

## Immuno-Oncology Translational Network (IOTN) Capstone Meeting May 14 – 15, 2024, Hybrid in Masur Auditorium, NIH Bethesda

The scientific objectives of Immuno-Oncology Translational Network (IOTN) Capstone Meeting are to highlight scientific accomplishments across the IOTN. The IOTN is a collaborative research network focused on accelerating the discovery of new immune targets, evaluating novel immune-based therapies and combination approaches to eliminate established cancers in adults, and preventing cancers before they occur. The IOTN Capstone Meeting will feature a) keynote presentations, b) science talks by IOTN early career scientists, and c) an overview presentation on data sharing by the IOTN Data Management and Resource-Sharing Center.

Day 1: Tuesday May 14, 2024

| Time (ET) | Session 1: IOTN Data Sharing Resources and Immunoprevention  |
|-----------|--|
| 8:00 AM   | Registration and Networking  |
| 8:25 AM   | Welcome and Logistics, Lillian Kuo, NCI  |
| 8:30 AM   | Cancer Moonshot Opening Remarks, Dinah Singer, NCI   |
| 8:45 AM   | Keynote Speaker Introduction, Alan Hutson, Roswell Park Comprehensive Cancer Center  |
| 8:50 AM   | Genomic, Host and Microenvironmental Determinants of Breast Cancer Initiation and Progression, Christina Curtis, Stanford University (Zoom)                      |
| 9:15 AM   | IOTN Data Management and Resource Center, Alan Hutson, Roswell Park Comprehensive Cancer Center  |
| 9:35 AM   | Bioinformatics Validation of Immunogenic Neoantigen Targets in Transcriptomics, Translatomics, and Immunopeptidomics, David Largaespada, University of Minnesota |
| 9:50 AM   | Intercepting the Evolution of Pro-tumoral Myeloid Cells During the Initiation of Oral Cancer, Hulya Taner, University of Michigan                                |
| 10:05 AM  | Intercepting Progression from Pre-invasive to Invasive Lung Adenocarcinoma, Liron Yoffe, Weill Cornell Medicine (Zoom)   |
| 10:20 AM  | Metabolic Inhibition of BATF2 Dampens Type-I Interferon-mediated Immune Sensing of Cancer, Wang Gong, University of Michigan                                     |
| 10:35 AM  | Morning Break (on your own)  |

| Time (ET) | Session 2: Next Generation T Cell Engineering  |
|-----------|--|
| 10:55 AM  | Session Welcome, Session Co-Chairs: Wendell Lim, University of California, San Francisco |
|           | and Kasia Bourcier, NCI  |
| 11:00 AM  | Brain GPS: Harnessing CNS Sensors to Target T Cells to Brain Tumors and Other Brain      |
|           | Disorders, Milos Simic, University of California, San Francisco,                         |
| 11:15 AM  | TCR-engaging Biomaterials Selectively Expand Antigen-specific CD8+ and CD4+ T Cells with |
|           | a Favorable Phenotype for Adoptive Cellular Therapy, Nicoletta Cieri, Dana-Farber Cancer |
|           | Institute  |
| 11:30 AM  | Rewiring IL-2 Signaling: Understanding and Optimizing CAR-T Cell Attack of Immune-       |
|           | excluded Tumors, Hersh Bhargava, UCSF Cell Design Institute                              |
| 11:45 AM  | Rational Design of Universal CAR T Cells, Gerald Linette, University of Pennsylvania     |
| 12:00 PM  | Lunch Break (on your own)  |

| Time (ET) | Session 3: Tumor Immune Microenvironments   |
|-----------|---|
| 1:20 PM   | Session Welcome, Session Co-Chairs: Yu Leo Lei, University of Michigan and Peter Ujhazy, NCI  |
| 1:25 PM   | Evolution of Myeloid-mediated Mechanisms of Immunotherapy Resistance at Single-cell Resolution with Prostate Cancer Progression, Aram Lyu, University of California, San Francisco                                    |
| 1:40 PM   | Comparative Analysis of Syngeneic Oral Cancer Tumor Development in the Murine Flank and Oral Cavity Microenvironments, Gemalene Sunga, University of Texas Health Science Center                                      |
| 1:55 PM   | Checkpoint Regulation of Adaptive and Innate Antitumor Immune Responses, Robert Blelloch, University of California San Francisco (Zoom)   |
| 2:10 PM   | Remodeling the Perivascular Niche by Oncolytic Virotherapy Regulates T-cell Infiltration to Ovarian Tumor Metastasis, Danuta Kozbor, Roswell Park Comprehensive Cancer Center and Kunle Odunsi, University of Chicago |
| 2:25 PM   | Transition to Poster Session  |

| Time (ET) | Session 4: Poster Session     |
|-----------|-------------------------------|
| 2:30 PM   | Poster Session and Networking |
| 4:45 PM   | Adjourn Day 1                 |

Day 2: Wednesday May 15, 2024

| Time (ET) | Session 5: Immunotherapy and Immune-related Adverse Events  |
|-----------|---|
| 8:25 AM   | Session Welcome, Session Co-Chairs: Yin Liu, NCI and Keynote Speaker Introduction, Kunle  |
|           | Odunsi, University of Chicago   |
| 8:30 AM   | New Approaches to Pancreatic Cancer Immunotherapy, Louis Weiner, Georgetown University  |
| 8:55 AM   | Distinct Autoantibody Profiles Across Checkpoint Inhibitor Types and Toxicities, Hong Mu-   |
|           | Mosley, UT Southwestern Medical Center  |
| 9:10 AM   | Characterizing and Predicting Colitis in Immune Checkpoint Blockade-treated Cancer  |
|           | Patients, Edgar Gonzalez-Kozlova, Icahn School of Medicine at Mount Sinai   |
| 9:25 AM   | T cell Receptor Signaling Endotypes Associated with Immune Related Cutaneous Adverse<br>Events in Cancer Patients Treated with Checkpoint Inhibitors, Taras Lyubchenko, National<br>Jewish Health |
| 9:40 AM   | Biomarker Modeling Identifies Unique Cytokine Cluster in Cancer Patients with Checkpoint Inhibitor Induced Cutaneous Adverse Events, Han Yu, Roswell Park Comprehensive Cancer Center             |
| 9:55 AM   | Assessing the Impact of Psychosocial Subtypes on Immunotherapy Efficacy in Patients with  |
|           | Lung Cancer, Sarah Mullin-Falls, Roswell Park Comprehensive Cancer Center   |
| 10:10 AM  | Morning Break (on your own)   |

| Time (ET) | Session 6: Immuno-Engineering   |
|-----------|---|
| 10:30 AM  | Session Welcome, Session Co-Chairs: Jinming Gao, UT Southwestern Medical Center and       |
|           | Minkyung (Min) Song, NCI  |
| 10:35 AM  | clAP-1 Antagonism Unleashes STING Agonism Response in Head and Neck cancer, Ze-hua        |
|           | Li, Dana-Farber Cancer Institute  |
| 10:50 AM  | Preclinical Safety and Pharmacological Evaluation of Dual STING-activating Nanoparticles, |
|           | Gang Huang, UT Southwestern Medical Center  |
| 11:05 AM  | pH-Controlled Flash Nanoprecipitation Enables Organic Solvent-Free Synthesis of Tumor-    |
|           | Targeting IL-2-Fc Loaded Nanoparticles, Raymundo Pantoja, UT Southwestern Medical         |
|           | Center  |
| 11:20 AM  | DNA Origami Nanoparticle as a Delivery Vehicle for Therapeutic Cargoes, Claire (Yang)     |
|           | Zeng, Wyss Institute  |
| 11:35 AM  | Engineering Bacteria to Promote Immunotherapy Responsiveness in Bladder Cancer,           |
|           | Mathieu Rouanne, Columbia University (Zoom)   |
| 11:50 AM  | Lunch Break (on your own)   |

| Time (ET) | Session 7: Canine Immuno-Oncology and Multi-Modal Strategies                                   |
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| 1:10 PM   | Session Welcome, Session Co-Chairs: Quaovi Sodji, University of Wisconsin, Madison and         |
|           | Keynote Speaker Introduction, Connie Sommers, NCI  |
| 1:15 PM   | PRECINCT Overview, Nicola Mason, University of Pennsylvania                                    |
| 1:25 PM   | Allogeneic iNKT Cells Persisting in MHC Mismatched Recipient Dogs, Antonia Rotolo,             |
|           | University of Pennsylvania   |
| 1:40 PM   | Developing Patient-derived Xenografts (PDX) to Evaluate Immunotherapies Targeting Human        |
|           | and Canine T Cells Against Tumors, Christa Cheatham, University of Missouri (Zoom)             |
| 1:55 PM   | Pre-clinical Evaluation and First-in-Dog Clinical Trials of PBMC-expanded Natural Killer Cells |
|           | for Adoptive Immunotherapy in Dogs with Cancer, Aryana Razmara, University of California,      |
|           | Davis  |
| 2:05 PM   | Enhancing the Abscopal Effect in Metastatic Cancer Through Targeting the cGAS-cGAMP-           |
|           | STING Pathway and Radiotherapy, Yan Fang, UT Southwestern Medical Center                       |
| 2:20 PM   | Advancing Combination Therapy Approaches to Enhancing the In Situ Vaccine Effect of            |
|           | Radiation Therapy, Mahfuzur Rahman, University of Wisconsin                                    |
| 2:35 PM   | Multi-modal Imaging and Radiomics for Monitoring Disease Progression and TIME Profiling in     |
|           | Syngeneic Mouse Models of Oral Cancer, Ketan Ghaghada, Baylor College of Medicine              |
| 2:50 PM   | Evaluating the Therapeutic Interaction of Radiopharmaceutical Therapies and                    |
|           | Immunotherapies, Quaovi Sodji, University of Wisconsin   |
| 3:05 PM   | Afternoon Break (on your own)  |

| Time (ET) | Session 8: Developing New Targets and Cytokines for Immuno-Oncology                   |
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| 3:25 PM   | Session Welcome, Session Co-Chairs: Laxman Devkota, Baylor College of Medicine and T. |
|           | Kevin Howcroft, NCI   |
| 3:30 PM   | In vivo CRISPR Screens Identify the Ubiquitin C-terminal Hydrolases Uchl5 as Cancer   |
|           | Immunotherapy Target, Cong Fu, Dana-Farber Cancer Institute                           |
| 3:45 PM   | Isolating T Cell Receptors Targeting Cancer-enhanced Splicing Events in Small-cell    |
|           | Carcinoma using Nanovials, Zhiyuan Mao, University of California Los Angeles          |
| 4:00 PM   | Optimizing Cytokine Immunotherapies, Marcus Bosenberg, Yale University (Zoom)         |
| 4:15 PM   | CD8 T Cells with an Exhaustion-like Phenotype Remain Highly functional in Hematologic |
|           | Tumors and are Expanded by Decoy-resistant IL-18 Immunotherapy, Simone Minnie, Fred   |
|           | Hutchinson Cancer Center  |
| 4:30 PM   | Closing Remarks, T. Kevin Howcroft, NCI   |
| 4:45 PM   | Adjourn   |