

Antibody Effector Mechanisms in Immune Therapy

A01 Ex vivo evaluation of an anti-Müllerian hormone type II receptor humanized antibody with optimized Fc effector function in ovarian cancer. Houcine Bougherara, Fariba Némati, Christophe De Romeuf, Jean-Marc Barret, Gérald Massonnet, Marie-Aude Le Frère-Belda, Jean-François Prost, Didier Decaudin, Emmanuel Donnadieu.

A02 The art of omission: Low fucose antibodies enhance tumor cell clearance in vivo. Rens Braster, Remco Visser, Gestur Vidarsson, Marjolein van Egmond.

A03 Preclinical and clinical evaluation of combinatorial therapeutic antibody/immunostimulant treatment in childhood ependymoma: Promising anti-tumor effect with trastuzumab, GM-CSF and IL2. Andrea Griesinger, Andrew Donson, Diane Birks, Vladimir Amani, Michael Handler, Jean Mulcahy-Levy, Kathleen Dorris, Nicholas Foreman.

A04 Systemic agonistic anti-CD40 treatment of tumor bearing mice modulates hepatic myeloid suppressive cells and causes immune-mediated liver damage. Jose Medina-Echeverz, Chi Ma, Tobias Eggert, Tim F. Greten.

A05 Combining the long-acting engineered cytokine NKTR-214 with checkpoint inhibitors is synergistic and shows long lasting anti-tumor immunity in murine tumor models. Seema Katak, Rhoneil Pena, Murali Addepalli, Steve Lee, Kirksey Yolanda, Rupesh Kanhere, Priyam Jha, Ute Hoch, Deborah Charych, Stephen K Doberstein.

A06 Identification and characterization of a potent anti-human TIM-3 antagonist. Jean da Sliva Correia, Marilyn Kehry, Margaret Marino, Haley Laken, David J King.

A07 Combining CTLA4 and PD-L1 blockade leads to complete eradication of metastatic osteosarcoma. Danielle M Lussier, John L Johnson, Pooja Hingorani, Joseph N Blattman.

A08 Distribution, cutoff, and functional significance of a potential biomarker for Imprime PGG, an experimental cancer immunotherapeutic, in a healthy subject population. Diane McMurray, Ben Harrison, Katie Ertelt, Richard Walsh, Lindsay Wurst, Steven Leonardo, Nadine Ottoson, Adria Bykowski Jonas, Xiaohong Qiu, Nandita Bose, Peter Maimonis.

A09 Combination therapy with Anti-PD-1 and Poly-IC inhibits tumor progression and metastasis in pancreatic cancer. Kamiya Mehla, Thomas Caffrey, Kelly A O Connell, Maria M Steele, Paul Grandgenett, Michael A Hollingsworth.

A10 Soluble CD25 and C-reactive protein predict overall survival in melanoma patients receiving anti-CD40 monoclonal antibody CP-870,893 (α CD40) and anti-CTLA4 monoclonal antibody tremelimumab. Rosemarie Mick, David Bajor, Lee Richman, Robert Vonderheide.

A11 Activity of a bispecific antibody targeting EGFR and cMet with enhanced Fc effector function in EGFR mutant setting with cMet pathway activation. Keri L Soring, Katharine D Grugan, Randall J Breszki, Jose Pardinas, Leopoldo Luistro, Barbara Bushey, Joost Neijssen, Paul Parren, Janine Schuurman, Mark Anderson, Ricardo Attar, Matthew V Lorenzi, Mark Chiu, Sheri Moores.

A12 PDL-1 blockade and Sunitinib enhance the efficiency of oncolytic viral therapy. Ahmed Mostafa, Kathy Gratton, Keith A Lawson, Zhong-Qiao Shi, Chandini Thirukkumaran, Don G Morris.

A13 Humanized mouse models for in vivo evaluation of anti-human cancer immunotherapeutics. Juan Zhang, Meng Qiao, Qian Shi.

A14 Overcoming therapeutic MAb resistance in aggressive HER2 positive breast carcinomas by adoptive immunotherapy using optimized effectors cells. Sandrine Valsesia-Wittmann, Beatrice Clemenceau, Anne-Catherine Jallas, Jean-Yves Blay, Aurelien Marabelle, Christophe Caux, Henri Vie.

A15 Humanized anti-hepatocyte growth factor (HGF) antibody, suppresses innate irinotecan resistance induced by fibroblast-derived HGF in colon cancer cells. Jong Kyu Woo, Ju-Hee Kang, Keumju Shin, Seong-Won Song, Jung Ju Kim, Sang-Jin Lee, Seung Hyun Oh.

A16 High αV integrin level in melanoma cells is associated with development of brain metastasis in athymic rats. Jeffrey Wu, Michael A. Pagel, Leslie L Muldoon, Edward A. Neuwelt.

Interaction of Radiobiology

A17 The role of radiation-induced TGF- β in the generation of MDSCs. Alba Gonzalez-Junca, Ilenia Pelicciotta, Kyla Elizabeth Discroll, Mary Helen Barcellos-Hoff.

A18 A systems biology approach to predict immunotherapy augmented abscopal effects. Jan Poleszczuk, Sotiris Prokopiou, Mark Robertson-Tessi, Kimberly Luddy, Eduardo Moros, Mayer Fishman, Julie Djeu, Heiko Enderling.

A19 Systems biology approach predicts the diagnostic value of T effector : T regulatory cell ratio in clinical response to combined radiation/immunotherapy of high-risk soft tissue sarcoma. Sotiris Prokopiou, Jan Poleszczuk, Mark Robertson-Tessi, Kimberly A. Luddy, Mayer Fishman, Eduardo Moros, Julie Y. Djeu, Heiko Enderling.

A20 A systematic evaluation of abscopal responses following radiation therapy in patients with metastatic melanoma treated with ipilimumab. Ravi A. Chandra, Tyler J. Wilhite, Tracy A. Balboni, Alexander Spektor, Andrea K. Ng, Frank Stephen Hodi, Jonathan D. Schoenfeld.

A21 Adenosine is a rheostat for radiation therapy-induced immune activation. Erik Wennerberg, Noriko Kawashima, Sandra Demaria.

A22 Radiation potentiates the induction of macrophages infiltration into tumor by Ninjurin-1 in endothelial cells. Jong Kyu Woo, Ju-Hee Kang, Yeong-Su Jang, Goo Taeg Oh, Sang-Jin Lee, Seung Hyun Oh.

Other

A24 Cancer-testis antigen expression is shared among gynecological tumors. Arlene E Garcia-Soto, Tulay Koru-Sengul, Feng Miao, Taylor Schreiber, Wilberto Nieves-Neira, Eckhard Podack.

A25 Immunotherapy using LOAd700 armed with CD40 ligand controls experimental pancreatic cancer and activates immune responses. Emma Svensson, Rafael Moreno, Ioanna Milenova, Lisa Christiansson, Ramon Alemany, Angelica Loskog.

A26 Sex differences in melanoma lung metastasis. Janet L. Markman, Daiko Wakita, Timothy R. Crother, Moshe Arditi.

A27 Nitroaspirins abrogate myeloid derived suppressor cell inhibition of dendritic cell antigen presentation to CD4+ T cells in pancreatic adenocarcinoma. Joseph Markowitz, Zachary C. VanGundy, Lai Wei, Tracey L. Papenfuss, William E. Carson.

A28 TRAIL mediated reduction of an immunogenic cell death protein, heat shock protein 70, in glioblastoma. Andrea N. McCray.

A29 Differential expression of the gangliosides GD3 and GD2 in canine and human osteosarcoma cell lines: A immunotherapy target. Rowan J Milner, Noaki Chimura, Kristina D Bowles, Marc Salute.

A30 Anti-tumor effect of natural killer cells in human PBMCs against ovarian cancer. Veethika Pandey, Jeremiah L Oyer, Robert Y Igarashi, Susan B Ingersoll, Alicja J Copik, Deborah A Altomare.

A31 Synergy of anti-CD40, CpG and MPL in activation of macrophages. Yongyu Shi, Mildred Felder, Paul M Sondel, Alexander L Rakhmilevich.

A32 Applying flow cytometry-based ImageStreamX technology to quantitatively characterize intracellular epitopes within rare circulating tumor cells from metastatic prostate cancer patients. Edwin E Reyes, David J VanderWeele, Ryan Duggan, Donald J VanderGriend, Russell Z Szmulewitz.

A33 Preparation of local anti-wart and anti-inflammatory rub of polyglycidol based saturated lipid (DDP-PG) with HPMC containing curcumin. Sharif Mohammad Shaheen, Pavel Bakardzhiev, Denitsa Momekova, Neli S. Koseva, Stanislav Rangelov.

A34 Characterization of tumor infiltrating lymphocytes in human breast cancer by infrared imaging. Magali Verdonck, Soizic Garaud, Laurence Buisseret, Hugues Duveillier, Christine Desmedt, Roland de Wind, Christos Sotiriou, Karen Willard-Gallo, Erik Goormaghtigh.

A36 Novel therapeutic approaches for human malignant mesothelioma. Haining Yang, Sandro Jube, Michele Carbone.

Overcoming Obstacles to Generating Adaptive Immunity

A37 Immunization of cutaneous melanoma patients with the allogeneic cell vaccine CSF-470 enhances immune infiltration of metastatic lesions and would favor subsequent response to Vemurafenib. Mariana Aris, María Betina Pampena, Estrella M Levy, Alicia I Bravo, Florencia P Madorsky-Rowdo, Ana Mordoh, Julio Kaplan, Antonela Baron, Mariela Urrutia, Paula A Blanco, María Marcela Barrio, José Mordoh.

A38 Phase I study of combination immunotherapy with agonistic CD40 monoclonal antibody (mAb) CP-870,893 (α CD40) and anti-CTLA-4 antibody tremelimumab (treme) in patients with metastatic melanoma. David L Bajor, Rosemarie Mick, Matthew J. Riese, Richman P Lee, Xiaowei Xu, Drew A Torigian, Erietta Stelekati, Martha Sweeney, Brendan J Sullivan, Lynn M Schuchter, Ravi Amaravadi, E John Wherry, Robert H Vonderheide.

A39 Targeting tumor infiltrating myeloid cells with a potent CCR1 small molecule antagonist. Ashley G Bischof, Joanne BL Tan, Sreenivas Punna, Penglie Zhang, Israel Charo, Anne-Marie Duliege, Thomas Schall.

A41 Galectin-9 has tumor promoting properties that may be targetable in metastatic melanoma. Elizabeth Ann L Enninga, Wendy K Nevala, Svetomir N Markovic.

A42 MK-1775, a WEE1 inhibitor alleviates resistance to immune attack of tumor cells undergoing an epithelial-mesenchymal transition. Duane H Hamilton, Romaine I Fernando, Kwong-Yok Tsang, Claudia Palena.

A43 Immunologic profiling of pediatric malignancies for plausible immunotherapeutic trial selection. Kellie B. Haworth, Jennifer L. Leddon, Chun-Yu Chen, Timothy P. Cripe.

A44 Checkpoint inhibition of adaptive immunity by IL-9 can be disrupted to achieve rapid T cell sensitization and rejection of progressive tumor challenges. Dominique B Hoelzinger, Ana Lucia Dominguez, Peter A Cohen, Sandra J Gendler.

A45 Cyclin-dependent Kinase 5 regulates gamma-interferon induced PD-L1 up-regulation in solid tumors. Agne Petrosiute, Joseph Nthale, Gabby Valdivieso, R. Dixon Dorand, Tej Kumar Pareek, Deborah Sim Barkauskas, Jay T. Myers, John J. Letterio, Duncan Stearns, Alex Yee-Chen Huang.

A46 Antibody-mediated phosphatidylserine blockade significantly enhances the efficacy of downstream immune checkpoint inhibition in K1735 and B16 mouse melanoma. Bruce Freimark, Jian Gong, Dan Ye, Van Nguyen, Shen Yin, Rich Archer, Chris Hughes, Jeff Hutchins, Jeff Hutchins, Alan Schroit, Rolf Brekken, Xianming Huang.

A47 Use of a cytotoxic peptide that induces immunogenic cell death to engage innate immunity in the treatment of metastatic breast cancer. Arati Limaye, Rania Bassiouni, Jeremiah Oyer, Robert W Igarashi, Orielyz Flores, J. Manuel Perez, Alijca Copik, Annette R Khaled.

Tumor Immunology and Immunotherapy: A New Chapter
Poster Session A, Tuesday, December 2, 2014, 1:15-3:30 p.m.

A48 Vaccine maneuvers which reverse tolerance to MUC1 requires antigenic diversity to mediate protection and delay immunoedited escape variants. Vani Lakshminarayanan, Nitin Supekar, Dustin B McCurry, Jei Wei, Cathy S Madsen, Judy M Bradley, Latha B Pathangey, Margreet A Wolfret, Geert Jan Boons, Peter A Cohen, Sandra J Gendler.

A49 Systemic oncolytic reovirus for the treatment of primary and secondary brain tumors. Adel Jebar, Liz Ilett, Tim Kottke, Emma West, Karen Scott, Simon Thomson, Matt Coffey, Gerard Nuovo, Susan Short, Richard Vile, Alan Melcher.

A50 Immunomonitoring in a phase II/III trial of therapeutic vaccination with CSF-470 plus BCG plus GM-CSF versus IFN- α in patients with cutaneous melanoma. María Betina Pampena, Estrella Mariel Levy, María Paula Blanco, María Marcela Barrio, José Mordoh.

A51 Intradermal delivery of polymeric nanoparticle based vaccine formulation using a hollow microneedle system. Lin Niu, Leonard Chu, Kris Hansen, Jayanth Panyam.

A52 Radiation and dual PD-L1 and CTLA4 checkpoint blockade non-redundantly improves tumor resistance, response, and immunity. Andrew J. Rech, Christina Twyman, Amit Maity, Ramesh Rengan, Kristen E. Pauken, Erietta Stelekati, Bihui Xu, Hannah Dada, Pamela M. Odorizzi, Ramin D. Herati, Kathleen D. Mansfield, Dana Patsch, Ravi Amaravadi, Lynn Schuchter, Hemant Ishwaran, Rosemarie Mick, Daniel Pryma, George Xu, Michael Feldman, Tara C. Gangadhar, Stephen Hahn, E. John Wherry, Andy J. Minn, Robert H. Vonderheide.

A53 Expression of immune checkpoint modulators on CD4+ and CD8+ T cells coincides with activation during the priming phase of an allogeneic response. Nina Chi Sabins, Benjamin Harman, Linda Barone, Sandra Santulli-Marotto.

A54 Laser-assisted intradermal delivery of Xcl1-specific fusion vaccines induces potent anti-tumor response. Dorothea Terhorst, Dorothea Terhorst, Even Fossum, Bjarne Bogen, Sandrine Henri, Bernard Malissen.

A55 PD-1 blockade synergizes with cisplatin radiation therapy aiding in clearance of murine HPV+ oropharyngeal carcinoma. Daniel W. Vermeer, Steven Powell, William C Spanos, John H Lee.

A56 Intratumoral injection of IMO-2055, a novel Toll-like receptor 9 agonist, with ipilimumab induces a systemic tumor-specific immune response. Daqing Wang, Dong Yu, Sudhir Agrawal.

A58 JAK1 deficiency as a novel mechanism of tumor immune escape in uterine cancer. Yuan Ren, Yonghong Zhang, Richard Z Liu, David A Fenstermacher, Kenneth L Wright, Jamie K Teer, Jie Wu.

Tumor Microenvironment

A59 Novel inhibitors of human IDO1 and TDO. Monali Banerjee, Sandip Middya, Ritesh Shrivastava, Sushil Raina, Dharmendra Yadav, Satveer Singh, Anindita Manna, Debjani Chakraborty, Arjun Surya.

A60 Synergistic effect of targeted chemotherapy delivery using theranostic nanoparticles and PD-L1 blockade in an orthotopic mouse pancreatic cancer model. Erica N Bozeman, Ning Gao, Weiping Qian, Andrew Wang, Lily Yang.

A61 A clinical stage TLR5 agonist Entolimod™ activates T cell immunity against liver metastases via CXCR3-coordinated NK cell recruitment to the liver. Craig Brackett, Bojidar Kojouharov, Jean Veith, Sandra Gollnick, Lyudmila Burdelya, Scott Abrams, Andrei Gudkov.

A62 Immune and T cell receptor heterogeneity in distinct tumors within individual melanoma patients. Alexandre Reuben, Rodabe N Amaria, Cara Haymaker, Marie Andree Forget, Chantale Bernatchez, Pei-ling Chen, Michael Tetzlaff, Michael A Davies, Karen C Dwyer, Jennifer A Wargo, Zachary A Cooper.

A63 The role of DARC in the immunological tumor microenvironment of breast cancer. Melissa B Davis, Michele Monteil, Rupali Hire, Elizabeth W Howerth.

A64 Chronic allergic contact dermatitis, A potent tumor promoter of Marjolin's ulcer. Shadmehr Demehri, Trevor J Cunningham, Eva A Hurst, Andras Schaffer, David M Sheinbein, Wayne M Yokoyama.

A65 Immune modulation of natural killer cell adoptive transfer for the treatment of osteosarcoma lung metastasis: Targeting the PD-1/ PDL-1 signaling pathway. Pooja M Dhupkar, Eugenie Kleinerman, Nancy Gordon.

A66 Tumor-associated neutrophils in early stage human lung cancer are not immunosuppressive, but exhibit an inflammatory phenotype and provide accessory signals for T cell activation. Evgeniy Eruslanov, Pratik Bhojnagarwala, Jon Quatromoni, Tom Stephen, Anjana Ranganathan, Charuhas Deshpande, Tatiana Akimova, Anil Vachani, Leslie Litzky, Wayne Hancock, Jose Conejo-Garcia, Michael Feldman, Sunil Singhal, Steven Albelda.

A67 Phase 1 study of VX15/2503, an immunomodulatory antibody to Semaphorin 4D that reverses tumor growth in preclinical studies. Elizabeth E Evans, Terrence L Fisher, Cynthia Edington, Holm Bussler, Sebold Torno, Alan S Jonason, Janaki Veeraraghavan, Christine Reilly, Michael A Doherty, Jennifer Seils, Laurie A. Winter, Tracy Pandina, Crystal Mallow, Renee Kirk, Alan Howell, Sue Giralico, Maria Scrivens, Katya Klimatcheva, William J Bowers, Mark Paris, Drew Warren Rasco, Ramesh K Ramanathan, Amita Patnaik, Glen J Weiss, Danielle Mutz, Lisa Blaydorn, Anthony W Tolcher, Valerie Iddison, Ernest S Smith, John E Leonard, Maurice Zauderer.

A68 Local tumor treatments to simulate systemic antitumor immune responses. Patrick Lizotte, Mee Rie Sheen, Amy M Wen, Nicole F Steinmetz, Steven Fiering.

Tumor Immunology and Immunotherapy: A New Chapter
Poster Session A, Tuesday, December 2, 2014, 1:15-3:30 p.m.

- A69** The immunological environment in triple negative breast cancer; impact on clinical outcomes towards a prognostic clinical test. Mathieu Giquoux, Tina Grusso, Nicholas Bertos, Sadiq Saleh, Atilla Omeroglu, Hong Zhao, Margarita Souleimanova, Sarkis Meterissian, Michael Hallett, Morag Park.
- A70** Melanoma-derived nanovesicles as drivers of immunosuppression. Rachel Goldenstein, Wendy Nevala, Svetomir N Markovic.
- A71** Modulation of macrophages in breast tumors towards an anti-tumor phenotype. Jennifer L Guerriero, Anthony Letai.
- A73** Clinical significance of tumor-infiltrating immune cells focusing on BTLA and Cbl-b in patients with gallbladder cancer. Seiji Oguro, Yoshinori Ino, Kazuaki Shimada, Yutaka Hatanaka, Yoshihiro Matsuno, Tomoo Kosuge, Nobuyoshi Hiraoka.
- A74** Spatial organization of myeloid cells in tumor microenvironment. Minhyeok KIM, Seon Woo LEE, Suk-Jo KANG, Changwon KANG.
- A75** The CD8:M2 ratio by digital multiplex gene expression permits accurate quantification of net intra-tumoral immunity within the tumor microenvironment in DLBCL. Colm Keane, Frank Vari, Mark Hertzberg, John Seymour, Kim Anh Le Cao, Devinder Gill, Rodney Hicks, Michael Green, Kristen Radford, Lyn Griffiths, Dipti Talaulikar, Maher K Gandhi.
- A76** Immune mechanisms and racial disparities in colon cancer. Mohammad W Khan, Mengxi Tian, John M Carethers, Kathleen L McGuire.
- A77** Differential recruitment of myeloid derived immune cells and fibroblasts to the thyroid tumor microenvironment in mouse models of papillary and follicular thyroid cancer. Lee Ann King, Sergey Novitsky, Julio Ricarte-Filho, Philip Owens, Aime T. Franco.
- A78** Identification of novel immuno-modulatory targets for cancer immunotherapy. Ofer Levy, Galit Rotman, Liat Dassa, Gady Cojocar, Amir Toporik, Arthur Machlenkin, Tal Fridman, Ilan Vaknin, Eyal Neria, Zurit Levin, Spenser Liang, John Hunter, Inbal Barbiro, Shirley Sameah-Greenwald, Cyrille Cohen, Chen Ankri, Einav Safion.
- A79** The prognostic importance of Th1 cell infiltration in colorectal cancer and mechanisms of immune regulation. Agnes Ling, Sofia Edin, Maria L Wikberg, Åke Öberg, Richard Palmqvist.
- A80** Validation and clinical correlation of triplex CD3, CD8 and FOXP3 IHC of tumor-infiltrating lymphocytes in follicular lymphoma. James R Mansfield, Christian Slater, Richard Byers.
- A81** Immune-cancer interactions in tumors and tumor-draining lymph nodes: Novel prognostic indicators for breast cancer. James Mansfield, Peter Lee.
- A82** The cholesterol metabolite, 27-hydroxycholesterol, promotes breast cancer metastasis. Erik Russell Nelson, Suzanne E Wardell, Donald P McDonnell.

Tumor Immunology and Immunotherapy: A New Chapter
Poster Session A, Tuesday, December 2, 2014, 1:15-3:30 p.m.

- A83 The role of Ikaros in effector and regulatory T cell homeostasis in a murine pancreatic cancer model.** Nadine Nelson, Shengyan Xiang, Xiaohong Zhang, Karoly Szekeres, Ghansah Tomar.
- A85 Identification and enrichment for rare naturally-occurring tumor-reactive T cells in the tumor microenvironment reveals new and diverse opportunities for cancer immunotherapy.** Daniel J Powell.
- A86 Harnessing T-cell homeostasis to diagnose and treat solid and liquid tumors.** Mark Robertson-Tessi, Derek Park, Kimberly Luddy, Adam Mailloux, Pearlie K Burnette, Alexander Anderson.
- A87 Myristoylated alanine rich C-kinase substrate (MARCKS) expression in lung cancer cells influences immune cell populations in tumor microenvironment in murine models.** Timothy D Rohrbach, Travis D Hull, John S Jarboe, Nicholas Eustace, Yong Wang, Jessy S Deshane, Christopher D Willey.
- A88 Targeting 4-1BB costimulation to the tumor stroma with bispecific aptamer conjugates enhances the therapeutic index of tumor immunotherapy.** Brett Schrand, Alexey Berezhnoy, Randall Brenneman, Anthony Williams, Agata Levay, Ling-Yuan Kong, Ganesh Rao, Shouhao Zhou, Amy Heimberger, Eli Gilboa.
- A89 PPAR γ induced TGF β expression in myeloid cells contributes to lung cancer metastasis.** Trisha R Sippel, Howard Li, Dwight Hanson, Lisa Greene, Bonnie Bullock, Joanna Poczobutt, Mary Weiser-Evans, Raphael Nemenoff.
- A90 Tumor associated PDL1 expression pattern in microscopically tumor positive sentinel lymph nodes (SLN) in patients with melanoma.** Ahmad A Tarhini, Jennifer A Yearley, Christopher Gibson, Uma N. M. Rao, Cindy Sander, John M Kirkwood.
- A91 Chronic inflammation modulates TLR4 expression in HCC cells.** Ping-Hui Tseng, Yi-Chen Cheng, Chieh Yen, An-Jie Cheng.
- A92 Small molecules targeting HMGR and HDAC in colorectal cancer.** Tzu-Tang Wei, Yi-Ting Lin, Yu-Chin Lin, Ching-Chow Chen.
- A93 STAT3 inhibition enhances the activity of immune checkpoint inhibitors in murine syngeneic tumor models by creating a more immunogenic tumor microenvironment.** Rich Woessner, Patricia McCoon, Kirsten Bell, Rachel DuPont, Mike Collins, Deborah Lawson, Prasad Nadella, Lourdes Pablo, Corinne Reimer, Vasu Sah, Paul Lyne.