

2021 WISER/MURE/FURP Undergraduate Research Symposium

November 17, 2021, 7 PM – 9:20 PM

<https://psu.zoom.us/j/91037885691>

Approximate schedule

7:00 – 7:05: Welcome and Introductions

7:05 – 7:20: Keynote presentation by Alexis Miller

7:20 ~ 9:20: Student lightning talks (see below)

Approx. time	Student name	Department	Advisor	Lightning talk title
7:20 - 7:40 8 lightning talks followed by a short break for Q&A	Maria Bressan	Physics	Suvrath Mahadevan	Predicting the Color of Chlorophyll on a Different Planet
	Meg Cross	Biological Engineering	Estelle Couradeau	Profiling terrestrial cyanobacteria
	Valeria Ventura		Miguel Mostafa	Searching for new very-high energy gamma-ray sources (The Background)
	Kenya Mitchell	Physics	Miguel Mostafa	Searching for new very-high energy gamma-ray sources (The Details)
	Jonathon Hope	Aerospace Engineering	Rebekah Dawson	Planet migration for super-earth planets
	Anushka Durg		Stephanie Wissel	Comparison of Elevated Ultra - High Energy Tau Neutrino Detectors
	Erica Selsley	Biological Engineering	Konstantinos Alexopoulos	Computational Catalysis For Biogas Upgrading
	Abby Mensch	Geosciences	Peter La Femina	Precursors to Phreatic Eruptions
7:40 - 8:00 7 lightning talks followed by a short break for Q&A	Jacob Ian Santos	Anthropology	Joan Richtsmeier	Molar development in the Fgfr2c342Y/+ Crouzon syndrome mouse
	Hannah Dykes	Biology	David Conroy	Participant response and feedback to behavioral and self-reporting prompts based on physical activity levels
	Kennedy Jackson	Kinesiology	David Conroy, Deborah Reese	The Impact of Behavioral Feedback and Self-Monitoring Prompts on Physical Activity Levels in Inactive Young Adults
	Emily McNaughton	Biochemistry and Molecular Biology	Melissa Rolls	Mechanisms used in regenerating peripheral nervous system axons after injury
	Joseph Bagala	Environmental Resource Management and Geography	Ruud Schilder	Impact Aerobic Exercise has on Drosophila Ability to Fight Chronic Illness and Common Difficulties Found in Beginning/Completing Research
	Alexis Holsinger	Biochemistry and Molecular Biology	Timothy Ryan	Variation in Cortical Bone Structure of the Human Upper and Lower Limb.
	Molly Huang		Laura Falton	Visual attention memory
8:00 - 8:20 7 lightning talks followed by a short break for Q&A	Jenna Zhang	Mechanical Engineering	Amir Sheikhi	A Bottom-Up Approach to Develop Synthetic Plant Cell Walls
	Leeann Runkle	Biomedical Engineering	Justin Brown	The affect of environmental factors on stem cell growth
	Jaron Wharton-Mohammed	Biochemistry and Molecular Biology	Lu Bai	Application of Methyltransferase Targeting-based Chromosome Architecture Capture(MTAC)
	Adriana S. Ramos-Medero	Biology	Aimin Liu	Inturned Mutant Lung Development
	Jenna Patel	Biology	Ying Gu	T-DNA Mutants Effect on Cellulose Synthesis and Primary Cell Wall Growth
	Zoe Goldblum	Immunology and Infectious Disease	Ed Dudley	Heavy Metal Resistance in Salmonella Isolates
	Sydney Assalita	Engineering Science	Christopher House	Unlocking the Potential of Microbes to Grow Good for Astronauts
8:20 - 8:40 6 lightning talks followed by a short break for Q&A	Rory Murphy		Chaleece Sandberg	Importance of Reliability and Fidelity in Single Subject Studies
	Marabelle DeLaurentis	Civil and Environmental Engineering	Elizabeth Traut	Analyzing Equity of Public Electric Vehicle Charging Infrastructure in Pennsylvania
	Clare Robson	Information Sciences and Technology	Frank Ritter	Effects of prototype fidelity on training effectiveness
	Nora O'Toole	Cybersecurity	Rebecca Thurman-Irons	A Data-Driven Examination of Privacy Laws and Regulations Around the World
	Alexandra Lister		Roman DiBiase	An Accuracy Assessment of Bedrock Mapping Tools
	Claire DiPerna	Astronomy and Astrophysics	Rebekah Dawson	Modeling the Orbital Resonance of the TRAPPIST-1 Planetary System
8:40 - 9:00 6 lightning talks followed by a short break for Q&A	Madeline Feeney	Food Science	Christopher Sigler	The Human Gut Microbiome
	Hunter Porcano	Biological Engineering	Josephine Wee	Isolation And Identification of Environment and Food Associated Fungi
	Lindsay Bell	Biological Engineering	Curt McConnell	Effects of Riparian Buffer Management on Nitrogen Leaching
	Madison Kodis	Veterinary and Biomedical Sciences	Joshua Lambert	The Hidden Potential of Cocoa
	Gabbi Hoffmann		Luis Duque	Elucidating the root phenotypic plasticity of Potato (Solanum tuberosum) to nitrogen and phosphorus stress
	Erica Selsley	Biological Engineering	Konstantinos Alexopoulos	Computational Catalysis For Biogas Upgrading
9:00 - 9:20 8 lightning talks followed by a short break for Q&A	Taya Knappenberger	Mechanical Engineering	Allison Beese	Microstructural characterization of binder jetted metal alloys.
	Gianna Angelina Caputo	Chemical Engineering	Ezgi Toraman	Methane Activation on a Solid Oxide Catalyst
	Alisha Naik	Materials Science and Engineering	Robert Hickey	Bromination of SBS
	Ava Zoba	Biomedical Engineering and Mechanical Engineering	Seong Kim	Water adsorption on glass surfaces—thickness and hydrogen bonding of adsorbed water layer
	Zane Burris		Chris Boxe	Parameterizations of Mars 1-D Photochemical Models
	Parker Sell	Electrical Engineering and Computer Science	James Z Wang	Applications of Deep Learning Computer Vision in Emotion Prediction and Virtual Therapy
	Rylie Adams			Integrating GIS systems within Virtual Reality Systems
	Kayla Myers		Justin Brown	Growing cells on silk fibroin



Questions: Allison Beese (amb961@psu.edu)

