

Summer PURA Cohort 2021

Recipient	Year	Division	Proposal Title	Mentor/s	Division
Gohta Aihara	2023	WSE	"Understanding the Role of TCR Mechanotransduction in the Induction of CD4+ T Cell Cytotoxicity"	Ariel Isser, Jonathan Schneck	SoM
Srihitha Akula	2023	KSAS	"Role of Malvolio in Drosophila Development"	Deborah Andrew	SoM
Melanie Alfonzo Horowitz	2022	KSAS	"Assessing Interaction Stabilities Between EGFR Dimers"	Kalina Hristova	WSE
Sreenivas Eadara	2023	KSAS	"Investigation of the Lin28/Let-7 Pathway in Neuropathic Pain through Inducible Gain-of-Function"	Mollie Meffert	SoM
Kylie Fuller	2023	KSAS	"Isolating the role of the auditory cortex in sensorimotor learning"	Kishore Kuchobhotla	KSAS
Julissa Garcia	2022	KSAS	"Testing Models for Viral Inhibition of SARS-CoV-2 by ZMPSTE24"	Eric Spear, Susan Michaelis	SoM
Dennis Gong	2022	WSE	"Macrophage Gene Delivery Using Targeted Polymeric Nanoparticles"	Savannah Est-Witte, Jordan Green	SoM
Benjamin Huang	Dec-21	WSE	"Smart Ureteral Stent for Monitoring Stent Encrustation and Intrarenal Pressure"	Dan Stoianovici, Jared Winoker	SoM
Harmon Khela	2022	KSAS	"Oct4 and Sox2 drive the immunosuppressive phenotype of glioma stem cells (GSCs)"	John Lattera, Hernando Bertoni-Lopez	SoM
Jabari "Jay" Lawrence	2024	WSE	"The Design and Construction of a Jet Array for Use in a Water Tunnel Examining Fish-Eddy Interactions"	Rui Ni	WSE
Hojun Lee	2022	WSE	"Computational Simulation of Heart Sound Propagation in Subjects with Different Body Habitus and Gender"	Rajat Mittal	WSE
Michael Liew	2023	KSAS	"Bridging transcriptional and morphological cell types to understand the cellular organization of motor corticothalamic neurons"	Alina Spiegel, Solange Brown	SoM
Joanna Maressa	2022	WSE	"3D tissue-engineered model of the blood-brain barrier during metastatic cancer"	Raleigh Linville, Peter Searson	SoM, WSE
Saumya Nimmagadda	2022	KSAS	"Testing immunosuppression as a means of accelerating retinal ganglion cell regeneration in the zebrafish"	Kevin Emmerich, Jeff Mumm	SoM
Emmanuel Osikpa	2022	KSAS	"Impact of Changes to Visual Experience on the Development of Motion Vision Processing in the Behaving Ferret"	Kristina Nielsen	SoM
Zachary Reeves	2022	KSAS	"Investigating the Frequency of Carbon-Enhanced Stars in Globular Clusters Vs. in the Field"	Kevin Schlaufman	KSAS
William Shao	2022	WSE	"“On the fly” AI modeling of crystal growth from the melt"	Aaron Chen, Paulette Clancy	WSE
Mira Stone	2022	KSAS	"Houses with Blue Doors: A Creative Examination of South Asian Diaspora & Othering "	Kate Keleher	KSAS
Sarah Syed	2023	KSAS	"Identifying the Role of Microglia Trophocytosis in Maintaining Excitatory Synapses"	Jacqueline Griswold, Shigeki Watanabe	SoM

Michael Xiang	2022	KSAS	"An Investigation into Alcohol and Epoxide Directed Fluorinations: Utilizing Light and Electricity to Develop Safe, Site-Selective, and Efficient Radical Fluorination Strategies for Bioorganic Molecules "	Thomas Lectka	KSAS
Margaret "Maggie" Yang	2024	KSAS	"Defining the role of C1orf116 as a metastasis suppressor in prostate cancer"	Sarah Amend, Ken Pienta	SoM

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Ria Arora	2022	KSAS	Investigating Sex Differences in the Schizophrenia Transcriptome across Multiple Brain Regions	Kynon Jade	SoM
Tihitina Aytenfisu	2021	KSAS	Designing MANAbodies to Recognize MHC-I+R140Q-IDH2 Complex in Acute Myeloid Leukemia	Sandra Gabelli	SoM
Devanik Biswas	2022	KSAS	Evaluating the Biomarker Potential of c-Abl Pathway Molecules using Neuronal-Enriched L1CAM-Positive Exosomes	Saurav Brahmachari	SoM
Lauren Brewster	2021	KSAS	Relationship between Cochlear Damage, Stress, and Anxiety Behaviors in Noise-Induced Hearing Loss	Amanda Lauer	SoM
Pedro Castineira	2021	KSAS	Understanding the Mechanism of Receptor Tyrosine Kinase Activation with Crosslinking Mass Spectrometry	Stephen Fried	KSAS
Yeeun "Lina" Choi	2021	KSAS	Nucleolar proteomic profiling of genetically engineered colon organoids	Tatiana Larman	SoM
Matthew Figdore	2021	WSE	Gene Co-expression Network Development using Single-Cell RNA-Sequencing Data	Alexis Battle	WSE
Anthony Garcia	2023	KSAS	Characterization of a Novel SUMO-1 Dependent Cytosolic Protein Quality Control Pathway	Michael Matunis	BSPH
Alice Han	2022	KSAS	The Role of WAKE and Dlg in Circadian Regulation of Sleep	Mark Wu	SoM
Carmen Jung	2021	KSAS	Investigating the cellular regulation of mutant ribosomal protein RPL10	Kamena Kostova	Carnegie
Yun-Huai "Wade" Kuo	2021	WSE	Engineering Bispecific Antibodies to Synergistically Inhibit Tumor Metastasis	Jamie Spangler	WSE
Michael Lan	2021	WSE	Design of a Peripheral Nerve Conduit from Electrospun Polycaprolactone Nanofibers, Hyaluronic Acid, and Chondroitin Sulfate Proteoglycans to Reduce Pain from Symptomatic Neuromas	Hai-Quan Mao	WSE
Adrian Lee	2022	KSAS	Investigating the Contribution of Astrocyte Metabolic Alterations to Cognitive Dysfunction through Electrophysiological and Morphological Analysis	Juhyun Kim	SoM
Michael Leff	2021	KSAS	Aromatics and Incense in Levantine Cultic Ritual	Theodore Lewis	KSAS
Brian Li	2022	KSAS	Recalibration of temporal encoding in the hippocampus.	Manu Madhav	WSE
Renee Nerenberg	2022	WSE	Understanding and treating blood-brain barrier dysfunction during Huntington's disease	Peter Searson, Raleigh Linville	WSE
Alan Poe	2021	WSE	Mechanisms of Lysyl Oxidase Like 2 (LOXL2) regulation by Factor Xa processing	Lakshmi Santhanam	SoM
Jonas "Wesley" Ravich	2022	KSAS	Enhancing Natural Killer Cell Stimulation and Specificity to Acute Myeloid Leukemia	Challie Bonifant	SoM
Maya Sitaram	2022	WSE	Developing Machine Learning Algorithms for Surgical Skill Prediction to Assess the Benefit of Force-Feedback Systems in Robotic Surgery Training	Jeremy Brown	WSE

Kevin Sompel	2021	WSE	Ionic Remodeling of the Sinoatrial Node Associated with Heart Failure Contributes to Chronotropic Incompetence	Natalia Trayanova, Joseph Yu	WSE
Tidie Song	2021	KSAS	Characterizing the Role of Epigenetically Silenced Genes in Driving Lung Cancer Initiation	Michelle Vaz	SoM
Lakshay Sood	2023	KSAS	Characterization of Type 2 Topoisomerase Inhibitors for Chemotherapeutic and Antifungal Regimens	James Berger, Joyce Lee	SoM
Sarah Syed	2023	KSAS	Identifying the Molecular Mechanisms underlying the Alignment of Neurotransmitter Release Sites and Receptors	Shigeki Watanabe	SoM
Naba Wahid	2022	KSAS	Ethnonationalism and Democratic Integrity: Lessons from India	Steven David	KSAS
Sydnee Wong	2022	KSAS	Increasing Silicon Nanomaterial Stability for Light-Activated Applications.	Rebekka Klausen	KSAS
Michael Xiang	2022	KSAS	Investigation and Innovation of Functionally Directed, Site-Selective and Efficient Radical Fluorination Strategies for Bioorganic Molecules	Thomas Lectka	KSAS
Aditya Yedetore	2022	KSAS	Using Neural Networks To Investigate Language Acquisition	Tal Linzen	KSAS
Joseph Yoniles	2022	KSAS	PAR-induced Neurotoxic Aggregation of ALS-linked FUS Variants	Sua Myong, Kevin Rhine	KSAS
Chinat Yu	2023	WSE	A scientific guide to success at Hopkins	Justin Halberda	KSAS

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Milind Agarwal	2020	WSE	Using computational biology to find genetic causes of severe inflammatory bowel disease in children	Janet Markle	BSPH
Tihitina Aytenfisu	2021	KSAS	Compensating for Arrhythmogenic S1904L Mutation in Nav1.5	Sandra Gabelli	SoM
Colin Bowen	2020	WSE	Statistical Characterization of Power Grids Using Electrical Parameters, Network Topology, Spatial Statistics, and Random Graphs	Benjamin Hobbs	WSE
Devina Chatterjee	2021	WSE	CORE320 Validation of Quantification of Perivascular Inflammation using Computed Tomography Angiography Imaging	Armin Zadeh	SoM
Hsuan-Wei "Isaac" Chen	2020	KSAS	Learning Through Imitation: Different Routes to Performance in Autism and Peers	Joshua Ewen	SoM; KKI
Janice Choi	2021	KSAS	Studying the co-transcriptional assembly of Cas9 Ribonucleoprotein Complex in real-time	Ikenna Okafor and Taekjip (TJ) Ha	KSAS; SoM
Jun Choi	2020	KSAS	The Early Long Duration of Midazolam Sedation Causes Behavioral Deficits and Synaptic Morphology Changes in the Mouse Model	Cyrus Mintz	SoM
Tiffany Chu	2020	WSE	Development of a high-throughput cancer cell invasion assay for cancer drug discovery.	Pei-Hsun We	WSE
Monica Daubon	2020	KSAS	Hippocampal Place Cell Activity in Echolocating Bats	KirstenBohn	KSAS
Christopher Domalewski	2020	WSE	Locally Treating Lung Cancer with Supramolecular Drug Amphiphiles via Aerosol	Honggang Cui	WSE
Jianing "Jerry" Fang	2021	KSAS	Understanding the Mechanism of Wetland Degradation on the Eastern Tibetan Plateau and Its Implications for Black-necked Crane (Grus nigricollis) Conservation	Benjamin Zaitchik	KSAS
Emily Franco	2020	KSAS	Dwelling on the Negative with Friends: Psychometric Properties of a New Scale on Co-Rumination Beliefs	Alison Papadakis	KSAS
Justin Greene	2021	KSAS	Characterizing Growth Heterogeneity in Isogenic Yersinia pseudotuberculosis microcolonies	Kim Davis	BSPH
Gabriel Grifno	2020	WSE	3D in vitro model of the perivascular niche during glioblastoma treatment	Peter Searson	WSE
Suyeon Ju	2021	WSE	Investigating the correlation in APD readings and fidelity between electrophysiology (EP) catheters and monophasic action potential (MAP) catheters	Natalia Trayanova	WSE
Joshua Krachman	2021	WSE	Determining Which Ion Channels Mediate Vascular Photorelaxation	Lakshmi Santhanam	SoM
Emma KurtzFreilich	2021	KSAS	The Feasibility of a Common Currency for ECOWAS: an Econometric and Comparative Analysis	Olivier Jeanne	KSAS

Michael Lan	2021	WSE	Design of a Peripheral Nerve Wrap from Electrospun Polycaprolactone Nanofibers and Decellularized Amnion	Hai-Quan Mao	WSE
Sehyun "Vickie" Lee	2020	WSE	Investigation of neurological deterioration of Parkinson's disease in parallel with circadian rhythm disruption	SungUng Kang	SoM
Silu Men	2021	WSE	Using Functional Connectivity to Understand the Relationship between Value-Driven Attention Capture and Electroencephalography Data	Sridevi Sarma	WSE
Sehej-Leen Parmar	2020	KSAS	Studying the Novel Role of Cdx2-mediated Differentiation in Oncogenic Senescence Induction	Hariharan Easwaran	Som
Marcos Perez	2020	WSE	Wind-Tunnel Testing and Analysis of Flow-induced Deformation and Flutter in Trees	Rajat Mittal	WSE
Stone Streeter	2021	KSAS	Prevention of Opiate Mediated Respiratory Suppression (ORS) in Obese Patients	Seva Polotsky	SoM
Akanksha Suresh	2021	KSAS	Investigating neuronal pentraxin 2 in age-related cognitive impairment	Rebecca Haberman	KSAS
Serena Tang	2020	KSAS	Multidimensional Analysis of Human Health and Performance in Long-Duration Spaceflight	Mark Shelhamer	SoM
Michael Trautmann-Rodriguez	2021	WSE	The Role of Extracellular Matrix-induced TFF1 in Breast Cancer.	Daniele Gilkes	SoM
Matthew Wang	2021	WSE	No Motion Index: A Novel Metric as a Predictive Measure of Patient Outcome in Critically Ill Neurological Patients	Pawel Kudela	SoM
Courtney Whilden	2020	KSAS	Dissecting Circuits to Understand the Role of Cortical Layer 6 in Sensory Perception	Solange Brown	SoM
Jixin "Audrey" Zheng	2022	WSE	Investigating the effects on decoding electrocorticographic signals from gravity-dependent torque during sequential reaching in a 3D virtual workspace	Daniel Cadrea	SoM
Angela Zhu	2021	WSE	Engineering Bispecific Antibodies for Cancer Immunotherapy	Jamie Spangler	WSE

Summer PURA Cohort 2018

Recipient	Year	Division	Proposal Title	Mentor	Division
Vinay Ayyappan	2020	WSE	Establishing Ubiquitous Mitochondrial Creatine Kinase (CKMT1) as a Proton MRS-Imageable Metabolic Vulnerability in Human Breast Cancer	Kristine Glunde	SOM
Yuxi Chen	2019	KSAS	Contribution of the Primary Somatosensory Cortex to Sensorimotor Adaptation in Mice	Daniel O'Connor	SOM
Michelle Chiu	2019	KSAS	Larval Mosquito Salivary Gland Architecture and Secretion	Michael Wells	SOM
Jianna Cressy	2018	KSAS	Role of medial prefrontal cortex in updating value representations	Jeremiah Cohen	SOM
Samantha Dominguez	2019	KSAS	Auditory discrimination of echolocation and communication signals in bats	Angeles Salles	KSAS
Madison Dutson	2018	KSAS	Addressing Environmental Health Challenges in Baltimore City Public Schools through Student Engagement	Megan Latshaw	BSPH
Alanna Farrell	2020	WSE	Three-dimensional in Vitro Model of Blood-Brain Barrier Drug Delivery for Treatment of Brain Cancer	Peter Searson	WSE
Angel Gabriel	2019	KSAS	The Effects of Racial Discrimination on Hypertension in an Integrated Community in Baltimore City	Roland Thorpe	BSPH
Samantha Goldschmid	2019	KSAS	Mixed Metal Catalysis for Small Molecule Activation	Sara Thoi	KSAS
Michael Leff	2021	KSAS	Engineering single-chain cytokine-antibody fusions for cancer immunotherapy	Jamie Spangler	WSE
Patrick Little	2018	WSE	The Time Course of Physical Intuitions	Chaz Firestone	KSAS
MonYi Lwin	2019	KSAS	Urine ketones as a biomarker for seizure reduction in patients with epilepsy on the modified Atkins Diet	Mackenzie Cervenka	SOM
Bruce Nguyen Tran	2019	KSAS	Active and passive listening channels for auditory scene analysis	Cynthia Moss	KSAS
Melody Nguyen	2020	KSAS	Identifying in vivo protein modifiers of mutant VCP-induced muscle dysfunction via a directed genetic interaction screen.	Anthony Cammarato	SOM
Richard Oh	2019	WSE	Prolonged Effects of Clinical Drug on Epileptic Neuronal Networks	Pawel Kudela	SOM
Michael Ontiveros	2019	KSAS	Examining the potential of social network interventions to improve HIV care and treatment among women who use drugs in Tanzania	Haneefa Saleem	BSPH
Karl Osterbauer	2019	KSAS	Testing a Model of Metal Poor Star Formation in Ultrafaint Dwarfs of the Local Group	Kevin Schlaufman	KSAS
Bradley Parsons	2020	KSAS	Sleep Patterns in Student Athletes	Alan Schwartz	SOM
Luyi Peng	2020	KSAS	Loss of p53 in pathogenesis of relapsed and refractory multiple myeloma	Yu-Tai Chang	SOM
Isaree Pitaktong	2020	WSE	3D Printing Vascularized Cardiac Tissue Constructs	Narutoshi Hibino	SOM
Wenzer Qin	2019	KSAS	Astrometric Effects of Alternative Theories of Gravity	Marc Kamionkowski	KSAS
Madison Reed	2019	KSAS	A Biochemical and Cellular Analysis of HIV recognition by CD4+ T lymphocytes	Scheherazade Sadegh-Nasseri	SOM

Nazrawit Retta	2019	KSAS	Quantitative Analysis of Sensory Cells and Neurons of the Ear in Deaf Bats	Amanda Lauer	SOM
Julia See	2020	KSAS	Astrocyte IL-33 in Sex-dependent Modulation of Microglia Function and Anxiety Related Behavior	Shinichi Kano	SOM
Jayhyun "Jenny" Seo	2019	KSAS	Defining Epigenetic Regulation of B2-Adrenergic Receptor Tachyphylaxis in Asthma	Steven An	BSPH
Christopher Shallal	2021	WSE	Dielectric Elastomer Actuator Implementation into a Prosthetic Adaptive Socket	Nitish Thakor	SOM
Rosa Shi	2019	KSAS	Preclinical neuroprotective efficacy evaluation of DA-9805 for Parkinson's disease	Ted Dawson	SOM
Tyler Spoletti	2020	WSE	Disrupting the Flight of Mosquito Swarms via Acoustic Waves	Rajat Mittal	WSE
Albert Yang	2019	WSE	Creation of Split GFP-Based Cellular Boolean XOR Logic Gates	Takanari Inoue	SOM
Mingyu Yang	2019	WSE	Developing Cortex-Like Tissue in Vitro	Hai-Quan Mao	WSE
Kevin Zhan	2020	WSE	A genome-wide screen to identify negative regulators of centrosome biogenesis	Andrew Holland	SOM

Summer PURA Cohort 2017**

Recipient	Year	Division	Major/s	Mentor/s	Division
Gabrielle Aversa	2019	KSAS	Chemistry	Sara Thoi, Avery Baumann	KSAS
Anant Bhargava	2018	KSAS	Biophysics	Erin Goley	SoM
Monika Borkovic	2018	KSAS	Writing Seminars	Jennifer Kingsley	KSAS
Ines Botto	2018	KSAS	Sociology	Tim Nelson	KSAS
Alisa Brown	2018	WSE	Biomedical Engineering	Jeff Siewerdsen, Amir Manbachi	SoM
Alyssa Chalmin	2019	KSAS	Molecular & Cellular Biology	Kelly Metcalf-Pate, Alicia Braxton	SoM
Aran "Irene" Chang	2020	KSAS	East Asian Studies	Gerald Brandacher, Angelo Leto Barone	SoM
Alexa Earls	2019	KSAS	Behavioral Biology	Eric Hutchinson	SoM
Nicolas Eng	2018	WSE	Biomedical Engineering	Michael Beer	SoM
Victoria Fang	2018	WSE	Biomedical Engineering; History of Science, Medicine & Technology	Arvind Pathak	SoM
Marissa Ferreyros	2018	KSAS	Cognitive Science; Psychology	James Knierim, Manu Madhav	KSAS, WSE
Anna Garcia	2018	WSE	Chemical & Biomolecular Engineering	Patrick Brown, Cara Rabik	SoM
Amolika Gupta	2018	KSAS	Neuroscience	Keri Martinowich, Kristen Maynard	SoM
Ananya Gupta	2019	WSE	Biomedical Engineering	Sharon Gerecht, Justin Lowenthal	WSE
Max Jarcho	2020	WSE	Computer Science & Engineering	Christopher Celenza	KSAS
Ruchita Kothari	2019	KSAS	Biophysics	Solomon Snyder, Chirag Vasavda	SoM
Abhijay Kumar	2018	KSAS	Molecular & Cellular Biology	Andrew Holland, Michelle Levine	SoM
Joey Li	2017	KSAS	Molecular & Cellular Biology	William Matsui, Ross McMillan	SoM
Xiang Li	2019	WSE	Electrical & Computer Engineering	Jerry Prince, Muhan Shao	WSE
Nikki Lopez Suarez	2019	KSAS	Materials Science & Engineering	Maria Portuondo	KSAS
Lakyn Mayo	2018	WSE	Materials Science & Engineering	Peter Searson, Moriah Katt	WSE
Jeyani Narayan	2019	WSE	Chemical & Biomolecular Engineering	Yun Chen, Nirutoshi Hibino	WSE, SoM
Chidinma Nnadi	2019	KSAS	Biophysics	Sarah Woodson, Subrata Panja	KSAS
Jilliann Pak	2018	KSAS	International Studies & Sociology	Stefanie Deluca, Allison Young	KSAS
Aleksandra Popovic	2019	KSAS	Molecular & Cellular Biology	Elizabeth Jaffee, Nina Chu	SoM
Vignesh Sadras	2018	WSE	Biomedical Engineering	Raimond Winslow	WSE
Piunik Sarkisian	2018	KSAS	Psychology	Evelyn Ender	KSAS
Will Scerbo	2018	WSE	Applied Math & Statistics	Daniel Naiman, Geoffrey Wright	WSE, PI

Mariah Schrum	2018	WSE	Biomedical Engineering	Russell Taylor	WSE
Fion Shiau	2018	KSAS	Neuroscience; Molecular & Cellular Biology	Seth Blackshaw, Brian Clark	SoM
Paige Stanley	2018	WSE	Chemical & Biomolecular Engineering; Applied Math & Statistics	Jeffrey Gray, Jeliazko Jeliazkov	WSE, KSAS
Wen Wen Teh	2018	KSAS	Neuroscience; Economics	Abdulgafoor Bachani	BSPH
Linh Tran	2019	WSE	Biomedical Engineering	Gregg Semenza, Haiquan Lu	SoM
Delaney Ubellacker	2019	KSAS	Cognitive Science	Brenda Rapp, Robert Wiley	KSAS
Fernando Vicente	2018	WSE	Biomedical Engineering	Andrew Feinberg	SoM
Dillan Villavisanis	2018	KSAS	Anthropology	Amanda Lauer	SoM
Max White	2018	KSAS	Biophysics	Jie Xiao, Chris Bohrer	SoM
Kimberly Wong	2019	KSAS	Cognitive Science	Michael McCloskey, Gali Elenblum	KSAS
Wendy Xie	2019	KSAS	Neuroscience	Cynthia Moss, Michaela Warnecke	KSAS, SoM
Cindy Yuan	2019	KSAS	Neuroscience; Cognitive Science	Marshall Hussain Shuler, Tanya Marton	SoM

**** students were not asked to submit proposal during inaugural year**