Immune Cell Therapies for Cancer
Successes and Challenges of CAR T Cells
and Other Forms of Adoptive Therapy
July 19-22, 2019 | San Francisco, CA

AACR
American Association
for Cancer Research

Saturday, July 20
12:30-2:30 p.m.
Grand Ballroom BC

A01 Antitumor response by T-cell receptor fusion construct (TRuC)-expressing T cells without costimulation. G. Christian Baldeviano. TCR2 Therapeutics, Cambridge, MA.

A02 HER2-specific chimeric antigen receptor T cells with NKILA knockout improve therapeutic effects towards HER2+ breast cancer. Erwei Song. Sun Yat Sen University, Guangzhou, China.

A03 ACTR and BOXR T-cell therapies: Addressing the challenges of solid tumors. Heather A. Huet. Unum Therapeutics, Cambridge, MA.

A04 Improving chimeric antigen receptor T-cell potency by repurposing endogenous immune pathways. Laurent Poirot. Cellectis, Paris, France.

A05 Regulation of CD40L on chimeric antigen receptor T cells enhances immune function translating to antitumor effects. Michelle Fleury. Obsidian Therapeutics, Cambridge, MA.

A06 Sequential two-receptor priming CAR system to overcome heterogeneous antigen expression. Payal B. Watchmaker, University of California San Francisco, San Francisco, CA.

A07 Super2-expressing CAR T cells generate improved antitumor responses to solid tumors. Rachel A. Brog, Dartmouth College, Hanover, NH.

A08 Rationally designed Glypican-2 (GPC2) CAR T-cells effectively eradicate endogenous site density solid tumors in the absence of toxicity. Sabine Heitzeneder. Stanford Cancer Center, Stanford, CA.

A09 Finding CAR-T drivers for GBM: Building a translational discovery pipeline. Sheila Singh. McMaster University, Hamilton, ON, Canada.

A10 Electroporation cell recovery in CAR-T manufacturing. Jian Chen, George Sun. Celetrix LLC, Manassas, VA.

A11 Scalable manufacturing of CAR-T cells by single-tube, large-volume electroporation. Jian Chen. Celetrix LLC, Manassas, VA.

A12 Novel DNA-based scaffold promotes rapid T-cell activation, transduction, and high expansion. Anup Sood. Global Research, Niskayuna, NY.

A13 Molecular characterization for CAR-T cell therapy: A step toward standardization with the nCounter® CAR-T Characterization Panel. Christina M. Bailey. NanoString, Seattle, WA.

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A14 Phase I adoptive cellular therapy trial with endogenous CD8+ T cells (ACTolog IMA101) in patients with relapsed and/or refractory solid cancers. Apostolia M. Tsimberidou. The University of Texas MD Anderson Cancer Center, Houston, TX.

A15 Repurposing of fenofibrate to prevent and treat PM-induced pulmonary fibroblast-mediated inflammation: Mechanism involved in SIRT1-SREBP1-PIR/NLRP3 inflammasome axis. Chia-Ping Tien. Genomics Research Center, Academia Sinica, Taipei, Taiwan.

A16 IL-1 blockade for treatment of CAR T cell-associated neurotoxicity: Trial in progress. Caspian Oliai. University of California Los Angeles, Los Angeles, CA.

A17 Analysis of the impact of VEGF and cannabidiol treatment on prostate cancer cells. Lesetja Raymond Motadi. North-West University, Mmabatho, Republic of South Africa.

A18 Targeting pancreatic cancer using nonengineered, multiantigen-specific T cells (TACTOPS). Brandon G. Smaglo. Dan L. Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX.

A19 ADC-tagged NK cells for adoptive chemoimmunotherapy against solid tumors. Daniel Y. Lee. University of Arizona, Tucson, AZ.

A20 Strategies for combination therapies with anti-CD19 CAR Ts in NHL—lessons learned and future directions. David Fontana. Juno Therapeutics, Seattle, WA.

A21 Adoptive cell therapy using HER2-specific CD4 T cells for HER2-expressing cancers. Krithika N. Kodumudi. H. Lee Moffitt Cancer Center, Tampa, FL.

A22 Conditioning treatment with a CD27 antibody enhances in vivo expansion and antitumor activity of adoptively transferred T cells. Li-Zhen He. Celldex Therapeutics, Inc., Hampton, NJ.

A23 Adapter CAR T-cells (AdCAR-T) allow precise control on effector function, prevent antigen evasion, and enable differential target cell lysis, based on complex antigen expression profiles. Christian M. Seitz. University Hospital Tuebingen, Tuebingen, Germany.

A24 IL-2 limits CAR T-cell efficacy through selective expansion of a differentiated and less functional subset marked by the loss of CD27 expression. Dongrui Wang. City of Hope, Duarte, CA.

A25 *convertible*CAR-T cells provide a highly modular universal system for dose control of activity, targeting flexibility, and in vivo CAR maintenance. Kaman Kim. Xyphos Biosciences, South San Francisco, CA.

A26 Microenvironment on demand (MOD): A versatile technology for linking single-cell functional analysis to transcriptomics. Maithreyan Srinivasan. Scribe Biosciences, San Francisco, CA.

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A27 Overcoming resistance to immune checkpoint inhibitors. Mauro Poggio. University of California San Francisco, San Francisco, CA.

A28 Pan-cancer expression analyses identify adenylate kinase modulating immune microenvironment and infiltrating T cell functions in lung cancer that can be overcome by metformin treatment to suppress cancer growth and metastasis. Tsung-Ching Lai. GRC, AS, TPE, Taiwan.

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Sunday, June 21
4:30 p.m. to 6:30 p.m.
Grand Ballroom BC

B01 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 at Chapel Hill, Chapel Hill, NC.

B02 Expanded and engineered NK cells for treatment of hepatocellular carcinoma. Sarah E. Wadsworth. Nkarta Inc., South San Francisco, CA.

B03 Multifunctional nanoparticles for genetic engineering and bioimaging of natural killer cell therapeutics. Kyung-Soon Park. CHA University, Seoul, Korea.

B05 Targeting the chemokine receptor CCR4 using chimeric antigen receptor T cells for the treatment of CCR4+ T-cell malignancies. Marissa M. Del Real. City of Hope, Duarte, CA.

B07 Optical metabolic imaging and molecular profiling of immune-tumor cell interactions in 3D microfluidic models. Shujah H. Rehman. Morgridge Institute for Research, Madison, WI.

B08 PD-L1: A side effect of T-cell engagement or a main player in MDS tumor immune evasion?
Valentina Ferrari. PersImmune, Inc., San Diego, CA.

B09 Glioblastoma disguised: Combined therapy using CD19 expressing oncolytic adenovirus and CD19-targeted CAR T cells. Dong Ho Shin, The University of Texas MD Anderson Cancer Center, Houston, TX.

B10 Leveraging the multiparametric profiling by mass cytometry to identify and deeply characterize tumor-reactive T cells. David Roumanes. immunoSCAPE, Inc., Cambridge, MA.

B11 Immunopeptidomics and peptide expression profiles to develop T-cell receptors against glioma-associated antigens. Diego A. Carrera. University of California San Francisco, San Francisco, CA.

B12 Identifying and engineering TCR specificity against mutated self. Martin S. Naradikian. La Jolla Institute for Immunology, San Diego, CA.

B13 Associations of tumor-infiltrating lymphocytes and noncanonical NFκB proteins with the patient outcome. Mithalesh Kumar Singh. Dr. R.P. Centre of Ophthalmic Sciences, ALL India Institute of Medical Sciences, New Delhi, Delhi, India.

B14 Personalized gene editing of T cells to express neoantigen-specific TCRs isolated from peripheral blood of patients on PD-1 blockade therapy. Cristina Puig-Saus. Division of Hematology-Oncology, Department of Medicine, David Geffen School of Medicine (DGSOM), University of California, Los Angeles (UCLA), Los Angeles, CA.

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B15 Cellular immunomonitoring for the first personalized adoptive cellular therapy trial using defined multiple targets (ACTolog® IMA101-101). Anna Nowak. Immatics Biotechnologies GmbH, Tuebingen, Germany.

B16 The effect of CTLA-4 blockade on the expansion of tumor-infiltrating lymphocytes for adoptive cell therapy in metastatic ovarian cancer. Christina Friese. Center for Cancer Immune Therapy, Department of Hematology, Herlev Hospital, Herlev, Denmark.

B17 Label-free impedance-based technology for kinetic functional potency assessment of immune cell-mediated cytolysis and immune checkpoint modulation. Martyn Lewis. ACEA Biosciences, San Diego, CA.

B18 Comparison of methods for single-cell dissociation from colorectal and stomach cancers. Hye Seon Park. Asan Medical Center, Seoul, Korea.

B19 Change of tumor-infiltrating lymphocytes after neoadjuvant chemotherapy and their clinical significance in triple-negative breast cancer. Hyun Lee. Asan Medical Center, Seoul, Republic of Korea.

B20 Repurposing sildenafil as an immunotherapy agent in lung adenocarcinoma: Mechanism involved in FSTL1-BMP4-Smad-osteopontin axis. Jean Chiou. Academia Sinica, Taipei, Taiwan.

B21 Comparison of NGS-based HLA class I genotyping tools. Jeong-Han Seo. Asan Medical Center, Seoul, Korea.

B22 Common and specific target genes for knockout of MIR 196A1, A2, and B in colon cancer cells. JiSu Mo. Wonkwang University, Iksan, South Korea.

B23 MFN2 modulates thyroid cancer progression through mTORC2/AKT signaling. Mi-Hyeon You. University of Ulsan College of Medicine, Seoul, South Korea.

B24 The immunologic mechanism responsible for NSAID effects in PIK3CA-altered head and neck squamous cell carcinoma. Nan Jin. University of California San Francisco, San Francisco, CA.

B25 Predicting CD19Neg relapse following CAR T-cell therapy in B-cell precursor acute lymphoblastic leukemia. Pablo Domizi. Department of Pediatrics, Bass Center for Childhood Cancer and Blood Disorders, Stanford University, Stanford, CA.

B26 Preclinical evaluation of TC-110, a CD19-specific T-cell receptor fusion construct (TRuC) T cell for the treatment of hematologic malignancies. Reshma Singh. TCR2 Therapeutics Inc., Cambridge, MA.

B27 RelB upregulates PD-L1 in advanced prostate cancer: An insight into tumor immunoescape. Yanyan Zhang. Affiliated Cancer Hospital of Nanjing Medical University, Nanjing, China, [2]Nanjing Medical University, Nanjing, China, [3]China Pharmaceutical University, Nanjing, China.

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B28 HNSCC-associated CASP8 mutations resist cancer cell apoptosis and confer induction of immunosuppressive cytokines. Zhibin Cui. University of California San Francisco, San Francisco, CA.