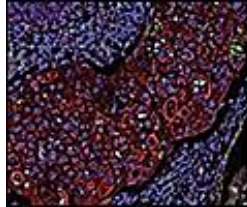
C82 Microbiome *Fusobacterium nucleatum* has an effect on chemotherapeutic response in esophageal squamous cell carcinoma. Yoshifumi Baba, Liu Yang, Kojiro Eto, Yukiharu Hiyoshi, Takatsugu Ishimoto, Masaaki Iwatsuki, Shiro Iwagami, Yuji Miyamoto, Naoya Yoshida, Hideo Baba. Kumamoto University, Kumamoto, Japan.

C83 The microbiome of cervical squamous cell and endocervical carcinoma and head and neck squamous cell carcinoma tumor microenvironments. Rebecca M. Rodriguez¹, Vedbar S. Khadka², Mark

Menor², Youping Deng², Brenda Y. Hernandez³. ¹CIM Department, John A. Burns School of Medicine, University of Hawaii at Manoa; Population Sciences in the Pacific, Epidemiology Program, University of Hawaii Cancer Center, Honolulu, HI, US, ²Bioinformatics Core, CIM Department, John A. Burns School of Medicine, University of Hawaii at Manoa, Honolulu, HI, US, ³Epidemiology Program, University of Hawaii Cancer Center, Honolulu, HI, US.

Cancer Biology

C84 Analyzing the physical and functional protein interaction landscape of breast cancer. Kyumin Kim, Beril Tutuncuoglu, Magaret Soucheray, Patrick O'Leary, Alan Ashworth, Nevan Krogan, Minkyu Kim. University of California San Francisco, San Francisco, CA, USA.



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 D

Tuesday, February 12, 2019

5:30 p.m.-7:30 p.m.

Haleakala Ballroom

Cancer biology

D01 Analysis of molecular mechanism of renal cancer progression using serial orthotopic transplantation model. Kosuke Miyakuni¹, Jun Nishida¹, Shogo Ehata², Kohei Miyazono¹. ¹Department of Molecular Pathology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, ²Department of Molecular Pathology, Graduate School of Medicine and Environmental Science Center, The University of Tokyo, Tokyo, Japan.

D02 Elucidation of the involvement of prolactin in endometrial cancer: A novel strategy for young hyperprolactinemic patients with endometrial cancer. Fumitaka Saito, Chimeddulam Erdenebaatar, Mahina Monsur, Munekage Yamaguchi, Ritsuo Honda, Takashi Ohba, Hironori Tashiro, Hidetaka Katabuchi. Kumamoto University, Kumamoto-City, Japan.

D03 Cachexia and subsequent effects on prognosis, metabolism, and immunomodulation in cholangiocarcinoma. Katherine M. Jackson, Luis Ruffalo, Roma Kaur, Shuyang Qin, Peter Juvilier, Alexa Melucci, Brian Belt, David C. Linehan, Peter A. Prieto. URM, Rochester, NY, USA.

D04 The role of endoplasmic reticulum stress and the unfolded protein response in metastasis. Shemani Jagoda, Georgia Porter, Angelica Merlot. The University of New South Wales, Sydney, NSW, Australia.

D05 Asbestos provides iron-dependent mutagenic microenvironment to repairing mesothelial cells. Fumiya Ito, Shinya Toyokuni. Nagoya University Graduate School of Medicine, Nagoya, Japan.

D06 Unexpected estrogen response mediated by a membrane-bound type estrogen receptor GPR30 promotes malignant potentials of uterine cervical adenocarcinoma via regulation of claudin-1 expression. Akira Takasawa, Kumi Takasawa, Makoto Osanai. Sapporo Medical University, Sapporo, Hokkaido, Japan.

D08 Identification of PRPF19 as a novel regulator of a senescence-apoptosis switching. Kimiyoshi Yano, Shisei Kan, Ryou-u Takahashi, Hidetoshi Tahara. Hiroshima University, Hiroshima, Japan.

D09 Bcl11a promotes AML development through the abrogation of PU.1 activity. Yoshitaka Sunami¹,

Seiko Yoshino¹, Takashi Yokoyama², Takuro Nakamura¹. ¹Cancer institute of JFCR, Tokyo, Japan, ²Nara Institute of Science and Technology, Nara, Japan.

D10 Tracing p57⁺ cells identifies quiescent stem cells in normal and neoplastic tissues. Tsunaki Higa, Yasutaka Okita, Akinobu Matsumoto, Shoichiro Takeishi, Hirokazu Nakatsumi, Keiichi I. Nakayama. Division of Cell Biology, Department of Molecular and Cellular Biology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan.

D12 Antitumor profile of a PI3K inhibitor ZSTK474 and conventional chemotherapeutic agents across a panel of human sarcoma cell lines. Naomi Tamaki¹, Nachi Namatame¹, Yuya Yoshizawa¹, Mutsumi Okamura¹, Yumiko Nishimura¹, Kanami Yamazaki¹, Shin-ichi Yaguchi², Shingo Dan¹. ¹JFCR, Tokyo, Japan, ²JFCR, Zenyaku Kogyo Co., Ltd., Tokyo, Japan.

D13 Misregulation of CD46 exon13 alternative splicing contributes to bladder cancer development. Jin Zeng, Ke Chen. Department of Urology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

D14 NEK8 knockdown decreases proliferation, migration, invasion, and stemness of breast cancer cells. Eun Ji Kang¹, Han-Byoel Lee², Hyeong-Gon Moon³, Dong-Young Noh³, Wonshik Han³. ¹Department of Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea, ²Department of Surgery, Seoul National University College of Medicine, Seoul, Korea, ³Department of Cancer Research Institute, Seoul National University College of Medicine, Department of Surgery, Seoul National University College of Medicine, Seoul, Korea.

Clinical research and clinical trials

D15 Prognostic and predictive value of Cell Cycle Progression (CCP) score in ductal carcinoma in situ of the breast. Matteo Lazzeroni¹, Andrea DeCensi², Aliana Guerrieri-Gonzaga¹, Eleonora Pagan³, Vincenzo Bagnardi³, Debora Macis¹, Davide Serrano¹, Andrea Vingiani¹, Massimo Barberis¹, Giancarlo Pruneri⁴, Susanne Wagner⁵, Sara Gandini¹, Giuseppe Viale¹, Bernardo Bonanni¹. ¹European Institute of Oncology IRCCS, Milan, Italy, ²E.O. Ospedali Galliera, Genoa, Italy, ³University of Milan-Bicocca, Milan, Italy, ⁴IRCCS Istituto Nazionale Tumori, Milan, Italy, ⁵Myriad Genetics, Salt Lake City, UT, USA.

D16 The genetic landscape of pediatric low-grade gliomas: incidence, prognosis and response to therapy—a SickKids pLGG Task Force Update. Cynthia Hawkins¹, Scott Ryall¹, Michal Zapotocky¹, Kohei Fukuoka¹, Ana Guerreiro-Stucklin¹, Mariarita Santi-Vicini², Lea Surrey², Angela Waanders², Ruth Tatevossian³, David Ellison³, Uri Tabori¹. ¹The Hospital for Sick Children, Toronto, ON, Canada, ²Children's Hospital of Philadelphia, Philadelphia, PA, USA, ³St Jude Children's Research Hospital, Memphis, TN, USA.

D17 Efficacy of TGFβ receptor inhibitor galunisertib is linked to macrophages- and regulatory T cells-recruiting cytokines in pancreatic cancer patients. Davide Melisi, Rocio Garcia-Carbonero, Teresa Macarulla, Denis Pezet, Gael Deplanque, Martin Fuchs, Jorg Trojan, Mark Kozloff, Francesca Simionato, Valeria Merz, Ann Cleverly, Claire Smith, Shuaicheng Wang, Michael Man, Kyla Driscoll, Shawn Estrem, Michael Lahn, Karim Benhadji, Josep Tabernero. University of Verona, Verona, Italy.

D18 Prognostic factors of curative malignant colorectal obstruction after SEMS. Katsuya Ohta¹, Masakazu Ikenaga¹, Masami Ueda¹, Kato Ryo¹, Yujiro Tsuda¹, Shinsuke Nakashima¹, Jin Matsuyama¹, Ken

Konishi², Terumasa Yamada¹. ¹Higashiosaka City Medical Center, Higashiosaka, Japan, ²Hyogo Prefectural Nishinomiya Hospital, Nishinomiya, Japan.

D19 Autophagy markers modulated tumorigenesis and prognosis in certain subsites of oral squamous cell carcinoma. Hsueh-Wei Chang¹, Pei-Feng Liu², Huai-Pao Lee², Wei-Lun Tsai², Luo-Pin Ger², Chih-Wen Shu³. ¹Kaohsiung Medical University, Kaohsiung, Taiwan, ²Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan, ³I-Shou University, Kaohsiung, Taiwan.

D20 Liver volume is the key to predicting adverse events during chemotherapy. Takuma Iwai¹, Hiroshi Maruyama¹, Hiroshi Makino¹, Tadashi Yokoyama¹, Atsushi Hirakata¹, Junji Ueda¹, Hideyuki Takata¹, Seiichi Shinji², Michihiro Koizumi², Takeshi Yamada², Hiroshi Yoshida². ¹Nippon Medical School Tama-Nagayama Hospital, Tama-shi, Tokyo, Japan, ²Nippon Medical School, Bunkyo-ku, Tokyo, Japan.

D21 S100A10 Upregulation associates with poor prognosis in lung squamous cell carcinoma. Yuriko Saiki¹, Kimiaki Sato², Kazumori Arai³, Kota Ishizawa⁴, Shinichi Fukushige⁴, Kenko Aoki⁴, Jiro Abe⁵, Satomi Takahashi⁵, Ikuro Sato⁵, Akira Sakurada², Yoshinori Okada², Akira Horii⁴. ¹Tohoku University School of Medicine, Sendai, Japan, ²Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan, ³Shizuoka General Hospital, Shizuoka, Japan, ⁴Tohoku University School of Medicine, Sendai, Japan, ⁵Miyagi Cancer Center, Sendai, Japan.

D22 The impact of postoperative weight change on prognosis in breast cancer patients depends on their age. Helga Tryggvadottir¹, Maria Ygland Rödström¹, Karolin Isaksson¹, Signe Borgquist², Helena Jernström¹. ¹Lund University and Skane University Hospital, Lund, Sweden, ²Lund University and Aarhus University and Aarhus University Hospital, Lund and Aarhus, Sweden and Denmark.

D23 Effectiveness of antiviral therapy in hepatitis B virus-related hepatocellular carcinoma initially treated with transarterial chemoembolization. Baek Gyu Jun¹, Sae Hwan Lee². ¹University of Ulsan College of Medicine, Gangneung Asan Hospital, Gangneung, South Korea, ²Soonchunhyang University College of Medicine Cheonan Hospital, Cheonan, South Korea.

D24 Wnt5a expression correlates with clinicopathologic features and prognosis of hepatocellular carcinoma patients. Kazuki Wakizaka, Toshiya Kamiyama, Kenji Wakayama, Tatsuya Orimo, Hideki Yokoo, Shingo Shimada, Akihisa Nagatsu, Takanori Ohata, Hirofumi Kamachi, Akinobu Taketomi. Department of Gastroenterological Surgery I, Hokkaido University Graduate School of Medicine, Sapporo, Japan.

D25 The efficacy of endoscopic self-expandable metallic stents as palliation for colorectal obstruction with unresectable malignant diseases. Yoshinao Chinen, Katsuya Ohta, Go Sato, Takaaki Sakai, Hiroaki Itakura, Ryo Kato, Kiyotsugu Iede, Masami Ueda, Yujiro Tsuda, Shinsuke Nakashima, Jin Matsuyama, Masakazu Ikenaga, Terumasa Yamada. Higashiosaka City Medical Center, Higashiosaka, Osaka, Japan.

D26 The impact of postoperative adjuvant chemotherapy completion on prognosis of stage III colorectal cancer. Junichi Nishimura, Yusuke Takahashi, Masayoshi Yasui, Hajime Ushigome, Masayuki Ohue. Osaka International Cancer Institute, Osaka, Japan.

D27 Prediction of metachronous cancers following lung cancer in early stage. Akitoshi Okada, Hiroko Shigemi, Yukihiro Umeda, Kayo Sakon, Masayuki Satoh, Mitsutoshi Sugiyama, Akikazu Shimada, Makiko

Yamaguchi, Tomoaki Sonoda, Maiko Kadowaki, Miwa Morikawa, Yuko Waseda, Masaki Anzai, Masato Sasaki, Takaaki Koshiji, Tamotsu Ishizuka. University of Fukui Hospital, Fukui, Japan.

D28 HSP60 Repressed E-cadherin expression to promote cell invasion and migration for poor prognosis in buccal mucosa squamous cell carcinoma. Bor-Hwang Kang¹, Chih-Wen Shu², Cheng-Hsin Lee³, Huei-Han Liu³, Luo-Ping Ger³, Pei-Feng Liu³. ¹Department of Otorhinolaryngology-Head and Neck Surgery, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan, ²School of Medicine for International Students, I-Shou University, Kaohsiung, Taiwan, ³Department of Medical Education and Research, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan.

D29 Clinical efficacy of OT-101: A TGF- β 2 antisense and proposed confirmatory phase 2/3 trial in pancreatic cancer (PC). David Nam, Larn Hwang, Vuong Trieu. Oncotelic, Agoura Hills, CA, USA.

Drug resistance

D30 Computational modeling identifies optimal use of EGFR tyrosine kinase inhibitors for lung cancer patients with EGFR mutations. Hiroshi Haeno, Akihiro Ohashi, Susumu Kobayashi. Japanese National Cancer Center, Kashiwa, Chiba, Japan.

D31 RNA sequencing reveals differential expression profiles of ABC transporters and drug resistance signature in KSHV-infected cancer cells. Fatima Ali-Rahmani, Bethelihem Tebase, Cu Nguyen, Robert Robey, Nooshin Nasiri, Michael Gottesman. National Cancer Institute, Bethesda, MD, USA.

D32 Avapritinib (BLU-285), a selective exon 17 mutant KIT kinase inhibitor, reverses multidrug resistance mediated by ABCB1 and ABCG2 in cancer cell lines. Chung-Pu Wu¹, Sung-Han Hsiao¹, Sabrina Lusvardi², Suresh. V Ambudkar². ¹Graduate Institute of Biomedical Sciences, Chang Gung University, Guishan, Tao-Yuan, Taiwan, ²Laboratory of Cell Biology, CCR, NCI, National Institutes of Health, Bethesda, MD, USA.

D33 Functional detection of phospho-circuits identifies the kinome vulnerabilities of BRAFV600E colorectal cancer. Ana Ruiz-Saenz¹, Chloe E. Atreya¹, Changjun Wang¹, Bo Pan¹, Diede Brunen², Courtney Dreyer¹, Anirudh Prahallad², Dana J. Steffen³, Danislav Spassov¹, Cynthia Cowdrey¹, Scott Vandenberg¹, Kevan Shokat¹, Silvio Gutkind³, Mark M. Moasser¹, René Bernards², Laura L van 't Veer¹, Jean-Philippe Coppé¹. ¹University of California at San Francisco, San Francisco, CA, USA, ²The Netherlands Cancer Institute, Amsterdam, The Netherlands, ³University of California at San Diego, San Diego, CA, USA.

D34 Epigenetic regulation of miR-200b is associated with cisplatin resistance in bladder cancer. Tetsuya Shindo¹, Takeshi Niinuma², Hiroshi Kitajima², Kai Masahiro², Takashi Tokino³, Naoya Masumori¹, Hiromu Suzuki². ¹Sapporo Medical University School of Medicine, department of Urology, Sapporo, Hokkaido, Japan, ²Sapporo Medical University School of Medicine, department of Molecular Biology, Sapporo, Hokkaido, Japan, ³Sapporo Medical University School of Medicine, Medical Genome Science, Research Institute for Frontier Medicine, Sapporo, Hokkaido, Japan.

D35 Metabolic and epigenetic remodeling drives therapy-induced cellular reprogramming and leads to the development of acquired drug resistance in BRAF mutant melanoma. Heinz Hammerlindl¹, Dinoop Ravindran Menon², Sabrina Hammerlindl¹, Elmar Zuegner³, Joachim Torrano¹, Meenhard Herlyn⁴, Christoph Magnes³, Helmut Schaidler¹. ¹Dermatology Research Centre, University of Queensland Diamantina Institute, Translational Research Institute, The University of Queensland, Brisbane, Australia, ²Department of Dermatology, University of Colorado, Denver, CO, USA, ³Joanneum Research Forschungsgesellschaft m.b.H., HEALTH, Institute for Biomedicine and Health

Sciences, Graz, Austria, ⁴The Wistar Institute, Philadelphia, PA, USA.

D36 Sensitivity to ATR inhibitors in cancer cell lines with ARID1A mutations. Ronja Biehs Anugwom, Junjie Chen. University of Texas MD Anderson Cancer Center, Houston, TX, USA.

D37 Loss of a regulatory subunit of PP2A in resistance to HER2 inhibition in HER2 positive breast cancer. Yi Bao¹, Soo Chin Lee¹, Qiang Yu². ¹Cancer Science Institute, Singapore, Singapore, ²Genome Institute of Singapore, Singapore, Singapore.

D38 Identification of miR-18a target genes in cisplatin-resistant ovarian cancer. Blanca I. Quiñones-Díaz¹, Victoria Sánchez-Guzmán², Jeyska M. Reyes-González¹, Pablo E. Vivas-Mejía¹. ¹University of Puerto Rico Medical Sciences Campus, San Juan, PR, Puerto Rico, ²University of Puerto Rico-Río Piedras Campus, San Juan, PR, Puerto Rico.

D39 Identification and targeting of resistant cell populations in glioblastoma. Taylor Wilson¹, Megan Wu², Kimia Ghannad-Zadeh¹, Sunit Das¹. ¹University of Toronto, Toronto, ON, Canada, ²Hospital for Sick Children, Toronto, ON, Canada.

D40 Cancer stemness and chemoresistance in the subpopulation of EpCAM-positive ovarian cancer cells. Takeshi Motohara, Fumitaka Saito, Hironori Tashiro, Hidetaka Katabuchi. Department of Obstetrics and Gynecology, Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan.

D41 Stathmin1 enhances eribulin sensitivity in paclitaxel-resistant gastric cancer cells. Hiroshi Ariyama¹, Kyoko Yamaguchi¹, Tomoyasu Yoshihiro¹, Kohei Arimizu¹, Akashi Koichi¹, Eishi Baba². ¹Department of Medicine and Biosystemic Science, Kyushu University Faculty of Medicine, Fukuoka, Japan, ²Department of Comprehensive Clinical Oncology, Kyushu University Faculty of Medicine, Fukuoka, Japan.

D42 Ulixertinib (BVD-523) antagonizes multidrug resistance in ABCB1- and ABCG2-overexpressing cancer cells. Ning Ji¹, Zi-Ning Lei², Yuqi Yang², Chao-Yun Cai², Jing-Quan Wang², Pranav Gupta², Xiaomeng Xian², Dong-Hua Yang², Dexin Kong¹, Zhe-Sheng Chen². ¹Tianjin Medical University, Tianjin, China, ²St. John's University, Queens, NY, USA.

D43 Regression of a gemcitabine-resistant pancreatic-cancer patient-derived orthotopic xenograft (PDOX) by MEK inhibitors cobimetinib and trametinib. Masaki Sato¹, Kei Kawaguchi¹, Michiaki Unno¹, Robert Hoffman². ¹Graduate School of Medicine, Tohoku University, Sendai, Japan, ²Department of Surgery, University of California San Diego, San Diego, CA, USA.

D44 Role of novel hot-spot mutations of BCR-ABL1 in resistance towards TKIs: A structural, thermodynamic and kinetic study. Erik Laurini, Domenico Marson, Suzana Aulic, Maurizio Fermeglia, Sabrina Pricl. University of Trieste, Trieste, Italy.

D45 Foretinib overcomes entrectinib resistance associated with the NTRK1 G667C mutation in NTRK1 fusion-positive tumor cells in a brain metastasis model. Akihiro Nishiyama¹, Kenji Kita¹, Azusa Tanimoto¹, Shinji Takeuchi¹, Atsushi Tajima², Takayoshi Kinoshita³, Seiji Yano¹. ¹Division of Medical Oncology Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ²Department of Bioinformatics and Genomics, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University, Kanazawa, Japan, Kanazawa, Japan, ³Graduate School of Science, Osaka Prefecture University, Osaka, Japan, Kanazawa, Japan.

D46 Establishment and characterization of monoclonal antibody to detect ERCC1 overexpression, a possible biomarker for cisplatin resistance. [Takayuki Oishi](#)¹, Yuka Sasaki¹, Bungo Furusato², Emiko Udo², Takae Onodera¹, Satoru Iwasa³, Kazuhiko Nakao⁴, Yasuhide Yamada⁵, Nobuyoshi Hiraoka⁶, Mitsuko Masutani¹. ¹Department of Frontier Life Science, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ²Department of Pathology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ³Gastrointestinal Medical Oncology Division, National Cancer Center Hospital, Tokyo, Japan, ⁴Department of Gastroenterology and Hepatology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ⁵Department of Chemotherapy, Hamamatsu University Hospital, Hamamatsu, Japan, ⁶Division of Pathology, National Cancer Center Hospital, Tokyo, Japan.

Novel targets and drug discovery

D47 FK-A11, an HDAC/PI3K dual inhibitor, enhances the efficacy of anti-PD-1 antibody in a mouse model of melanoma. [Chikashi Ishioka](#)¹, Ken Saijo¹, Hiroo Imai¹, Sonoko Chikamatsu¹, Yuki Kasahara¹, Hidekazu Shirota¹, Tadashi Katoh². ¹Department of Clinical Oncology, IDAC, Tohoku University, Sendai, Japan, ²Faculty of Pharmaceutical Science, Tohoku Medical and Pharmaceutical University, Sendai, Japan.

D48 Developing first-in-class pregnane X receptor (PXR) antagonist to overcome cancer drug resistance. Wenwei Lin¹, Yue-Ming Wang¹, Sergio Chai¹, Yongtao Li¹, Lili Lv², Jie Zheng³, Jing Wu¹, Qijun Zhang², Yong-Dong Wang¹, Patrick Griffin³, [Taosheng Chen](#)¹. ¹St. Jude Childrens Research Hospital, Memphis, USA, ²Shanghai Medicilon Inc., Shanghai, China, ³The Scripps Research Institute, Jupiter, FL, USA.

D49 Sepiapterin reductase: A novel metabolic in vivo target in neuroblastoma. [Andre S. Bachmann](#)¹, Marie R. Mooney¹, Eric J. Kort², Dirk Geerts³. ¹Michigan State University, Grand Rapids, MI, USA, ²Van Andel Institute, Grand Rapids, MI, USA, ³University of Amsterdam, Amsterdam, The Netherlands.

D50 Novel small biomolecule promotes ER-stress-mediated cell death in hepatocellular carcinoma cells. Ala'a Al Hrou¹, Amphun Chaiboonchoe², Basel Khraiweh², Chandraprabha Murali¹, Badriya Baig¹, Raafat El-Awady³, Hamadeh Tarazi³, Amnah Alzahmi², David Nelson², Yaser Greish¹, Wafaa Ramadan³, Kouros Salehi-Ashtiani², [Amr Amin](#)¹. ¹UAE University, Al Ain, United Arab Emirates, ²NYU-AD, Abu Dhabi, United Arab Emirates, ³University of Sharjah, Sharjah, United Arab Emirates.

D51 Anti-PD-L1 morpholino oligonucleotides combined with radiation reduced PD-L1 protein expression of cancer cells in vitro and in vivo. [Jeffrey Wu](#), Prakash Ambady, Cymon Kersch, Leslie L. Muldoon, Edward A. Neuwelt. Oregon Health and Sciences University, Portland, OR, USA.

D52 Structure-activity relationship study of quinomycin antibiotics focusing on cross-bridge structures of bicyclic depsipeptides to develop HIF-1 inhibiting antitumor agent. [Hideo Nagasawa](#)¹, Kota Koile¹, Masahiro Ebihara², Tasuku Hirayama¹, Mieko Tsuji¹. ¹Gifu Pharmaceutical University, Gifu, Japan, ²Gifu University, Gifu, Japan.

D53 Epigenetic targeted therapy of EZH2 and BET BRD4 in AT/RT. Ali Zhang, Andrea Piunti, Patrick A Ozark, Xingyao He, Hiroaki Katagi, Takahiro Sasaki, Kathryn L Laurie, Stewart Goldman, Lihua Zou, Ali Shilatifard, [Rintaro Hashizume](#). Northwestern University, Chicago, IL, USA.

D54 Heterozygous deletion of chromosome 17p renders human cancers vulnerable to the inhibition of RNA polymerase II. Yunhua Liu, Yujing Li, Yifan Sun, Xinna Zhang, Xiongbin Lu. Indiana University School of Medicine, Indianapolis, IN, USA.

D55 Combination therapy with CDK4/6 and mTOR inhibitors achieved synergistic effect in sarcoma. Xiaochun Wang, David Goldstein, Philip Crowe, Jia-Lin Yang. University of New South Wales, Sydney, NSW, Australia.

D56 The dimerization block cell-permeable peptide targeting C16orf74 inhibits pancreatic cancer growth and invasion. Toru Nakamura¹, Toshihiro Kushibiki¹, Masumi Tsuda², Takahiro Tsuchikawa¹, Koji Hontani¹, Kazuho Inoko¹, Mizuna Takahashi¹, Satoshi Hirano¹. ¹Department of Gastroenterological Surgery II, Hokkaido University Graduate School of Medicine, Sapporo, Japan, ²Department of Cancer Pathology, Hokkaido University Graduate School of Medicine, Sapporo, Japan.

D57 Inhibition of the redox system shows preferential cytotoxicity to human pancreatic cancer cells under nutrient-deprived conditions. Isao Momose, Takefumi Onodera, Yohko Yamazaki, Hayamitsu Adachi, Manabu Kawada. Institute of Microbial Chemistry (BIKAKEN), Numazu, Shizuoka, Japan.

D58 Novel therapeutic agents for miRNA downregulation and malignant pleural mesothelioma treatment. Anna Tessari¹, Giuseppe Lo Russo², Marina Capece¹, Shima Soliman¹, Filippo De Braud², Marina C. Garassino², Harvey I. Pass³, Carlo M Croce¹, Dario Palmieri¹. ¹The Ohio State University, Columbus, OH, USA, ²Fondazione IRCCS Istituto Nazionale Tumori di Milano, Milan, Italy, ³NYU Langone Medical Center, New York, NY, USA.

D59 Development of next-generation drug candidates for prostate cancer based on the novel platform antagonist KCI807. Rayna Rosati, Manohar Ratnam. Wayne State University School of Medicine and Barbara Ann Karmanos Cancer Institute, Detroit, MI, USA.

D60 Alpha-particle-emitting astatine-211-labeled trastuzumab for targeted cancer cell ablation. Huizi Keiko Li, Sumitaka Hasegawa. National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan.

D61 Bidirectional effect of autophagy on sphingosine kinase I inhibitor PF543-induced cell death of oral squamous cell carcinoma cells. Masakazu Hamada, Hiroyasu Kameyama, Soichi Iwai, Narikazu Uzawa. Department of Oral and Maxillofacial Surgery II, Osaka University Graduate School of Dentistry, Osaka, Japan.

D62 The novel miR-143 target gene, SLC30A8, has a role in glucose metabolism in glioblastoma cells. Eunice L. Lozada-Delgado¹, Yasmarie Santana², Robert Rabelo¹, Pablo Vivas¹. ¹University of Puerto Rico, San Juan, PR, USA, ²PR Comprehensive Cancer Center, San Juan, PR, USA.

D63 Growth inhibitory and chemo-sensitization effects of dopamine receptor D2 antagonism in pancreatic cancer. Pouria Jandaghi¹, Maryam Safisamghabadi¹, Anie Monast², Morag Park², Veena Sangwan², Yasser Riazalhosseini¹. ¹Department of Human Genetics, McGill University and Genome Quebec Innovation Centre, Montreal, QC, Canada, ²Rosalind and Morris Goodman Cancer Research Centre, McGill University, Montreal, QC, Canada.

D64 Molecular targets of trans-chalcone in antitumorigenesis. Gabriel Silva¹, Mozart Marins¹, Ana Lucia

Fachin¹, Seung Joon Baek². ¹University of Ribeirão Preto, SP, Brazil, ²Seoul National University, Seoul, Korea.

D65 Novel somatic mutations of PRKAR1A in sporadic cardiac myxoma. Jian He. Key Laboratory of Systems Biomedicine (Ministry of Education), Shanghai Center for Systems Biomedicine, Shanghai Jiaotong University, Shanghai, Shanghai, China.

D66 Inhibition of the CLCF1-CNTFR signaling axis in non-small cell lung cancer using an engineered ligand trap provides significant antitumor effect. Cesar Marquez¹, Jun Kim¹, Amato Giaccia¹, Jennifer Cochran², Alejandro Sweet-Cordero³. ¹Stanford University School of Medicine, Stanford, CA, USA, ²Stanford University, Department of Bioengineering, Stanford, CA, USA, ³University of California, San Francisco, San Francisco, CA, USA.

D67 Lipocalin-2 as a therapeutic target for inflammatory breast cancer. Ginette S. Santiago-Sanchez¹, Fatma Valiyeva², Bisrat Debeb³, Pablo E. Vivas¹. ¹University of Puerto Rico-Medical Sciences Campus, San Juan, Puerto Rico, United States, ²UPR Comprehensive Cancer Center, San Juan, Puerto Rico, United States, ³University of Texas MD Anderson Cancer Center, Houston, TX, United States.

D68 Bioavailability and distribution of the metastatic cancer inhibitor MBQ-167 in mice. Maria del Mar Maldonado¹, Gabriela Rosado-González², Joseph Bloom³, Linette Castillo-Pichardo⁴, Jorge Duconge³, Eliud Hernández-O'Farril³, José Rodríguez-Orengo¹, Suranganie Dharmawardhane¹. ¹Department of Biochemistry, University of Puerto Rico Medical Sciences Campus, San Juan, Puerto Rico, USA, ²Department of Biology, University of Puerto Rico Río Piedras Campus, San Juan, Puerto Rico, USA, ³Department of Pharmaceutical Sciences, School of Pharmacy, University of Puerto Rico, San Juan, Puerto Rico, USA, ⁴Department of Pathology and Laboratory Medicine, Universidad Central del Caribe, Bayamón, Puerto Rico, USA.

D69 Intracellular delivery of a RAS-inactivating enzyme potently reduces viability and proliferation of RAS-driven cancer cells. Minyoung Park¹, Vania Vidimar², Karla J.F. Satchell², Roman A. Melnyk¹. ¹University of Toronto, Toronto, ON, Canada, ²Northwestern University Feinberg School of Medicine, Chicago, IL, USA.

D70 Convection-enhanced delivery of EZH2 inhibitor for the treatment of DIPG. Takahiro Sasaki¹, Hiroaki Katagi¹, Xingyao He¹, Ali Zhang¹, Kathryn E Loughlin², Stewart Goldman², Rintaro Hashizume³. ¹Department of Neurological Surgery, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ²Division of Hematology, Oncology and Stem Cell Transplantation in the Department of Pediatrics, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ³Department of Neurological Surgery, Feinberg School of Medicine, Northwestern University Department of Biochemistry and Molecular Genetics, Northwestern University, Chicago, IL, USA.

D71 Combination therapy targeting podoplanin to treat oral squamous cell carcinoma. Clinton A. Timmerman, Garrett B. Gianneschi, Stephanie A. Sheehan, Edward P. Retzbach, Gary S. Goldberg. RowanSOM, Stratford, NJ, USA.

D72 Nano-delivery of PNKP inhibitor exhibits synthetic lethality in PTEN-deficient colorectal cancer xenograft mice. Zahra Shire¹, Igor M. Paiva², Timothy D.R. Morgan³, Feridoun Karimi-Busheri⁴, Dennis Hall³, Michael Weinfeld¹, Afsaneh Lavasanifar², Sams M.A. Sadat². ¹Department of Oncology, Faculty of Medicine and Dentistry, University of Alberta, Edmonton, AB, Canada, ²Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, AB, Canada, ³Department of Chemistry, Faculty of Science, University of Alberta, Edmonton, AB, Canada, ⁴Division of Experimental Oncology, Cross Cancer Institute, Edmonton, AB, Canada.

D73 Designing effective drug combinations for targeting ER stress loading in cancer therapy using MDA-MB-231-ERAI-Venus system. Kana Miyahara¹, Hiromi Kazama², Takashi Ishikawa¹, Keisuke

Miyazawwa². ¹Department of Breast Surgery, Tokyo Medical University, Shinjuku-ku, Tokyo, Japan, ²Department of Biochemistry, Tokyo Medical University, Shinjuku-ku, Tokyo, Japan.

D74 EgLN2 as a potential therapeutic target in triple-negative breast cancer. Mamoru Takada¹, Ming Zhuang², Hiroyuki Inuzuka³, Jing Zhang⁴, Takafumi Sangai⁵, Hiroshi Fujimoto⁵, Masayuki Ohtsuka⁵, Takeshi Nagashima⁵, Yasuhiko Kaneko⁶, Qing Zhang⁴. ¹Chiba University, Chiba, Japan; University of North Carolina at Chapel Hill, Chapel Hill, NC, Japan, US, ²Shanghai Jiaotong University, Shanghai, China, ³Tohoku University, Sendai, Japan, ⁴University of North Carolina at Chapel Hill, Chapel Hill, NC, US, ⁵Chiba University, Chiba, Japan, ⁶Saitama Cancer Center, Ageo, Saitama, Japan.

D75 Targeted inhibition of BET bromodomain and JMJD3 proteins for the treatment of DIPG. Hiroaki Katagi¹, Ali Zhang¹, Gavin T Blyth², Frank D. Eckerdt², Patrick A. Ozark³, Lihua Zou³, Xingyao He¹, Kathryn E Loughlin⁴, Takahiro Sasaki¹, Craig M. Horbinski⁵, Amanda M. Saratsis¹, Stewart Goldman⁴, C. David James¹, Ali Shilatifard³, Rintaro Hashizume⁶. ¹Department of Neurological Surgery, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ²Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL, USA, ³Department of Biochemistry and Molecular Genetics, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ⁴Division of Hematology, Oncology and Stem Cell Transplantation in the Department of Pediatrics, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ⁵Department of Pathology/Neurological Surgery, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA, ⁶Department of Neurological Surgery, Feinberg School of Medicine, Northwestern University Department of Biochemistry and Molecular Genetics, Northwestern University, Chicago, IL, USA.

D76 Structure-activity relationship study of biguanide derivatives for tumor microenvironment modulator. Takayuki Sakai¹, Kentaro Oh-hashii², Yoshiyuki Matsuo³, Kiichi Hirota³, Kensuke Okuda⁴, Tasuku Hirayama¹, Hideko Nagasawa¹. ¹Gifu Pharmaceutical University, Gifu, Japan, ²Gifu University, Gifu, Japan, ³Kansai Medical University, Osaka, Japan, ⁴Kobe Pharmaceutical University, Kobe, Japan.

D77 Targeting podoplanin-platelet interaction for the treatment of osteosarcoma. Ai Takemoto, Takao Ukaji, Miho Takami, Shigeo Sato, Ryohei Katayama, Naoya Fujita. JFCR, Tokyo, Japan.

D78 Plasma membrane damage and photochemical reaction of photosensitizer in near-infrared photoimmunotherapy. Kohei Nakajima, Kanta Ando, Hideo Takakura, Mikako Ogawa. Hokkaido University, Sapporo, Japan.

D79 Development of a novel agent for photoimmunotherapy with small peptides as a targeting ligand. Kazuki Terada, Kohei Nakajima, Hideo Takakura, Mikako Ogawa. Hokkaido University, Sapporo, Japan.

D80 Identification of ERBB4 as an actionable target by using selective anticancer effect of EGFR family tyrosine kinase inhibitors. Noritaka Tanaka¹, Kanami Yamazaki¹, Yuko Uno², Yoshimi Ohashi¹, Yumiko Nishimura¹, Masaaki Sawa², Shingo Dan¹. ¹JFCR, Tokyo, Japan, ²Carna Biosciences, Kobe, Japan.

D81 A high-content cellular senescence screening identifies a novel tumor-suppressive microRNA. Yuki Yamamoto, Ayaka Nishiura, Kimiyoshi Yano, Saori Fukunaga, Masaki Kinehara, Ryou-u Takahashi, Hidetoshi Tahara. Hiroshima University, Hiroshima, Hiroshima, Japan.

D82 Comparative transcriptomic analysis of lung-iPSC, NSCLC, and SCLC: Potential implications for iPSC modeling and therapeutic targeting of lung cancer. Vivek Shukla, James Gao, Sudheer Gara, Ruihong

Wang, Julie A. Hong, Mary R. Zhang, Haobin Chen, Chuong D. Hoang, David S. Schrump. National Cancer Institute, Bethesda, MD, USA.