



**38<sup>th</sup> Annual MD-PhD National Student Conference**  
**July 7-9, 2023 | Copper Mountain, Colorado**

**Poster Session I**

**Friday, July 7<sup>th</sup>, 2023 | 7:00-8:30 PM | Kokopelli Trail & Jack's Banquet**

**1. Keith Dodd**

University of Colorado, Anschutz Medical Campus

**Relationship Between Functional Connectivity and Weight-Gain Risk of Antipsychotics in Schizophrenia**

**2. Kallen Schwark**

University of Michigan

**Clinical response to the PDGFRA inhibitor avapritinib in high-grade glioma patients**

**3. Leelabati Biswas**

Rutgers University

**The Genetics of Pregnancy Loss: Validating a Novel Predictive Biomarker of Egg Quality**

**4. Miguel Paredes**

University of Washington

**Early undetected dissemination across countries followed by extensive local transmission propelled spread of the 2022 mpox epidemic and limited the impact of vaccination**

**5. Karl Foley**

University of Rochester

**PP1B opposes classic PP1 function, inhibiting spine maturation and promoting LTP**

**6. Nate L. Overholtzer**

USC-Caltech

**Delay Discounting and Resting State Functional Brain Connectivity in Childhood Obesity**

**7. Tanner Martinez**

University of Chicago

**CUX1 levels control hematopoietic stem cell fate and plasticity**



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**8. Razaq Durodoye**

Case Western Reserve University

**Evidence of potential natural selection in African Americans**

**9. Rebecca Rubinstein**

University of North Carolina at Chapel Hill

**Human milk oligosaccharides and *Campylobacter jejuni* infection risk in Nicaraguan children.**

**10. Hallie Gaitsch**

Johns Hopkins University

**Characterizing oligodendrocyte lineage cell dynamics during remyelination**

**11. Amanda McGann**

University of Cincinnati

**The effect of antagonism of miR-324-5p on epileptogenesis following intrahippocampal kainic acid injections in mice.**

**12. Nathan Calzadilla**

University of Illinois Chicago

**Preclinical study utilizing metabolomics in SERT knockout mice reveals novel therapeutic targets for intestinal inflammation**

**13. Giovanni Botten**

The University of Texas Southwestern Medical Center

**Structural Variation Cooperates with Permissive Chromatin to Control Enhancer Hijacking-Mediated Oncogenic Transcription**

**14. Peter Zhang**

Medical College of Wisconsin

**Covariate adjusted group sequential tests for survival probabilities**

**15. Brenda Seymour**

University of Colorado

**Bacterial indole is required for collagen-induced arthritis through enhanced Th17 immunity**



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**16. Nicholas Ringelberg**

University of North Carolina at Chapel Hill

**Differential neuronal populations drive behavioral phenotypes in a mouse model of Angelman syndrome**

**17. Cameron Menezes**

University of Texas at Southwestern

**Determining the In Vivo Impact of Mitochondrial Energy Loss in the Liver**

**18. Kelsey Kines**

University of Colorado

**Age-associated changes in the mammary epithelium elucidate a role for SEMA7A in breast cancer.**

**19. Yi Fan Chen**

Case Western Reserve University School of Medicine

**Novel Class of XPO1 Modulators Enables Non-Toxic Therapeutic Targeting of T Cell Activation**

**20. Ashley Brown**

Medical College of Wisconsin

**PIM kinases are essential for CD8 T cell effector function and metabolism during chronic viral infection**

**21. David Broadbent**

Michigan State University

**Dissecting the Regulatory Mechanisms of Autophagosome Biogenesis**

**22. Grant Higerd-Rusli**

Yale

**Inflammation differentially controls transport of depolarizing Nav versus hyperpolarizing Kv channels to drive rat nociceptor activity**

**23. Marina Han**

University of Washington

**Photoconvertible fluorescent protein-tagged tau exhibits exceptional stability in a C. elegans model of tau proteostasis**



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**24. Noah Gavil**

University of Minnesota

**Chronic antigen in solid tumors drives a distinct program of T cell residence**

**25. Matthew O'Neill**

Vanderbilt University School of Medicine

**Development of a Calibrated Multiplexed Assay to Facilitate the Clinical Interpretation of Putative Splice-altering Variants**

**26. Kieran Tebben**

University of Maryland, Baltimore

**Age and parasitemia explain most of the variation in host and parasite gene expression among Malian children infected with *P. falciparum***

**27. Bayardo Garay**

University of Minnesota Medical School

**Dual inhibition of MAPK and PI3K/AKT pathways enhances maturation of human iPSC-derived cardiomyocytes**

**28. Emily Mendez**

University of Texas Health Science Center at Houston/MD Anderson Cancer Center

**Cell-specific differential gene network regulation in opioid use disorder**

**29. Ashley Tetens**

Johns Hopkins School of Medicine

**Mapping of the DNA Methylome of DIPG Reveals Profound Stochasticity That is Responsive to Pharmacologic Modulation**

**30. Duncan Smart**

Vanderbilt University School of Medicine

**Immunophenotyping of leukocytes in human heart failure identifies coordinated pro-inflammatory response**

**31. Fathima Mohamed**

University of Minnesota

**Mitochondrial pyruvate carrier inhibition attenuates the germinal center reaction and treats murine chronic graft versus host disease**



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**32. Brian Goldspiel**

University of Pennsylvania

**Elucidating the Roles of the Branched Chain Amino Acids in Macrophage Function**

**33. Dhruva Banerjee**

University of California, Irvine

**The Generation of Position Correlated Cells across Primary Sensory Cortices**

**34. Nathaniel Skillin**

University of Colorado

**Stiffness anisotropy coordinates supracellular contractility driving long-range myotube-ECM alignment**

**35. Yunli Chu**

Vanderbilt University

**Charting single cell signaling across acute myeloid leukemia phenotypic landscapes**

**36. Adrien Honcoop**

University of Nebraska Medical Center

**A Qualitative Exploration of COVID-19 Vaccine Hesitancy among Parents**

**37. Olivia Bednarski**

Indiana University School of Medicine

**Species-level analysis of stool bacteria in Ugandan children reveals association with clinical presentation of severe malaria.**

**38. Alice Chu**

Michigan State University

**Unravelling the role of TGF- $\beta$  signaling on vascular proliferation in pulmonary arterial hypertension**

**39. Gunseli Wallace**

University of Michigan

**Auditory lipidomics, an approach to identify unique molecular effects of noise trauma**

**40. Yunyoung Kim**

Renaissance School of Medicine at Stony Brook University

**Colorectal cancer-associated mutations impair EphB1 kinase function**



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**41. Uma Kantheti**

University of Colorado Anschutz

**Programmed death ligand 1 interactions in the regulation of dendritic cell migration**

**42. Gopika SenthilKumar**

Medical College of Wisconsin

**Activation of Piezo-1 Prevents Human Microvascular Endothelial Dysfunction During Acute Inhibition of Ceramide Formation**

**43. Joyce Tran**

University of California, San Diego

**Investigation of Fmn12 in Central Nervous System Development**

**44. Matthew Jotte**

University of Chicago

**Combined deficiency of chromosome 7 myeloid tumor suppressors enhances chemotherapy resistance**

**45. Dene Betz**

UT Health Sciences Center San Antonio

**Transcriptional analysis of regions undergoing post-stroke plasticity after photothrombotic stroke in mice**

**46. Simrita Deol**

Northwestern University

**Comparative evaluation of synthetic cytokines for enhancing production and performance of NK92 cell-based therapies**

**47. Chris Li**

University of Miami Miller School of Medicine

**Strategies to Attenuate the Indirect Alloimmune Response in Encapsulated Pancreatic Islet Transplantation**

**48. Sarita Deshpande**

University of Chicago

**Insights into Neural Network Behavior using 4D Entropy: A Novel Quantitative Metric of Network Activity**



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**49. Jovanka Ravix**

University of Miami Miller School of Medicine

**BRCA2 haploinsufficiency driven neoplastic events in the fallopian tube epithelia**

**50. Ali Ranjbaran**

Wayne State University

**Single-cell profiling of transcriptional changes associated with neighborhood stress in immune cells of children with asthma**

**51. Maria Ortiz**

SUNY Upstate Medical University

**Assessing the role of Abi1 in allo- and autoimmune pathologies**

**52. Emily Jang**

NYU

**Cortical and thalamic engagement of cholinergic interneurons in nucleus accumbens core**

**53. Rebecca Slotkowski**

University of Nebraska Medical Center

**54. Olivia C. Smith**

University of Minnesota

**Interrogating sensing and alarm functions of resident memory T cells at the organismal level**

**55. Oygul Mirzalieva**

Louisiana State University Health Sciences Center School of Medicine

**The Role of Isg15 in Maintenance of Er-Mitochondrial Contacts and Calcium Transfer in Ataxia Telangiectasia**

**56. Nicole Ochandarena**

University of North Carolina at Chapel Hill

**Molecular architecture of opioid-sensitive neurons in the cerebral cortex**

**57. Kirsten Bredvik**

Weill Cornell Tri-Institutional

**Differential Control of Mitochondrial Metabolism in Excitatory and Inhibitory Nerve Terminals**