COLUMBIA | RESEARCH OFFICE FOR POSTDOCTORAL AFFAIRS AND EARLY CAREER RESEARCH

2024 Columbia University Postdoctoral Research Symposium

SESSION 1 | 1-2:30pm

1 Akita, Keitaro

Associate Research Scientist, Medicine (Cardiology) "Prediction of Heart Failure Hospitalization in Patients with Hypertrophic Cardiomyopathy Using Plasma Transcriptomics"

2 Álvarez-Torres, María del Mar

Postdoctoral Research Scientist, Systems Biology "Unveiling the functional impact of Glioma Non-Coding Germline Variants using Large Language Models"

3 Baranowska, Julia

Postdoctoral Research Fellow, Medicine (Cardiology) "Association of Sex Mismatch with Allograft Rejection after Heart Transplantation -Molecular Microscope Diagnostic System (MMDx) results"

4 Bedir, Nur

Postdoctoral Research Scientist, Medicine (Endocrinology) "PI3K Inhibition with Single Dose Alpelisib as a Model of Insulin Resistance in Healthy Adults"

5 Beg, Ayesha

Postdoctoral Research Scientist, Pediatrics "RpoN- Airway Itaconate Axis Regulates Pseudomonas Aeruginosa Pathoadaptation in Chronic Infections."

6 Carcassi, Olga Beatrice

Associate Research Scholar, Architecture, Planning, and Preservation "Biofibrous 3D-Printed Earth Construction"

7 Chai, Cynthia

Postdoctoral Research Scientist, Zuckerman Institute "Mechanisms of Drosophila Escape Circuit Evolution"

8 Chen, Miao

Postdoctoral Research Scientist, Pediatrics

"Abnormal STAT3 Signaling in Fibroblasts Promotes Staphylococcal Growth and Abnormal Tissue Response to Infection"

9 Cheng, Qilong

Postdoctoral Research Scientist, Applied Physics and Applied Mathematics "Thermal Radiation Regulated Walls with Passive/Active Control for Building Envelope"

10 Coors, Annabell

Postdoctoral Research Scientist, Neurology "Personality Traits and Cognitive Reserve – High Openness Benefits Cognition in the Presence of Age-related Brain Changes"

11 Coronel, Johana

Postdoctoral Research Scientist, Medicine (Cardiology) "Single-cell Characterization of Mouse Aorta during Atherosclerosis Regression"

12 Dias Gurjao, Carino

Postdoctoral Research Scientist, Medicine (Hematology & Oncology) "Single Analyte Profiling of the Mutational, Immune and Microbiome Landscape in African American Colon Cancer Patients"

13 Elkefi, Safa

Postdoctoral Research Scientist, Nursing "Factors Associated with Post-treatment Smoking among a Diverse Sample of Cancer Survivors"

14 Erol, Betul

Postdoctoral Research Scientist, Pediatrics "Functional Genomics of Human Obesity"

15 Faina, Peterson

Postdoctoral Research Scientist, Climate School "How Wet is 'Wet': Comparing Pluvials in Southern Madagascar"

16 Feng, Meng

Postdoctoral Research Scientist, College of Dental Medicine "Mechanosensitive Piezo1 Activates YAP/TAZ/CCN1 Signaling to Promote Cartilage Resident Mesenchymal Stromal Cell Aging in Knee OA Development"

17 Florez-Paz, Danny

Associate Research Scientist, Neurology "Classical Complement-Dependent and Independent Mechanisms in the Elimination of Inappropriate Synapses of Sensory-Motor Circuits"

18 Ge, Jian

Associate Research Scientist, Medicine "Deciphering the Role of Dicer in Tracheal Basal Cell Regeneration Post-Polidocanol Induced Injury"

19 Hasanzadeh, Fatemeh

Postdoctoral Research Scientist, Neurology "Toward Finding the Neural Implementation of Cognitive Reserve: A Longitudinal Analysis of Task Switching"

20 Hasselluhn, Marie

Postdoctoral Research Scientist, Medicine "Disrupting Local Immunosuppression by Combined myCAF/Myeloid Targeting in Pancreatic Cancer"

21 **Hu, Boyi**

Postdoctoral Research Scientist, Neurology "A Longitudinal Semi-Parametric Approach for Outcome-Guided Disease Subtyping using High-dimensional Omics Data"

22 Hwang, Youngmin

Postdoctoral Research Scientist, Medicine "FGF2 Promotes the Expansion of Mesothelial Cell Progenitor Pools Expansion and Inhibits BMP4-mediated Cell Fate Change into Smooth Muscle Cells"

23 Jin, JianJun

Postdoctoral Research Scientist, Ecology, Evolution, and Environmental Biology "Traversome: a Graph-based Likelihood Model for Pangenome Assembly and Variant Relative Frequency Estimation from Mosaic Samples"

24 Kelestemur, Taha

Associate Research Scientist, Anesthesiology "Adenosine Metabolized from Extracellular ATP Ameliorates Organ Injury by Triggering A2BR Signaling"

25 Khatiwada, Prabesh

Postdoctoral Research Scientist, Medicine (Immunology) "Enhancing Adoptive Immunotherapy: Targeting EBV Oncoproteins with Immunosuppression Resistant Cytotoxic Th1/17-like CD4+ T Cells"

26 Konstantinovsky, Daniel

Postdoctoral Research Scientist, Chemistry "A Machine-learning / Physics-based Solution to Dynamic Drug Binding"

27 Kumar, Vijay

Postdoctoral Research Scientist, Environmental Health Sciences "A Simulation Study Analyzing the Impact of Differential Exposure Measurement Error of Air Pollution on Preterm Birth"

28 Lai, Yunjia

Postdoctoral Research Scientist, Environmental Health Sciences "Untargeted Metabolomics Discovers Ameliorative Molecules for Manganese-induced Parkinson's Disease Phenotypes and Neurotoxicity"

29 Laughney, Caitlin

Postdoctoral Research Fellow, Psychiatry

"Child Sexual Abuse as a Predictor of Specific and Cumulative Forms of Stigma-Related Victimization among Transgender Adults in the United States"

30 Le Compte, Circe

Postdoctoral Research Fellow, Psychiatry

"Differences in Cognitive Performance Between Sexual Minorities and Heterosexuals by Age and Gender in a Nationally Representative Sample of U.S. Adults Ages 18 and Older"

31 Liu, Mengrui

Postdoctoral Research Scientist, Biomedical Engineering "Inhalable Extracellular Vesicle Delivery of IL-12 mRNA to Treat Lung Cancer and Promote Systemic Immunity"

32 Liu, Yingxiao

Postdoctoral Research Scientist, Civil Engineering and Engineering Mechanics "Thermo-hydro-mechanical Modeling of the Rate-dependent Freeze-thaw Cycle of Icerich Frozen Soils"

33 Loffet, Elise

Postdoctoral Research Scientist, Biomedical Engineering "Exploiting Morphological Diversity to Identify Regulators of Buckling Morphogenesis in the Avian Gut Development and Evolution"

34 Lu, Chenlin

Postdoctoral Research Scientist, Biochemistry and Molecular Biophysics "High-resolution Protection Factor Estimation via Isotope Envelope Reconstruction from Medium-resolution HDX/MS Datasets"

35 Malik, Vikas

Postdoctoral Research Scientist, Medicine "Multiomics Reveal Biomolecular Shifts and ER-stress in Sleep-restricted Women Affecting NSC functions"

36 Mall, Utkarsh

Postdoctoral Research Scientist, Computer Science "Recognizing Anything in Satellite Images"

37 Mihali, Andra

Postdoctoral Researcher, Psychiatry "Effects of Hallucination Severity and Sensory Resolution on Prior Biases in Perceptual Inference of Time Intervals in Patients with schizophrenia"

38 Mukherjee, Tamalika

Postdoctoral Research Scientist, Industrial Engineering and Operations Research "How to Make Your Approximation Algorithm Private"

39 Mukherjee, Sanjay

Associate Research Scientist, Medicine (Hematology & Oncology) "Metastasis and Tumor-Macrophage Hybrids (TMHs): Potential Therapeutic Targets"

40 Murphy, Michael

Associate Research Scientist, Medicine (Cardiology) "Defective Paralog Switching Causes Neonatal Heart Failure"

41 Murra, Michael

Postdoctoral Research Scientist, Astrophysics "The Purest Xenon on Earth for Rare Event Searches with XENONnT"

42 Nishiwaki, Noriyuki

Postdoctoral Research Scientist, Herbert Irving Comprehensive Cancer Center "Prrx1 Regulates Acinar Cell Plasticity in Kras-driven Pancreatic Acinar-to-ductal Metaplasia"

43 **Ophaswongse, Chawin**

Postdoctoral Research Scientist, Mechanical Engineering "Training Seated Postural Coordination in a Virtual Reality Reaching Game by Active Pelvic Guidance from a Robotic Exoskeleton"

44 Osawa, Itsuki

Postdoctoral Research Fellow, Medicine (Cardiology) "Plasma SVEP1 Levels Predict Cardiovascular Events in Hypertrophic Cardiomyopathy Beyond Conventional Clinical Risk Models Including NT-proBNP"

45 **Perry-Hauser, Nicole**

Adjunct Associate Research Scientist, Psychiatry "Adhesion GPCR Latrophilin-3 Modulation of Dopaminergic Neurotransmission"

46 Piorczynski, Ted

Postdoctoral Research Scientist, Medicine (Hematology & Oncology) "Novel Combination Epigenetic Therapy Restores Immunogenicity in Diffuse Large B Cell Lymphoma"

47 Qian, Jin

Associate Research Scientist, Medicine "A CXCR4 Partial Agonist TFF2-MSA Improves Anti-PD-1 Immunotherapy in Advanced Gastric Cancer by Targeting PMN-MDSC"

48 Salerno, John

Postdoctoral Research Scientist, Social Work "A Latent Profile Analysis of Psychosocial Stressors and Buffers for PTSD Symptoms Among Latinx Immigrant Youth"

49 Schafer, Matthew

Postdoctoral Research Fellow, Psychiatry "Common Cause Inference as a Generative Model of Delusions"

50 Shanmugam, Sri Karthika

Postdoctoral Research Fellow, Physiology and Cellular Biophysics "Hacking the Ubiquitin Code to Distinctively Modulate Ion Channel Functional Expression"

51 Shimamura, Yuko

Postdoctoral Research Fellow, Medicine "Decoding the Regulators of Human Organ Size in Lung Development"

52 Simani, Leila

Postdoctoral Research Scientist, Neurology/Cognitive Neuroscience "The Effectiveness of Anodal tDCS and Cognitive Training in the Improvement of Cognitive Functions in Multiple Sclerosis"

53 Sukka, Santosh Reddy

Postdoctoral Research Scientist, Medicine "Efferocytosis Drives a Tryptophan Metabolism Pathway in Macrophages to Promote Tissue Resolution"

54 Sun, Zhixiong

Associate Research Scientist, Psychiatry "Elucidating the Role of SETD1A in Schizophrenia Susceptibility using Human Cell Models"

55 Tan, Mei

Postdoctoral Research Fellow, Psychiatry

"Neurocognitive Phenotypes in Adolescents and Young Adults Living with HIV: Does Early Education Form the Foundations of Cognitive Reserve?"

56 **Thomas, Aline**

Postdoctoral Research Scientist, Neurology – Taub Institute "Inflammatory Cytokines Profiles and Cognition Among Older Adults"

57 Turkcan, Mehmet Kerem

Postdoctoral Research Scientist, Electrical Engineering "Transfer Learning for Computer Vision in Surgery Workflows"

58 Wieszczek, Krystyna

Postdoctoral Research Fellow, English & Comparative Literature "Studying Reading for Empowerment"

59 Zadbood, Asieh

Postdoctoral Research Scientist, Psychology "Impaired Hippocampal Circuitry and Memory Dysfunction in Schizophrenia"

SESSION 2 | 3:30-5pm

1 Ajala, Rasheed

Postdoctoral Research Scientist, Lamont-Doherty Earth Observatory "Tectonic Rifts on the Verge of Propagation"

2 Arad, Elad

Postdoctoral Research Scientist, Chemical Engineering "DNA Information-editing Tools for Reconfigurable Nanoparticle Architectures"

3 Bacon, Conor

Postdoctoral Research Scientist, Lamont-Doherty Earth Observatory "AVERT: An Open System for Multi-Parameter Volcano Monitoring"

4 Batra, Nitika

Postdoctoral Research Scientist, Electrical Engineering "A Non-contact Fabric Drying Process Utilizing a 40 kHz Ultrasonic Transducer"

5 **Bhattarai, Prabesh**

Associate Research Scientist, Taub Institute "Rare Genetic Variation in Fibronectin 1 (FN1) Protects Against APOEE4 in Alzheimer's Disease"

6 Calvary, Lisa

Postdoctoral Research Scientist, Biomedical Engineering "Application of Tissue-scale Tension to Avian Epithelia in Vivo to Study Multiscale Mechanical Properties and Inter-germ Layer Coupling"

7 Chang, Michelle

Postdoctoral Clinical Fellow, Medicine (Infectious Diseases) "Predictors of Asymptomatic Sexually Transmitted Infections Among Under-Resourced Women in the Dominican Republic"

8 Chowdhury, Srikanta

Postdoctoral Research Fellow, Medicine (Preventive Medicine) "Peptidergic Cells Expressing CCK in the Brainstem Regulate Satiation"

9 WITHDREW

10 Dar, Khalid

Postdoctoral Research Scientist, Medicine (Cardiology) "Mammalian Cardiomyocyte Binucleation Regulates Cell Size"

11 Darko-Boateng, Arden

Postdoctoral Research Scientist, Physiology and Cellular Biophysics "NEDD4-2 Recruitment to Diverse Ion Channels with Divalent Nanobodies Inhibits their Functional Expression"

12 Deol, Rajinder

Postdoctoral Research Scientist, Electrical Engineering "A Low-cost Self-powered Sensor-network System for Renewable Gas Transportation Infrastructure System Powered Using Energy Harvesting"

13 Diaz-Faes, Diego

Postdoctoral Research Scientist, Epidemiology "Do Executive Function and Self-esteem Play a Role in the Cycle of Violence? A Prospective Examination of the Relationship Between Childhood Maltreatment and IPV Perpetration"

14 Dorrity, Tyler

Postdoctoral Research Fellow, Microbiology and Immunology "ADAR1 Regulates Endogenous dsRNA Levels in Neurons and Prevents Neuroinflammation"

15 **Dsouza, Nishita**

Postdoctoral Research Fellow, Social Work "Housing & the HEALing Communities Study: Qualitative System Dynamics for Participatory Action Research to Lessen Overdose Risk Among People Affected by Homelessness"

16 **Duarte-Cordon, Camilo**

Postdoctoral Research Scientist, Mechanical Engineering "A Computational Viscoelastic Model of the Macaque Rhesus Cervix to Quantify Cervical Remodeling"

17 Fantuzzi, Fabio

Postdoctoral Research Fellow, Germanic Languages "The Marie Skłodowska-Curie project "POYESIS": The figure of Norman Raeben"

18 Fernandez Valledor, Andrea

Associate Research Scientist, Medicine (Cardiology) "Correlation Between Donor-Specific Antibodies and Molecular Microscope Results in Heart Transplant Recipients"

19 Floris, Elena

Postdoctoral Research Scientist, Surgery "Secretory Phospholipase A2 type IIA is Elevated in the Bronchoalveolar Lavage of Lung Transplant Recipients with Bile Acid Aspiration and Airway Infections"

20 García Ruiz, Irene

Postdoctoral Research Fellow, Ecology, Evolution, and Environmental Biology "Fitness Drivers of Division of Labor in Vertebrates"

21 Gutierrez-Bayona, Natalia

Postdoctoral Research Scientist, Center for Radiological Research "Extending the Erythema Action Spectrum to Include the Far-UVC"

22 Jerabek, Stepan

Postdoctoral Research Scientist, Pediatrics "Base Editing in Human Embryos Enables the Knockdown of PCSK9 without Detrimental Chromosomal Changes"

23 Jorem, Jacob

Postdoctoral Research Fellow, Psychiatry "Impact of Introducing a Capacity-Based Mental Health Law: A Qualitative Exploration of Stakeholder Perspectives"

24 Karaahmet, Berke

Postdoctoral Research Scientist, Neurology "Spatial Transcriptomics Analysis Identifies Glial Signatures Spatially Associated with Neuritic Plaques in Human Post-Mortem Brains"

25 Kizildag, Eren

Distinguished Postdoctoral Research Scientist, Statistics "Statistical-Computational Tradeoffs in Random Optimization Problems"

26 Koukras, Alexandros

Postdoctoral Research Scientist, Astrophysics "Elemental Abundance Variations Across Coronal Hole Boundaries"

27 Lee, Hyunkyu

Postdoctoral Research Scientist, Biostatistics "Liability Threshold Model-based Disease Risk Prediction Based on Electronic Health Record Phenotypes"

28 Li, Changan

Postdoctoral Research Scientist, Chemical Engineering "Light-Directed Spatial DNA Patterning for Selective Surface Material Loading"

29 Liang, Huiyi

Postdoctoral Research Scientist, Department of Biomedical Engineering "Tailored Yeast-derived Polyplexs for Oral CRISPR Cas9/dCas9 Delivery"

30 Lloyd, Caitlin

Postdoctoral Research Fellow, Psychiatry "Brain Volume within Frontostriatal Circuits Among Individuals with Anorexia Nervosa: A Longitudinal Investigation"

31 Mahato, Jaladhar

Postdoctoral Research Scientist, Chemistry "Machine Learning Unveils Complete Dipolar Orientations in AxiTIRF Defocused Imaging"

32 Marshe, Victoria

Postdoctoral Research Scientist, Neurology "A Human Microglial Atlas of Expression Programs in Neurodegenerative Disease and Their Transcriptional Regulators"

33 Martino, Jeremiah

Associate Research Scientist, Medicine (Nephrology) "Deletion of Crkl Splice Isoforms in the Mouse Kidney Disrupts Intercompartmental Signaling Required for Progenitor Renewal and Branched Morphogenesis"

34 Mitra, Arijeet

Postdoctoral Research Scientist, Environmental Health Sciences "Groundwater Uranium Isoscapes to Trace Uranium Sources and Mobility in the Northern Plains"

35 Miura, Akihiro

Postdoctoral Research Fellow, Medicine "Lin28-Let7 Axis in Endothelial Cells Regulates the Heterochronicity in Interspecies Lung Generation via Conditional Blastocyst Complementation"

36 Moeller, Cathrine

Postdoctoral Research Fellow, Medicine (Cardiology) "Enhancing the understanding of Elevated Donor-Derived Cell-Free DNA in Heart Transplant Recipients in a Biopsy-Negative cohort"

37 Muniz de Queiroz, Rafaela

Associate Research Scientist, Biological Sciences "MDM2 Regulates Metastasis by Modulation of Sprouty4 Independent of p53"

38 Nadezhdin, Kirill

Postdoctoral Research Scientist, Biochemistry and Molecular Biophysics "Unlocking TRPV3: How Small Molecules Activate the Molecular Temperature Sensor"

39 Ogidigo, Joyce

Postdoctoral Research Scientist, Medicine (Preventive Medicine) "Understanding the Role of Overnutrition and Glycation in Lung Cancer"

40 Pérez Ortega, Jesús

Postdoctoral Research Scientist, Biological Sciences "Inhibition Enhances Encoding Precision of Neuronal Ensembles in Mouse Visual Cortex"

41 **Pulupa, Joan**

Postdoctoral Research Scientist, Zuckerman Institute "Live-cell Microscopy Enables a Mechanistic Interrogation of Olfactory Receptor Gene Regulation in Olfactory Neurons"

42 **Qi, Ning**

Postdoctoral Research Scientist, Earth & Environmental Engineering "Chance-Constrained Generic Energy Storage Operations under Decision-Dependent Uncertainty"

43 Rahman, Salwa

Postdoctoral Research Fellow, Medicine (Cardiology) "Sublingual Microcirculation in acute Mechanical Circulatory Support in Cardiogenic Shock"

44 Rocha Monteiro de Barros, Maithe

Postdoctoral Research Scientist, Irving Institute for Cancer Dynamics "Simultaneous Profiling of Gene Expression and Chromatin Accessibility in the Study of Gastric Cancer Development"

45 Roy, Tuhin

Postdoctoral Research Scientist, Biomedical Engineering "Viscoelasticity Estimation Using Physics-Informed Neural Network for Breast Shear Wave Elastography"

46 Sepulveda Delgado, Pradyumna

Postdoctoral Research Scientist, Psychiatry "Reward Anticipation and Information Seeking as a Transdiagnostic Target in Psychopathology"

47 Shah, Vikash Kumar

Postdoctoral Research Scientist, Medicine (Pulmonary Medicine) "Reduced Endothelial Protection Against Complement in Obstructive Sleep Apnea: A Protective Function of Derlin-1"

48 Shin, Alice

Postdoctoral Research Scientist, Herbert Irving Comprehensive Cancer Center "Exploring the Efficacy of Alpelisib and Combined PI3Kα-S6K Inhibition in Metastatic Colorectal Cancer"

49 Shin, Heegwon

Associate Research Scientist, Microbiology and Immunology "Long 3`UTR Establishes Neuronal-specific Anti-viral Status by Facilitating Immunostimulatory Double-stranded RNA Formation"

51 Soni, Mithil

Associate Research Scientist, Medicine (Hematology & Oncology) "Multi-epitope Specific Cytotoxic CD4+ T Cells for Adoptive Immunotherapy of Myelodysplastic Syndrome"

52 Srivastava, Prashast

Postdoctoral Research Scientist, Computer Science "FOX: Coverage-guided Fuzzing as Online Stochastic Control"

53 Waller, Bernadine

Postdoctoral Research Fellow, Psychiatry "Engaging Community Stakeholders in Tailoring an Evidence-based Intervention for US Black Women Survivors with Depression Help-seeking in Faith-based Organizations"

54 Wu, Xun

Postdoctoral Research Scientist, Medicine (Cardiology) "Pushing the Limits of Macrophage Efferocytosis in Atherosclerosis"

55 Yan, Na

Postdoctoral Research Scientist, Biomedical Engineering "Artificial Probiotic Biofilm for Periodontitis Treatment"

56 Yi, Ming

Postdoctoral Research Scientist, Data Science Institute "Decision-Focused Prediction of Strategic Energy Storage Behaviors"

57 Yilmaz, Elanur

Associate Research Scientist, Neurology/Taub Institute "Cross Species Single-cell/nucleus RNA-seq Uncovers the Evolutionarily Conserved Pathological Mechanisms of Vascular Contribution to Alzheimer's Disease"

58 Yu, Lexiang

Postdoctoral Research Scientist, Pathology and Cell Biology "The Role of IgG in Aging and Metabolic Health: A New Perspective"

59 Zhao, Meng

Postdoctoral Research Scientist, Biomedical Informatics "Computational Phenotyping of Kidney Transplantation Using Multiway Models"

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