



SITC Presidential Session Discussion

Patrick Hwu, MD

Head, Division of Cancer Medicine

Professor and Chairman Departments of
Melanoma and Sarcoma Medical Oncology
Co-Director Center for Cancer Immunology Research
The University of Texas MD Anderson Cancer Center

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Making Cancer History®

SITC

Washington, DC

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Disclosures

Scientific Advisory Board:

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Cancers are Driven by Mutations or Copy Number Alterations

SKCM = Skin Cutaneous Melanoma

LUSC = Lung Squamous Cell Carcinoma

LUAD = Lung Adenocarcinoma

BLCA = Bladder Urothelial Carcinoma

DLBCL = Diffuse Large B-cell Lymphoma

STAD = Stomach Adenocarcinoma

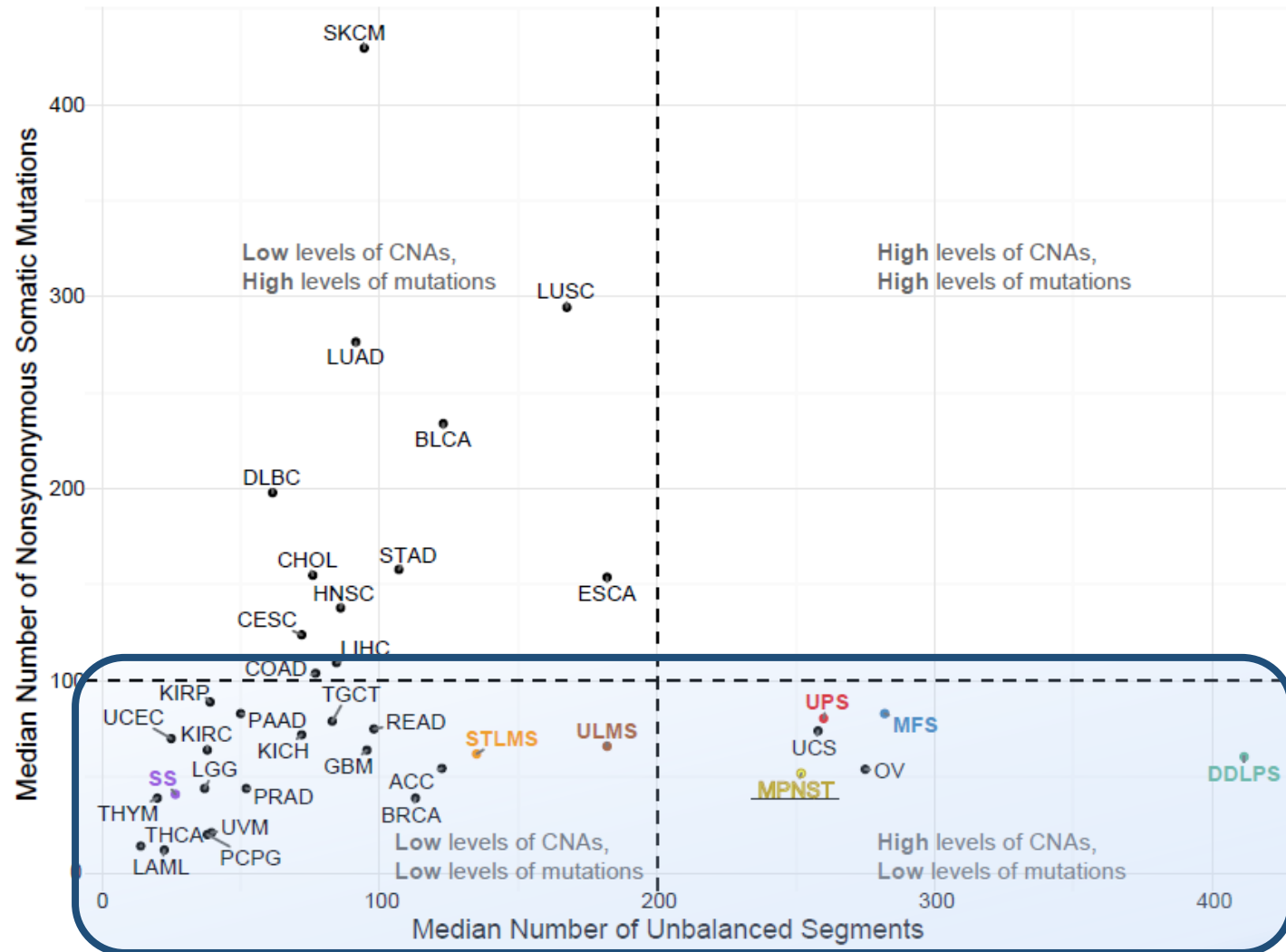
CHOL = Cholangiocarcinoma

ESCA = Esophageal Carcinoma

HNSC = Head and Neck Squamous Cell Carcinoma

CESC = Cervical Squamous Cell Carcinoma

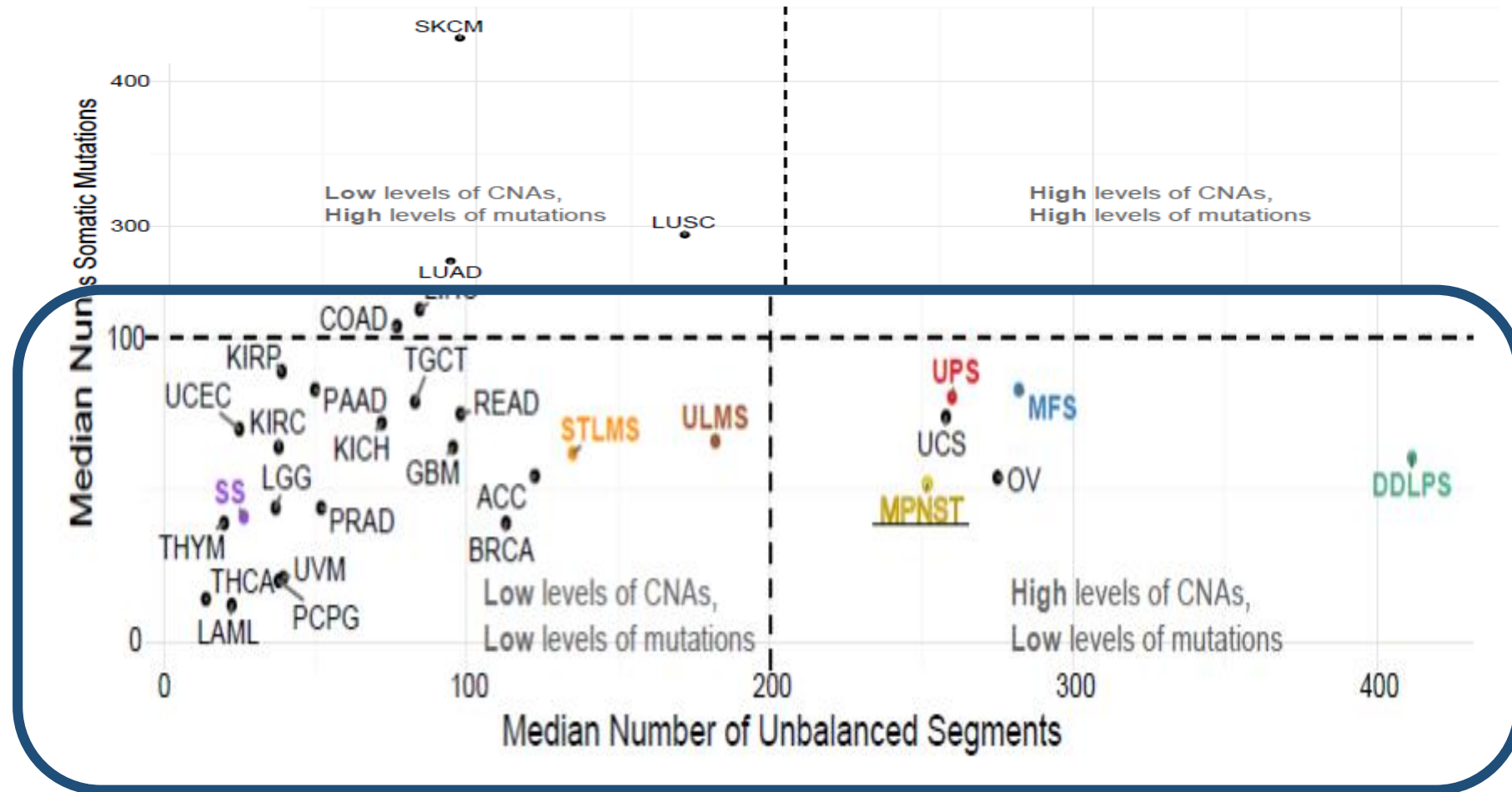
LIHC = Liver Hepatocellular Carcinoma



Courtesy of Alexander Lazar (MDACC), Juliann Shih (Broad), Andrew Cherniack (Broad) & Sarcoma TCGA AW

Many low mutation cancers do not respond to current immunotherapies

ACC = Adenoid Cystic Carcinoma
 BRCA = Breast Cancer
 COAD = Colon Adenocarcinoma
 DDLPS = Dedifferentiated Liposarcoma
 GBA = Glioblastoma Brain Tumor
 KICH = Kidney Renal Clear Cell Carcinoma
 KIRC = Kidney Renal Papillary Cell Carcinoma
 LAML = Acute Myeloid Leukemia
 LGG = Lower Grade Glioma
 MFS = Myxofibrosarcoma
 MPNST = Malignant Peripheral Nerve Sheath Tumors
 OV = Ovarian Cancer
 PCPG = Pheochromocytoma and Paraganglioma
 PAAD = Pancreatic Adenocarcinoma
 PRAD = Prostate Adenocarcinoma
 READ = Rectum Adenocarcinoma
 SS = Sjogrens Syndrome
 STMLS = Soft Tissue Leiomyosarcoma
 TGCT = Testicular Germ Cell Tumor
 THCA = Thyroid Carcinoma
 THYM = Thymoma
 UCEC = Uterine Corpus Endometrial Carcinoma
 UCS = Uterine Carcinoma
 ULMS = Uterine Leiomyosarcoma
 UPS = Undifferentiated Pleomorphic Sarcoma
 UVM = Uveal Melanoma



Courtesy of Alexander Lazar (MDACC), Juliann Shih (Broad), Andrew Cherniack (Broad) & Sarcoma TCGA AWG.

Insertion of Genes into Lymphocytes to Enhance Antitumor Properties

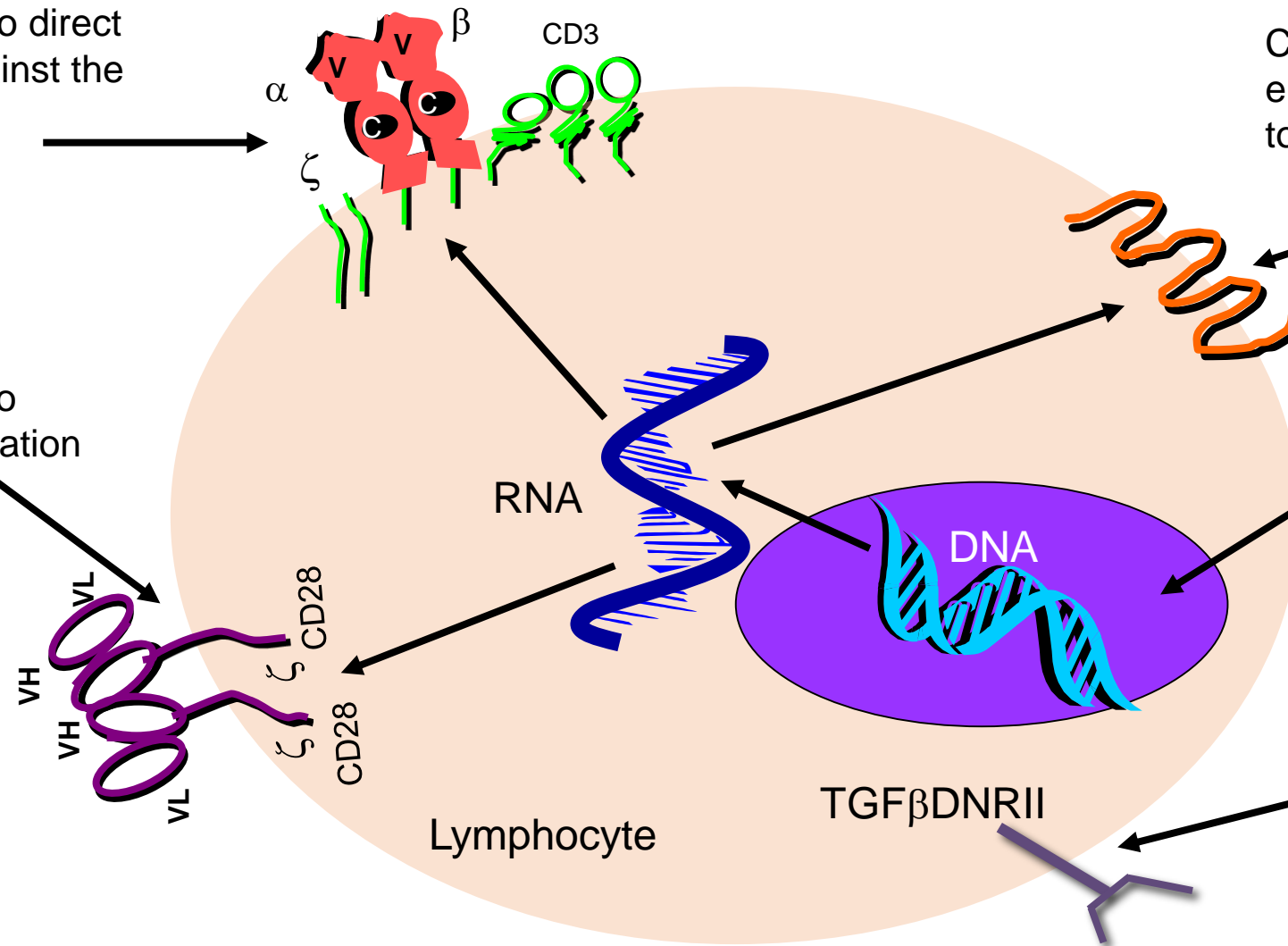
Native TCR genes to direct cell specificities against the tumor

Chimeric receptors to enhance T-Cell activation and costimulation

Chemokine receptors to enhance migration of T-cells to tumor

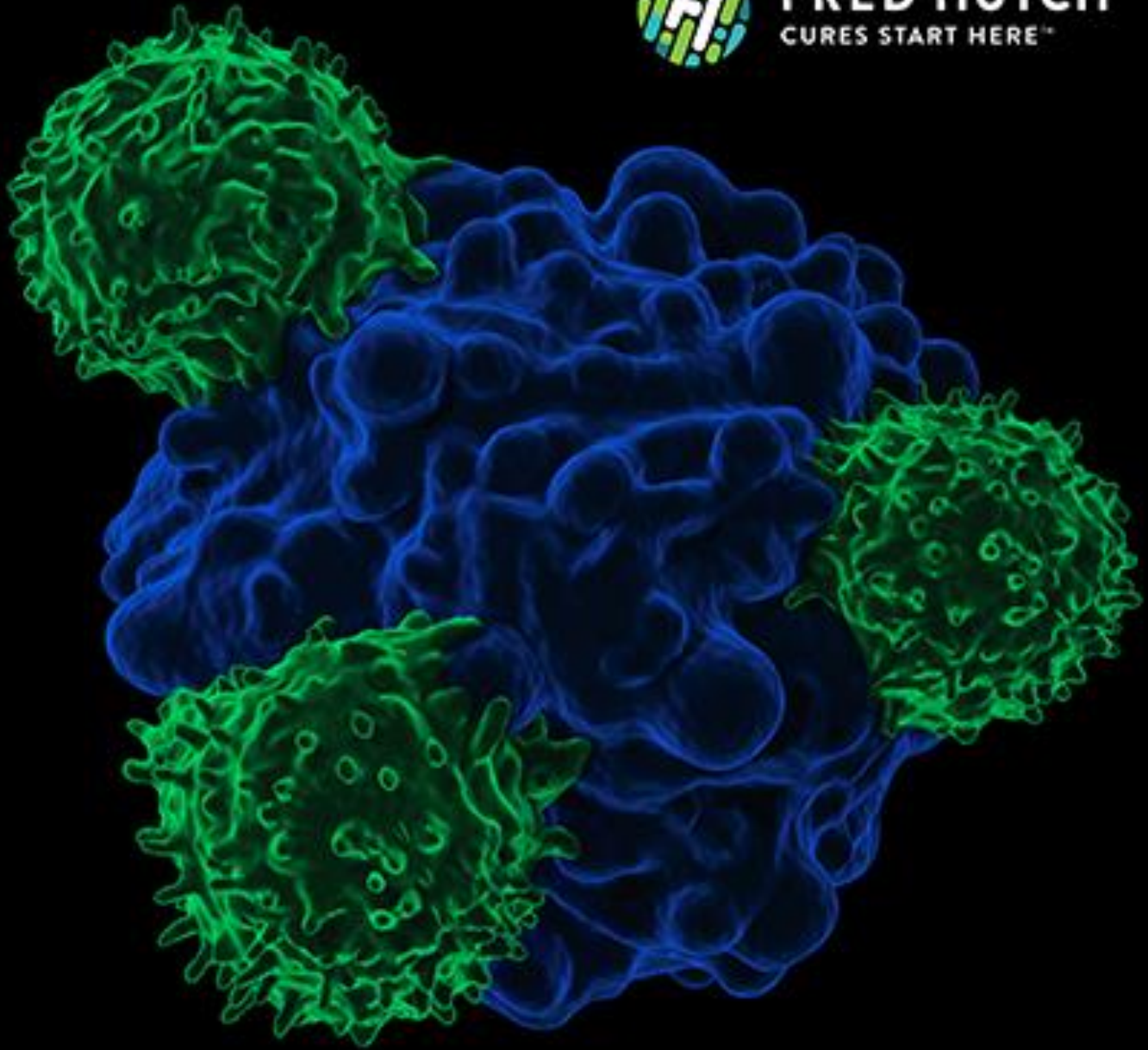
Retroviral vectors can insert novel genes into lymphocytes

TGF β DNRII makes T-cells resistant to TGF β in the tumor microenvironment





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Engineering adoptive T cell therapy to co-opt Fas ligand-mediated death signaling in solid tumors

Dr. Kristin Anderson

Post-doctoral Research Fellow

Philip D. Greenberg Lab

November 10th, 2018

kganders@fredhutch.org or ande8527@uw.edu

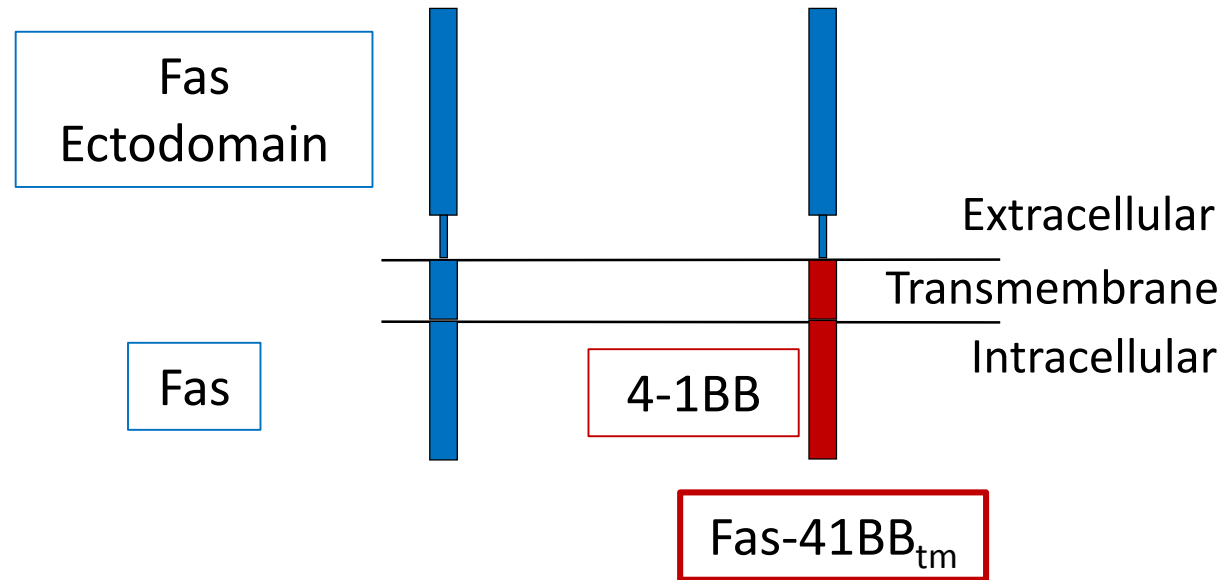


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WASHINGTON

Engineered Fas Immunomodulatory Fusion Proteins may overcome induced T cell death and promote cell proliferation/survival



Endoplasmic reticulum stress-induced transcription factor C/EBP homologous protein (Chop) thwarts effector T cell activity in tumors through repression of T-bet

Yu Cao Ph.D.

Department of Immunology

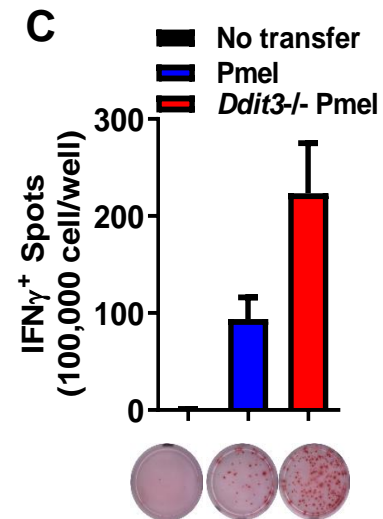
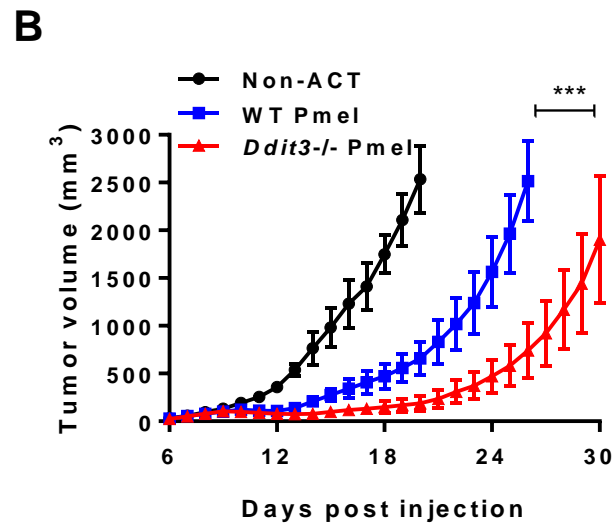
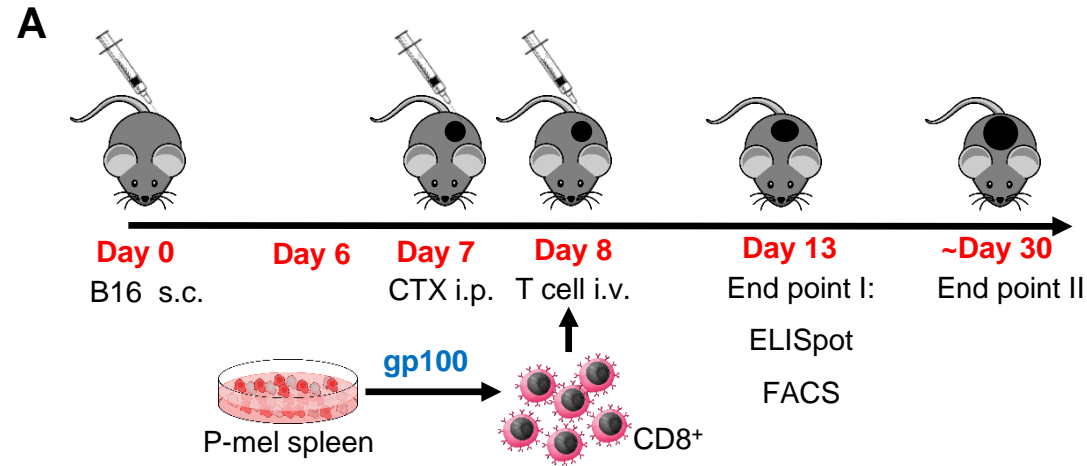
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Society for Immunotherapy of Cancer

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6. Chop deletion increases the effect of T-cell-based immunotherapy



Insertion of Genes into Lymphocytes to Enhance Antitumor Properties

Native TCR genes to direct cell specificities against the tumor

Chimeric receptors to enhance T-Cell activation and costimulation

Chemokine receptors to enhance migration of T-cells to tumor

Retroviral vectors can insert novel genes into lymphocytes

TGF β DNRII makes T-cells resistant to TGF β in the tumor microenvironment

