

2024 Tumor, Transplant, and Tolerance (TTT) Retreat

Poster Assignments

1. **Vaishali Aggarwal**, Chang Liu, Cui Jian, Haiguang Wang, Sasikanth Manne, Kate M. Vignali, E. John Wherry, Creg J. Workman and Dario A. A. Vignali

Fate mapping LAG3⁺ exhausted CD8⁺ T cells

2. **Kieran Adam**, Zhanna Lipatova, Maria Abdul Ghafoor Raja, Arjun K. Mishra, Roy A. Mariuzza, Creg J. Workman and Dario A. A. Vignali

Disruption of LAG3 dimerization restrains localization to TCR/CD3 and promotes anti tumor immunity

3. **Chuxiao Chen**, Bala Ramaswami, Kanishka Mohib and David Rothstein

B cell-derived IL-10 is an autocrine survival factor for B cells and maintains immune homeostasis in the spleen and colon

4. **Luzmariel Medina-Sanchez**, Yanlin Zeng, Magdalena Siller, Pamela Brigleb, Ariadna Soto, Clarisse Engl, Kishan Sangani, Bana Jabri, Timothy J. Nice, Marlies Meisel, Terence Dermody and Reinhard Hinterleitner

The gut protist Trichomonas arnoldi restrains virus-mediated loss of oral tolerance by modulating dietary antigen-presenting dendritic cells

5. **Jess Jana**, Kristin T. Morder, Katelyn J. Wolfgang and Abigail Overacre

Going the distance: Helicobacter hepaticus colonization drives immunotherapy response in melanoma

6. **Andrew McGovern**, Victor So and Jason Lohmueller

Degradable domain allows for tunable drug control of CAR surface expression in T cells

7. **Yan Ma** and Jason Lohmueller

Engineering sustained and tumor-specific gene expression by CAR T cells via a synthetic feedforward gene circuit

8. **Hussein El Bourji**, Hussein Baydoun, Addressa Pena, Brianna Robinson and Geoffrey Camirand

APCs Are Central to Treg Suppressor Function Within Allografts

9. **Medard Ernest Kaiza**, Xiang Li, Allison Casey, Paul G. Cantaloupe, Robert L. Ferris, James M. Pipas and Tullia C. Bruno

E4 and E5 viral proteins are associated with increased anti-tumor immunity in HPV+ head and neck cancer patients

10. **Allison N. Casey**, Ayana T. Ruffin, Sheryl R. Kunning, Robert L. Ferris and Tullia C. Bruno

The Head and Neck Squamous Cell Carcinoma tumor microenvironment modulates circulating and intratumoral memory B cells

11. **Padma Sri Katikaneni**, Emily Geramita, Kristine L. Cooper, Biswas Neupane, Sawa Ito and Kevin Quann

New polymorphic antigen binding domain-based HLA evolutionary divergence score independently predicts AML relapse after haploidentical stem cell transplantation

12. **Hye Mi Kim**, Medard Ernest Kaiza, Ian P. Macfawn, Noor Nader, Elaine Byrnes, Alexandra McDonough, Caleb Lampenfeld, Sheryl Kunning, Asia Williams, Ashwin Somasundaram, Kelsey Ertwine, Stephen Thorne, Laura Stabile and Tullia C. Bruno

Development and Induction of Tertiary Lymphoid Structures in Lung Cancer for Improved Immunotherapeutics

13. **Arpitha H. Shivarudrappa**, Jessy John, Monika Vashisht, Huaibin Ge, Silvia Liu, Jingxin Chen, Karen Siddoway, Rui Dong, Zhangguo Chen and Jing H. Wang

Differential tumor immune microenvironment coupled with tumor progression or tumor eradication in HPV-antigen expressing squamous cell carcinoma (SCC) models

14. **Kenta Yamamoto**, Shachi P. Vyas, Lisa R. Mathews, Hëth R. Turnquist and Sarah L. Gaffen

RNA-binding Protein Arid5a in CD4+ T Cell Regulation and Graft-versus-Host Disease (GvHD)

15. **Kevin Quann**, Faruk Sacirbegovic, Sarah Rosenberger, Emily McFerran, Kentin Codisport and Warren Shlomchik

TCF-1⁺ is required by CD8+ T cells for the maintenance of alloimmune responses in graft-vs-host disease

16. **Kevin Quann**, Alex Rowe, Kentin Codisport, Wenzhong Wei, Daniel Wikenheiser, Emily McFerran, Mark Shlomchik and Warren Shlomchik

A novel high-throughput method for identifying T-cell receptor: minor histocompatibility antigen interactions in mouse models of graft-vs-host disease

17. **Qing Ding** and David Rothstein

Tim4 Effector B Cells Express a Proinflammatory Cytokine Module That Can Be Inhibited By Disrupting IL-23 Signaling

18. Catherine M. Phelps, Jake H. Shapira, Colin R. Laughlin, Sim Randwaha, Alex C. McPherson, **Yue Zhang** and Marlies Meisel

Exercise-primed microbial metabolites fuel antitumor CD8+ T cell immunity against immunotherapy-resistant preclinical melanoma

19. **Noor Nader**, Elaine Byrnes, Marion E. Joy, Grace Ge, Thomas Pearce, Gabriel Sica, Timothy Burns, Laura Stabile, Xiaoran Zhang and Tullia C. Bruno

Divergence in Cellular Composition and Functional Dynamics of Lymphoid Aggregates in Lung and Melanoma Brain Metastases

20. **Katelyn Wolfgang**, Kristin Morder, Jessica Jana and Abigail Overacre-Delgoffe

Investigating the mechanisms of Helicobacter hepaticus mediated lymphangiogenesis and tertiary lymphoid structure formation

21. **Stephen M. Joachim**, Rebecca A. Elsner, Roberto Di Niro, Timothy W. Hand and Mark J. Shlomchik

Commensals vs. pathogens: balancing B cell tolerance and protection

22. **Kristin Morder**, Jess Jana, Katelyn Wolfgang and Abigail Overacre-Delgoffe

Changes in the Microbiome After Treatment: Are We Setting Colorectal Cancer Patients Back Before they Begin?

23. **A. Baessler**, L. P. Andrews, C. J. Workman and D. A. A. Vignali

Impact of LAG3 on T cell motility and migration

24. **Andrew Frisch**, Yiyang Wang, Bingxian Xie, Aaron Yang, Supriya Joshi, Konstantinos Lontos, Amanda Poholek, Dayana B. Rivadeneira and Greg M. Delgoffe

Reprogramming T cell Glucose Usage In Vitro Improves In Vivo Persistence and Function of Adoptive T Cell Therapies for Cancer

25. **Bingxian Xie**, William Gunn, Victoria Dean and Greg M. Delgoffe

Unveiling the Critical Role of Oxidative Pentose Phosphate Pathway in T Cell Proliferation and Function

26. **Kellie Spahr**, Nicole Scharping, Xue "Lucy" Zeng and Greg M. Delgoffe

Obese, Not Starving: Mitochondrial Citrate Export Drives Lipid Accumulation and Dysfunction in Exhausted T Cell

27. **Qiang Chen**, Jian Cui, Creg J. Workman and Dario A. A. Vignali

Development of an in vivo model for single cell CRISPR screening to uncover novel targets of tumor-infiltrating Treg cells

28. **Hannah J. Bumgarner**, Supriya Joshi, Catarina Azvedo, Victoria Dean and Greg M. Delgoffe

Hyperglycemic culture conditions during therapeutic T cell expansion repress T cell signaling linked to altered intracellular glycosylation states

29. **Tianhong Yao**, Kristin DePeaux, Dayana Rivadeneira, Andrew P. Hinck and Greg M. Delgoffe

Utilizing TGF β inhibitor-expressing CD8 $^+$ T cells to modify immunosuppressive tumor microenvironment

30. **Chenxian Ye**, McLane J. Watson and Greg M. Delgoffe

Away from sugar: increased glucose avidity diminishes T_{reg} cell function

31. **Juliana Schneider Powell**, William J. Shufesky, Yoel Sadovsky and Adrian E. Morelli

Feto-maternal T-cell allorecognition mediated by conceptus-derived small extracellular vesicles

32. **Biswas Neupane**, Kedwin Ventura, Kevin Quann, Kayla Parr and Sawa Ito

Kinetics of neoantigen-specific T cells in post-transplant relapse

33. **Avani Parikh**, Gianna Falcone, Steven Caldwell, Isabella Demyan, Elisa Ruffo, Alexander Deiters and Jason Lohmueller

Programming Universal Chimeric Antigen Receptor (CAR) T Cells Using Small Molecule Adaptors

34. **Yangxi (Claudia) Sun**, Vaishali Aggarwali, Creg J. Workman and Dario A. A. Vignali

The role of PD1 in maintaining terminal T cell exhaustion

35. **Sawa Ito**, Emily Geramita, Kedwin Ventura, Biswas Neupane, Shruti Bhise, Erica Moore, Scott Furlan and Warren D. Shlomchik

IFN- γ and donor leukocyte infusion to treat relapsed myeloblastic malignancies after allogeneic hematopoietic stem cell transplantation

36. **Amanda Lee**, Surya P. Pandey, Colin R. Laughlin, Zhen Yang, Alex McPherson and Marlies Meisel

Defining the role of AhR and Nrf2 in commensal immunomodulation of antitumor immunity

37. **Prosper O. Chukwuemeka**, Anthony R. Cillo, Lilit Karapetyan, Cindy Sander, Elizabeth Rush, Anjali Rohatgi, John M. Kirkwood, Tulia C. Bruno, Creg Workman and Dario A. A. Vignali

The Impact of anti-LAG3 and anti-PD1 Treatment on CD4+ Regulatory T Cells in Metastatic Melanoma

38. **Dipyaman Patra**, Chenxian Ye, Greg Delgoffe and Abby Overacre-Delgoffe

Dissecting cause and effect of immune related Adverse Events in a novel mouse model

39. **Sanya Arshad**, David Gao, Lyubov Kublo, Alex Rowe, Wenzhong Li, Yi Yang , Mark J Shlomchik, Jeremy Tilstra and Alok V. Joglekar

Identification of T Cell Autoantigens in a Mouse Model of Lupus Nephritis

40. **A. Kumar**, D. B. Rivadeneira, A. C. Poholek, A. Kohan and G. M. Delgoffe

Postprandial changes to systematic metabolism imprint durable changes on T Cell immune responses

41. **Drew Wilfahrt**, Bingxian Xie, Aaron Yang, Amanda Poholek and Greg M. Delgoffe

Tumor-derived nutrient stress induces lasting effects on CD8+ T cell function and epigenetic remodeling

42. **William Gunn**, Kristin DePeaux and Greg M. Delgoffe

Using an oncolytic virus to induce regulatory T cell fragility in the tumor microenvironment and overcome treatment resistance

43. **Victor So** and Jason Lohmueller

Engineering synthetic intercellular communication to augment adoptive T cell therapy

44. **Yu Bian**, Lawrence Andrews, Vaishali Aggarwal, Angela Demske, Ellen Scott, Creg Workman and Dario Vignali

The role of Tox in regulatory T cells in the tumor microenvironment

45. **Supriya K. Joshi**, William Gunn, Andrew Frisch, Hannah Bumgarner and Greg M. Delgoffe

Hypermetabolic expansion conditions imprint lasting dysfunction on adoptive cell therapies

46. **Nishtha Trivedi**, Paul M. Zdinak, Eduardo Zarate Martinez, Salome Martinez and Alok V. Joglekar

Hybrid Insulin Peptides: A novel antigenic landscape to look at in Type 1 Diabetes

47. **Ananda Domingues Lopes**, Amanda Braga De Figueiredo, Guilherme Ferreira De Britto Evangelista, Nayane Alves De Lima Galdino, Clara Maciel Cavalcanti, Silvana Soares Santos, Rafael Canfield Brianese, Solange Maria Torcha Carvalho Castro, Fabiana Baroni Makdissi, Dirce Maria Carraro and Kenneth J. Gollob

Baseline activated cellular immune profile relates to response to neoadjuvant chemotherapy in TNBC patients

48. **Kayleigh Askin**, Yan Zang, Dayana Rivadeneira, Anthony Cillo, Greg Delgoffe and Yana G. Najjar

Evolution of Metabolic and Immune Dysregulation in In-transit Melanoma

49. **Russell C Levack**, Claire Leibler, Shinu John, Rebecca A. Elsner, Kayla B. Thomas, Shuchi Smita, Stephen Joachim, Derrick J. Callahan, Rachael A. Gordon, Sheldon Bastacky, Ryutaro Fukui, Kensuke Miyake, Sebastien Gingras, Kevin M. Nickerson and Mark J. Shlomchik

Dissection of the Protective Mechanisms of TLR9 in SLE

50. **Colin Laughlin**, Alex Mcpherson, Surya Pandey, Jake Shapira, Catherine Phelps, Amanda Lee, Simran Randhawa, Rachel Gottschalk, Zhen Yang, Reinhard Hinterleitner, John McCulloch, Hassane Zarour Giorgio Trinchieri and Marlies Meisel

Examining antitumorigenic effects of Ruminococcus gnavus

51. **Surya P. Pandey**, Donghui Yang, Lee Hedden, Colin R. Laughlin, Weihong Wang, Ariadna S. Soto, Luzmariel Medina Sanchez, Jakob von Moltke, Marlies Meisel, Yi-Nan Gong and Reinhard Hinterleitner

Microbe-dependent type 2 immunity engages Cathepsin S-mediated Gasdermin C cleavage to confer protection from pathogenic triggers

52. Jordan Warunek, **Sihua Wang**, Lu Fan, Xue Zhang, Steve Sanders, Tengfang Li, Lisa Mathews, Gaelen Dwyer, Johnny Bou Saba, Emmanuel León Colón, Tracy Tabib, Robert Lafyatis, Mark Ross, Simon Watkins, Khodor Abou-Daya and Hēth Turnquist

Dysregulated Treg repair responses lead to chronic rejection after heart transplantation

53. **J. Warunek**, S. Sanders, L. Mathews, M. Oberbarnscheidt, K. Abou-Daya, F. Lakkis and H. Turnquist

Recipient Macrophage Recognition of donor MHCII Controls Graft Fibrosis Following Heart Transplantation

54. Lawrence P. Andrews, **Samuel C. Butler**, Jian Cui, Anthony R. Cillo, Carly Cardello, Chang Liu, Erin A. Brunazzi, Andrew Baessler, Bingxian Xie, Sheryl R. Kunning, Shin Foong Ngiow, Yinghui Jane Huang, Sasikanth Manne, Arlene H. Sharpe, Greg M. Delgoffe, E. John Wherry, John M. Kirkwood, Tullia C. Bruno, Creg J. Workman and Dario A. A. Vignali

LAG3 and PD1 synergize on CD8⁺ T cells to drive T cell exhaustion and hinder autocrine IFN γ -dependent anti-tumor immunity

55. Gaelen K. Dwyer, **Lisa R. Mathews**, Bailey T. Chalmers, Afsana Naaz, Amanda Poholek, Faruk Sacirbegovic, Warren Shlomchik and Heth R. Turnquist

Cross-talk between donor T cells and stroma cell maintains CD4 T cells differentiation and determines GVHD outcomes

56. **Ronal M. Peralta**, Bingxian Xie, Konstantinos Lontos, Hector Nieves-Rosado, Kellie Spahr, Rhodes B. Ford, Kevin Quann, Andrew Frisch, Victoria Dean, Mary Philbin, Anthony R. Cillo, Sebastian Gingras, Amanda C. Poholek, Lawrence P. Kane, Dayana B. Rivadeneira and Greg M. Delgoffe

Lactate uptake through MCT11 enforces dysfunction in terminally exhausted T cells

57. **Anthony Cillo**, Jessica Daley, Elina Mukherjee, Anthony Green, Ernest Meyer, Tullia Bruno, Hussein Tawbi, Melissa Burgess and Kelly Bailey

Pembrolizumab modulation of the Ewing tumor microenvironment: an analysis of SARC028 pre/post treatment Ewing sarcoma biopsy sample

58. **Mengtao Qin**, Erica Braverman, Herbert Schuler, Lee-Kai Sun, Manda Ramsey, Christopher Wittmann and Craig Byersdorfer

Improving CAR-T cell Metabolism and Functions by AMPK γ 2 Overexpression

59. **Paul M. Zdinak**, Bailey Chalmers and Alok V. Joglekar

SABR Tregs: The next generation of antigen specific therapy

60. **Ariadna Soto**, Clarisse Engl, Zhen Yang, Surya Panday, Luzmarie Medina-Sanchez, Isha Mehta, Augusta Vincent, Marlies Meisel, Jishnu Das and Reinhard Hinterleitner

Immunomodulatory functions of the gut protist Pentatrichomonas hominis in health and disease

61. **Ellen N. Scott**, Angela M. Gocher-Demske, Ava Dou, Erin A. Brunazzi, Creg J. Workman and Dario A.A. Vignali

Interplay of IL-12 and IFN γ to induce T_{reg} fragility within the tumor microenvironment

62. **Aaron Yang**, B. Rhodes Ford and Amanda C. Poholek

Assessing 3D chromatin topology of T cell exhaustion in B16 melanoma

63. **Felicia Kemp**, Rebecca Brown, Gail Waltz and Craig Byersdorfer

The role of peroxisome proliferator-activated receptor-delta (PPAR δ) in activated T cells

64. **Yi Yang**, Smriti Chaurasia, Alexander M. Rowe, Anthony Marinov and Mark J. Shlomchik

Identification of autoreactive T helper cells in lupus and T cell engineering for understanding their roles in systemic autoimmunity

65. **Lau García-Diéguez**, Smriti Chaurasia, Wenzhong Wei, Katherine Query, Alexander M. Rowe, Christy Smolak, Kevin Nickerson, Mark J. Shlomchik and Warren D. Shlomchik

Application of TCXpress Neoantigen Discovery to the Treatment of Solid Tumors

66. **Wenzhong Wei**, Lau García-Diéguez, Smriti Chaurasia, Alexander M. Rowe, Katherine Query, Christy Smolak, Kevin Nickerson, Alexander Muralles, Mark J. Shlomchik and Warren D. Shlomchik

TCXpress: a novel and powerful platform for neoantigen identification and TCRs cloning and screening

67. **Alexander M. Rowe**, Kevin Quann, Sebastien Gingras, Dominic Didiano, Katherine Query, Smriti Chaurasia, Wenzhong Wei, Mark J. Shlomchik and Warren D. Shlomchik

Impact of TCR Properties on miHA-Targeted ACT in Mice

68. **Lee-Kai Sun**, Archana Ramgopal, Erica Braverman, Manda Ramsey, Darlene Monlish, Christopher Wittmann, Richard Cattley, William Hawse and Craig Byersdorfer

Deletion of AMPK minimizes GVHD severity by decreasing glycolytic compensation and CD4/CD8 ratio of donor human T cells

69. **Lee-Kai Sun** and Craig Byersdorfer

Pharmacologic inhibition of AMPK ex vivo reduces donor T cell proliferation following allogeneic transplantation