AGENDA

Day 0 – Wednesday, 8/21

Time	Event and Description	Location
7:30 – 10:30 PM	Networking Session - Night out (informal)	Tommy Joe's

Day 1 – Thursday, 8/22

Time	Event and Description	Location
7:30 – 8:30 AM	Registration opens, coffee provided	Welcome Area
8:30 – 8:45 AM	Welcome session – Introductions (JI Committee & NCI)	Auditorium
8:45 – 9:15 AM	Patient Advocates Session: Hearing their story	Auditorium
9:15 – 10:15 AM	Keynote: Dr. Hadi Nia	Auditorium
10:15 – 10:30 AM	Mental Health Break	
10:30 – 12:00 AM	Session I: Podium Talks with Patient Advocates - Tumor immunology and microenvironment • Pablo Llevenes: Plasma exosomes in obesity-driven diabetes exacerbate progression of triple negative breast cancer: Insights from animal models • Kun Han: Spatial analysis of immune-related adverse events using novel animal models in myocarditis and neurotoxicity • Cassidy Hagan: Apoptotic cells promote circulating tumor cell survival and metastasis • Junior West: Claudin 7 suppresses invasion and metastasis through repression of the smooth muscle actin cytoskeleton • Joshua Ginzel: Dynamic modeling of tumor progression illuminates an occult transition that establishes metastatic potential	Auditorium

12:00 – 1:30 PM	Lunch Special Sessions: • Scalable Processing of Multiplexed Tissue Imaging Datasets Using Nextflow and MCMICRO (pre-registration required) • NCI SBIR: Small Business Transition Grant Info Session	Welcome Area Rooms F1/F2 Rooms E1/E2
1:30 – 2:30 PM	Concurrent Session IIA: Spotlight Talks - Translational cancer research and drug discovery • Samson Eugin Simon: DNA hypermethylation impacts tumor suppressor genes in BXD preclinical mouse models • Kacey Ronaldson-Bouchard: Recapitulation of skeletal metastasis using an in vitro organ- on-a-chip platform • Zhengyuan Pang: In situ visualization of covalent cancer drug binding in 3D mammalian tissue • Wenjuan Dong: Enhancing prediction of trastuzumab deruxtecan response and resistance mechanisms in metastatic breast cancer through spatial profiling and cellular crosstalk analysis • Lucas ZhongMing Hu: Elucidating oncology drug mechanism of action and polypharmacology with a large-scale perturbational profile compendium • Yuhan Qiu: Insulin resistance increases TNBC aggressiveness and brain metastasis via adipocyte-derived exosomes	Balcony B
1:30 – 2:30 PM	Concurrent Session IIB: Spotlight Talks - Multiomics and bioinformatics in cancer research • Behnaz Bozorgui: Single cell spatial proteomic analysis and computational evaluation pipeline • Kyle MacQuarrie: Chromosome specific organizational characteristics in rhabdomyosarcoma and normal myogenic cells • Pascal Belleau: Computational framework for inference of genetic ancestry from challenging human molecular data • Reshma Kalyan Sundaram: Integrating signaling and transcription to study c-Myc induced stress response in cancerous cells • Seongyeol Park: Organ-specific evolution of tumor microenvironments in metastatic	Balcony C

	breast cancer • Kaiyuan Zhu: Elucidating genomic and three-dimensional architectures of extrachromosomal DNA	
2:30 – 3:30 PM	Networking Session: Speed Dating	Atrium
3:30 – 4:30 PM	Concurrent Session IIIA: Spotlight Talks - Niche regulation of cancer progression • Christina Ennis: Plasma exosomes from individuals with type 2 diabetes drive breast cancer progression in patient-derived organoids • Ethan Seltzer: Neuronal substance-P drives breast cancer growth and metastasis • Lucy Britto: Lymphoma organoids reveal T cells spatially alter B cell receptor signaling via histone modifications • Ghmkin Hassan: Antidepressants inhibit pancreatic ductal adenocarcinoma progression by reducing fibrosis and perineural invasion • Anna Kolarzyk: Investigating VEGF-A induced lymphatic vessel remodeling and its implications for immune cell trafficking in pancreatic cancer • Toshiro Hara: In situ state of invading glioblastoma cells by single-cell and spatial transcriptomics	Balcony B
3:30 – 4:30 PM	Concurrent Session IIIB: Spotlight Talks - Genetic and epigenetic regulation of tumor progression and metastasis • Nana Adjoa Ben-Crentsil: RNA interference of P65 activity mediates oncogenic inflammation in TET2 mutated clonal hematopoiesis • Sarah Groves: Modeling Phase Separation of a Mitosis Signaling Network in Breast Cancer • Carolina De Santiago: Analyzing the clonal dynamics and metastatic potential of isolated subpopulations within TNBC cells • Monika Dhankhar: Dynamics of chromatin reorganization in response to chemo-mechanical environmental cues • Lina Kroehling: High-resolution characterization of age-specific changes in the HPV-negative HNSCC tumors • Tatiana Miti: Combining spatial analysis	Balcony C

	methods for studies of stromal effects on tumor remission-relapse dynamics	
4:30 – 5:30 PM	Poster Session I	Atrium
6:00 – 7:00 PM	Depart for The Bethesdan Hotel (shuttle provided)	Shuttle
7:00 – 9:00 PM	Dinner	The Bethesdan Hotel
9:00 – 11:00 PM	Networking Session: Sightseeing (informal)	Bethesda and Washington, D.C.

Day 2 – Friday, 8/23

Time	Event and Description	Location
8:00 – 9:00 AM	Registration opens, coffee provided	Welcome Area
9:00 – 10:30 AM	Special Session I: What can you do with a PhD? Breakfast served	Rooms A/B and E1/E2
10:30 – 12:00 AM	Session IV: Podium Talks with Patient Advocates - Multiomics and Computational Cancer Research • Dig Vijay Kumar Yarlagadda: Discrete representation learning for modeling imaging-based spatial transcriptomics data • Minjeong Kim: Unveiling genetic complexity of lung adenocarcinoma by identifying a novel EGFR mutation signature • Mohd Saqib: Investigating tumor immune suppression through integration of PD1-PD-L1 interactions with MDSC & T cell phenotypes • Riley Manning: 3D agent-based modeling of glioblastoma subtypes and therapies • Vikas Pandey: AI-enhanced rapid lifetime determination method for fast macroscopic fluorescence lifetime imaging	Auditorium
12:00 – 1:30 PM	Lunch Special Sessions: • NCI CBIIT Data Science Training Resources Programming Booths: SBIR, BTEP, & CCT	Welcome Area Rooms F1/F2; Overflow G1/G2
1:30 – 3:00 PM	Special Session II: Just Starting Out Panel	Auditorium
3:00 – 4:30 PM	Poster Session II	Atrium
4:30 – 5:30 PM	Concurrent Session VA: Spotlight Talks - AI/ML approaches for translational cancer research • Sehyun Oh: OmicsMLRepo: Ontology-leveraged metadata harmonization to improve AI/ML-readiness of omics data in Bioconductor	Balcony B

	• Yi Lian: A reliable and adaptive framework for high-dimensional fairness aware integration of multiple datasets • Hairong Wang: A self-supervised AI framework for quantitative assessment of intra-tumoral heterogeneity in GBM using MRI • Sushant Patkar: Predicting the tumor microenvironment molecular composition from histopathology images to characterize immunotherapy responses in non-small cell lung cancer patients • Xinling Li: Mathematical model of AND-gated protease sensors predicts tunable improvements to signal-to-noise • Alexander Lachman: ARCHS4 navigator: multimodal feature vectors as descriptors of gene expression data	
4:30 – 5:30 PM	Concurrent Session VB: Spotlight Talks - Tumor immunology and immunotherapy • Ali Zamat: Image-guided sonogenetic control of thermal-sensitive CAR T cells overcomes brain tumor heterogeneity and immune suppression • Kolade Adebowale: Dynamics of macrophage tumor infiltration • Larry Dooling: Macrophage clusters extend multiple pseudopods to disrupt cell junctions between cohesive targets • Michelle Loui: Autoantibodies in high-grade serous ovarian cancer interact poorly with cytotoxicity-inducing Fc receptors • Udochi Felicia Azubuike: Microenvironmental regulation of immune cell infiltrates in cutaneous melanoma • Yufei Cui: Quantitative cell type specific immunopeptidome analysis during macrophage and tumor co-evolution reveals therapeutic MHC-I restricted peptides in glioblastoma	Balcony C
5:30 – 6:00 PM	Closing Session	Auditorium
6:00 PM	Conference Adjourns	