Planning Committee

Co-Chair: Katie Houlahan, Ph.D., Assistant Professor,
McMaster University
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Katie Houlahan, PhD, is one of the co-chairs for the 2024 NCI JI Meeting and an Assistant Professor at McMaster University. Dr. Houlahan is a computational biologist with a specific interest in elucidating the role of inherited variants in tumor evolution. Dr. Houlahan completed her PhD at the University of Toronto followed by a postdoctoral fellowship at Stanford University. Her work has demonstrated that inherited variants sculpt the somatic mutational and epigenetic landscape of prostate and breast cancer through various mechanisms including interactions with the immune system. Dr. Houlahan has played a key role in various international cancer consortia, including the Metastatic Research Network, Human Tumor Atlas Network and the Canadian Prostate Cancer Genome Network, and was named a 2024 AACR NextGen Star.

Co-Chair: Rosela Golloshi, Ph.D., Postdoctoral Fellow,
Johns Hopkins School of Medicine
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Rosela Golloshi, PhD, is one of the co-chairs of the 2024 NCI JI Meeting and a postdoctoral fellow in the lab of Dr. Andrew Ewald at Johns Hopkins University School of Medicine. Dr. Golloshi obtained her PhD at University of Tennessee in the lab of Dr. Rachel Patton McCord. Her work illustrated that cancer cells that undergo constricted migration exhibit 3D genome structure remodeling and a subsequent increase in invasion capacity. In the Ewald lab, Dr. Golloshi is investigating epigenetic reprogramming and 3D chromatin remodeling during breast cancer progression and metastasis. In her research, she is integrating a multi-omic approach with 3D organotypic cultures derived from genetically engineered mouse models (GEMMs), patient derived xenografts (PDXs) and fresh patient tumor samples provided from the NCI Cooperative Human Tissue Network (CHTN) consortium.

Co-Chair: Kacey Ronaldson-Bouchard, Ph.D., Associate Research Scientist, Columbia University
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Dr. Kacey Ronaldson-Bouchard, a TEC junior investigator, specializes in engineering multicellular systems from pluripotent stem cells to create comprehensive models of human diseases, particularly focusing on metastasis and cardiovascular conditions. She has pioneered methods to enhance the maturation of iPSC-derived cardiomyocytes into functional cardiac microtissues. Additionally, she has developed multi-organ-on-a-chip platforms that enable systemic disease models while preserving the unique niches of individual organs, ensuring their maturity and functionality for greater physiological relevance. Dr. Ronaldson-Bouchard is the co-founder of Link Biosystems, a startup dedicated to creating engineered solutions for democratizing precision medicine, and TARA Biosystems, a human heart-on-a-chip company acquired by Valo Health to further cardiovascular drug development.

Billy Hill, Ph.D., Postdoctoral Fellow, Radbound UMC
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I hold a PhD in Biomolecular Sciences, complemented by twelve years of laboratory experience and two years in the biotech-industry. My educational background is centered on Cell Biology, Oncology, and Imaging. Currently, I am a postdoctoral fellowship within the NIH-Metastasis Research Network (MetNet) Consortium, collaborating on the project "Mechanical Determinants of Organ-Selective Metastatic Colonization, Dormancy, and Outgrowth - U54CA261694-01." This work involves investigating "Mechanochemical Mechanisms and Vulnerabilities of Individual and Collective Organ-Preferential Metastasis In Vivo."

As you can see, I am passionate about mouse and human translational cancer research. Additionally, I am fluent in English, Portuguese, and Italian. Let's chat and see how we can make an impact together.

Md Torikul Islam, Ph.D., Postdoctoral Fellow, University of Texas Southwestern Medical Center
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I am a postdoctoral fellow in Sean J Morrison's laboratory at the University of Texas Southwestern Medical Center. I earned my Ph.D. in Integrative Physiology from the University of Utah. My Ph.D. dissertation was focused on age-related arterial and metabolic dysfunction. I joined the Morrison laboratory in 2022 and since then I have been studying cancer metastasis. The goal of my research is to elucidate the metabolic regulations of osteosarcoma and melanoma metastasis. Osteosarcoma is the most common and deadly form of bone cancer that affects children and adolescents. The main cause of death from osteosarcoma is metastasis. I am testing if metastasizing osteosarcoma cells alter their metabolism to shield themselves from oxidative

stress and attacks by the immune system. I also aim to examine if inhibitions of metabolic pathways can make immunotherapy more effective and reduce osteosarcoma metastasis. I have received a postdoctoral fellowship from Cancer Research Institute to support this investigation. Besides osteosarcoma metastasis, I also study the mechanisms of melanoma metastasis. We have found that melanoma metastasis exhibits remarkable organotropism. For example, melanomas from some patients metastasize broadly to the lung, liver, and kidneys while some melanomas metastasize only to the lung. I am interested in elucidating the cell-intrinsic and extrinsic mechanisms that determine organotropism. To do so, I have compared metabolome, lipidome, and transcriptome of broad and lung-only metastasizers to identify differences. Furthermore, I am performing high throughput imaging in cleared tissue to test if I can detect disseminated and rare melanoma cells in the liver and kidneys from the lung-only metastasizers and examine if the metastasis in those uncommon sites is limited by survival and/or proliferation in those non-metastatic sites.

Maria J. Ulloa-Navas, Ph.D., Postdoctoral Fellow, Mayo Clinic-Florida

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Dr. Ulloa-Navas graduated with a bachelors degree in Biochemistry and Biomedical Sciences from the University of Valencia, Spain, in 2016, and a masters degree in Basic and Applied Neursocience from the University of Valencia, Spain, in 2017, and a masters degree in neurodegenerative diseases from the University San Pablo-CEU in 2023. She received her graduate training in the laboratory of Prof. Jose Manuel Garcia-Verdugo,Äîone of the foremost leaders in electron microscopy and adult neurogenesis,Äîand received her Ph.D. in Neuroscience from the University of Valencia, Spain, in 2021. During these years, she received training as an intern in molecular microbiology at National Institute for Public Health Research (INSPI)- ,ÄúDr. Leopoldo Izquieta Perez,Äù in Quito, Ecuador under the supervision of Dr. Reyes and Dr. Escalante in 2015. In 2017, she was an intern at INCLIVA, School of Medicine at the University of Valencia, Spain where she was trained in isolation and characterization of human umbilical cord fibroblasts. In 2021, she was a graduate student visitor at the department of Neurosurgery in Mayo Clinic Jacksonville where she received training in molecular analysis of mesenchymal stem cell engraftment in glioblastoma under the supervision of Dr. Quinones-Hinojosa. For her graduate studies, she received two awards from the Multiple Sclerosis International Federation (McDonald Fellowship 2017 and DuPre Grant 2019), as well as several fellowships to attend conferences. After graduating, Dr. Ulloa-Navas started her postdoctoral research training at the Mayo Clinic in Florida under the supervision of Dr. Veronique Belzil, a world leader in ALS genetics. In 2022 she transitioned to Dr. Quinones-Hinojosa's lab to develop CAR T cells for Glioblastoma.

Diana D. Kang, B.A., Graduate Student, Ohio State University
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Diana is a fourth-year graduate student in the College of Pharmacy at the Ohio State University. She graduated from Williams College with a bachelor's degree in biology. Since graduation, she worked at a pharmaceutical company developing downstream manufacturing process schemes for biologics. She is working under the mentorship of Dr. Yizhou Dong to investigate drug discovery and delivery platforms, with an emphasis in lipid nanoparticle mediated delivery of mRNA. Since 2023, she has relocated to Icahn School of Medicine at Mt. Sinai with the rest of Dr. Dong's lab to complete her studies.

Yi Lian, Ph.D., Postdoctoral Fellow, University of Pennsylvania
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Yi Lian is currently a postdoctoral research fellow in Biostatistics in the Department of Biostatistics, Epidemiology and Informatics at the University of Pennsylvania. Yi is currently working under the supervision of Dr. Qi Long. Yi's research interests include data integration methodology for heterogeneous health data, and high-dimensional statistical learning methodology and computation. Previously, Yi received his PhD in Biostatistics and Master's degree in Epidemiology from McGill University, Montreal, Canada.

Chloe Herman, B.S., Graduate Student, Northern Arizona University
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Chloe Herman is a Ph.D. Candidate at Northern Arizona University working with Dr. Greg Caporaso. Her research focuses on Fecal Microbiota Transplants (FMT) and if recolonization of the gut microbiome through FMTs could lead to better health outcomes for patients undergoing cancer treatment.

She is also developing a Fecal Microbiota Transplant plugin for QIIME 2, a widely used microbiome bioinformatics platform. This plugin, q2-FMT is designed to help other cancer microbiome researchers assess engraftment extent following FMT.

Yuhan Qiu, M.S., Graduate Student, Boston University School of Medicine
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I am a graduate student at Boston University School of Medicine, focusing on the intersection of metabolic abnormalities and cancer progression. My research investigates how conditions such as insulin resistance impact the development and progression of breast cancer. Specifically, I study cell-cell communication within the tumor microenvironment, examining how exosomes derived from adipocytes‚Äîwhether insulin-sensitive or resistant‚Äîaffect tumor behavior.

This area of study is critical because the metabolic health of a patient is often overlooked in the field of medical oncology. Our findings aim to highlight the importance of considering metabolic factors in cancer treatment and patient care, potentially leading to more comprehensive and effective therapeutic strategies.

Alexander T. Wenzel, Ph.D., Postdoctoral Fellow,
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I received my BS in Computer Science from Northwestern University where I worked in the lab of Dr. Jaehyuk Choi studying genetic alterations in cutaneous lymphomas. I completed my PhD in 2024 at the University of California, San Diego under the direction of Dr. Jill Mesirov, my dissertation focused on computational methods for measuring molecular pathway activity and characterizing cellular states in transcriptional data. I am currently continuing my work as a Postdoc in the Cancer Biology, Informatics & Omics (CBIO) training program at UC San Diego.

Ghmkin Hassan, Ph.D., Postdoctoral Fellow, University of California, San Francisco
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My research focuses on cancer stem cells, the tumor microenvironment, and the physical microenvironment of cancer and metastasis.

Rohan S. Panaparambil, B.S., M.D/Ph.D Student, Johns Hopkins University School of Medicine
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Rohan Panaparambil is a member of the 2024 NCI JI Meeting planning committee. He is an M.D./Ph.D. student at Johns Hopkins University School of Medicine, currently a third-year graduate student co-mentored by Drs. Andrew Ewald and Peter Espenshade. His research focuses on the role of lipid metabolism in breast cancer metastasis.

Anna M. Kolarzyk, Ph.D., Cornell University

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International scientist from Poland and PhD student at Cornell University. I started my research career at University of Chicago investigating ion channels structure. My current research interests include lymphatic vessel mediated immunity in cancer with use the of organ-on-chip systems and optogenetic mouse models. Investigating VEGF-A induced lymphatic vessels remodeling and its implications for immune cell trafficking in pancreatic cancer using tumor-on-chip and Kaede transgenic mouse model.

Auggie Wirasaputra, B.S., Graduate Student, University of Massachusetts Amherst

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I'm a PhD student in Shelly Peyton's cancer and biomaterials engineering lab--formerly at UMass Amherst and now based at Tufts University in Boston, MA. Starting from a nontraditional bio background, I first worked with nanoparticles and single-atom catalysts at Virginia Tech where I earned my bachelor's degree in Chemical Engineering and first fell in love with academia. Afterwards, I decided to pursue graduate school and ended up applying directly to Shelly's lab where I've been happily situated since 2021. My current research focuses on extracting live cell lineage data from changing environmental and cell-specific conditions that contribute to breast cancer dormancy with the intention of building a more accurate and effective in vitro dormancy

model. I've expanded on my original work by incorporating a specific drug that inhibits a common tyrosine kinase receptor, AXL, that has been linked to drug resistance among various cancers. The hope is to introduce drug sensitivity that will allow existing medicines to target residual cells left in the body and prevent cancer from recurring in patients. Outside of research and school, I'm incredibly passionate about mentoring undergraduate students and contributing to DEIJ efforts, serving as a committee member for my department and chair for the college of engineering. I feel like I have too many hobbies to count, but you'll most likely find me at the climbing gym, at a cafe reading, or at the pool teaching people how to swim!

Jiyeon Park, Ph.D., Postdoctoral Fellow, The University of Utah
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Dr. Jiyeon Park, a postdoctoral fellow at the University of Utah, is a mathematical modeler, focusing on applied probability, stochastic optimal control, evolutionary game theory, mathematical biology and their application to cancer research. Tightly integrating data with mathematical and computational modellings, she collaborates with scientists from a wide range of diverse backgrounds, from biologists, ecologists, computational and medical oncologists to immunologists, to ultimately understand tumor development and evolution, therapeutic response and resistance in tumor, mechanism identification and immunology. Before joining the Adler lab at the University of Utah, she received her M.S. in statistics and Ph.D. in applied mathematics at University of Southern California in 2021 for developing a stochastic finite-cell models of a heterogeneous (multiple cell types) tumor ecosystem to describe tumor evolution and treatment response and quantifying the stochastic fluctuation and variance for the course of evolutionary cycles of adaptive chemotherapy.