

SCHEDULE BY PRESENTER

Presentations listed by primary presenter, i.e. the person who registered the presentation. See the abstract book and Canvas site for a full listing of presenters in groups.

Primary presenter Last name	Program Name	Presentation Title	Live Q&A Time slot
Alali	KAUST REU	The Application of Amorphous Solid Dispersions in the Delivery of Polypeptide Drugs	2-3
Albaltan	KAUST REU	Optimization and localization method for tension controlled soft robotic actuation in biomimetic bat robot	2-3
Alem	KAUST REU	Lithium extraction from seawater using electrolysis	2-3
Alkhamis	KAUST REU	Ocean-wave Powered Batch Reverse Osmosis System	2-3
Almuallim	KAUST REU	Enhancing High-Speed Imaging of Bat Flight	2-3
Almutawa	KAUST REU	Numerical Investigation of Ambient and Snow Parameters on the Tire Traction Coefficient Using Response Surface Methodology	2-3
Alonso	MAOP	Comparison of Effectiveness of Pathasure ELISA testing kit and PCR testing for the Diagnostics of Calf Diarrhea	10-11
Alroogi	KAUST REU	Bacteria biofilms as living Surface-Enhanced Raman Spectroscopy labels for virus (bacteriophage) detection	2-3
Alruhaili	KAUST REU	Photothermal inactivation of bacteria using graphene oxide embedded bacterial nanocellulose membranes	2-3
Alsaman	KAUST REU	Spatiotemporal monitoring of biochemical changes during biofilm maturation via SERS	2-3
Angles	NeuroSURF	Measuring post-movement beta rebound in the motor cortex with optically pumped magnetometry	11-12
Balubaid	KAUST REU	Pedestrian on Wheelchair Safety During Vehicle Crashes	2-3
Belew	Hollins University	Synthesis and Characterization of Dirhenium Compounds That Contain dppm, dppmMe and dppmCN	2-3
Beyer	Fralin SURF	Elucidating Molecular Interactions of the Endosomal Adaptor Protein TOM1 using Microscale Thermophoresis: Josephine Beyer, Tiffany Roach, Daniel Capelluto	1-2
Bono	School of Neurosci Fellows	The Brainstem Cholinergic System and Parkinson's Disease	11-12
Botha	TOUR	How to Increase Engagement for Online Programs: Exercise Intervention Dissemination Tactics in Cooperative Extension	9-10
Bowman	TOUR	Feasibility of using Inertial Measurement Units to study fall risk during daily living: A pilot study on the effects of obesity	9-10
Brown	Hollins University	Let's go fishing : Catching cysteine containing proteins in cytoplasmic pools!	2-3
Browne	MAOP	Water infrastructure needs vs current funding proposals -- assessing the gaps	10-11
Brynes	NeuroSURF	Exploration of brain areas activated by visual and auditory imagery through intracranial electrodes	11-12
Bui	NeuroSURF	In silico analyses of a new PIK3 peptide inhibitor	11-12
Busidan	Fralin SURF	Directed evolution of the Amino Acid Permease gens from Arabidopsis as a mean to understand the molecular basis of their amino acid transport specificity	1-2
Byer	NeuroSURF	Distribution of ipsilateral-projecting retinal ganglion cells in mouse retina	11-12
Byrnes	School of Neurosci Fellows	Exploration of brain areas activated by visual and auditory imagery through intracranial electrodes	11-12
Caceres	MAOP	Development and validation of portable samplers to measure atmospheric gases	10-11
Cantarero	NeuroSURF	SARM1 KO reduces P-Tau expression after mild TBI/ concussion	11-12
Catalan	Independent	Scoping Anuran Research: Trends of Missing Traits in Anuran Physiological Research	3-4
Chapman	RET in Engineering and Computer Science	Time Series Analysis of Water Quality Parameters	12-1
Chase	Fralin SURF	Auditory Sleep Interventions for Improving Motor Learning in Parkinson's Disease: Phase I	1-2
Choi	Interdisciplinary Water REU	Influence of Acanthamoeba castellanii on the copper inactivation of environmental strains of Legionella pneumophila in simulated premise plumbing	9-10
Chung	Neutrino Physics REU	Investigating the Radiopurity of Lithium Molybdate for Improved Bolometers at CUPID	12-1
Clay	Fralin SURF	Reactivation of Herpes Simplex Virus from Neurotrophic Factor Deprivation in Neurons	1-2
Clinton	School of Neurosci Fellows	Focused Ultrasound Neuromodulation in a Rodent Model of Depression	11-12
Conrad	School of Neurosci Fellows	Central Mechanism of Gastrin Induced Satiety in Broiler Chicks	11-12
Crum	TPS SURF	Quantifying the antimicrobial properties of urushiol	1-2
Curry	NeuroSURF	Upregulation of MCU Alters the Size and Synaptic Localization Patterns of Mitochondria	11-12
Davidson	Independent	Molecular Dynamics Investigation of a G-Quadruplex in the KRAS Promoter Region	3-4
Deane	MAOP	A dendroclimatic comparison of sugar maple and pignut hickory	10-11
deToll	Fralin SURF	Similar carbon uptake rates among wetlands with different development histories	1-2
DeWalch	Space@VT	Space Domain Awareness at Virginia Tech	12-1
Dinges	MAOP	Synthesis of Hyperbranched Polymers via Metal-Free Self-Condensing Ring-Opening Metathesis Polymerization	10-11
Dopp	TOUR	Examining self-regulation as a target to improve health outcomes for pregnant women with obesity and their offspring	9-10
Driss	Hollins University	To Create Beloved Community: Engagement in Post-COVID Anti-Suspension Work	2-3
DuMez	MAOP	Transgenesis and Regeneration in Cannabis	10-11
Dunn	MAOP	Impact of COVID-19 on High School Student GPA; Exploration of Factors that Predict Academic Performance	10-11
Emeric-Martinez	Hollins University	The Pursuit for the Protection of Cultural Property	2-3
Eversole	TOUR	Irreversible Electroporation and its Effect on Interferon Gamma and Programmed Death-Ligand 1 Expression in Human Pancreatic Cancer Cells	9-10
Farrokhpoor	Independent	Molecular Dynamics Analysis of VEGF promoter G-Quadruplex Using Polarizable Simulations	3-4
Fehlman	VT REEL	Plant Sugar Feeding Habits of Mosquitoes in Residential Blacksburg	3-4
Fekru	MAOP	Decolonization without independence: framing EU and AU relations through the context of colonialism	10-11
Fogarty	Independent	Polarizable Molecular Dynamics Simulations of the G-Quadruplex Present in the mutant-VEGF Promoter Region	3-4
Gabby	Fralin SURF	High-throughput drug screen to identify new therapeutics to eradicate Borrelia burgdorferi, the causative agent of Lyme disease	1-2
Gallegos	MAOP	Determining pterin methylase function in Methanogens	10-11
Gathright	MAOP	Creating an RNA standard curve for SARS-CoV-2 qPCR	10-11
Gill	NeuroSURF	Complement C3 is required for microglia and monocyte phagocytosis of inhibitory perisomatic synapses in Toxoplasma gondii infection	11-12
Gonzalez Velázquez	MoVis	Regulation of GJA1-20k translation by IGF2 mRNA binding protein 1 regulates gap junction formation.	12-1

Grubbs	Independent	Short-term variations in nitrate can trigger lead solder corrosion problems	3-4
Gude	MolVis	The Effect of Connexin43-based Gap Junctions on Endothelial Cell Branching and Pericyte Formation in Mice Retinas	12-1
Guyton	TOUR	Racial Equity Audit to Develop Recommendations to Increase Accessibility of SNAP-Ed to People of Color	9-10
Hallworth	RET in Engineering and Computer Science	Data Quality Assurance Plan for a Real-Time Water and Weather Monitoring System	12-1
Han	NeuroSURF	Neural circuits for adolescent aggression induced by early life malnutrition	11-12
Hartman	GlycoMIP SURF	Investigating the Cell Wall Structure of Lyme Disease Bacteria	1-2
Hayday	NeuroSURF	Divergent roles of PI3K catalytic isoforms in melanoma	11-12
Hedrick	Next Generation Scholars	Dendroecological reconstructions of disturbance events in Table Mountain pine	12-1
Henry	Fralin SURF	Wings n Things: A study of cicada flight and snake landings	1-2
Hicklin	Fralin SURF	In Silico Exploration of Inhibitors of the Type IV Pilus Extension Protein PilB in Clostridioides difficile	1-2
Hight	Interdisciplinary Water REU	Developing Test Methods and Water Quality Criteria for Mitigation of Cuprosolvency in Drinking Water	9-10
Hindi	Interdisciplinary Water REU	Comparison and Quantification of High Molecular Weight DNA Through Various DNA Extraction Kits	9-10
Hynes	Fralin SURF	The impacts of early life nutritional stress on the immune physiology of house finches.	1-2
Inman	Confluence REEU	Public understanding of the downstream effects of bacterial stream impairments	3-4
Isaac	NeuroSURF	Episodic future thinking to promote self-regulation in prediabetes	11-12
Iyer	MolVis	The Impact of Breastmilk-Derived Growth Factors on Infant Cognitive Development and Executive Function	12-1
Jaffe	MAOP	Functional role of Tfam in mitochondria in skeletal muscle	10-11
Jaghori	Fralin SURF	Analysis of an Amphipathic Helix in a Viral Replication Protein for Targeting Proteins to Endoplasmic Reticulum Membranes	1-2
Jayakumar	Independent	How Child Functioning Influences Parent Mental Health: Predictions from Spring 2020 Stay-at-Home Orders to Fall 2020	3-4
Jerzyk	Neutrino Physics REU	Evaluating fitting models of the missing energy contribution of Ar and Ti nuclear shell orbitals using the E12-14-012 (e, e'p) scattering experiment at Jefferson Lab	12-1
Johnson	MAOP	Population Dynamics of Designated Atlantic Sturgeon Population Segments	10-11
Johnson-Schuster	MAOP	Analysis of the glycolytic pathways in genetically selected fast-growing broilers	10-11
Kamineni	Interdisciplinary Water REU	Computational Analysis of Brome Mosaic Virus Replication Protein 1a to Determine Potential Docking Sites, Mutations, and Membrane Association Region Structure	9-10
Kanodia	NeuroSURF	Loss of Pericyte-specific Connexin 43 Impacts Early Vessel Morphology	11-12
Kashin	TOUR	Conducting an Accountability Evaluation for the Scaling Up Nutrition Movement's Global Business Network to Support the 2021 United Nations Food Systems Summit Agenda	9-10
Kehoe	NeuroSURF	Physiological data collection for resting state and task-based fMRI	11-12
Kelly	Fralin SURF	Investigation of interactions between flagellotropic bacteriophages and their hosts	1-2
Kenah	TPS SURF	Auxin Biosensor for Metabolic Engineering Applications	1-2
King	Hollins University	Anthropogenic Noise Pollution Effects on Systems	2-3
Korot	NeuroSURF	Mild TBI Causes BBB Leakage and Rapidly Induces an Atypical Neuronal Phenotype	11-12
LaRoche	NeuroSURF	The Association Between Demographic Characteristics and Self-Reported Quality of Life Among Individuals in Recovery From Substance Use Disorders	11-12
Link	VT REEL	The Effect of Insect Herbivory on Yield and Defense Mechanisms in an Oilseed Plant	3-4
Logan	TOUR	Circadian Rhythm, A's Potential Role in Energy Pathways of Cancer Cells	9-10
Mahreen	MAOP	Assessing the genetic determinants responsible for in vivo phenotypic differences between Mayaro strains TRVL 4675 and TRVL 15537	10-11
Makarov	Fralin SURF	Labeling Transcription Sites to Measure Transcription Dynamics	1-2
Malek	MolVis	A Role for Pannexin-1 in Regulating Nitric Oxide in Endothelial Cells	12-1
Mallen	CDEB	Isolating Steady-States in Simulated Gene Expression Data	12-1
Marciano	Jacklyn W. and William R. Jones, Jr. Experiential Learning Scholarship	Shoeing in the Heartland	9-10
Markov Madanick	Fralin SURF	Effects of Seasonality on the Eastern Oyster Microbiome Taxonomy	1-2
Mayo	TOUR	Micronutrient Intake and Physiological Outcomes in Masters and Collegiate	9-10
McMillan	Interdisciplinary Water REU	An investigation of the chemoreceptor modification system in Sinorhizobium meliloti chemotaxis	9-10
McMillian	Beckman Scholars	Synthesis and Characterization of Dextran-b-PLA as Compatibilizing Agents in PLA/Starch Blends	1-2
Melvin	TOUR	Neuronal Nhlh2 Expression in Muscle May Contribute to Energy Expenditure Pathways	9-10
Mendrinós	Independent	Adverse birth outcomes and proximity to poultry animal feeding operations on the Eastern Shore, Virginia	3-4
Middleton	Neutrino Physics REU	Building a Moving LED Device for Calibrating the NuLat Detector	12-1
Mirdad	KAUST REU	Development of an Algorithm for Detection and Tracking of Activated Neutrophils	2-3
Miyazaki	Independent	Partial Agonism of Peroxisome proliferator-activated receptor (PPAR) and Type II Diabetes: Redocking Natural Ligands from 2VSR Receptor	3-4
Morgan	Hollins University	K-12 Student Learning Modalities and Mental Health during the COVID-19 Pandemic in Virginia	2-3
Morris	NeuroSURF	Behavioral Characterization of Reward and Sensory Prediction Errors	11-12
Mullet	Interdisciplinary Water REU	mobileOGs-pl v. kyanite MGE Pipeline: tool for classifying bacterial mobile genetic elements	9-10
Murphy	Independent	Spatial Variability of Microbial Metabolism in Mining-Impacted and Reference Streams	3-4
Nahas	MAOP	Optimizing CO Oxidation Over Copper Single Atom Catalysts Supported by the Metal-Organic Framework, UiO-66	10-11
Odufuwa	MAOP	Black Resistance In The Contemporary Era and Approaches to Ending State Violence	10-11
Olof	Hollins University	The Influence of Suspect Familiarity on Cross Race Effect	2-3
Oster	TOUR	Ultra Processed Foods and Eating Behavior Reinforcement	9-10
Owens	Fralin SURF	Characterization and engineering of bacteriophages in microbial communities	1-2
Patel	CDEB	Using Clustering Algorithms to Identify Steady States in Gene Regulatory Networks	12-1
Pollock	Fralin SURF	Evolutionary Precursors to Sulfate Reduction Enzymes in Methanogens: Constructs for Complex Isolation	1-2
Post	Confluence REEU	Stormwater Infrastructure Impacts on Water Quality in Urban Streams	3-4
Qutob	Neutrino Physics REU	Heavenly Rays Illuminate Our Darkest Of Matter: Understanding Particle Physics of Dark Matter Through Cosmic Ray Dark Matter Interactions	12-1
Rafiqzad	School of Neurosci Fellows	BBB leakage causes an atypical neuronal phenotype after early mTBI	11-12
Reitz	Neutrino Physics REU	Analyzing systematic trends in cosmic SFR evolution	12-1
Richardson	Hollins University	Catholic Social Thought and the Free Market	2-3

Richardson	MAOP	Frost Ring Impact in Two Species of Pine	10-11
Richardson	Neutrino Physics REU	Effect of anode and cathode luminous sensitivity on photomultiplier tube readings for use in the CHANDLER neutrino detector	12-1
Ross	Neutrino Physics REU	Designing Data Read Out Electronics for the CHANDLER Neutrino Detector	12-1
Russell	School of Neurosci Fellows	Quantifying Endocannabinoid Levels in the Nucleus Accumbens Shell Using In Vivo Microdialysis	11-12
Salko	Interdisciplinary Water REU	Evaluating Zinc Orthophosphate's Ability to Control Lead Solder Corrosion in Corrosive Drinking Waters	9-10
San	Fralin SURF	Sensitive and visual detection of HIV-1 DNA using CRISPR-assisted lateral flow assay	1-2
Sanders	Hollins University	The Socially Dead: an analysis of museums, identity, and the African diaspora	2-3
Sanford	Neutrino Physics REU	Studies of Proton Structure from Photo-and Electro-Production of Light Vector Mesons	12-1
Sayani	VT REEL	Nitrogen Dosage Response Study of Various Strawberry Cultivars: Preliminary Findings	3-4
Schroeder	Neutrino Physics REU	Simulating the hard exclusive production of heavy mesons to access proton GPDs	12-1
Shepard	MAOP	Identification of a Key Residue in the NADPH Binding site in a Flavin-Dependent Monooxygenase from <i>Zonocerus variegatus</i> (ZvFMO)	10-11
Siedlarz	MoIVis	Relevance of per2 in Tumor Suppression	12-1
Sirmons	MAOP	Production and properties of pure bacterial cellulose and surface-acetylated bacterial cellulose	10-11
Smith	Interdisciplinary Water REU	Copper Pipe Corrosion	9-10
Smith	MAOP	Daily Activities and Cognition in U.S. Older Adults	10-11
Sobrado	MAOP	Expression of circadian clock genes in mouse hepatocytes	10-11
Spruill	MAOP	Molecular mechanism of Phafin2-mediated induction of autophagy	10-11
Stallings	VT REEL	The Characterization of a Potential Phosphatase Family in Plants	3-4
Stanphill	MAOP	Diagnostics Development for Gaseous Detonation Velocity	10-11
Stephens	Interdisciplinary Water REU	Examining the potential for chlorine to inhibit galvanic corrosion of lead solder in drinking water	9-10
Story	School of Neurosci Fellows	Effects of Pro-Inflammatory Microglia Activation on Behavior in Female Mice	11-12
Testa	Independent	Polarizable Molecular Dynamics Simulations of a G-Quadruplex in the promoter region of the human KRAS gene	3-4
Tomlinson	Independent	Spawning behavior of Blacknose dace (<i>Rhinichthys atratulus</i>) in Toms Creek in relation to temperature and potential nest association.	3-4
Toms	MAOP	Assessing Ligand Influence on the Dynamics and Structure of Sphingosine Kinase Isoforms Using Molecular Dynamics Simulations	10-11
Trieu	Confluence REEU	Impacts of Human Watershed Alterations on Stream Temperature	3-4
von Raesfeld	Neutrino Physics REU	The use of Coherent-Elastic Neutrino-Nucleus Scattering to monitor Spent Nuclear Fuel	12-1
Wang	Independent	Comparisons of host CD4 from multiple animals using multiple sequence alignments	3-4
Wang	Independent	Resistance to Ribosome-Targeting Antibiotics: Docking of Amicetin to the Binding Site of Blastcidin S in <i>Thermus thermophilus</i>	3-4
Weitzenhofer	Fralin SURF	Beary Active Cubs? Quantifying American Black Bear Mother and Cub Behavioral Changes Surrounding Hibernation Emergence	1-2
Whittle-Hage	Fralin SURF	Blood Brain Barrier Disruption in a Mouse Model of Chronic Stress	1-2
Williford	VT REEL	Weeding out the Competition: Competitive Effects on Container-Grown Nursery Plants	3-4
Wozniak	Fralin SURF	Identification and characterization of the <i>Fusobacterium nucleatum</i> outer membrane bound proteins that drive host-microbe interactions	1-2
Yaun	Fralin SURF	Determining the timing of spore production of <i>Pseudogymnoascus destructans</i> isolates, a virulent pathogen of bats	1-2
Zacharias	NeuroSURF	The Role of MCU in Regulating Mitochondrial Size and Synaptic Localization	11-12