### Abstracts accepted for Oral Presentations

#183

**Topic:** AS02 CURRENTLY ONGOING CLINICAL TRIALS

PHASE 1/2 MULTICENTER CLINICAL TRIAL OF DONOR SPECIFIC TOLERANCE INDUCTION IN LIVING DONOR LIVER TRANSPLANTATION VIA ENGINEERED T CELLS WITH SUPPRESSING **FUNCTIONS** 

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#184

**Topic:** AS02 CURRENTLY ONGOING CLINICAL TRIALS

#### GD2.CAR T-CELLS AUGMENTED WITH A CONSTITUTIVELY ACTIVE INTERLEUKIN-7 RECEPTOR FOR TREATMENT OF PEDIATRIC CNS TUMORS

B. Omer<sup>1</sup>, F. Lin<sup>1</sup>, A. Stuckert<sup>1</sup>, C. Rooney<sup>2</sup> <sup>1</sup>Baylor College of Medicine, Pediatric Hematology/oncology, Houston, United States of America, <sup>2</sup>Baylor College of Medicine, Cell And Gene Therapy, Houston, United States of America

#148

Topic: AS03 NOVEL CLINICAL APPROACHES AND COMBINATION THERAPIES

#### COMBINATION OF TCR-T CELLS COENGINEERED TO SECRETE SIRP-ALPHA DECOYS AND ANTI-TUMOR ANTIBODIES TO AUGMENT MACROPHAGE PHAGOCYTOSIS

E. Stefanidis<sup>1</sup>, A. Semilietof<sup>1,2</sup>, J. Pujol<sup>1</sup>, B. Seijo<sup>1</sup>, K. Scholten<sup>1</sup>, V. Zoete<sup>1,2</sup>, O. Michielin<sup>1,2,3</sup>, R. Sandaltzopoulos<sup>4</sup>, G. Coukos<sup>1</sup>, M. Irving<sup>1</sup>

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#143

**Topic:** AS04 SUPERPOWERED LYMPHOCYTES

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#### **EMPOWERING CYTOTOXICITY OF CAR T CELLS TO ENHANCE ANTI-CANCER RESPONSES**

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V. Peperzak, T. Kimman, M. Cuenca, Z. Sebestyen UMC Utrecht, Center For Translational Immunology, Utrecht, Netherlands

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## 4TH INTERNATIONAL CONFERENCE ON LYMPHOCYTE **ENGINEERING**

# 12 - 14 SEPTEMBER 2023 MUNICH, GERMANY

#160

**Topic:** AS05 NON-VIRAL CAR/TCR ENGINEERING

#### PERSISTENT GENETIC MODIFICATION OF HUMAN HEMATOPOIETIC STEM AND PROGENITOR CELLS USING S/MAR DNA NANOVECTORS

P. Derigs<sup>1,2</sup>, A. Roig-Merino<sup>3</sup>, J. Peterson<sup>1</sup>, L. Burger<sup>1</sup>, T. Tasgin<sup>1</sup>, A. Hartley<sup>1</sup>, M. Schmitt<sup>2</sup>, C. Müller-Tidow<sup>2</sup>, R. Harbottle<sup>1</sup>

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#### #156

Topic: AS06 UNIVERSAL DONOR CELLS & ADVANCED TCR ENGINEERING

#### REDIRECTING TCR SPECIFICITY IN REGULATORY T CELLS TOWARD CLASS I HLA-**RESTRICTED ISLET ANTIGENS**

R. Porret<sup>1</sup>, P. Guillaume<sup>2</sup>, O. Alfageme-Abello<sup>1</sup>, A. Alcaraz Serna<sup>1</sup>, L. Ermellino<sup>1</sup>, E. Lana<sup>1</sup>, E. Stefanidis<sup>2</sup>, A. Semilietof<sup>2</sup>, G. Giordano Attianese<sup>2</sup>, F. Lebreton<sup>3</sup>, V. Zoete<sup>4</sup>, E. Berishvili<sup>3</sup>, M. Irving<sup>2</sup>, Q. Tang<sup>5</sup>, Y. Muller<sup>1</sup>

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#### #102

Topic: AS07 BEYOND ALPHA-BETA T CELLS

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#### TCR-ENGINEERED INKT CELLS INDUCE ROBUST ANTI-TUMOR RESPONSE BY DUAL TARGETING CANCER AND SUPPRESSIVE MYELOID CELLS

G. Delfanti<sup>1</sup>, F. Cortesi<sup>1</sup>, A. Perini<sup>1</sup>, L. Azzimonti<sup>2</sup>, C. De Lalla<sup>1</sup>, C. Garavaglia<sup>1</sup>, M. Squadrito<sup>3</sup>, M. Consonni<sup>1</sup>, F. Re<sup>4</sup>, H. Shen<sup>5</sup>, P. Dellabona<sup>1</sup>, G. Casorati<sup>1</sup> <sup>1</sup>San Raffaele Scientific Institute, Experimental Immunology Unit, Division Of Immunology, Transplantation And Infectious Diseases, Milan, Italy, <sup>2</sup>IDSIA, Supsi/usi, Manno, Switzerland, <sup>3</sup>San Raffaele Telethon Institute for Gene Therapy (SRTIGET), Targeted Cancer Gene Therapy Unit, Milan,

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## 4TH INTERNATIONAL CONFERENCE ON LYMPHOCYTE **ENGINEERING**

# 12 - 14 SEPTEMBER 2023 MUNICH, GERMANY

#131

**Topic:** AS08 IN VIVO T CELL ENGINEERING

#### MULTI-OMICS INFORMED ENHANCEMENT OF CAR GENE DELIVERY BY RAPAMYCIN. INDUCED REDUCTION OF ANTIVIRAL MECHANISMS AGAINST T-CELL TARGETED **LENTIVIRAL VECTORS**

F. Charitidis<sup>1</sup>, E. Adabi<sup>1</sup>, N. Ho<sup>1</sup>, A. Braun<sup>1,2</sup>, C. Tierney<sup>3</sup>, L. Strasser<sup>3</sup>, F. Thalheimer<sup>1,4</sup>, L. Childs<sup>5</sup>, J. Bones<sup>3,6</sup>, C. Clarke<sup>3,7</sup>, C. Buchholz<sup>1,2,4</sup>

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#130

**Topic:** AS09 TARGETING NON-MALIGNANT DISEASES

#### MRNA TECHNOLOGY FOR THE DEVELOPMENT OF CAR-T CELLS TARGETING FIBROTIC **DISEASES**

S. Bräuning<sup>1,2</sup>, R. Kitte<sup>1</sup>, C. Möser<sup>1,2</sup>, D. Schiefer<sup>1</sup>, S. Greiser<sup>1,2</sup>, S. Fricke<sup>1,2</sup>, U. Köhl<sup>2,3,4</sup>, S. Tretbar<sup>1,2</sup>, U. Blache<sup>1,2</sup>

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#52

**Topic:** AS09 TARGETING NON-MALIGNANT DISEASES

Würzburg, Department Of Internal Medicine Ii, Würzburg, Germany

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### SELECTIVE DEPLETION OF ALLOREACTIVE B CELLS IN SOLID ORGAN TRANSPLANTATION: CHIMERIC ALLO-ANTIGEN-SPECIFIC T CELLS OVERCOMING REJECTION BY ANTIBODIES (CORA-TS)

A.C. Dragon<sup>1</sup>, A. Bonifacius<sup>1</sup>, S. Lienenklaus<sup>2</sup>, M. Verboom<sup>1</sup>, R. Taubert<sup>3</sup>, F. Ius<sup>4</sup>, M. Hudecek<sup>5</sup>, C. Ferreira De Figueiredo<sup>1</sup>, R. Blasczyk<sup>1</sup>, B. Eiz-Vesper<sup>1</sup> <sup>1</sup>Hannover Medical School (MHH), Institute Of Transfusion Medicine And Transplant Engineering, Hannnover, Germany, <sup>2</sup>Hannover Medical School (MHH), Institute Of Laboratory Animal Science, Hannover, Germany, <sup>3</sup>Hannover Medical School (MHH), Department Of Gastroenterology, Hepatology And Endocrinology, Hannover, Germany, <sup>4</sup>Hannover Medical School (MHH), Department Of Cardiothoracic, Transplant And Vascular Surgery, Hannover, Germany, 5University Hospital of

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## 4TH INTERNATIONAL **CONFERENCE ON** LYMPHOCYTE **ENGINEERING**

# 12 - 14 SEPTEMBER 2023 MUNICH, GERMANY

#181

**Topic:** AS10 OTHER

#### **DEVELOPING NOVEL TARGETING CARS FOR GLIOBLASTOMA**

R. Abbott<sup>1</sup>, M. Iliopoulos<sup>1</sup>, K. Watson<sup>2</sup>, V. Arcucci<sup>1</sup>, H. Hughes-Parry<sup>2</sup>, P. Smith<sup>3</sup>, M. Call<sup>4</sup>, R. Cross<sup>1</sup>, M. Jenkins<sup>1</sup>

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#180

Topic: AS10 OTHER

### INFECTED HEPATOCYTE CLEARANCE AND SUSTAINED TUMOR REGRESSION BY HBSAG-SPECIFIC TCR-T THERAPY FOR HBV-RELATED HCC

S. Du<sup>1</sup>, K. Wisskirchen<sup>2,3</sup>, X. Wan<sup>1</sup>, X. Wu<sup>1</sup>, F. Liu<sup>1</sup>, Y. Wu<sup>1</sup>, K. Zhang<sup>4</sup>, U. Protzer<sup>3,5</sup> <sup>1</sup>Peking Union Medical College Hospital, Department Of Liver Surgery, Beijing, China, <sup>2</sup>SCG Cell Therapy GmbH, R&d, Planegg, Germany, <sup>3</sup>Helmholtz Munich, Institute Of Virology, Munich, Germany, <sup>4</sup>SCG Cell Therapy, R&d, Shanghai, China, <sup>5</sup>Technical University of Munich, Institute Of Virology, Munich, Germany

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