

Spring 2026 Award Recipients

College of Arts and Sciences

Dareen Al Humaidi

Role of Parvalbumin Interneurons in Fear and Safety Signaling in Adults and Adolescents
Heidi Meyer (CAS, Psychological & Brain Sciences)

Myra Arora

Examining the Role of Striatal Beta Rhythms During Reinforcement Learning
Rob Reinhart (CAS, Psychological & Brain Sciences)

Rumeysa Aydin

Modeling Synergistic Growth: The Interaction of *Pseudomonas putida* and *Yarrowia lipolytica* as a Non-Pathogenic Analog for Cystic Fibrosis
Melisa Osborne (CAS, Bioinformatics)

Alexnader Balsera

Post-Quench Dynamics and Emergent Classical Phase Transitions in Interacting Spin Hamiltonians
Anatoli Polkovnikov (CAS, Physics)

Surabhi Bhaskar

Determining the longevity of tools to chronically activate safety engrams in adolescent mice
Heidi Meyer (CAS, Psychological & Brain Sciences)

Tyler Borges

Assessing Effects of Food Availability on Wildlife Diversity and Population Demographics Using Camera Traps and Phenology in a Bornean Rainforest
Cheryl Knott (CAS, Anthropology)

Jacob Bronstein

DNA Metabarcoding of Peruvian Woolly Monkey (*Lagothrix lagotricha tschudii*) Fecal Samples to Detect Arthropod Consumption
Christopher Schmitt (CAS, Biology)

Ethan Cappelleri

A Complexity-Theoretic Model of AI-Guided Proof Search
Mark Bun (CAS, Computer Science)

Bethany Chen

Mapping Vegetation Changes in Virginia Coastal Reserve Using WorldView-2 and WorldView-3 Imagery

Sergio Fazzheraghi (CAS, Earth & Environment)

Elena Chen

Sundown Towns and Racial Exclusion Project

Martin Fiszbein (CAS, Economics)

Anaya Codrington

Black Public Opinion and Voting Behavior

Christine Slaughter (CAS, Political Science)

Katie Coleman

Brokering Rebellion: Understanding the Role of Militant Community Groups During Civil Wars

Apekshya Prasai (CAS, Political Science)

Kassidy Coon

Identifying spatiotemporal properties of hippocampal neuron-astrocyte activity during trace fear conditioning

Steve Ramirez (CAS, Psychological & Brain Sciences)

Brendan Coyne

LLM-Distributed Protocols

Ankush Das (CAS, Computer Science)

Saku Cui

Uncovering the function and regulation of mTORC1 across neuronal subcompartments

Lynne Chantranupong (CAS, Biology)

Reuben Danyali

Modeling historic changes in grassland architecture through land use data and extant “postage-stamp prairies”

Christoph Nolte (CAS, Earth & Environment)

Noah Darby

Word-Final Form Prediction During Sentence Processing: Evidence from Electroencephalography

Anthony Yacovone (CAS, Linguistics)

Naisha Deorah

Rational design and characterisation of *Pimelobacter simplex* KSDH2 for development of a cortisol biosensor

Karen Allen (CAS, Chemistry)

Yufei Fan

Assessing Urban Heat Island Dynamics Across the Continental U.S. Under Historical and Future Climate Scenarios

Dan Li (CAS, Earth & Environment)

Xiang Fu

A Systematic Comparison of Test-time Task Learning from Rules vs. Examples

Najoung Kim (CAS, Linguistics)

Zhixin Fu

Grit as a Potential Moderator of Susceptibility to Sunk Costs in Decision-Making Tasks

Kate Nussenbaum (CAS, Psychological & Brain Sciences)

Molly Hartigan

Training mice to successfully learn reward behaviors in a head fixed setup

Steve Ramirez (CAS, Psychological & Brain Sciences)

Qiyue Hu

Gender and Translation: A Computational Analysis of How Pronoun Usage and Gender Impacts Literary Interpretations of The Tale of Genji

J. Keith Vincent (CAS, Japanese & Comparative Literature)

Joey Huang

BabyVLM v2: Toward Developmentally Grounded Vision–Language Models with Real Infant-View Data and Cognitive Evaluation Benchmarks

Boqing Gong (CAS, Computer Science)

Grace Jiang

Analyzing the Multi-Generational Impact of Slavery on Economic Opportunity

David Lagakos (CAS, Economics)

Cyara Jones

Mapping Spatiotemporal Changes in Vegetation Within the Plum Island Estuary Using WorldView-2 and WorldView-3 Satellite Imagery

Sergio Fagherazzi (CAS, Earth & Environment)

Maura Kitterick

Plans to Action: Examining the Relationship Between Cities' Climate Justice Aspirations and Their Integration Through Tangible Action

Anne Short Gianotti (CAS, Earth & Environment)

Sam Kraus

Do young children form stereotypes about people from rural or urban backgrounds?

Tara Mandalaywala (CAS, Psychological & Brain Sciences)

Audrey Ku

Identifying New Proteins that Regulate Developmental Pattern Formation from Chemical Screen Candidates

Cynthia Bradham (CAS, Biology)

Diya Lakhani

Gustatory Receptor Structure and Feeding Behavior: Predicting Ligand Binding Affinity in the Leafcutter Ant *Atta cephalotes*

James Traniello (CAS, Biology)

Mutiraj Laksanawisit

Edge Coloring for Sport Scheduling Problems

Tiago Januario (CAS, Computer Science)

Helen Lалlos-Harrell

Brokering Rebellion: Understanding the Role of Militant Community Groups During Civil Wars

Apekshya Prasai (CAS, Political Science)

Jessica Laman

Simulated Climate Change Effect On Root Growth in New Hampshire's Forests

Pamela Templer (CAS, Biology)

Mary Lareau

Testing Ketamine's Potential as a Therapeutic Agent to Rescue Intellectual Disability

Hengye Man (CAS, Biology)

Abby Lee

Gender and Translation: A Computational Analysis of How Gender Impacts Literary Interpretations of The Tale of Genji

Keith Vincent (CAS, World Languages & Literatures)

Sophie Lentz

Quantifying the photochemical and microbial mineralization of wetland dissolved organic matter in a New England headwater stream.

Cédric Fichot (CAS, Earth & Environment)

Vianne Lim

A Computational CA3 Microcircuit Model for Sharp-Wave Ripple Generation and Sleep-Rhythm Coordination

Arash Yazdanbakhsh (CAS, Psychological & Brain Sciences)

Christopher Miyai

Predicting Bilinguals Language Comprehension with a Computational Model

Anthony Yacovone (CAS, Linguistics)

Rhoda Ndukwe

Re-evaluation of Lowland Woolly Monkey (*Lagothrix lagotricha* subsp.) Ranges in Perú Using Mitochondrial DNA Markers

Chris Schmitt (CAS, Biology)

Bora Oo

Differential Gene and Cilia-Related Expression Linked to APOER2 Splicing and APOE Isoforms

Angela Ho (CAS, Biology)

Khushi Patel

Investigation of Second-Order Motion Detection in Autism Spectrum Disorder

Arash Yazdanbakhsh (CAS, Neuroscience)

Giselle Perez

Using machine learning to identify and examine anxiety-related fear behaviors.

Nicholas Wagner (CAS, Psychological & Brain Sciences)

Jack Reimann

Photocleavable Surfactants for One-Pot Multiomics Extraction from Complex Biological Samples

Melissa Pergande (CAS, Chemistry)

Medina Salymbekova

Miss USSR in the Margins: Power, Politics and Central Asia in Late Soviet Pageants.

Alexis Peri (CAS, History)

Katerina Sanchez-Farina

Can We Reduce Children's Benevolent Ableism Toward People with Physical Disabilities?

Tara Mandalaywala (CAS, Psychological & Brain Sciences)

Nicole Sim

Sundown Towns: History and Legacy

Martin Fiszbein (CAS, Economics)

Katherine Smith

New insights into the dispersal of the magnificent sea anemone *Radianthus magnifica*

Peter Buston (CAS, Biology)

Matthew Spencer

The Scars of Slavery: Using Economics to Measure the Lingering Effects of Slavery on the Black American Community

David Lagakos (CAS, Economics)

Lila Sverdrup

Role of Dpp in the TGF- β pathway for *Digitonthophagus gazella* appendages

Sophia Casasa (CAS, Biology)

Fatima Toure

ABANDONED BY EVERYONE ELSE’: INTERGENERATIONAL POVERTY AND BLACK POLITICAL ENGAGEMENT

Christine Slaughter (CAS, Political Science)

Abigail Wagner

Characterizing Reelin's Role in the Entorhinal–Hippocampal Circuit

Uwe Beffert (CAS, Biology)

Michael Wakeham

BabyVLM v2: Toward Developmentally Grounded Vision–Language Models with Longitudinal Infant-View Data and Cognitive Evaluation Benchmarks

Boqing Gong (CAS, Computer Science)

Kerry Wang

Archiving Translation: Gender, Reception, and Early English Renderings of Heian Literature

Sarah Frederick (CAS, World Languages & Literatures)

Yuhan Wei

Cataloging and Analyzing Classical Chinese Poetry in Translation: Archival Documentation and Literary Contexts

Sarah Frederick (CAS, World Languages & Literatures)

Alexis Wong

Attentional Factors in Motion Induced Blindness

Erika Tullgren (CAS, Psychological & Brain Sciences)

Caeden Yanchar

R&D to Detect the Migdal Effect in a Negative-Ion TPC

Ed Kearns (CAS, Physics)

Seven Zhang

Storytelling as Pedagogy in Science Education

Miguel Ohnesorge (CAS, Philosophy)

Kiya Zhang

Translanguaging in Virtual Exchange: Facilitating Meaning-Focused Communication and Intercultural Learning on SDG Topics

Liling Huang (CAS, World Languages & Literatures)

Kunyu Zheng

Motion-Based Analysis for Identifying AI-Generated Videos

Chang Xiao (CAS, Computer Science)

Lynne Zhou

The Geography of Race and Ethnicity in the United States: Uncovering a Hidden History of Expulsion and Exclusion

Martin Fiszbein (CAS, Economics)

College of Engineering

Varsha Athreya

Enhancing Energy-Efficient Monolithic 3D Systems for Transformer Models

Ayse Coskun (ENG, Electrical & Computer Engineering)

Boston Cochran

Examining the Behavior of Unstable Deformable Objects Under Applied Force Loads

Douglas Holmes (ENG, Mechanical Engineering)

Diana Diaz Galliano

Multimodal Radio Frequency and Pressure Sensor Localization for Spatial Monitoring in Bioreactors

Rabia Yazicigil Kirby (ENG, Electrical & Computer Engineering)

Kaden Do

Structure-guided discovery of ancestral gag polyprotein for improving engineered virus-like particle assembly and cargo delivery

Samagya Banskota (ENG, Biomedical Engineering)

Jamie Dykstra

Cell Seeding Optimization in Decellularized Murine Flexor Digitorum Longus Tendons

Brianne Connizzo (ENG, Biomedical Engineering)

Karina Gaitan

Magnetically Actuated Centimeter-Scale Jetting Robot

Tommaso Ranzani (ENG, Mechanical Engineering)

Mikayla Grymes

Biologically Inspired Materials for Improving Blast, Shock, and Impact Response

J. Gregory McDaniel (ENG, Mechanical Engineering)

Nishtha Ladi

Resource Utilization and Prediction of HPC Applications

Ayse Coskun (ENG, Electrical & Computer Engineering)

Johana Larti

Phosphor-Enhanced, Space-Ready CMOS Imaging System

Brian Walsh (ENG, Mechanical Engineering)

Zhiwen Liu

Synthesizing 2D Materials for Investigating Surface Acoustic Waves on 2D Membrane Nanodevices

Kamil Ekinci (ENG, Mechanical Engineering)

Michael Lwe

Low-Level Optimizations for High-Performance Computing (HPC)

Martin Herbordt (ENG, Electrical & Computer Engineering)

Griffin Paradise

Pneumatically Tunable Soft Optical 3DOF Contact Sensor for Force and Touch Detection

Sheila Russo (ENG, Mechanical Engineering)

Vikram Puar

Cerebral oxygenation across brain states in health and disease

Anna Devor (ENG, Biomedical Engineering)

Hudson Reynolds

Detecting Resource Management Bugs in Cross-Component Communication in Cloud Systems

Yigong Hu (ENG, Electrical & Computer Engineering)

Alan Santos

Traction Force Microscopy (TFM) for Engineered Tissues on Polyacrylamide (PA) Gel

Thomas Bifano (ENG, Photonics Center)

Raheel Sarwar

Elucidating Uremic Toxin Effects on Immune Proteasome Activity in Chronic Kidney Disease using Computational Hot Spot Mapping

Diane Joseph-McCarthy (ENG, Biomedical Engineering)

Utkarsh Seth

Lung Tissue Response to Emphysema

Béla Suki (ENG, Biomedical Engineering)

Swas Shiv

Development and Testing of Distributed Wireless Optical Blood Sensors for Live Bleeding Detection and Real-Time Colonoscope Shape Reconstruction During Colonoscopy

Sheila Russo (ENG, Mechanical Engineering)

Jonathan Sim

Hormonal Modulation of Bone-Tendon-Muscle Crosstalk in Post-Injury Healing

Brianne Connizzo (ENG, Biomedical Engineering)

Maddie Tuck

Effect of Metformin Treatment on Slowing Breast Cancer Invasion in an Obese Microenvironment

Joe Tien (ENG, Biomedical Engineering)

Aldiyar Tuktin

Phase-Inversion-Derived Porous Polymeric Materials for CO₂ capture

Joerg Werner (ENG, Mechanical Engineering)

Arush Vyas

Automated Discovery of Vascular Biomarkers in Neurodegenerative Diseases Using Deep Learning and Attention-Based Analysis

Lei Tian (ENG, Electrical & Computer Engineering)

Zean Wan

Safe Framework for vision language action models

Wenchao Li (ENG, Electrical & Computer Engineering)

Elizabeth Wang

Investigating the Impact of Cognitive Workload on Spatial Navigation, Gait Quality, and Memory Performance in Real-World Contexts

Matthias Stangl (ENG, Biomedical Engineering)

George Wyatt

An Investigation to Characterise Heterogeneous Marrow Stromal Cell Populations

Elise Morgan (ENG, Biomedical Engineering)

Esther Xu

Development of a Data Acquisition Pipeline for a custom 1700 nm TPA-Based Interferometric Autocorrelator

Tianyu Wang (ENG, Electrical & Computer Engineering)

Riki Yoshida

Development and Printability Evaluation of Recycled Non-PLA Polymer Filaments for Desktop 3D Printing

Keith Brown (ENG, Mechanical Engineering)

Jackson Zhang

Metabolic biomaterials to fuel astrocyte proliferative responses after spinal cord injury

Timothy O'Shea (ENG, Biomedical Engineering)

Ellen Zheng

Real-Time Visual Perception for Haptic Shared Autonomy: Extending Teleoperation to Autonomous Ground Navigation with Control Barrier Functions

Roberto Tron (ENG, Mechanical Engineering)

School of Medicine

Beulah Ackah

Generation of HEK293 Cells Co-Expressing NMDA Receptors and PRNP for Mouse Scrapie Infection Studies.

David Harris (MED, Biochemistry & Cell Biology)

Leo Casey

Engineering a Permissive Cell Culture System for Productive Hepatitis C Virus Infection

Mohsan Saeed (MED, Biochemistry & Cell Biology)

Eunice Choi

Structure - function relationships of ACC → LPFC pathway in Rhesus Monkeys

Maya Medalla (MED, Anatomy & Neurobiology)

Uyen Chu

Pathogenic expansion of ACKR1+ venous ECs in fibrotic niche orchestrates immune cell recruitment in idiopathic pulmonary fibrosis

Giovanni Ligresti (MED, Arthritis Center)

Tiwalola Daramola

Understanding the Relationship between Lifetime Experiences of Discrimination and Implicit Racial Bias in Black Emerging Adults

Karin Schon (MED, Anatomy & Neurobiology)

Armon Farahani

Massachusetts Community Engagement Alliance (MA-CEAL) project: Storytelling to Build Medical Trust

Katherine Geregen Barnett (MED, Family Medicine)

Ryan Filoramo

Exploring Retinal Changes as Indicators of Alzheimer's Disease

Tatfong Ng (MED, Ophthalmology)

David Fils-Aime

Neuropeptide Regulation of Senescence in Retinal Pigment Epithelial Cells

Andrew Taylor (MED, Ophthalmology)

Jiayi Fu

Renal Arteriolar Hypertrophy: An Overlooked Risk of Antihypertensive Medications

Jin Wei (MED, Nephrology)

Hannah Guo

Exploring the Role of Redox Signaling in the Regulation of Transcriptional and Epigenomic Responses in Vascular Endothelial Cells with Multi-omics Data

Lei Hou (MED, Medicine)

Isla Hawkins

A Correlative Analysis of Kidney Spatial Multi-omics

Joseph Zaia (MED, Biochemistry & Cell Biology)

Ava Kaplan

Enhancing Anatomical Education Through Infographics: A Multimodal Approach

Jonathan Wisco (MED, Anatomy & Neurobiology)

Aidan Lackstrom

Effects of Calumenin on Squamous Cell Lung Cancer Proliferation and Endoplasmic Reticulum Stress Response

Shawn Lyons (MED, Biochemistry & Cell Biology)

Brianna Lee

Optimization of Human Skin Three-Dimensional Organotypic Cultures

Andrei Sharov (MED, Dermatology)

Ria Mantri

Targeting the SLIT2-ROBO2 Pathway to Prevent Glomerular Injury in a Mouse Model of Proteinuric Kidney Disease

Weining Lu (MED, Nephrology)

Victoria Nalepka

Using Spontaneously Hypertensive Rats to Investigate Genetic Differences in Fentanyl Addiction Model Behaviors

Camron Bryant (MED, Molecular Genetics of Addiction)

Bryce Christian Quintos

The effects of alpha-melanocyte stimulating hormone on retinal senescence.

Andrew Taylor (MED, Ophthalmology)

Roz Rafati

The role of cell proliferation in cranial suture fusion

Shannon Fisher (MED, Biochemistry & Cell Biology)

Jessica Slear

Apolipoprotein L1 Genotypes and Biomarkers of Immune Activation and Tubular Injury

Titilayo Ilori (MED, Nephrology)

Zainab Wasim

Defining the Role of Macrophages during Spinal Cord Regeneration in Later Stage Zebrafish Larvae

Elliott Hagedorn (MED, Hematology & Medical Oncology)

Kailey Wilkinson

Investigating the role of CKAP5 in neural crest cell migration and cytoskeletal development of craniofacial structures in *X. laevis*.

Laura Lowery (MED, Hematology & Medical Oncology)

Benny Yang

Role of MC4R and THRB neurons in regulating the central response to hypothyroidism

Ricardo Sousa (MED, Medicine)

Anna Zhang

Understanding the role of Schwann Cells Precursors (SCPs) in skeletal pain and fracture healing

Paola Divieti Pajevic (SDM, Translational Dental Medicine)

Sargent College, School of Public Health

Sarah Akande

Integrating Environmental Health and Health Equity into Land Use Decision-Making Tools

Patricia Fabian (SPH, Environmental Health)

Ramatoulaye Bah Bangura

Investigating the impact of Organic Pollutants that contribute to Cardiovascular Diseases on Adipocyte and Endothelial Cell Function

Jennifer Schlezinger (SPH, Environmental Health)

Angeliris Cabrera

Assessing and Enhancing Menstrual Corners in Nepal

Monica Onyango (SPH, Global Health)

Anastasia Haubrich

Respiratory Kinematics and Acoustic Estimates of Voice Quality across Speech Conditions in Young Adults

Cara Stepp (SAR, Speech, Language & Hearing Science)

Keiana Jackson

Common vs. distinct cognitive demands of three types of listening adversity in speech processing.

Tyler Perrachione (SAR, Speech, Language & Hearing Science)

Yaoan Leng

Single-Telomere Resolution Analysis Using Long-read Telomere Sequencing (LRTS) Data
William Johnson (SPH, Biostatistics)

Bodhi Martin

Implementation of Food-Based Policies, Including Fiscal Measures and Regulatory Approaches, to Improve Nutrition and Health in West African Countries: A Scoping Review
Hayford Avedzi (SAR, Health Science)

Simoni Mishra

Sensor-Based Quantification of Physical Activity During In-Home Mobility Interventions for Toddlers with Down Syndrome
Jana Iverson (SAR, Physical Therapy)

Fizaan Muhammad

Rapid Motor Learning in Speech: Linking Reflexive and Adaptive One-Shot fo Responses
Cara Stepp (SAR, Speech, Language & Hearing Sciences)

Franklin Phan

Effects of Laryngoscopy on Relative Fundamental Frequency (RFF)
Jenny Vojtech (SAR, Speech, Language & Hearing Sciences)

Baisley Ruiz

How Language and Executive Functioning Skills are Key Predictors of Semantic Verbal Fluency in Autism
Jennifer Zuk (SAR, Speech, Language & Hearing Sciences)

Lindsay Skinner

Assessing Trial-to-Trial Variability and Performance Errors in Dynamic Balance across Childhood and Adolescence
Cara Lewis (SAR, Physical Therapy)

Maria Valiente

The Role of Language Use in Executive Function Among Bilingual Individuals with Aphasia and Primary Progressive Aphasia
Swathi Kiran (SAR, Neurorehabilitation)

Questrom School of Business

Tamerlan Baimurat

Second Pair of Eyes: Evaluating Large Language Models as Safety Layer for AI scribing tool for Clinical Documentations & Scribes

Anita Carson (Questrom, Operations & Technology Management)

Yu-Ting Huang

Building Resilient Supply Chains by Detecting Anomalies from Energy Price Volatility

Tugba Efendigil (Questrom, Operations & Technology Management)

Pramay Jain

How Retail Trading Affects Execution Quality in U.S. Equities Market

Andrea Vedolin (Questrom, Finance)

Daksh Mishra

How Annuity Flows Move Prices. Evidence from High-Frequency Separate-Account Data

Pietro Bini (Questrom, Finance)

Ally Serbaroli

Developing an Error Framework for AI-Generated Clinical Notes: A Grounded Theory Approach

Anita Carson (Questrom, Operations & Technology Management)

Kiwi Yang

AI Adoption Among Small Businesses

Jinglong Zhao (Questrom, Operations & Technology Management)

Wheelock College of Education & Human Development

Christine Amalraj

How does a child's level of emotional memory and emotional stability affect their ability to internalize emotional permanence?

Kathleen Corriveau (SED/Wheelock, Counseling Psychology & Applied Human Development)

Zyna Azim

Varied and Dynamic Language Input Among Deaf Children with Hearing Parents

Erin Campbell (SED/Wheelock, Deaf Studies)

Noor Darwish

The Special Educator Workforce: A Research Collaborative (SPARC)

Elizabeth Bettini (SED/Wheelock, Teaching & Learning)

Kate Logan

Self-Compassion and Athletic Performance in College Athletes

Anna Ward (SED/Wheelock, Counseling Psychology & Applied Human Development)

Sky Pascual

Children's Revision of Cognitive Reflection Test Responses

Kathleen Corriveau (SED/Wheelock, Counseling Psychology & Applied Human Development)

Rahul Patel

Examining the mechanisms of how preterm birth effects health and academic outcomes of fifth-grade children

Kyle DeMeo Cook (SED/Wheelock, Teaching & Learning)

Angelique Ricard

Analyzing The Massachusetts Commonwealth Preschool Partnership Initiative Grant

Kyle DeMeo Cook (SED/Wheelock, Teaching & Learning)

Arielle Vargas

Simulating More Equitable Discussions: Using Teacher Moments in Mathematical Professional Learning

Gregory Benoit (SED/Wheelock, Teaching & Learning)

Other

Ava Howell

Visual Framing and Narrative Structures in Political Memes Across Online Platforms

Ayse Lokmanoglu (COM, Emerging Media Studies)

Mackenzie Jutras

Eumelanin Images Via Bacteria

Lucy Kim (CFA, Painting)

Gus Kim

All The World's A Stage: Mapping the Director/Designer Relationship in Western Theatre

Jon Savage (CFA, Theatre)

Joyce Lam

The Hope & Empowerment for Asian Loss (HEAL) Study

Hyeouk Chris Hahm (SSW, Human Behavior, Research, and Policy)

Sean Salvador

Marthabot: Text Style Transfer for Mimicking Historical Figures

Scott Ladenheim (CDS, Data Science)

Yangshuo Teng

Codified and Enacted Platform Values: Evidence from Platform Policies and the EU's DSA
Transparency Database

Chao Su (COM, Emerging Media Studies)

Yitong Wang

Immigrant Inclusion in the U.S. Tax and Transfer System: Advancing Evidence and State Policy
Action

*Dolores Acevedo-Garcia (SSW, Institute for Equity in Child Opportunity & Healthy
Development)*