

FALL RESEARCH EXPO

Monday, September 16, 2024 5:00 – 6:30 pm Houston Hall

The University of Pennsylvania's Center for Undergraduate Research and Fellowships is the University's hub for undergraduate student research, as well as the launch pad for Penn students seeking to apply for nationally competitive scholarships and fellowships Welcome to CURF's Research Expo!

Over 350 undergraduate researchers are eager to share their research with you. We hope you enjoy learning about

their research with you. We hope you enjoy learning about the array of opportunities embraced by undergraduates at one of the world's leading research universities.

Interested in getting involved in research and/or fellowships at Penn?

Visit us at curf.upenn.edu for more information about individual advising and peer support opportunities

Information Sessions and Workshops

Getting Started in Research
"How to" for specific fields of research
Getting to Know Faculty
Research Skills Series
Social Impact Research
Fellowships 101 Information Sessions
Fellowships 201 Information Sessions
Fulbright Scholarship Information Sessions
Graduate Study in the United Kingdom
Pursuing International Summer Fellowship
Opportunities

CURF Programs and Academic Initiatives

The President's Engagement Prize (PEP) supports students with financial support for both living and project expenses to develop and implement a promising local, national, or global initiative

The President's Innovation Prize (PIP) provides living and project expenses to envision and implement an innovative commercial venture to make a positive difference in the world

The Penn Undergraduate Research Mentoring Program (PURM) matches students with faculty researchers from across all twelve schools

The Summer Humanities Internship Program (SHIP) provides students with apprentice positions in a cultural, historical, or archival setting

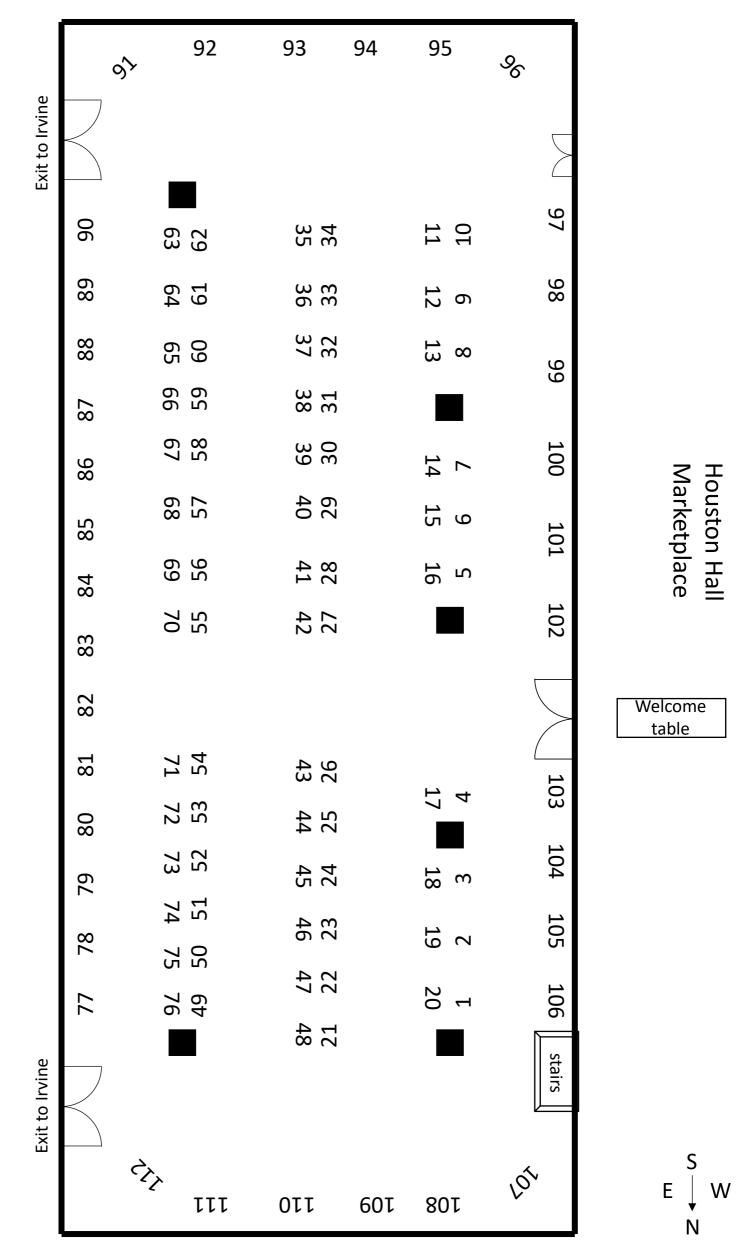
Jumpstart for Juniors provides students the opportunity to gain invaluable investigative skills in the summer after their junior year

The University Scholars Program provides support for indepth research during their undergraduate career

The Benjamin Franklin Scholars Program offers intellectually stimulating small seminars

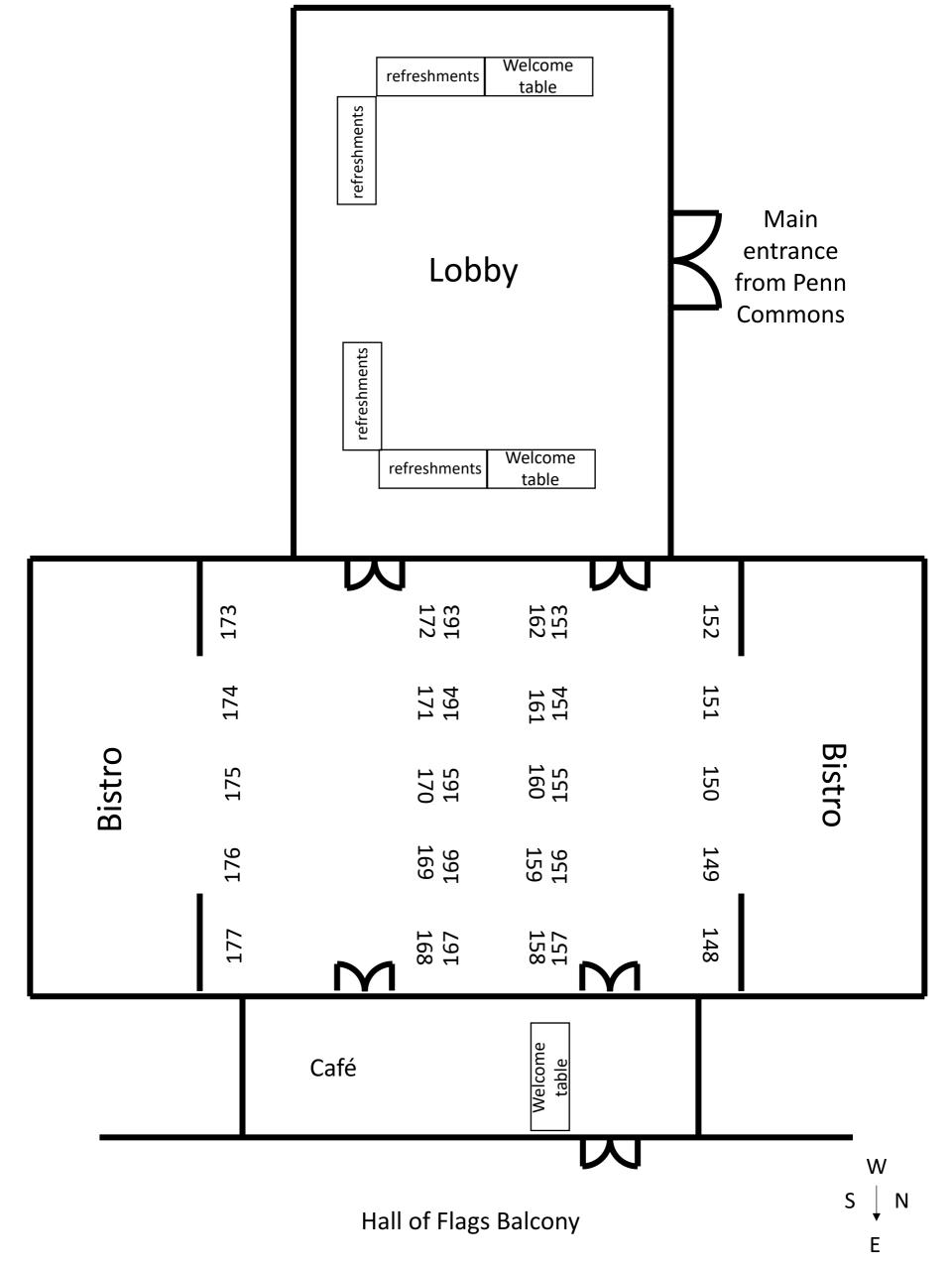
and many more!

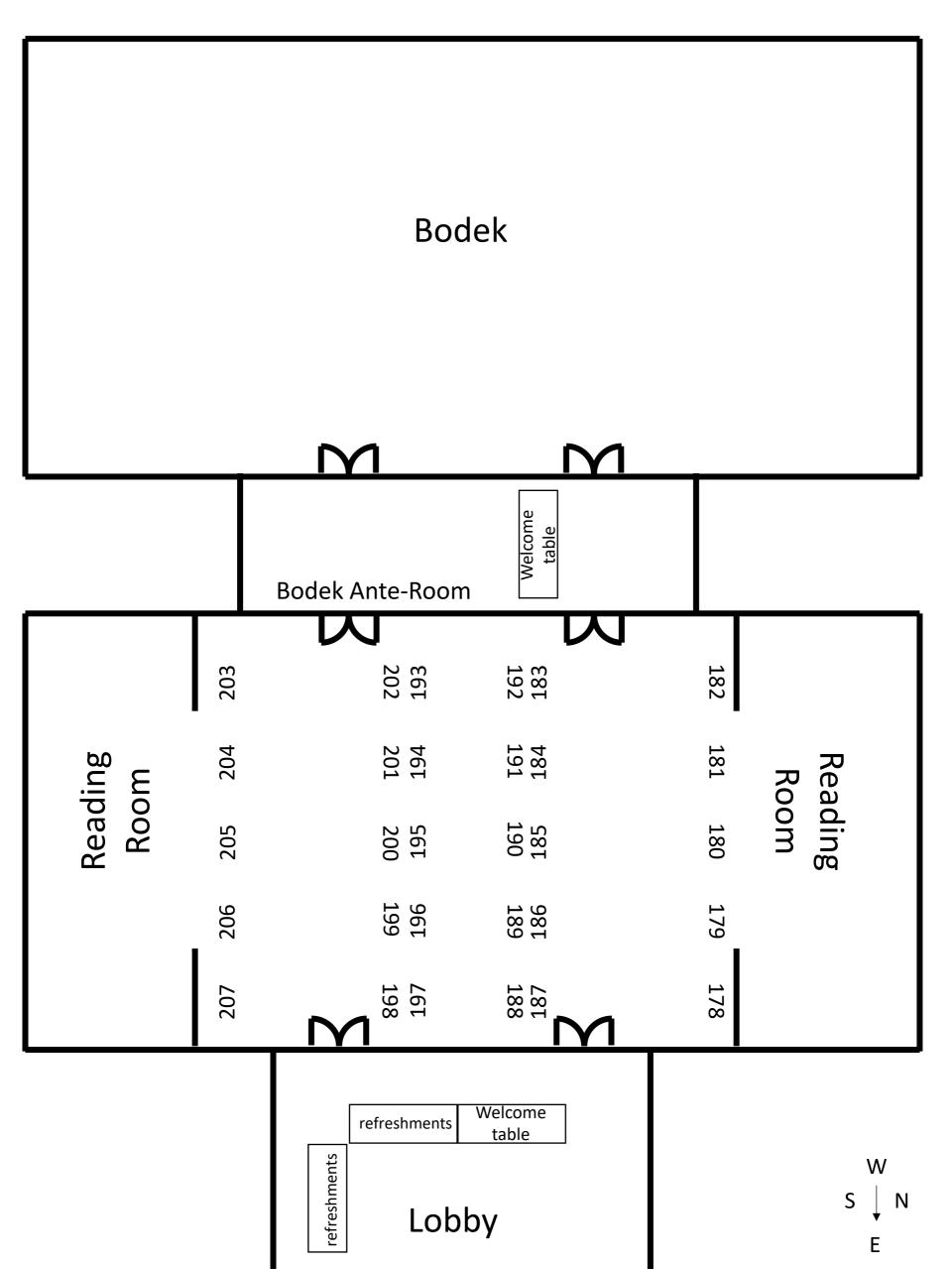
Hall of Flags 1st floor



Zy, ς,γ Café Welcome table stairs 6TT Ň

Hall of Flags 2nd floor/balcony



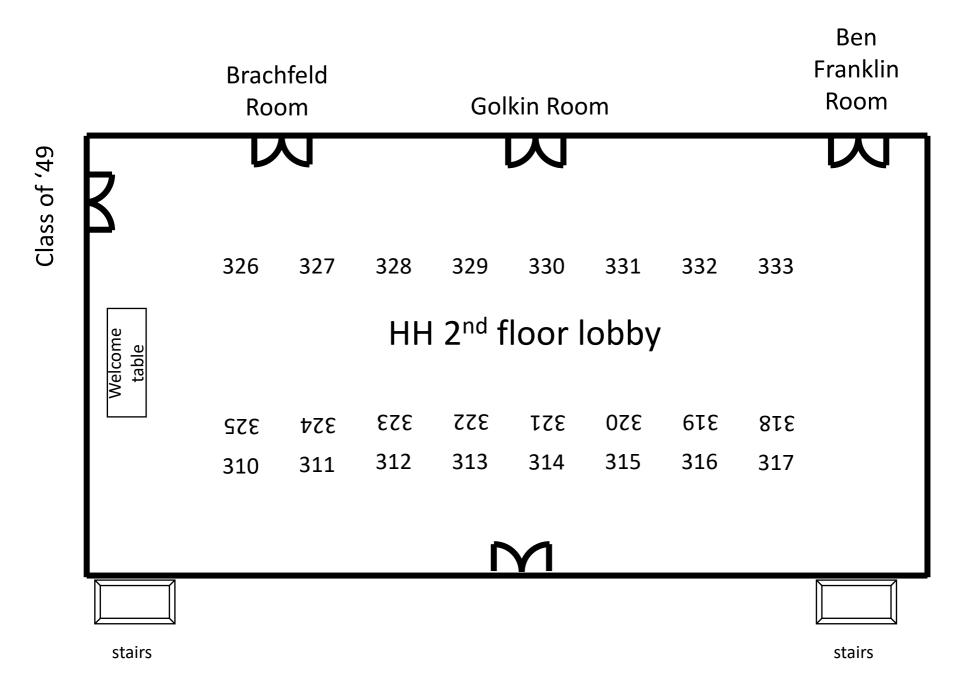


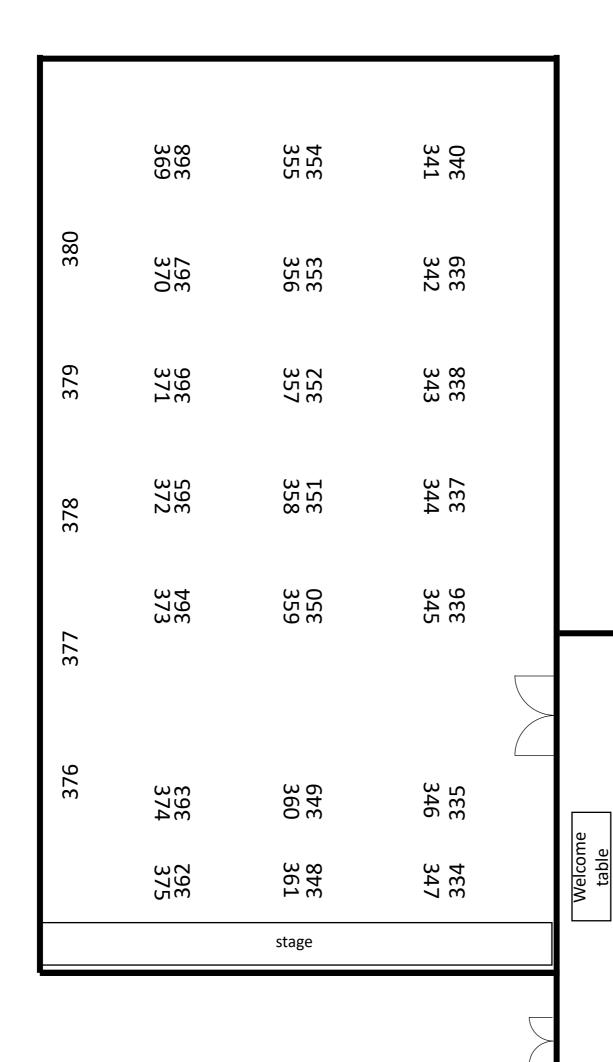
Welcome table

Spruce Street									
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302	210	677	234	253	258	277		282	
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	Bodek Lounge							287	
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S E ↓ W N

Penn Commons





HH 2nd floor lobby

stairs

S E ↓ W N

Poster Locations by Room

Hall of Flags, First Floor (Posters 1-112)	11
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Bistro (Posters 148-177)	19
Reading Room (Posters 178-207)	21
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Hall of Flags, First Floor (Posters 1-112)

1. Taiwo Adeaga (COL 2026) Ziana Sundrani (COL 2027)

Advisor: Daniel Swingley

A Simple Model of Infant Word Finding Using

Computational Phonetics Embeddings

2. Hemanta Adhikari (COL 2027)

Advisor: Crystal Conn

Understanding the Activation of the Integrated

Stress Response in Prostate Cancer Cells

3. Hannah Agarwal (COL 2026)

Clever Earth (COL 2026)

Raunak Mandal (WH 2026)

Corey Rudman (COL 2026)

Advisor: Paul Robinson

Experiments in Criminal Justice Reform

4. Alvin Agbenyegah (COL 2027)

Angele Diamacoune (COL 2026)

Ava Mir (COL 2027)

Lindsay Muneton (COL 2027)

Hannah Sung (COL 2026)

Advisor: Wendy Roth

Cracking the Code: Studying the Social Impact of DNA Testing Through Qualitative Interview Coding

5. Marbella Aguilar (COL 2026)

Advisor: Joseph A Janicki

Bone Health in Pediatric Patients: A Multicenter

Study of Bisphosphonate Utilization

6. Fareeha Alam (COL 2027)

Advisor: J. Nicholas Betley

Investigating the Non-Motor Functions of the Cerebellum: Social Behavior, Aggression & Feeding

7. Emily Alchaer (COL 2025)

Advisor: Matthew Weitzman

Expanding Roles of DNA Repair Protein Rad51 in

Transcription

8. Iman Ali (SEAS 2027)

Advisor: Michael Mann

Connection Between Heatwaves and Planetary

Waves: A Tale of Ten US Cities

9. Ayman Alwaqzah (COL 2026)

Advisor: Maria Basil

Assessing the Impact of NOTCH Signaling on RAS Cell

Progenitor Function: Implications for

Pathophysiology

10. Melinda Amorosi (COL 2027) Cole Bruen (WH 2027)

Advisor: Gene Buckley

Preserving a Critically Endangered Language: Optimizing the Kashaya Linguistic Database

11. Sophia Ampgkarian (COL 2025)

Advisor: Siarhei Biareishyk

Frozen Russian Assets and What to Do with Them:

Geoeconomics and U.S. Policy

12. Andrea An (SEAS 2025)

Advisor: Katherine Uyhazi

Developing an In-vitro Model of Gyrate Atrophy for

Gene Therapy

13. Naseeb(ullah) Andar (COL 2026)

Advisor: Kiran Musunuru

A Genetic Solution to Marfan Syndrome

14. Arjun Arasappan (SEAS 2026)

Advisor: Nat Trask

Augmenting the Forward Process of Variational Diffusion Models with Reversible Dynamics

15. Arush Arora (SEAS 2027)

Advisor: Bomyi Lim

Automation of mRNA-Transcript Measurement Algorithms for Embryonic Biomedical Imaging

16. Jada Asamoah (COL 2027)

Advisor: Arnold Mathijssen

Bacterial Motility in Flow Networks

17. Allison August (COL 2025)

Advisor: Douglas Frye

Exploring the Development of Theory of Mind: The

Role of Parenting

18. Alicia Augustin (COL 2026) Vikram Sundaram (COL 2027)

Advisor: Rand Quinn

An Ecosystems Approach to Youth Community Involvement: Understanding Motivations,

Opportunities, and Processes

19. Victoria Avanesov (COL 2026)

Advisor: Jed Esty

The 39 Steps and the Cross-Atlantic Evolution of the British Thriller: Studying John Buchan and Alfred

Hitchcock

20. Maria Awadalla (COL 2026)

Advisor: Kendall Lawrence

Can Aortic Strain be used to Predict Future Risk of

Aortic Dissection?

21. Ernesto Baci (COL 2026)

Advisor: Kelly Jordan-Scuitto

Investigating Intercellular Interactions between Astrocytes and Microglia During HIV Infections

22. Salimatou Bah (COL 2027)

Advisor: Jun (Jay) Zhu

Analyzing Streptococcus infantarius Impact on Vibrio

cholerae Gene Expression via Transposon

Mutagenesis

23. Misha Bankulla (COL 2026)

Advisor: Damaris Lorenzo

Effects of SPTBN1 Variants on Corpus Callosum

Morphology

24. Pedram Bayat (SEAS 2027)

Advisor: Marco Ruella

Enhancing Transduction Efficiency of Chimeric Antigen Receptor T Cells With RetroNectin and

Poloxamer 407

25. Keagan Beeravolu (COL 2027)

Advisor: Michael Lampson

Paradoxical Rapid Evolution of Centromeric DNA: The

Role of DNA Shape and Architectural Proteins

26. Jasmeiry Bello (COL 2025)

Advisor: Emily F. Gregory

Providing Comprehensive Care to Pregnant

Teenagers

27. Brittney Benjamin (COL 2025)

Advisor: Samantha Winter

Social Cohesion and Mental Wellbeing in Kenyan

Informal Settlements

28. Sydney Bergstrom (COL 2026)

Advisor: Timothy Machado

Using Deep Learning to Quantify Mouse Behavior

29. Nishanth Bhargava (COL 2027)

Advisor: Siarhei Biareishyk

Building a Revolutionary Movement in Paris, 1968

30. Sangeetha Bhuyan (COL 2026)

Advisor: Rebecca Ahrens-Nicklas

Optimizing Gene Therapy for CLN3 Disease

31. Leo Biehl (COL 2025)

Advisor: Stephen Fried

Community Land Trusts: A Comparative Analysis of

Organizing Efforts

32. Uzair Bilal (COL 2027)

Advisor: Lewis Chodosh

JAK1 and JAK2 Specific Inhibitors in Breast Cancer

Dormancy

33. Fatimah Bisiriyu (COL 2027)

Advisor: Yun Ding

Temperature Effect on Transgene Drosophila Melanogaster Females' Likeliness to Perform

Wingspread During Courtship

34. Daniel Boyko (COL 2026)

Advisor: Erik Wibbels

Migration in Ghana: Advising Policy from a Data

Perspective

35. William Brandes (COL 2025)

Advisor: William Sturkey
The Beatles and the Sixties

36. Matthew Breier (COL 2026)

Advisor: David Barnes

The 1918 Influenza Pandemic in Philadelphia's African-American and Immigrant Neighborhoods

37. Corey Brooks (COL 2026)

Advisor: Sadé Richardson

Sharing Is Not Caring: How Harm Reduction

Strategies Promote HIV Health

38. Dillon Brown (COL, WH 2025)

Advisor: Alexander Fanaroff

Increasing Physical Activity to Improve

Cardiovascular Health in Racially Diverse Cancer

Survivor Communities

39. Alex Bui (COL 2025)

Advisor: Rebecca Waller

Identifying Callous-Unemotional Behaviors in Early Childhood: Leveraging Observational Methods to Evaluate Positive Affect Within Dyadic Interaction

40. Corrine Cai (COL 2027) Alia Goldstein (COL 2027)

Advisor: Sarah Bush

Non-Governmental Organizations at a Global

Crossroad

41. Randy Cai (COL 2026)

Advisor: Alice Chen-Plotkin

MIA Risk SNP 2233154 Alters Amyloid-Beta Pathology in Alzheimer's Disease Individuals

42. Alecia Cameron (COL 2027)

Advisor: Shaon Sengupta

Effect of Environmental Light Disruption on Circadian

Gated Lung Injury

43. Angie Cao (SEAS 2026)

Dan Kim (SEAS 2026)

Advisor: Duncan Watts

Quantifying Common Sense: A Framework for

Individual and Collective Assessment

44. Jacob Cao (COL 2026)

Advisor: Gary Wu

The Role of Dietary Carbohydrates in Bacterial Permease Physiology and Antibiotic Persistence

45. Anna Carroll (COL 2027)

Kevin Shen (COL 2027)

Nathan Wu (COL 2027)

Advisor: Wengin Luo

Development of a Pipeline for Accurate Cell

Segmentation

46. Devin Casano (COL 2026)

Advisor: Parrish Bergquist

Community Engagement on Clean Energy Siting

47. Emmie Chacker (COL 2025)

Advisor: Sydney Shaffer

Investigating Non-Genetic Mechanisms of Melanoma

CD8+ T Cell Evasion

48. Cedric Chan (COL 2026)

Andrew Chang (COL 2027)

Ani Petrosyan (SEAS 2026)

Annabella Tian (SEAS 2026)

Advisor: Mayur Naik

CLAM: Unifying Finetuning, Quantization, & Pruning

by Chaining LLM Adapter Modules

49. Aarav Chandra (COL 2026)

Advisor: Marc Fuccillo

Revealing Neurogenetic Signatures: Machine Learning Uncovers Repetitive Behaviors in ASD and OCD Knockout Mice

50. Krishna Chandrasekhara (COL 2025)

Advisor: John Kanbayashi

Rainwater Harvesting and its Impacts on Public and Community Health in Mexico City

51. Tiffany Chang (COL 2027)

Advisor: Andrew Santiago-Frangos

De Novo Identification of Conserved DNA Sequence Motifs that Regulate RNA-Targeting CRISPR Immune Systems

52. Brendan Chapko (COL, WH 2025)

Advisor: Michael Mann

Understanding the Damage Potential of Extratropical

Winter Storms in the American Northeast

53. Amanda Chen (COL 2027)

Advisor: Ahmed Diab

Exploiting DNA Repair Mechanisms in HPV Associated Oropharyngeal Cancers

54. Bingling Chen (COL 2025)

Advisor: Kyle Vining

Investigating the Stiffness Response of Mesenchymal Stromal Cells Using Artificial Extracellular Matrix

55. Caitlyn Chen (COL 2026)

Advisor: Mark Allen

Needle-Injectable Oxygen Microsensors for Diagnosis

of Mitochondrial Myopathies

56. Guyin Chen (COL 2025)

Advisor: Virginia Lee

Evaluate the Efficacy of AXL Inhibitor Bemcentinib in 5xFAD Mouse Model for Alzheimer's Disease

57. Ian Chen (COL 2026)

Advisor: Douglas Wallace

African and European Cybrids Display Significant Transcriptional Differences at Basal Conditions

58. Leon Chen (COL 2027)

Advisor: Vishnu Potluri

Outcomes Following D+/R- Kidney Transplantation: A

Retrospective Cohort Study

59. Richard Chen (COL 2025)

Advisor: Hong Xu

Optimizing Ultrasensitive RT-QuiC Assay on AD tau

Seed-Monomer Reactions

60. Makayla Cheng (SEAS 2027)

Advisor: Jina Ko

Diagnosis of Major Depressive Disorder in

Adolescents through Analysis of Oral Microbiome

Compositions

61. Melody Cheng (COL 2025)

Advisor: Ethan Goldberg

Age-Dependent Impairment of Synaptic Transmission

in a Mouse Model of KCNC1 Epilepsy

62. Siddharth Chitta (COL, SEAS 2026)

Advisor: Alfredo Quinones-Hinojosa

Investigating the Role of the SPAK/OSR1 Kinases on Chemotherapeutic Resistance and NF-кВ Signaling in

Glioblastoma

63. Erin Choi (COL 2027)

Advisor: Erica L. Carpenter

Developing ddPCR Assays for the Detection of

Glioblastoma Tumor DNA in CSF

64. Kaynath Chowdhury (COL 2026) Christina O'Farrell (COL 2026)

Advisor: Claire Finkelstein

Responding to Human Shielding Under the

Department of Defense Civilian Harm Mitigation and

Response Action Plan (CHMR-AP)

65. Lumi Christensen (COL 2027)

Advisor: Sarah-Marie Belcastro

Degrees of Vertices in the Origami Flip Graph of the 2

by n Miura-ori

66. Seyoon Chun (COL 2026)

Advisor: Andy Tan

"Are you just going to throw us away?": A Scoping Review of Culturally Tailored Tobacco Interventions

of Religious LGBT+ Groups

67. Emily Chung (COL 2027)

Advisor: Lewis Chodosh

Identifying Gene Candidates Regulating Residual Tumor Cell Behavior in Breast Cancer Dormancy

68. Nicole Chung (COL 2027)

Advisor: Matthew Hayes

The Physiological Effects and Neuronal Activity of

Rats Treated with GLP-1 and Ex-4: A Novel

Treatment for Obesity

69. Jeremy Cimino (NUR 2026)

Sahar Maleki (COL 2027)

Advisor: Lorraine Levitt Katz

Polygenic Risk for Type 2 Diabetes in Children and

Adults

70. Maria Cline (SEAS 2026)

Advisor: Andrew Tsourkas

Antibody Mediated Degradation of Intracellular

Protein Targets

71. Miranda Cochran (COL 2025)

Advisor: Rebecca Waller

Are Adverse Childhood Experiences Related to Emotion Recognition in 3 - 4 Year Old Children?

72. Tyler Coyne (COL 2026)

Advisor: Rebecca Ganetzky

Mitochondrial Complex II Abnormalities in Response

to Complex V Deficient Cells

73. Caleb Crain (COL 2025)

Advisor: Anne Berg

The Game Lasts more than 90 Minutes: Soccer in

Nazi and Postwar Germany

74. August Crane (COL 2026)

Ria Rege (COL 2026)

Advisor: Guy Grossman

Climate Politics and Policy: Effect on Political

Attitudes and Behavior

75. Heaven Cross (COL 2026)

Advisor: Andrew Edmondson

Glycoproteomic Insights into GALNT2-CDG Pathology

76. Alana Cyril (COL 2027)

Advisor: Jeffrey Field

Biodiversity Within the Soil Microbiome in Response

to Zinc Contamination

77. Daniel Dai (COL 2025)

Advisor: Virginia Lee

Investigating Granulovacuolar Degeneration in Alzheimer's Disease and Other Tauopathy Models

78. Derene Darkwah (COL 2027)

Advisor: Mustafa Mir

Drosophila Kinetics with the Use of the Suntag

System

79. Assata Dawson (COL 2027)

Advisor: Jeet Patel

Ectopic Acvr2 Regulates Mesoderm Induction and

Patterning via TGF-8 Signaling Pathways

80. Hadley Degregoris (COL 2025)

Advisor: William Sturkey

There's Something About Barbie: Evolving

Perceptions of Feminine Sexuality Through the Lens

of History's Most Fabulous Doll

81. David Deng (COL 2025)

Advisor: Hardeep Dhillon

Examining the History, Resistance to, and Legacy of Anti-Asian Segregation in Philadelphia, 1920-1940

82. Madison Dengel (COL 2027) Amber He (SEAS 2027)

Advisor: Ayelet Ruscio

The Temporal Relationship Between Sleep Quality

and Affect: A Multimodal Approach

83. Karina Devas (COL 2026)

Advisor: David Reibstein

Green Branding Project for the Khánh Hòa Province

84. Coumba Diagne (COL 2027)

Advisor: Corlett Wood

Investigating Plant-Symbiont Relationships: Nodulation, Rhizobia Strains, and Nematode

Infection

85. Cristina Diaz (COL 2026) Tasmiah Haque (COL 2027)

Advisor: Gareth Roberts

The Impact of Framing on Endangered Language

Learning

86. Nina Dilworth (COL 2026)

Advisor: Holger Sieg

How Affordable is Housing in NYC? An Empirical Analysis of Housing Expenditure Shares in 2021

87. Matilda Dingemans (SEAS 2027)

Advisor: Marc Miskin

Propulsion of AC-Driven Microrobots

88. Ivesavega Djianto (SEAS 2026)

Justin Duong (COL 2027)

Jisun Hwang (COL 2027)

Maria-Christina Nicolaides (SEAS 2027)

Luke Stoner-Eby (SEAS 2027)

Christian Stuit (SEAS 2027)

Advisor: John Spiesberger

Whale Location: Stopping the Speed of Sound

89. Ethan Dong (SEAS 2027)

Advisor: Martha Lester

Atmospheric Implications of Modern Day

Refrigerants

90. Lola Dong (SEAS 2027)

Allen Yan (COL 2027)

Advisor: Huafeng Wei

Therapeutic Effect of Intranasal Dantrolene on Symptoms and Pathological Pathways of Major

Depressive Disorder

91. Vinny Dong (COL 2027)

Advisor: Crystal Conn

Effects of Integrated Stress Response on Gene

Regulation in LNCaP Cells

92. Iman Dorman (COL 2026)

Advisor: Rebecca Simmons

Analyzing mtDNA in Plasma-Derived Extracellular Vesicles from Pregnant Black Women to Predict

Adverse Outcomes

93. Phillip Duarte (SEAS 2027)

Andrew Wang (COL 2026)

Advisor: Ali Nabavizadeh

Using Pathomic Imaging Data to Predict Histological

Classifications of Pediatric Medulloblastoma

94. Lila Dubois (COL 2025)

Advisor: Samuel Martin

Representations of the Caretaker and the Cared For:

Women and Dementia in Annie Ernaux

95. Agnes Duch (NUR 2027)

Advisor: Afrin Sagir

Impact of Psychometric Factors on the Dfficacy of

Interlaminar Epidural Steroid Injections

96. Chimere Egesi (COL 2026)

Advisor: Daniel Mindiola

The Synthesis and Reactivity of a 4-coordinate Bis-

Tellurido Titanium Complex

97. Chigozie Ekeabu (COL 2027)

Advisor: Michael Lamspon

Using Chemical Pharmacology to Gain Spatio-Temporal Control over Anaphase in Cells

98. Raphael Englander (COL 2027)

Advisor: Anjan Chatterjee

Assessment of Aesthetic Participation (AAP)

99. Lily Erdogan (COL 2027)

Advisor: Roy Hamilton

Comparing Phonemic Features and Production

Processes in PPA Subtypes

100. Lucía Espina Vázquez (COL 2026)

Advisor: Amelia Eisch

Is space radiation a risk to social processing on a crewed mission to Mars? The effects of whole-body 56Fe on cFos+ cell number and stress-mediated

social conflict brain networks in mice

101. Maha Essaidi (SEAS 2025)

Advisor: Joel Boerckel

Postnatal Development of the Goat Phalanges and

Metacarpal Trabecular Architecture

102. Mmachi Ezigbo (COL 2027)

Advisor: Sarah Tishkoff

Characterizing Sickle Cell Disease Variants in a Sub-Saharan African Cohort of 6,000 Whole Genome

Sequences

103. Antwan Ezimora (COL 2027)

Advisor: Elliot Lipeles

Particle Physics and the Comparison of The Tracks vs.

The Calorimeter

104. Katie Fang (WH 2027)

Advisor: Brian Feinstein

Small Business Favoritism: Assessing Impacts of

Exemptions in U.S. Federal Law

105. Carson Fisher (COL 2026)

Advisor: Farah Jan

Tracking Changes in International AI Policy

106. Miguel Francisco Mercado (COL 2027)

Trent Leung (COL 2027)

Laissa Senatus (NUR 2027)

Advisor: Harald Schmidt

Utilization and Access Outcomes of the Area Deprivation Index (ADI): A Scoping Review

107. Nia Frederick (COL 2027)

Advisor: Emily Gregory

Primary Care Interventions to Support Breastfeeding

and Newborn Care

108. Michael Fuentes (COL 2026)

Advisor: Sade Bonilla

Navigating Choices: An Analysis of Factors

Influencing Community College Students' Program of

Study

109. Lily Futeran (COL 2026)

Advisor: Melanie Pellecchia

Breaking It Down: An Example of Effective

Information Dissemination

110. Om Gandhi (COL, SEAS 2025)

Advisor: Michael Hogarty

Elucidating Primary Anti-Tumor Mechanism of Dual Polyamine Synthesis Inhibition and Proline-Arginine Depletion Therapy in Mice with Neuroblastoma

111. Tanvi Garneni (COL 2027)

Advisor: Allyson Mackey

Associations between Attention Problems and

Intensity of Movement in Adolescence

112. Shambhabi Gautam (SEAS 2027)

Advisor: Zhaolan Zhou

CDKL5 Gene Knock-Out Effect on Interneurons In Vivo

in Mice

Hall of Flags, 2nd Floor (Posters 113-147)

113. Angela Ge (COL 2027)

Advisor: Derek Oldridge

Al-Driven Image Analysis for Improved Cancer Classification from Clinical Pathology Images

114. Carol Ge (COL 2026)

Advisor: Paula Oliver

Cul5 Controls Megakaryocyte vs Erythroid Bias

115. Isabella Goosen (COL 2026)

Sebastian Rodriguez (SEAS 2027)

Diego Tirado (SEAS 2026)

Advisor: Christopher Mauger

Electronics Research and Development for Cutting-

edge Neutrino Experiments

116. Devin Gottlieb (SEAS 2026)

Advisor: Joel Boerckel

Effects of Maternal Exercise on Embryonic Bone

Development

117. Nikhil Grobes (COL 2026)

Advisor: Lisa Schwartz

Prompting for Precision: The Role of the Patient Voice in Developing a Measure of Transition Readiness for Adolescents and Young Adults with

Sickle Cell Disease

118. Sanan Gueyikian (COL 2024)

Advisor: Dana Graves

Histological Evaluation of Enhanced Wound Healing in STZ-Induced Diabetic Mice Following S100A11

Neutralization

119. Jaskeerat Gujral (COL 2025)

Advisor: William Welch

Intersection of Artificial Intelligence and

Neurosurgery to Optimize Adolescent Idiopathic

Scoliosis Treatment

120. Yashna Gupta (SEAS 2027)

Advisor: Riccardo Gottardi

Profiling the Immune Response in Vocal Fold Scarring

121. Akhila Guttikonda (COL 2026)

Advisor: Sarah Kagan

Gamifying Age Friendly Healthcare Competency for

Continuing Education

122. Sreehita Hajeebu (COL 2027)

Advisor: Jessica Foster

Development of Murine mRNA CAR T Cells for

Pediatric CNS Tumors

123. Bilkiss Haman (COL 2026)

Advisor: Erik Wibbels

Dual Pathways to Sustainability in West Africa: Promoting Worker Rights, Ethical Practices and Environmental Responsibility in Cocoa Agriculture

and Artisanal Diamond Mining

124. Lauren Hamlette (COL 2027)

Advisor: Ahmed Moustafa

Testing PCR-Based Method For Identifying Staph.

Aureus Clonal Variants

125. Maya Hardy (COL 2025)

Advisor: Katherine Cotter

Music Making and Social Connection: A Daily Diary

Study of Musical Experiences

126. Siming He (SEAS 2025)

Advisor: Pratik Chaudhari

From NeRFs to Gaussian Splats, and Back

127. Daphne Hicyilmaz (COL 2027)

Advisor: Katherine France

Perceptions of Dentist Roles in Vaccination

128. Jory Hirshman (COL 2025)

Advisor: Kate Townsend Creasy

Metabolic Impacts of Ketogenic Diet on PPP1R3B-

mediated Liver Disease

129. Kamara Holmes (COL 2025)

Advisor: Elizabeth Heller

Synthesis and Characterization of Cytosporone B derivatives: Small Molecule Activation of Nr4a1, a Potential Target for Treating Cocaine Use Disorder

130. Jonathan Hong (SEAS 2026) Kevin Yao (SEAS 2027)

100 (527.520

Advisor: Gushu Li

HATT: Hamiltonian-Aware Ternary Tree Algorithm

for Fermion-to-Qubit Encoding

131. Leah Hopf (COL 2025)

Advisor: Jon Hawkings

Manganese Concentrations and Composition in

Glacial Environments

132. Baron Ping-Yeh Hsieh (SEAS 2027) Yiguo (Eecho) Yuan (COL 2027)

Advisor: Maurice Schweitzer

Running AI Chatbot Negotiations: Testing the Effect of Humor and Concession Patterns on Negotiation

Outcomes

133. Jilly Huang (COL 2027)

Advisor: Sade Bonilla

The Distribution and Allocation of Teachers in an

Urban School District

134. Zimo Huang (COL 2026)

Advisor: Sebastian Angel

Integrating MuCache into Dapr Distributed

Application Runtime

135. Miguel Huerta (COL 2027)

Advisor: Natali Chanaday

Sub-cellular Distribution of Voltage-Gated Ion

Channels in Breast Cancer Cells

136. Raina Hutchinson (COL 2027)

Advisor: Michael Granato

CRISPR Knockout Screen in Zebrafish Uncovers the Role of Huntingtin Interacting Proteins in Axon

Regeneration

137. Iman Ilias (WH 2026)

Advisor: Peter Conti-Brown

The Life and Times of Credit Unions

138. Jacob Isaac (COL 2025)

Advisor: Kushol Gupta

X-Ray Crystallography of gDNAzymes

139. Szirina Ismail (COL 2026)

Advisor: Julia Lynch

Why have the US, Canada, and Sweden Recently Taken Steps Towards Indigenous Health Data

Sovereignty?

140. Michael Jacob (COL 2026)

Advisor: Bhuvnesh Jain

Generative AI for Weak Lensing Reconstruction

141. Hanan Jannoud (COL 2027)

Katrina Korendiy (COL 2026)

Yuzhou Li (SEAS 2027) Amelie Zhang (WH 2027)

Advisor: Julia Gray

International Organizations from the Ground Up: Understanding Global Cooperation Through Data

142. Anya Jayanthi (COL 2025)

Advisor: Sarah Tishkoff

Identifying and Characterizing Causal Genetic
Variants for Lactose Tolerance in African Populations

143. Gabriella Jean (COL 2027)

Advisor: David Lydon-Staley

The Effects of Daily Stressors on Withdrawal and Smoking Lapses during a Cessation Attempt in Daily

Cigarette Smokers

144. Elizabeth Jiang (SEAS 2027)

Advisor: Kevin Johnson

Automating Social Signal Processing between

Patient-Provider Interactions

145. Charles Jin (SEAS 2027)

Leah Ning (SEAS 2027)

Advisor: RIch Tsui

Extracting Social Determinants of Health from

Clinical Notes Using LLMs

146. Jean Jin (COL 2026)

Advisor: Marisa Bartolomei

Investigating Non-catalytic Activity of Ten-eleven Translocation Enzyme 1 in the Mammalian Germline

147. Yoojin Jo (COL 2027)

Garv Mehdiratta (COL 2027)

Advisor: Tiffany Hwa

Bedside Evaluation of Conductive Hearing Loss with

the Hum Test

Bistro (Posters 148-177)

148. Violet Johnson (COL 2024)

Advisor: Mark Goulian

The Phosphorylation State of the PTS-Ntr Affects E.

coli Fitness Under EDTA Stress

149. Caleb Joo (COL 2027)

Advisor: Matthew Hayes

Utilizing Viral Vectors to Map Neural Signaling to and from the Locus Coeruleus to Understand Brain

Regions Implicated in GLP-1 Agonist Activity

150. Oliver Joseph (COL 2027)

Advisor: Gregory Corder

Unveiling the Brain's Highways: Automated

Quantification of Axonal Density

151. Sophie Kadan (COL 2025)

Advisor: Sisi Zhou

Achieving Fault-Tolerant Quantum Error Correction (QEC) with Minimum Weight Perfect Matching

(MWPM)

152. Petros Karamanides (COL 2026)

Advisor: Amelia Eisch

Is a Cortical-Hippocampal Circuit Necessary for

Encoding Similar Episodic Memories?

153. Cypress Kaulbach (COL 2026)

Advisor: Alain Plante

Biological Analysis of Dark Earths

154. Navjeet Kaur (NUR 2027)

Advisor: Surbhi Grover

Cervical Cancer Among Botswana Women: Palliative

Care and Patient Impact

155. Viha Kedia (WH 2027)

Advisor: Brian Berkey

The Economics of Catastrophic Risks

156. Vincent Kerler (COL 2027)

Advisor: Charlie Johnson

Investigation of Tapered Phononic Crystal Structures

in Thin-Film AIN

157. Amina Khasanova (COL 2026)

Advisor: Shelley Berger

Exploring Nuclear Organization Around Speckles

158. Finn Kiely (WH 2026)

Advisor: Peter Conti-Brown

Where Do Banks Get Bank Accounts

159. Hannah Kim (COL 2026)

Advisor: Sunday Akintoye

Responsiveness of Ameloblastoma Cells to

Autophagic Stress

160. Hayle Kim (COL 2025)

Advisor: Matthew Kayser

A Reverse Genetic Approach to Identify the Molecular Mediators of Sleep Maturation

161. John Kim (SEAS 2026)

Advisor: Noor Momin

Engineering RELM $oldsymbol{\gamma}$ as Therapeutic Target for

Arrhythmia Post-Myocardial Infarction

162. Matthew Kim (COL 2026)

Advisor: Franz Weber

Effect of Memory Consolidation on REM P-wave

Frequency

163. Natey Kim (SEAS 2026)

Michael North (SEAS 2026)

Advisor: Nadia Figueroa

From Muscle Signals to Motion: A Deep Learning Approach to Human Movement Prediction

164. Su Ah Kim (WH 2026)

Advisor: MIn Liu

The Role of AKT1 Deletion in Dendritic Cells on Bone Loss in Animal Model of Diabetic Periodontitis

165. Sunhee Kim (COL 2027)

Advisor: Amy Stornaiuolo

Activism in the Digital Age: Understanding Youth

Advocacy Across Online Platforms

166. Julia Kincaid (COL 2027)

Advisor: Daniel Powell Jr.

Comparison of Electroporation and Peptide-Mediated Engineering of Human Lymphocytes

167. Matthew Klausner (COL 2026)

Olivia Reynolds (COL 2026)

Allyson Ye (COL 2026)

Advisor: Cary Coglianese Regulatory Processes

168. Oliver Kleinman (COL 2027)

Advisor: Daniel Hopkins

Mapping Local and Federal Electoral Data in Ireland

for a Comparative Analysis of Political

Nationalization

169. Sanjit Kobla (COL 2026)

Advisor: Bhuvnesh Jain

Modified Power Spectrum Tests of Cosmological

Theories

170. Luka Koll (SEAS 2027)

Advisor: Kevin Johnson

Gait Parameter Extraction and Analysis from Angled

Clinical Footage

171. Bailey Koo (SEAS 2027)

Advisor: Hersh Sagreiya

Developing Multimodal AI for Organ Segmentation

from CT to PET-CT

172. Athena Krikorian (COL 2027)

Advisor: Anne Marie McCarthy

Examining the Impact of New Pennsylvania Laws on

Breast MRI Utilization

173. Lucia Kulzer (COL 2026)

Evelyn Yu (SEAS 2027)

Advisor: Yasmin Kafai

Revising Design Conjectures About Algorithm
Auditing Practices Inside Learning Environments

174. Arjun Kumar (COL 2027)

Advisor: Kara Bernstein

Analyzing the Sensitivity of Homologous Recombination-Deficient RAD51D Mutants to Treatment with a NovelPARP1 Inhibitor, Saruparib

175. Shruthi Kunjur (SEAS 2026)

Katherine Yue (SEAS 2026)

Advisor: Ryan Marcus

Benchmarking Ticketing in Vectorized Cuckoo Hash

Table for Database Systems

176. Yvonne Kuo (COL 2026)

Advisor: Christoph Ellebrecht

Investigating Chimeric Antigen Receptor (CAR) T Cell

Nonspecific Killing via CRISPR KO Screen

177. Rohan Kurup (COL 2027)

Advisor: Yvette Sheline

Efficacy of Accelerated-Intermittent Theta Burst Stimulation in Treating Symptoms of Bipolar

Depression

Reading Room (Posters 178-207)

178. Eric Kuznetsov (COL 2027)

Advisor: Todd Ridky

Unveiling Sex-Based Disparities in Skin Cancer

179. Gauri Lahoti (COL 2025) Isabella Pytel (COL 2025)

Advisor: Michael Cancro

Defining the Metabolic Pathways Required to Adopt and Maintain the Tbet+ Age-Associated B Cell Fate

180. Raju Lakhani (COL 2026)

Advisor: Kushol Gupta

Expression, Purification, and Biophysical Characterization of Monkeypox Virus Protein I1

181. Sophie Lammers (COL 2026)

Advisor: Joel Karp

Development of a Flow Phantom for Quantification

of Dynamic PET/CT Imaging

182. Blake Landow (COL 2026)

Advisor: Tejvir Khurana Myostatin Gene Editing

183. Nhi Lang (COL 2027)

Advisor: Barbara Chaiyachati

Evaluating Psychosocial Health in Late Childhood: PSC-17 Trends and Demographic Insights from

Primary Care

184. Jonathan Largoza (SEAS 2027)

Advisor: Riccardo Gottardi

Understanding Signaling Pathways and

Inflammation Challenge of Cartilage Progenitor Cell

Chondrogenesis

185. Eleftherios Lazarinis (SEAS 2026)

Advisor: Bingxin Zhao

Cloud Computing-based Platform for Online Disease-

protein Mapping

186. Tony Le (COL 2027)

Advisor: Doris Wagner

Affecting Inflorescence Determinacy via Modifying

Cis-regulatory Regions

187. Albertina Lee (SEAS 2025)

Advisor: Krithika Lingappan

Neonatal Hyperoxia Exposure Impacts the Atria More

Than Ventricles: Implications for Prematurity Related

Cardiac Disease

188. Eric Lee (COL 2026)

Advisor: William Peranteau

Gene Editing Toolbox for Rare Muscular Diseases: Two Strategies for Treating X-Linked Myotubular Myopathy Using Base Editing and Epigenetic

Silencing

189. Joyce Lee (COL 2026)

Advisor: Isaac Chen

Using an Anterograde Polysynaptic Tracer to Assess Transplanted Cortical Organoid Connectivity with

Native Motor Cortex

190. Nayoon Lee (COL 2026)

Advisor: Piotr Zygmanski

Simulation of Radiation Effects and Characterizing

Tumor Motion

191. Stella Lee (COL 2027)

Advisor: Tim Machado

Recording Cortical Activity During Different Types of

Movement

192. Sage Leland (SEAS 2026)

Advisor: Amelia Eisch

Psychosocial Stress Induces Cognitive Inflexibility and

Social Avoidance in Male Mice

193. Josh Leshinskie (SEAS 2026)

Advisor: Kevin Turner

Targeted Dispersal of Plant Sensors via Sticky Drops

194. Aiwen Li (WH 2027)

Advisor: Yuhan Ding

Analysis of Kernel Density Estimation Accuracy using

Quasi-Monte Carlo Methods

195. Antony Li (COL 2027)

Advisor: Ziyang Zhang

TRIM Proteins Modulate Amyloid Precursor Protein

Levels in N2a Cells

196. Sophie Li (SEAS 2027)

Advisor: Ottman Tertuliano

Characterizing SiO2-Si Substrate Strain Energy using Nanoindentation and Nanoscale Contact Mechanics

197. Vivian Li (WH 2026)

Advisor: David Reibstein

Enhancing Colombia's Global Competitiveness: Strategic Recommendations for Tourism, FDI, Renewable Energy, and Peace Promotion

198. Celina Liang (COL 2026)

Advisor: Cynthia Otto

Usage of Emotional Reactivity Tests as a Puppy Assessment Method to Predict Working Dog Success

199. Stacy Liang (COL 2025)

Advisor: Juan Alvarez

Verification of β-cell Specific Tamoxifen-Induced

Dec1 Knockout in Mice

200. Forrest Lin (SEAS 2027)

Brandon O'Neill (SEAS 2027)

Advisor: Timothy Markman

Optimizing the Intraoperative Indocyanine Green

(ICG) Imaging System

201. Ivan Lin (COL 2027)

Advisor: Christopher Long

Complications of Proximal Hypospadias Surgery

202. Brian Ling (SEAS 2027)

Advisor: Malek Kamoun

FIBERS: Enhancing Kidney Transplant Success with a Novel Evolutionary Machine-learning Algorithm Capable of Identifying Significant Risk Associated

HLA Amino Acid Mismatches

203. David Liu (COL 2027)

Advisor: Zarina Ali

GREEN OR: Guiding Reductions in Excess and Expenses in the Neurosurgery Operating Room

204. Freddy Liu (SEAS 2025)

Advisor: Mingmin Zhao

Enabling Visual Recognition with Radio Frequency

205. Grace Liu (SEAS 2027)

Mariam Rizvi (COL 2026)

Advisor: James Gee

Lung-SARG: An Open Data Platform for Sustainable,

Accessible, Lung Radio Genomics in Nigeria

206. Ivy Liu (COL 2026)

Suya Que (SEAS 2026)

Advisor: Arnold Mathijssen

Living Systems: Movement of Organisms in Porous

Matrices

207. Jerry Liu (COL 2027)

Advisor: Delphine Dahan

Face Threat and Miscommunication: Evidence from a

Referential Communication Task

Bodek Lounge (Posters 208-309)

208. Toni Lobaccaro (COL 2027)

Advisor: Dylan Rankin

Analyzing Various Machine Learning Models for Use

in the Large Hadron Collider ATLAS Detector

209. Avi Loren (COL 2025)

Advisor: Kai Tan

Chimeric Antigen Receptor T-Cell Integration Site Analysis in Patients with B-cell Acute Lymphoblastic

Leukemia

210. Khloe Lubin (NUR 2027) William McGlynn (NUR 2026)

Advisor: Charlene Compher

PLATE: Perceptions and Learning About PhD Tool for

Evaluation

211. Anna Lugovskoy (COL 2027)

Advisor: Michael Arcaro

Bimodal Approach to Assessing Higher-Level Visual

Processes in Tree Shrews

212. Amy Luo (SEAS 2027)

Advisor: Yuanwen Jiang

Fabrication & Optimization of a Wearable

Microneedle Patch Sensor for Cardiac Biomarker

Detection

213. Monica Madya (COL 2025)

Advisor: Rebecca Ganetzky

Biochemical Diagnosis of Fumarate Hydratase (FH)

Deficiency Disease

214. Amishi Mahajan (COL 2025)

Advisor: Amelia Eisch

Investigating the Role of Fan Cells in Hippocampal-

Based Memory Encoding

215. Anand Majmudar (SEAS 2026)

Matthew Tsui (COL 2026)

Advisor: Erik Waingarten

Kernel Density Estimation for t-stochastic Neighbor

Embeddings

216. Natalie Mamaril (COL 2027)

Advisor: Jessica Foster

Characterization of Matrix Metalloproteinase 16 (MMP16) as a Potential Target for CAR T-Cell

Therapy in Pediatric Brain Tumors

217. Ngaatendwe Manyika (SEAS 2027)

Advisor: Marija Drndić

Fabrication of Solid-State Silicon Nitride Membranes

for Nanopore Devices

218. Philipp Markopulos (WH 2027)

Advisor: Daniel Taylor

The Impact of SEC Rule Changes on Insider Trading

Dynamics

219. Loza Markos (COL 2027)

Jayden Shin (COL 2027)

Advisor: Geelsu Hwang

Comparative Analysis of Sucrose and Glucose-Fructose on Mixed-Species Biofilm of Candida Albicans, Streptococcus Oralis, and S. Mutans

220. Maya Mathur (COL 2026)

Advisor: Daniel Beiting

Detection of Human and Animal Fecal Contamination and Antimicrobial Resistance in Water around San

Cristóbal Island, Galápagos, Ecuador

221. Grace Matwijec (COL 2025)

Advisor: Nancy Spinner

Resolving Uncertainty in the Mechanism of Disease

for NOTCH2 Variants in Alagille Syndrome

222. Khady Mbodj (COL 2026)

Advisor: Wanjiku Njoroge

Breastfeeding in Black Women: Reviewing Racial and Socioeconomic Differences in Breastfeeding and the Impact on Bonding, Breastfeeding Rates, and COVID-

19 Pandemic Worries

223. Melanie Mejia (WH 2026)

Advisor: Pinar Yildirim

Greenbooks and the Impact of the African American

Businesses on Business Climate

224. Oscar Mendez (COL 2027)

Advisor: Ronen Marmorstein

Structural Elucidation: Understanding MEK and ERK

Interactions in the MAPK Pathway

225. Chekayli Meyer (SEAS, WH 2027)

Advisor: Maurice Schweitzer

Development of an Artificial Intelligence Chatbot for

Negotiations

226. Justin Miller (COL 2026)

Advisor: Talya Fishman

Christ, Spinoza's Progenitor Of National Religion

227. Lily Min (SEAS 2025)

Advisor: Mark Sellmyer

Development of Assays to Evaluate PROTAC

Permeability, Binding, and Function

228. Saania Mirpuri (COL 2026)

Advisor: Oluwadamilola Fayanju

Sociodemographic Variation in Completion of SBDOH

Screening Tools in the Breast SBDOH Study

229. Sandro Mocciolo (COL 2027)

Advisor: Justin Mullikin

Nature in Transcendentalism: A Counternarrative to

the Global Thought Binary

230. Mapalo Mulwe (COL 2027)

Advisor: Pavan Atluri

Investigating Therapeutic Potential of Exosomes from TNF Preconditioned Mesenchymal Stem Cells

231. Kshama Mumbai (COL 2026)

Advisor: Alessandro Dovis

Impact of Dissent in Monetary Policy: Insights from

India's MPC

232. Jake Murphy (COL 2025)

Advisor: Scott Weinstein

Randomness, Unpredictability, and Indeterminism

233. Sofia Murra Vicario (COL 2026)

Advisor: Patrick Walsh

Synthesis of Organic Compounds as Stable Glass

Materials

234. Ben Nachod (SEAS 2026)

Advisor: Michael Mitchell

mRNA Lipid Nanoparticles for ex vivo Engineering of

Primary T cells for Autoimmunity Applications

235. Maya Narang (COL 2026)

Advisor: Kim Sharp

Interaction of Benzodiazepine Drugs Flunitrazepam

and Clonazepam with Aldoketoreductase

236. Shivek Narang (COL 2025)

Advisor: Akkayasamy Kowsalya

Follow-up Care at the Neuro-ophthalmological Clinic

at the Aravind Eye Hospital

237. Suraj Neelamagam (COL 2026)

Advisor: Heath Schmidt

Systemic GLP-1R Activation Produces Anxiolytic Effects During Abstinence in Cocaine-experienced

Rats

238. Amber Nguyen (COL 2025)

Advisor: Kyle Vining

Oral Cancer Cells form Spheroids in Floating and

Hydrogel Culture Conditions

239. Cat Nguyen (COL 2026)

Advisor: Andrew Santiago-Frangos

Using One's Enemies: Identifying Histone-Binding Sites Needed for Archaeal Adaptive Immunity

240. Cody Nguyen (COL 2025)

Advisor: Paul Lieberman

Regulation of Hypermethylation in EBV-Associated Gastric Carcinoma Through EBNA1 and DNMT1

241. Connie Ni (COL 2026)

Advisor: John Maris

Cross-Reactivity Testing of PHOX2B-Directed Peptide-Centric CAR-T Immunotherapy in Neuroblastoma

242. Asmus Nielsen (COL 2027)

Advisor: Arjun Raj

Characterization of Signal Spread for CellSlime to

Enable Fixed Cell Trajectory Visualization

243. Chimere Nnadi (COL 2026)

Advisor: Ivan Dmochowski

Designing a Xenon-129 NMR Contrast Agent for

Cellular Glucose Detection

244. Max Nothacker (COL 2027)

Advisor: Heather Huntington

Improvement of Land Governance in Uganda:

Endline Impact Evaluation

245. Jaden Oates (COL 2026)

Advisor: Jennifer Ponce de León

Critical Theory Workshop

246. Yochi Odlum-Hobson (WH 2027)

Grace Djoko (WH 2027)

Advisor: Sarah Light

An Assessment of Isla Urbana's Rainwater Harvesting Systems in Mexico City and Their

Applicability in the United States

247. Nneamaka Okolo (COL 2027)

Advisor: Mia Levine

Investigating Diversity of DNA Elements that Threaten and Preserve Genome Integrity

248. Dominic Olaguera-Delogu (SEAS 2026)

Advisor: Liang Feng

Applying Deep Learning to Phase Recovery in Optical

Systems

249. Mayokun Omitogun (COL 2027)

Advisor: Wanjikũ Njoroge

The Impact of Maternal Parenting Style and Methods of Support/Positive Disciplining on Child Well-Being and Irritability at 12 Months: A Comparison Between Black and Non-Latino/a/e/x White (NLW) Children

250. Reagan O'Neil (COL 2027) Chris Tyburski (COL 2027)

Advisor: Elliot Lipeles

Particle Physics with the Large Hadron Collider

251. Abieyuwa Osunde (COL 2027)

Advisor: Katie Barott

Insight into the Impacts of Bleaching Tolerance

Phenotypes on Coral Growth Metrics

252. Rachel Ou (COL 2026)

Advisor: Michael Mitchell

Optimizing and Characterizing EGFR Targeted

Protein-Conjugated LNPs

253. Neel Pandula (COL 2027)

Advisor: Marie Guerraty

The Role of FOG2S657G-mediated &1 Adrenergic Receptor Expression in Coronary Microvascular

Disease

254. Jiayi Pang (COL 2026)

Advisor: Thomas Leung

Rosemary Extract Induces Rapid Wound Healing in

Mice

255. Manav Parikh (COL 2026)

Advisor: Steven Menez

Relationship of Urine Uromodulin to Interstitial Fibrosis and Tubular Atrophy in the Setting of Native

Kidney Biopsy

256. Youbin Park (COL 2026)

Advisor: Jarod Zepp

Modeling Macrophage-Fibroblast Interactions in

Lung Regeneration

257. Malena Parrado (COL 2026)

Advisor: Michael Lampson

Causes and Consequences of Variation in PRC1 Mediated Heterochromatin Across Mus Species

258. Prithvi Parthasarathy (COL 2026)

Advisor: Pavan Atluri

Development of Exosomes to Overexpress CD47 to

Treat Acute Heart Injury

259. Mimi Pastore (COL 2027)

Anjali Reddy (COL 2027)

Advisor: Katy Milkman

Using a Behavioral Science Intervention to Encourage

Student Retention

260. Riya Patel (COL 2027)

Advisor: Vishnu Potluri

Impact of CMV D+/R- Status on Outcomes after

Kidney-Pancreas Transplantation

261. Akhil Peddikuppa (COL 2027)

Advisor: Jeffrey Field

Mapping 8-oxo-dG in Telomeres with Oxford

Nanopore Technology

262. Ian Peng (SEAS 2027)

Advisor: Yuanwen Jiang

Comparative Study of Fetal Bovine Serum and Bovine

Platelet Lysate for Cell Culture

263. Griffin Pitt (COL 2026)

Advisor: Howard Neukrug

Catawba-Wateree Water Management Group

Preliminary Case Studies

264. Sebastian Pizarro (COL 2026)

Advisor: Kristoffel Dumon

Development of a Low-Cost Suture Pad Solution for

Use in Augmented Reality Training

265. Alex Platon (SEAS 2027)

Advisor: Cherie Kagan

Optical Leaf Moisture Sensors: Metasurface

Fabrication and Deployment

266. Austin Pothikamjorn (COL 2025)

Advisor: Heath Schmidt

Unraveling the Role of Interpeduncular Nucleus GLP-1R Agonism in Fentanyl-Induced Striatal Dopamine

Signaling

267. Saket Ram (SEAS 2027)

Advisor: Lukasz Bugaj

Using BcLOV as a Model to Engineer Temperature-

Sensitive Protein Variants

268. Norah Rami (COL 2026)

Advisor: David Eng

The View from College Street: Kolkata's Literary Market as a Microcosm of Political and Social

Change

269. Rithika Ramkumar (SEAS 2027)

Advisor: Jennifer Wilcox

Sourcing Critical Elements from Mine Tailings: Analyzing the Impact of Magnetic Separation on

Critical Element Extraction

270. Elizabeth Ramos (COL 2025)

Advisor: Kellie Ann Jurado

Defining Active Transcription in the Multinuclear

Layer of Early Pregnancy

271. Hudah Rana (COL 2026)

Advisor: Bonnie Ky

3D Echocardiographic Quantification of Cardiac Function to Understand the Cardiotoxic Effects of

Radiation Therapy

272. Karen Raphael (COL 2025)

Advisor: Michael Shashaty

Plasma Levels of Angiopoietin-2 and Soluble Thrombomodulin, but Not Mitochondrial or Nuclear DNA, are Associated with Acute Kidney Injury After

Lung Transplantation

273. Meera Ratnagiri (SEAS 2027)

Advisor: Lou Soslowsky

Collagens V and XI Regulate Fibril Size and Shape

during Postnatal Tendon Growth

274. Carol Rau (COL 2027)

Advisor: Nicholas Betley

Exercise Modulates Diet and Body Composition

275. Jean Reyes (COL 2026)

Advisor: Amelia Eisch

How does Fentanyl-Associated Context Affect Neuronal Activity in the Memory-Linked Brain Region, the Dentate Gyrus? Using Basic Neuroscience

to Inform Addiction Treatment

276. Charity Robbins (COL 2027)

Advisor: Erika Holzbaur

Investigating Autophagy Receptor Colocalization with Mitochondria in PINK1/Parkin Mitophagy

277. Jorge Rodriguez (COL 2026)

Advisor: Nicole Marino

Exploring the Mechanism of Translation-Dependent

Downregulation of Cas12a mRNA

278. Olivia Rosenfeld (COL 2025)

Advisor: Warren Breckman

The Childhood and Cultural Forces Influencing President Woodrow Wilson's Performance at the

Paris Peace Conference: An Investigation

279. Sophia Rosser (COL 2025)

Advisor: Brent Cebul

Is There Still Power in the Union?

280. Elan Roth (COL 2025)

Advisor: Steve Zdancewic

Developing a Mechanized Denotational Semantics

for IMP

281. Raquel Russek (COL 2026)

Advisor: Colbey Freeman

Assessing Demographic Disparities and Institutional Performance in Inpatient Geriatric Consultations: A Retrospective Study of Timing, Follow-Up, and Sex

Bias

282. Anila Russell-Hall (COL 2026)

Advisor: Melanie Pellecchia

Expanding Access of Applied Behavior Analysis Services for Autistic Children From Low Income

Families

283. Robert Ruth (COL 2025)

Advisor: Guillermo Ordonez

Medals, Money and Legacy- Economic Analysis of the

Olympics

284. Alyssa Saito (COL 2026)

Advisor: Andrew Modzelewski

Role of Retrotransposon Reactivation in Embryonic

Development

285. Jon-Gabriel Salguero (COL 2027)

Advisor: Andrew Edmondson

Evidence of Hypoglycosylation in PMM2-CDG

286. Alexandria Sambrano (COL 2025)

Advisor: Myra Laird

Covariation between Skull Shape and Jaw Leverage

in Six Dietarily Distinct Primate Genera

287. Denise Sanchez (COL 2027)

Advisor: Allyson Mackey

Examining How Children's Contexts May Impact Day-

To-Day Variability in Persistence

288. Luna Sato (COL 2025)

Advisor: Anna Schapiro

Effect of Targeted Memory Reactivation (TMR) on Arousal and Distress to Real-Life Memories

289. Maddie Scott (COL 2026)

Advisor: Millan AbiNader

The Ethics of Research: How Penn Professors Support Student Researchers Navigating Work on Potentially

Traumatic Topics

290. Anthony Senouillet (SEAS 2026)

Advisor: Karen Winey

Effects of Aggregate Morphology on Ion Transport in Solvent-Swollen Sulfonated Polystyrene Copolymers

291. Nitin Seshadri (COL 2025)

Advisor: Isaac Chen

Comparing the Effect of TBI on Horizontal vs. Vertical Random Dot Kinematogram Performance in a Rodent Visual Discrimination Task

292. Justin Seward (COL 2025)

Advisor: Donovan Schaefer

"False Image of History" Perspectives on Confederate Commemoration from the Black Press

293. Shri Shakhamoori (COL 2026)

Advisor: Kelly Jordan-Scuitto

Analysis of Microglia-Integrated Cortical Forebrain Organoids Infected with Human Immunodeficiency Virus

294. Madison Shelton (COL 2026)

Advisor: Audrey John

Does HAD3 Regulate the Metabolism of Malaria?

295. Claire Shepley (COL 2026)

Advisor: Xiaolu Yang

The MAGE Family: A Potential Mechanism for

Protein Degradation

296. Annika Sheridan (COL 2026)

Advisor: Michael Mann

Location Analysis of Climate Change Discourse on

Twitter

297. Heejoon Shin (COL 2026)

Advisor: Laurence Eisenlohr

Understanding VACV A35R Functions in MHC Class I

and II Antigen Presentation

298. Jessey Shin (COL 2027)

Advisor: Amy Stornaiuolo

User Experience (UX) Design as an Inclusion Practice

in Discord Communities

299. Sneha Shirhattikar (COL 2027)

Advisor: Jianxin You

Characterizing the Interacting Regions of Merkel Cell

Polyomavirus Protein ALTO

300. Kethan Shirodkar (COL 2027)

Advisor: Lisa Schwartz

Physical Activity and Sleep in Adolescent and Young

Adult (AYA) Cancer Patients

301. Samar Shroff (COL 2027)

Advisor: Amelia Eisch

Fentanyl Conditioned Place Preference (CPP) in Adult Male Mice: The Relationship between Dentate Gyrus

Activity and Drug-Context Memory

302. Gladys Smith (COL 2027)

Advisor: Beth Pineles

Differential Agreement and Adherence to Healthcare

Provider-Recommended Bedrest and Activity

Restriction in Pregnancy by Race

303. Samantha Smith (COL 2026)

Advisor: Amelia Eisch

Psychosocial Stress-Response in Somatostatin (SST)
Positive Long-Range Inhibitory Projections (LRIP)

During Social Avoidance

304. Yuliya Solyanyk (COL 2027)

Advisor: Daniel Hopkins

Symbolic Politics in the U.S. and Abroad: Investigating Media's Political Influence, the

Malleability of Identity Self-Identification, and More

305. Emily Song (COL 2026)

Advisor: Nicholas Betley

Effect of Lesioning of the Insular Cortex on Taste and

Feeding Behaviors

306. Jackson Soohoo (COL 2026)

Advisor: Henry Kranzler

Childhood Adversity and Polygenic Scores Interact to

Predict Substance Use Disorder Criteria

307. Sebastian Sookram (COL 2026)

Advisor: Damaris Lorenzo

Cytoskeletal Regulation of Muscle Bioenergetics

308. Catherine Sorrentino (COL 2025)

Advisor: Kathleen Brown

The Resurrectionists and the Origins of Racialized

Medical

309. Matthew Spivey (WH 2027)

Advisor: Dylan Small

Making the Most of Large Datasets: Meaningful Exploratory Analysis in Observational Studies

Houston Hall 2nd floor Lobby (Posters 310-333)

310. Hannah Srey (COL 2027)

Advisor: Joseph Zackular

Clostridioides Difficile Enhances Enterococcus Protease Activity, Leading to Cross Feeding of

Essential Nutrients

311. Steven Su (COL 2026)

Advisor: Erica Korb

Autism Spectrum Disorder (ASD): Interaction

Between Sex and Epigenetic Factors on the Neuronal

Transcriptome

312. Amanda Suh (COL 2027)

Advisor: Kang Ko

IL33+ Fibroblasts Activate Regulatory T Cells to Facilitate Rapid Wound Healing in Oral Cavity

313. Lisa Sun (SEAS 2027)

Advisor: Noor Momin

Engineering Human IL-4 Immunocytokine to Prevent

Post-Myocardial Infarction Heart Failure

314. Rishi Suresh (SEAS 2027)

Advisor: John Wherry

Characterizing the Immune Landscape of Blood and

Skin in Hidradenitis Suppurativa

315. Alyssa Tang (COL 2027)

Advisor: Rebecca Ganetzky

Elucidating Nutrient-mediated mTORC1

Dysregulation in Mitochondrial Complex V (CV)

Deficiency

316. Raven Tang (SEAS 2027)

Advisor: Ian Campbell

How to Teach a Large Language Model to Tell Us

About Childhood Development

317. Sophia Tang (SEAS, WH 2027)

Advisor: Michael Mitchell

Evaluation of Concentrated and Dual-Peptide Conjugated Lipid Nanoparticles for Targeted mRNA Delivery to Brain Endothelial and Neuronal Cells

318. Tara Tarawneh (COL 2025)

Advisor: Siarhei Biareishyk

Delving Into Liminality: An Exploratory Visual Translation of Issam Hajali's Music Through

Movement and Affect

319. Nishat Tasnin (COL 2026)

Advisor: Sunday Akintoye

Responsiveness of Jaw Mesenchymal Stem Cells to

Hypoxic Stress

320. Emma Tasso (COL 2025)

Advisor: Madeline Lucey

Dynamics of the Oldest Stars in FIRE-2 Simulations

321. Ethan Thway (COL 2027)

Advisor: Kristoffel Dumon

Low Cost Surgical Models for Appendectomy Training

322. Sanya Tinaikar (COL 2027)

Advisor: Sarah Schrauben

Functional Status: Remote versus In-person

Assessments of Physical Function

323. Mar Tran (NUR 2026) Claire Zhou (NUR 2027)

Advisor: Hyejeong Hong

Role of BMP6 in IFNB Expression as Potential Target

for Host-directed Therapy against Mycobacteria

Tuberculosis

324. Ariana Treat (COL 2027)

Advisor: Andrew Santiago-Frangos

Histone-mediated Archaeal Adaptive Immunity

325. Aaron Tsui (SEAS 2026)

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