2018
RESEARCH AND FELLOWSHIPS WEEK
POSTER EXHIBITION

Thursday, February 1st 2018
5:30 – 7:00 pm
Bodek Lounge, 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 graduates awarded the most prestigious international scholarships and fellowships
Welcome to CURF's Annual Research and Fellowships Week Poster Exhibition!
Over 200 undergraduate researchers are eager to share their research with you, so enjoy learning about the array of opportunities embraced by undergraduates at one of the world’s leading research universities.
Adamseged Abebe (COL 2019)\textsuperscript{19}  
Advisor: Hans-Peter Kohler  
Malawi

Maramawit Abera (COL 2018),  
Sarah Huang (NUR 2019), and  
Elizabeth Lazarus (COL 2020)\textsuperscript{26}  
Advisor: Robin Stevens  
CityU Intervention

Fahad Ahmed (COL 2020)\textsuperscript{8}  
Advisor: Kalil Abdullah  
Glioblastoma in Elderly Patients

Emiliya Al Yafei (EAS 2020)\textsuperscript{19}  
Advisor: Norman Badler  
Re-Animating the Past

Rebecca Alifimoff (COL 2020)  
and Ethan Nelson (COL 2017)\textsuperscript{19}  
Advisor: Susan Meyer  
Beyond Contempt: Political Dialogue and Disagreement in the Age of Trump

Ana Alonso (COL 2018)\textsuperscript{18}  
Advisor: Simon Richter  
The Transitioning Traditional: Using Cards as a Vehicle for Traditional Ecological Knowledge Transmission

Mauricio Alvarez (LPS 2019),  
David Gordon (COL 2019),  
Kathryn Khaw (EAS 2019),  
Griffin Murphy (EAS 2020), and  
Jane Shmushkis (EAS 2017)\textsuperscript{15, 22}  
Advisor: Daeyeon Lee  
Graphene Nanoplatelet-Based Superhydrophobic Spray-Coatings Applied to Rapidly Deployable Humanitarian Relief Tents

Abigail Anmuth (EAS 2019)\textsuperscript{19}  
Advisor: Cynthia Otto  
Thermoregulatory Factors in Exercising Working Dogs

Ransford Antwi (EAS 2020) and  
Raouf Tawfik (EAS/WH 2019)\textsuperscript{19}  
Advisor: Megan Ryerson  
Highway Safety

Rhosean Asmah (COL 2020)  
and Leila Pearlman (COL 2020)\textsuperscript{19}  
Advisor: Jianjing Kuang  
The Effect of Musicality on Linguistic Tone Perception

Zoe Barbati (COL 2018)\textsuperscript{16}  
Advisor: Kent Bream  
The Implementation of an Electronic Health Registry and the Use of Mobile Health in Santiago Atitlán, Guatemala
Casey Barkan (EAS 2018), Vignesh Bhethanabotla (COL/EAS 2020), Daniel Hyeong-Seok (COL 2018), Radhika Katti (COL/EAS 2019), and Veer Sobti (COL/EAS 2020)^23
Advisor: Andrew Rappe
*Computational Materials Development for a Sustainable Future*

Javier Becerra (EAS 2020), Ellen Duong (EAS 2018), Ella Konefal (COL 2019), Tong Pow (COL 2019), Antonio Rinaldi (COL 2020), and Zachary Whitlock (COL/EAS 2020)^23
Advisor: Michelle Lopez
*Joplin Project*

Rachel Beeson (COL 2018)^13
Advisor: Gareth Roberts
*Exaggeration in Moderation and Simple Signal*

Ella Bei (COL 2020)^19
Advisor: Eleni Katifori
*The topology of the network of semantic relations in the English language*

Helen Berhanu (COL 2018)^8
Advisor: Alex Chase-Levenson
*Afro-Caribbean Immigration to London, 1948-1968*

Nadira Berman (COL 2019) and Kavin Jagnarain (COL/EAS 2020)^19
Advisor: Dawn Teele
*Women in Parliament and the Politics of Abortion*

Ian Bernardin (COL 2020)^19
Advisor: Joseph Farrell
*Phaedrus, the Roman Aesop: A Quantitative Effort to Situate Phaedrus in Latin Literary History*

Daniel Blackey (COL/EAS 2019)^19
Advisor: Lyle Ungar
*The and Formality*

Austin Borja (COL 2018)^8
Advisor: Matt Kayser
*Key Features of Drosophila Larval Sleep – Postural Changes and Quiescent Sequence*

Juan Botero (COL 2020)^19
Advisor: Mia Levine
*Telomeres on a treadmill: causes and consequences of telomeres protein evolution*

Rachel Brock (COL 2018)^12
Advisor: Keren Weitzberg
*Harnessing Urbanization to Develop the Ethiopian Dairy Value Chain*
Brianna Brooks (COL 2019)19
Advisor: Matthew Hayes
Peripheral CCK injection causes changes in neural cFos expression in Liver-specific PGC1α gene knockout mice

Molly Bucklin (COL 2018)8
Advisor: John Scholler
Ability of Cytokines to Improve CAR T-Cell Efficacy

Jessica Burke (COL 2018)13
Advisor: Marc Schmidt
Viscerosensory feedback on motor control of song in the adult male zebra finch

Natalie Burke (COL 2018)8
Advisor: Leja
'Cut Without Hands': The Works of Martha Ann Honeywell

Hyuntae Byun (COL 2020)8
Advisor: Jun Zhu
Thiol-Based Switch Regulation of Vibrio cholerae

Catherine Campbell (COL 2020)19
Advisor: David Barnes
Connections to the Past: Quarantine in Philadelphia through the 19th Century

Jeffrey Careyva (COL 2018)8
Advisor: Jean-Michel Rabaté
Derrida, Heidegger, and the Question of Poetry

Luis Felipe Carvao (COL 2019) and Snega Kalapar19
Advisor: Jessica Morgan
Investigating Photoreceptor Loss in Retinal Disease

Puti Cen (WH 2020)19
Advisor: Michael Platt
Eye Tracking: Gazes Reflect Loss Aversion

Nok Yin Connie Chan (WH 2020)19
Advisor: Emilie Feldman
Why Did They Do It? A Taxonomy of Divestiture Motivations

Patricia Chan (COL 2018)8
Advisor: Russ Carstens
Investigations into distinct Protein-Protein Interactions by Different Protein Isoforms Produced by ESRP1 Regulated Alternative Splicing

Marcello Chang (COL 2019)
Advisor: Arjun Raj
Developing Tools for the Analysis of Spatial Heterogeneity in SNP-FISH Imaging

James Chapman (COL 2020)19
Advisor: Vijay Balasubramanian
Adaptive Molecular Sensing in the Olfactory and Immune Systems
Christy Charnel (NUR 2019)  
Advisor: Dr. Lisa Lewis  
Perceptions of Spirituality and Religion among Haitian Immigrants/Descendants with Cancer

Amy Chen (COL 2018)  
Advisor: David Comberg  
Sustainable Peru: The Impact of Textile Design on People, Profits, and the Planet

Cecily Chen (COL 2020)  
Advisor: Heather Love  
"Reframing Reading as a Social Science": The intersection between micro-sociology and literary narrative

Emily Chen (COL 2020)  
Advisor: Elizabeth Grice  
Characterization of Novel Natural Products Derived from the Skin Microbiome

Kevin Chen (COL 2018)  
Advisor: Larry Gladney  
Assessment of Experiment Based Learning in Physics Education in West Philadelphia High Schools

Yiyi Chen (COL 2019)  
Advisor: Robert DeRubeis  
Machine Learning with the Personalized Advantage Index

Nathan Chiu (COL/WH 2020)  
Advisor: Laura Huang  
American Angel Investors

Samantha Claypoole (COL 2020)  
Advisor: Michael Gamer  
Romantic Dramatic Networks

Braden Cordivari (COL 2018)  
Advisor: C. Brian Rose  
The Beycegiz Tumulus

Emma Cruz (EAS 2020)  
Advisor: Jessica Hsu  
Ultrasmall silver sulfide nanoparticles for breast cancer screening with dual-energy mammography or computed tomography

Helen Dai (COL 2019)  
Advisor: James Aguirre  
A New Type of Spectrometer for Finding Nearby Earth-Like Planets

Taylor Daniel (COL 2017)  
Advisor: Valder Arruda  
Enhancing Factor IX through rational site-directed amino acid substitution

Mihir Dekhne (COL 2018)  
Advisor: Louis Soslowsky  
Injury Response in Normal Tendons: Regulatory Roles of Collagen V
Cassandra Dinh (COL 2019)
Advisor: Frances Barg
Maternal Healthcare in West Philadelphia

Calista Dominy (EAS 2020)
Advisor: Charles Bailey
Clostridium difficile Infection Occurrence and Antibiotic Dosage in Pediatric Cancer Patients

Claire Donovan (COL 2020) and Gianna Ferrarin (COL 2020)
Advisor: Gareth Roberts
Language Contact Experiment

Hailey Dougherty (COL 2018)
Advisor: Clark Erickson
Adaptive Capacity of Traditional Food Systems in the Peruvian Andes

Ashley Douglas (WH 2020)
Advisor: Peter Conti-Brown
The Supreme Court of Finance: A History of the US Federal Reserve

Christopher D’Urso (COL 2018)
Advisor: Sara McGuire
Translating Justice: Promoting Criminal Procedure Reforms Abroad

Donnisa Edmonds (COL 2020)
Advisor: Geoffrey Goodwin
Environmental Decision Making

Christina Eng (EAS 2020)
Advisor: Feng Gai
Evaluating the Suitability of 4- and 5-Nitroindole as Probes for Biological Infrared Spectroscopy

Claudia Epley (COL 2018)
Advisor: Cam Grey
Baltic Amber on Faliscan Fibulae: Economic Mechanisms and Interpretative Perspectives

Nicholas Escobar (COL 2018)
Advisor: Zachary Lesser
Reviving John Dryden’s "The State of Innocence and Fall of Man"

Jacob Faber-Rico (EAS 2020)
Advisor: Cherie Kagan
Probing Trap States in PbS Quantum Dot Solar Cells

Steve Farrell (COL 2019)
Advisor: Vera Krymskaya
Analysis of Flow Cytometry Clinical Datasets Does Not Identify Significant Differences in Lymphoid Cell Proportions Between Cast

Alisa Feldman (COL 2018)
Advisor: Adam Mohr
Be Fruitful and Medicalize: IVF Risk Communication and the Politics of Assisted Reproduction in Israel
Bryn Ferguson (WH 2019)19
Advisor: Samir Nurmohamed
Purpose and Paradox of Retirement

John Filosa (COL 2019)8
Advisor: Michael Povelones
Crithidia fasciculata as a model to study insect-specific adhesion

Emma Finkel (COL 2018)8
Advisor: John Herrington
Emotional Coherence in Children with Autism Spectrum Disorder

Madeline Fried (COL 2018)17
Advisor: Chantel White
The Gardens of Emily Dickinson

Benjamin Friedman (COL 2019)8
Advisor: Emile Bruneau
The Sacred Divide: Political Polarization and Sacred Values

Connor Gallagher (EAS 2020)19
Advisor: David Abrams
Drug Patents, Economic and Health Outcomes

Cooper Gardner (COL 2019)19
Advisor: Vera Krymskaya
Castleman Disease: Analysis of Current Treatment Through ACCELERATE International Registry

Rebecca Gelfer (COL 2019)26
Advisor: Paul Titchenell
Glucose Signaling and the Regulation of Liver Metabolism

Irene Gendelman (COL/WH 2020) and Jordyn Schor (COL 2020)19
Advisor: Paul Rozin
Evaluating the Greater Variability Hypothesis: Are Males More Variable than Females?

Isabel Gendler (COL 2018)8
Advisor: Alex Chase-Levenson
Re-Imagining the Past and Questioning the Present: Oliver Cromwell in Nineteenth-Century British and Irish Historical Fiction

Joshua Glahn (COL 2018)
Advisor: Josh Glahn

Amy Goldfischer (COL 2019)19
Advisor: Michael Weisberg
Community-Based Ecology in the Galapagos Archipelago

Brandon Gonzalez (EAS 2019) and Grace O'Neil (COL 2019)19
Advisor: Josh Klein
Atmospheric Neutrino Studies with the Sudbury Neutrino Observatory
Mileidy Gonzalez (COL 2018)
Advisor: Jean MacIntosh Turfa
Rethinking the Brontoscopic Calendar: Epidemiology, Climate, and Trade in Iron Age Etruria

Mahip Grewal (COL 2020)
Advisor: Edward Brodkin
Bioinformatic Investigation of NRXN1 Mutations Relevant to Autism Spectrum Disorder (ASD)

Qiaochu Guo (EAS 2020) and Adi Somasundaram (COL 2020)
Advisor: Masao Sako
Search for Planet Nine

Heide Gutierrez (COL 2019)
Advisor: Amada Armenta
Victimization among the Latino immigrant community in Philadelphia

Ben Habermeyer (EAS 2020)
Advisor: Christopher Fang-Yen
Sensory Arousal During Stress-Induced Sleep

Renee Hastings (COL 2019)
Advisor: Marisa Kozlowski
Predicting the site-selectivity of Phosphine Ligands

Olivia Hess (COL 2018)
Advisor: Devesh Kapur
Cataract Surgery Care (CSC): A pilot study analyzing the efficacy of a collaborative approach to postoperative ophthalmic care

Emma Hetrick (COL 2018)
Advisor: Paul Saint-Amour
The Reprinting of English Literature in America, 1750-1850

Eliza Kieu Anh Hoang (COL 2020)
Advisor: Guobin Yang
The Changing Landscape of Environmental Activism in China

Abigail Hong (COL 2018) and Daniel Kargilis (COL 2021), Marie Lim (LPS 2018), Ibukunoluwa Olubowale (COL 2018), and Rohit Shinde (EAS 2019)
Advisor: Chamith Rajapakse
3D Printing Bone Scaffolds

Kendra Hong (COL 2018)
Advisor: John Maris
Allelic specific expression of TERT in pediatric cancers

Jack Hostager (COL 2019) and Pei Hsuan Tseng (COL 2020)
Advisor: Paul Robinson
Bringing Criminal Law Principles and Controversies to a Popular Audience
Lynn Hur (COL 2019)
Advisor: Fran Barg
Is obesity the cost of being food insecure? An analysis of food environments and behaviors in rural Guatemala

Youn Young Hur (NUR 2019)
Advisor: Jinyoung Kim
Prospective Investigation of the Impact of Smoking and Smoking Cessation on Obstructive Sleep Apnea

Amanda Hurd (COL 2019) and Jason Kim (COL/WH 2020)
Advisor: Ryan Brutger
International Negotiations, Leader’s Strategies, and Public Opinion

Yunhee Hyun (COL 2020) and Hannah Listerud (COL 2020)
Advisor: Rinad Beidas
Adolescent Suicide Prevention in Routine Clinical Encounters (ASPIRE)

Shivansh Inamdar (COL 2019)
Advisor: Cullen Blake
Simulation of Data to be Produced by NEID Spectrometer

Yasmine Issah (COL 2018)
Advisor: Hans-Peter Kohler
The Impact of the Malawi Longitudinal Study of Families and Health Intervention Research on the Residents of Balaka, Malawi

Adiel Izilov (COL 2020)
Advisor: Dorothy Roberts

Amanda Jankelovits (COL 2019) and Matthew Peng (COL/WH 2019)
Advisor: Chamith Rajapakse
3D Bioprinting of Bone Scaffolds

Jakub Jarmula (COL 2019)
Advisor: Dr. Marc Schmidt
Neuromuscular Circuitry of the Copulation Solicitation Display in Female Cowbirds

Kuanhao Jiang (COL/EAS 2020)
Advisor: Vijay Balasubramanian
Statistics of Natural Scenes and the Perception of Visual Textures

Nathan Jiang (COL 2020)
Advisor: Holger Sieg
Predicting the Presence of Political Institutions in Municipalities

Celine Jo (COL 2019)
Advisor: Kent Bream
Experiences around Diet among Patients with Type II Diabetes in Cobbs Creek

Hannah Juhel (COL 2018)
Advisor: Roy Hamilton
Modulating Word Retrieval through Learning and Neural Stimulation
Tae Wook Kang (EAS 2019)
Advisor: Shivani Agarwal
Learning underlying nested tree models of choice data

Nidhi Kapate (EAS 2020)
Advisor: Ritesh Agarwal
Optimizing the Growth of WS2 Monolayers

Jillian Karande (COL 2018)
Advisor: Jed Esty
The Poetic Representation of a Mind Divided: Margot Ruddock's Impact on the Work of W.B. Yeats

Adrian Kase (COL 2018)
Advisor: Timothy Linksvayer
Pharaoh Ant Colonies Choose to Cannibalize Different Larval Stages Based on the Presence of Queens

Hareena Kaur (COL 2020)
Advisor: Erica Carpenter
A highly sensitive digital droplet PCR assay for analysis of circulating tumor DNA in pancreatic adenocarcinoma

Kathryn Khaw (EAS 2019)
Advisor: Daniel Gillion
Using Twitter as a Prediction Model for the United States Presidential Election of 2016

Hali Kim (COL 2020)
Advisor: Erica Carpenter
Workflow for analysis of ctDNA and case study of non-small cell lung cancer patient utilizing digital droplet PCR

Jisoo Kim (COL 2018)
Advisor: Jeremy Dickens
Distribution of Fishes in the Lower Paraguay River

Vivian Kitainda (COL 2018)
Advisor: Fevzi Daldal
Fused protein complexes in Rhodobacter capsulatus

Noah Klayman (COL 2018)
Advisor: Coren Apicella
Hadza Folk Psychology for the Existence of Moral Exemplars

Marc Klinger (COL 2020)
Advisor: Abraham Wyner
Why the NFL Needs a High School Football Draft, and How Much It Would Be Worth

Sai Kodukula (COL 2019)
Advisor: Jonathan Raper
Role of BMPR-2a Morphogenic Kinase in Axonal Growth Guidance

Gabriel Koo (EAS 2019)
Advisor: Marina Guvakova
Mapping the Signalling Pathways of Rho GEF, Vav2, in Human Breast Cancer
Luca Koritsanszky (NUR 2018)
Advisor: Patricia D'Antonio
The Role of the Nurse in Surgical Infection Prevention: Understanding the Full Implementation of Surgical Aseptic Practice

Nikitha Kosaraju (COL 2018)
Advisor: Kathryn Davis
Hippocampal Subfield Volumetrics as a Function of Disease Duration in Epilepsy

Talya Koschitzky (COL 2020)
Advisor: Laura Almasy
Genomics of Addiction

Aria Kovalovich (COL 2018)
Advisor: Geoffrey Goodwin
Nationalism and Moral Responsibility for Climate Change

Katherine Ku (COL/WH 2020)
Advisor: Katherine Ku
2017 Gordion Archaeological Project

Christina Kuhlmeier (COL 2019)
Advisor: Rand Quinn
Community Schools in Philadelphia

Olivia Landgrover (EAS 2018), Demi Moed (EAS 2018), and Grant Shao (EAS 2018)
Advisor: Karen Winey
Understanding Creep in Polymer Nanocomposites

Joseph LaSure (COL 2018)
Advisor: Thomas Safley
Touching the Lord’s Anointed: The Justification for the Execution of Charles I

Paul Lee (COL 2019)
Advisor: Dan Rader
C6orf106 Regulates Lipoprotein Metabolism and Atherosclerosis

Zachariah Lee (COL 2019)
Advisor: Jay Zhu
Identifying an NO detoxification regulator using S-Nitrosylation in Vibrio cholerae

Hao Chuan Lei (EAS/WH 2020) and Chetan Parthiban
Advisor: Vijay Balasubramanian
Modeling the Visual Pathway Using Deep Neural Networks

Stella Lemper-Tabatsky (COL 2018)
Advisor: Michael Gamer
The Inscrutable Seas of the Soul; or, the Oceanic Sublime in Moby-Dick
Daniel Leone (COL 2018)8
Advisor: Sara McGuire
Violent Extremism in Egypt Post-2013: Causal Factors and Policy Directives

Maya Levine (COL 2018)
Advisor: David Wallace
Fleshly Living: Julian of Norwich's Pedagogy of Anonymous Embodiment

Jason Li (EAS 2020)19
Advisor: Elizabeth Heller
Studying the epigenetic effects of cocaine self-administration using mice models

Andrea Lin (EAS 2019)19
Advisor: Orkan Telhan
bio.lab.maker

Chelsea Lin (COL 2020)19
Advisor: Rotonya Carr
Investigating the Relationship between Hepatic Triglyceride and Ceramide Fats in Alcohol-Fed Mice

Christina Lin (COL 2020)19
Advisor: Isaac Chen
Analysis of Calcium Activity in Cerebral Organoids and Neuronal Cultures

Samantha Linhares (COL 2018)19
Advisor: C. Neill Epperson
The Effects of Premenstrual Mood Disorders on Stress Response

Alice Liu (COL 2020)26
Advisor: Christopher Fang-Yen
A novel microsurgery technique reveals distributed sources of convulsive signals in a C. elegans epilepsy model

Gina Liu (COL/WH 2018)
Advisor: Douglas Wiebe
A time-series study of firearm purchasing following mass shooting events in the U.S.

Corey Loftus (COL 2018)8
Advisor: David Brownlee
Anni Albers and the Midcentury Modern Synagogue

Rebecca Lopez (COL 2018)8
Advisor: Emile Bruneau
Beyond ‘Bad Hombres’: Examining Online News Media Effects on Attitudes toward Latinx Immigrants

Ana Lujan (COL 2018)26
Advisor: Lee Bassett
Synthesis of Nanodiamond Quantum Biosensor
Nicholas Lumsden (WH 2020)
Advisor: Samir Nurmohamed
The Implications of Being Underestimated

Joseph Maggiore (EAS 2019)
Advisor: Kacy Cullen
Recreating the Fascicular Architecture of Regenerating Nerves Using Micro-Tissue Engineered Neural Grafts

Conrad Mascarenhas (COL 2018)
Advisor: Gordon Barr
Sinomenine May Reduce Pain in Infant Rats

Darby Mason (COL 2018)
Advisor: Michael Gamer

Scott Massa (COL 2019)
Advisor: Meghan Lane-Fall
Discipline-based Communication Differences Between Clinicians in Operating Room to Intensive Care Unit Handoffs

Tara McCaffrey (COL 2021)
Advisor: Jacqui Sadashige
An Overview of Scholarship on the Relationship Between Happiness and Vitamin D3

Michael McCarthy (COL 2019) and Jeremy Wilson (COL 2019)
Advisor: Nuala Meyer
CAM-ICU as a Predictor of Length of Stay and Mortality

Brendan McLaughlin (COL 2020)
Advisor: David Sadoff
Ethical Challenges in National Security Reporting

Tom McMonagle (COL 2020)
Advisor: Wil Prall
TRIM11

Natasha Menon (COL 2020) and Yareqzy Munoz (COL 2020)
Advisor: Domenic Vitiello
Moder Patshala and its Importance in West Philadelphia

Hope Merens (COL 2018)
Advisor: Elizabeth Rhoades
Tau Aggregation in Polyphosphate Solution

Simon Miller (COL 2020)
Advisor: David Irwin
Progression of Tau Pathology in Non-Amnestic Alzheimer's Disease

James Mo (COL 2020)
Advisor: Joseph Baur
CRISPR Modifications of Gluconeogenic Genes in Primary Hepatocytes
Zoeb Mohammedshah (EAS 2020)\textsuperscript{19}
Advisor: Ivan Dmochowski
Characterization and Self Encapsulation of Suoercharged GFP by Thermophilic Ferritin

Robert Naruse (COL 2020)\textsuperscript{19}
Advisor: Abraham Wyner
Old and Young Drivers: Understanding Driving Behaviors of Inexperienced and Elderly Drivers

Kimberly Newman (COL 2018)\textsuperscript{8}
Advisor: Phong Tran
Microtubule-drug resistant fission yeast cells – Effects on spindle and chromosome dynamics

Ashten Nguyen (COL 2020)\textsuperscript{19}
Advisor: Fusun Ozer
Effect of Addition of Gantrez Copolymer (PVM/MA) on the Physical and Antibacterial Properties of Orthodontic Denture Resin

Christina Nordrum (EAS 2019)\textsuperscript{19}
Advisor: Eric Detsi
Novel 3D Thin Film Lithium-Iodine Batteries for Miniaturized Implantable Materials

Catherine Oksas (COL 2018)\textsuperscript{8}
Advisor: Edward (Ted) Brodkin
Towards a precision medicine approach to the treatment of autism spectrum disorder

Nubia Ortega (COL 2018)\textsuperscript{12}
Advisor: Frances Barg
The Experience of Managing Type II Diabetes Among Indigenous Maya

Nicholas Paleologos (COL 2020)\textsuperscript{8}
Advisor: Kacy Cullen
Neuropathological Examination of the Hippocampus after Traumatic Brain Injury

Kate Panzer (EAS 2018)\textsuperscript{13}
Advisor: D. Kacy Cullen
Development of Scaffolds Comprised of Aligned Schwann Cells to Facilitate Axon Regeneration Following Peripheral Nerve Injury

Andrew Park (COL 2018)\textsuperscript{8}
Advisor: Andre Dombrowski
Nothingness and Silence in Abstract Art

Kristen Pearson (COL 2018)\textsuperscript{10}
Advisor: Katherine Moore
Tangled Motivations: Community, Mobility, and Frugality in a 10th Century Textile Assemblage from the Mongolian Altai

Javier Peraza (EAS 2020)\textsuperscript{19}
Advisor: Brett Ecker
Impact of Obesity on Breast Cancer Recurrence and Minimal Residual Disease
Leonardo Petit (COL 2020) 
Advisor: Amada Armenta 
*Immigrants and Injustice: Understandings of Health Care among Latino Immigrants in Philadelphia*

Ammar Plumber (COL 2020) 
Advisor: Holger Sieg 
*City Spending and Revenues*

Olivia Podos (COL 2020) 
Advisor: Geoffrey Goodwin 
*Optimism about the climate: a double-edged sword?*

Richard Potter (COL 2018) 
Advisor: Elizabeth Rhoades 
*Understanding Binding Between Tau and Neuronal Tubulin*

Samhith Punukula (WH 2020) 
Advisor: Eugen Dimant 
*Detecting Matching Fixing in Soccer Matches*

Cole Purdy (COL 2019) 
Advisor: Joseph Baur 
*mTORC2 signaling in POMC neurons is not required for locomotor activity*

Justin Qian (COL/EAS 2019) 
Advisor: Ritesh Agarwal 
*CVD Growth of WS2/WSe2 Heterostructures*

Meghana Reddy (COL 2018) 
Advisor: Rinad Beidas 
*Gender based differences of therapist occupational burnout within the community mental health setting*

Yosef Robele (COL 2019) 
Advisor: Doug Jerolmack 
*Mapping Soil Erodibility with a mechanic cockroach*

Nathaniel Rome (COL 2018) 
Advisor: Sara McGuire 
*European Integration and the Marshall Plan*

Nahima Saliba (COL 2020) 
Advisor: Lisa Schwartz 
*Factors that Influence Adherence to Recommendations Among Adolescent and Young Adult (AYA) Survivors of Childhood Cancer*

Mikaela Salvesen-Quinn (NUR 2019) 
Advisor: Charlie Bailey 
*Information Seeking Behaviors of Parents of Pediatric Oncology Patients including Google Utilization*

Daniel Sample (COL 2018) 
Advisor: James English 
*Joyce and Beckett: What We Talk About When We Talk About Style*
Hannah Sanders (COL 2019)\textsuperscript{19}  
Advisor: Alain Plante  
*Effects of Biochar Weathering on Carbon Solubility and Sequestration*

Donavon Sandoval-Heglund (COL 2019)\textsuperscript{8}  
Advisor: Montserrat Anguera  
*Dynamics of Xist RNA Localization to the Inactive X in Quiescent Cell Populations*

Charles Sansone (COL 2019)\textsuperscript{19}  
Advisor: Lauren Sallan  
*Estimating Placoderms Origination Environment via ancThresh Model*

Brandon Santhumayor (COL 2020)\textsuperscript{19}  
Advisor: Elizabeth Heller  
*The Effects of Chronic Variable Stress on Cdk5 Gene Expression*

Jackson Sauls (COL 2020)\textsuperscript{19}  
Advisor: Dorothy Roberts  
*Interracial Marriage in Chicago, 1937-1967*

Elena Schiavone (COL 2018)\textsuperscript{13}  
Advisor: Deena Weisberg  
*Investigating the Science Gender Bias*

Jordyn Schor (COL 2020)\textsuperscript{19}  
Advisor: Paul Rozin  
*Evaluating the Greater Variability Hypothesis: Are Males More Variable Than Females?*

Darsol Seok (COL 2018)\textsuperscript{8}  
Advisor: Michael Platt  
*Gaze reflects loss aversion*

Jiyeux Seok (EAS 2020)\textsuperscript{19}  
Advisor: Douglas Jerolmack  
*Field Work, Erodibility, and Effects on Channel Geometry*

Grant Shao (EAS 2018)\textsuperscript{13}  
Advisor: Eric Detsi  
*Nanostructured T-Nb\textsubscript{2}O\textsubscript{5} as Electrode Material for High-Rate 3D Li-Ion Batteries*

Medha Sharma (COL 2018)\textsuperscript{24}  
Advisor: Hiroshi Nakagawa  
*Age-Associated Decline in Epithelial Cell Autophagy Flux Contributes to Fibrosis in Eosinophilic Esophagitis*

Curie Shim (EAS 2020)\textsuperscript{19}  
Advisor: Eleni Katifori  
*Investigating the Topology of the Coronary Vasculature*

Dayoung Shin (EAS 2020)\textsuperscript{19}  
Advisor: Charlie Johnson  
*Artificial Odor Detection Using Carbon Nanotube*
Myung Jin Shin (COL 2018)\textsuperscript{8}
Advisor: Eran Ben-Porath
*Role of Emotions on Virality of Online Video Advertisements*

Alexander Silva (EAS 2020)\textsuperscript{19}
Advisor: David Cormode
*Engineered T-cell cancer immunotherapy tracking with x-ray computed tomography*

Sheridan Small (COL 2018)\textsuperscript{17}
Advisor: Megan Kassabaum
*Robert Lamborn: The Intersection of Anthropology, Collecting, and Museums in the 19th Century*

Julianne Smolyn (NUR 2019)\textsuperscript{21}
Advisor: Lamia Barakat
*Relationship between Financial Toxicity and Risk-Level, Biological Sex, Current Age, and Age of Diagnosis for Survivors of ALL*

Adithya Sriram (COL/EAS 2020)\textsuperscript{8}
Advisor: A.T. Charlie Johnson
*Early Diagnostics of Parkinson's Disease Using Graphene*

Annie Su (EAS 2020)\textsuperscript{19}
Advisor: Vijay Balasubramanian
*Using texture statistics for inferring the gist of an image*

Joy Sun (COL 2019)\textsuperscript{19}
Advisor: William Peranteau
*In utero gene editing: CRISPR-Cas9 in the mTmG Mouse Model*

Jesus Tamez (COL 2018B)\textsuperscript{13}
Advisor: Dr. Kelly Jordan-Scuitto
*Investigating the Role of BACE 1 Signaling on Neurite Regrowth Following Induced Injury*

Emily Trimm (COL 2019)\textsuperscript{8}
Advisor: Michael Lampson
*Selfish Centromeres Drive Non-Mendelian Segregation*

Andrew Tsai (COL 2020)\textsuperscript{19}
Advisor: Thomas Sollecito
*Emergency Department Utilization Prior to Visiting the Dental School Emergency Clinic*

Ivy Tse (COL 2019)\textsuperscript{8}
Advisor: Sharon Thompson-Schill
*Effects of Social Value Learning on Visual Face Processing*

Ryan Tu (COL 2019)\textsuperscript{19}
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*Investigation of novel latent fingerprint detecting reagents*

Erik Vargas (COL 2020)\textsuperscript{19}
Advisor: Amada Armenta
*Undocumented Immigrants in Philadelphia*
Andrew Wang (COL 2018)\textsuperscript{8}  
Advisor: Jonathan Katz  
RhoF mediates KLF4 induced NF-κB activation and proinflammatory responses in esophageal keratinocytes

Cynthia Wang (COL 2018)\textsuperscript{18}  
Advisor: James Hagan  
E-Waste Management in China: Research and Internship

Jasmine Wang (EAS 2019)\textsuperscript{19}  
Advisor: Louis Soslowsky  
High-Speed Cross-Polarized Imaging Setup for Tracking Tendon Collagen Fiber Realignment: A Labview Control System

Kathleen Wang (COL 2020)\textsuperscript{11}  
Advisor: Erfei Bi  
Isolation and Characterization of ts SNARE Mutants

Tiffany Wang (COL 2020)\textsuperscript{8}  
Advisor: Sharrona Pearl  
The Golden Standard: Examining Ethics and American Journalism in A Global Context

Vanessa Weir (COL 2019)\textsuperscript{8}  
Advisor: Heath Schmidt  
Chemogenetic activation of hindbrain projections to the ventral tegmental area attenuates cocaine seeking in rats

Zachary Whitlock (EAS 2020)\textsuperscript{26}  
Advisor: Shu Yang  
A Super-Strong, Micro-Composite poly-HEMA Reversible Adhesive

Huanyi Xiao (COL 2018)\textsuperscript{13}  
Advisor: Alexander Funcke  
Evidence on the effectiveness of sanitation interventions to reduce open defecation in rural India: A systematic review

Jane Xu (EAS 2020) and Waley Zhang (EAS 2020)\textsuperscript{19}  
Advisor: Val Tannen  
Searching for Repairs: A Polynomial Approach to Missing Answers

Brian Yan (COL 2018)\textsuperscript{8}  
Advisor: Sunny Shin  
Human inflammasome activation in response to bacterial pathogens

Kevin Yang (COL 2020)\textsuperscript{19}  
Advisor: Mia Levine  
Telomeres on a treadmill: causes and consequences of telomere protein evolution

Luming Yang (COL/WH 2019)\textsuperscript{19}  
Advisor: David Hsu  
Commercializing Science: Evidence from Simultaneous Discoveries
Xinpeng Yang (COL 2018)
Advisor: Charlie Johnson
Graphene based Nano biosensor for detection of sub-fM DNA

Jimin Yoon (COL 2018)
Advisor: Ernest Petersson
Modeling Noncanonical Amino Acids through Rosetta

Andres Zambrano (EAS 2019)
Advisor: Cynthia Sung
Implementation of dynamics into motion simulations of robots made through rapid-fabrication

Michelle Zhan (COL 2019)
Advisor: John Maris
In Vitro Testing of Three Novel USP7 Inhibitor Drug Therapies in Pediatric Neuroblastoma

Susan Zhao (EAS 2019)
Advisor: Michelle Johnson
Efficacy of a Pressure-Sensitive Mat within the PANDA Gym in Assessing Developmental Delays in Infants

Brian Zhong (COL 2020)
Advisor: Mike Montague
Variation in oxytocin and vasopressin receptor genes and impacts on social behavior among the Cayo Santiago rhesus macaques

Hanming Zu (EAS 2020)
Advisor: Jordan Raney
Paste Ink Extruder for 3D printer
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Getting Started in Health Care Research
Social Policy, Practice and Change Research
Fellowships 101 Information Sessions
Fellowships 201 Information Sessions
Fulbright Scholarship Information Sessions
Graduate Study in the United Kingdom
Pursuing International Summer Fellowship Opportunities
Advising

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Peer Support and Advising from Research Peer Advisors and the Undergraduate Advisory Board

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The President’s Engagement Prize (PEP) supports students with living expenses and project implementation expenses to develop and implement a promising local, national, or global engagement

The President’s Innovation Prize (PIP) provides living expenses and project implementation expenses to envision and implement an innovative, commercial venture that makes a positive difference in the world

The Penn Undergraduate Research Mentorship Program (PURM) matches students with faculty researchers each Spring

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

The University Scholars Program provides support for in-depth research during the undergraduate career

The Benjamin Franklin Scholars Program offers intellectually stimulating small seminars