



UROC 2025 Research Conference

Contents

About UROC	3
Colloquium	4
Agenda	4
Presentations	4
Room Schedules	4
ILC 117	4
ILC 119.....	7
ILC 120.....	9
ILC 125.....	11
ILC 129.....	13
ILC 135.....	15
ILC 145.....	18
ILC 151	21
UROC Programs	24
ASEMS-STARS.....	24
McNair	29
MHD	33
SRI	38
UROC-Prep.....	42
Colloquium Building Map	43
Poster Session	44
Posters by Number & Program	44
Posters by Last Name	44
Poster Map	70
Closing Ceremony	71
UROC Outstanding Student Award	71
Keynote Speaker	72
2025 UROC Program Staff & Sponsors	73

About UROC

The Undergraduate Research Opportunities Consortium (UROC) is managed by the University of Arizona Graduate College. It was created 30 years ago to unite undergraduate research and graduate school prep programs across the University of Arizona. Thanks to the late Maria Theresa Velez, PhD and her lifelong commitment to promoting graduate education to students from all backgrounds, UROC has supported thousands of students spanning three decades. It is because of her and the founders of UROC (Donna Treloar, Cindy Neal, Nura Dualeh, Holly Lopez, and Andrew Huerta, PhD) that we've been able to reach so many students across disciplines.

Our goal within UROC is to share resources, create an academic community, and uplift the next generation of researchers. Most of the students participating in UROC are conducting research for the first time in intensive 10-week summer programs. They've worked full-time within their fields to produce research posters, oral presentations, and research reports.

As we showcase all the hard work of the UROC Scholars, we thank everyone who has made this possible. The founders of UROC, program staff, faculty, mentors, sponsors, and of course the students we work with.

Land Acknowledgement

We respectfully acknowledge the University of Arizona is on unceded land of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Pascua Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with Arizona's Native Nations and tribal communities through education offerings, partnerships, and community service.

Colloquium

Thursday, August 7 | 9 am – 2:30 pm

Manuel Pacheco Integrated Learning Center

1500 E. University Blvd., Tucson, AZ 85721

Agenda

Session	Location	Time Frame
Opening and Welcome	ILC 120	9:00 am – 9:15 am
Presentations	Various Rooms	9:20 am – 11:35 am
Lunch	ILC 141/on your own	11:35 am – 12:15 pm
Presentations	Various Rooms	12:20 pm – 1:55 pm
Closing	ILC 120	2:00 pm – 2:20 pm

Presentations

Room Schedules

ILC 117	
9:20 AM	<p>Michael Nguyen</p> <p><i>Investigation of Acetaminophen's Alteration to Efflux Transporters through Nuclear Receptors in the Blood-Brain Barrier</i></p> <p>Pharmaceutical Sciences at University of Arizona</p> <p>Mentored by: Patrick Ronaldson, PhD (Medicine) and Collin Krzyzaniak, MS</p> <p>ASEMS-STARS</p>

9:40 AM	<p>Domonique Houston <i>Evaluating Metal Susceptibility with Compounds in Enterobacter aerogenes and Pseudomonas aeruginosa</i> Pharmaceutical Sciences at University of Arizona Mentored by: Michael D. L. Johnson, PhD (Immunobiology) and Meredythe Durckel</p> <p>MHD</p>
10:00 AM	<p>Mandy Wu <i>Bisphenol A and Photophobia: Dose-Response Curve in Female Adult Rats</i> Pharmaceutical Sciences at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Sophia von Hippel</p> <p>MHD</p>
10:20 AM	<p>Alexis Anahi Nevarez <i>The Impact of Empathy-Based Immigration Appeals on Political Efficacy and Support for Undemocratic Actions</i> 1) Psychology 2) Political Science 3) Criminal Justice at University of Arizona Mentored by: Frank Gonzalez, PhD (Government and Public Policy)</p> <p>McNair</p>
10:40 AM	<p>Mikala Chee <i>Two Worlds: The Importance of Ethnic Identity in Higher Education Pursuance Among Native Youth</i> Psychology at Fort Lewis College Mentored by: Christina Andrews, JD, MPH, MBA, MA (Medicine)</p> <p>SRI</p>
11:00 AM	<p>Nate Olea Chavez <i>Bridging the Gap Between Moral and Economic Disagreements of Rationalization: A Computational Methodology in Contract Jurisprudence</i> 1) Political Science: Law and Public Policy emphasis 2) Law at University of Arizona Mentored by: David Clark, PhD (Philosophy)</p> <p>SRI</p>

11:20 AM	<p>Samantha Morvant <i>Understanding the impact of the COVID-19 pandemic on breast cancer screening rates at Federally Qualified Health Clinics in California</i> 1) Psychology 2) Anthropology at University of Arizona Mentored by: Gloria D. Coronado, PhD (Cancer Center) and Josheili Llavona</p> <p>SRI</p>
12:20 PM	<p>Leelu Cervantes <i>How History Shapes Perception: Understanding Different Perceptions of the Native American Identity</i> Psychology at University of Arizona Mentored by: Daniel Sullivan, PhD (Psychology) and Alexis Goad</p> <p>McNair</p>
12:40 PM	<p>Edwige Ishimwe <i>Does metaphorical framing of self-concept influence attitudes toward oneself more than literal framing?</i> 1) Neuroscience & Cognitive Science 2) Psychological Science at University of Arizona Mentored by: Vicky Lai, PhD (Psychology) and Lindsay Krebs</p> <p>McNair</p>
1:00 PM	<p>Grace Mazurik <i>Time interval estimation in the TgF344-AD rat model of Alzheimer's disease</i> Psychological Science at University of Arizona Mentored by: Stephen Cowen, PhD (Psychology) and Russell Dougherty</p> <p>SRI</p>
1:20 PM	<p>Harmony Switzer-Tryon <i>Examining the Relationship Between Childhood Trauma and Executive Functioning</i> Psychology at California State Polytechnic University, Humboldt Mentored by: John Ruiz, PhD and Ashley Huggins, PhD (Psychology)</p> <p>SRI</p>

ILC 119	
9:20 AM	<p>Alani Jordan <i>Counting Prime Paths Using the Ihara Zeta Function</i> 1) Statistics & Data Science 2) Mathematics at University of Arizona Mentored by: Doug Haessig, PhD (Mathematics)</p> <p>McNair</p>
9:40 AM	<p>Randall Candaso <i>Using Machine Learning to Project End of Career Athlete Trajectory: What Defines Immortal Legacy?</i> Information Science: Data Science emphasis at University of Arizona Mentored by: Greg Chism, PhD (Information Science)</p> <p>SRI</p>
10:00 AM	<p>Jonathan Sigona <i>FiberWalk: A Probabilistic Model of Plant Root Architecture</i> 1) Mathematics 2) Statistics & Data Science at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science)</p> <p>ASEMS-STARs</p>
10:20 AM	<p>Easton Setzer <i>Exploring Effects on Internal Root Anatomy in Drought Conditions</i> Biology at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Alan Cervantes</p> <p>MHD</p>
10:40 AM	<p>Ruben Peña <i>Development of Sorghum roots under drought stress: An analysis of DIRT/3D pipeline for 3D root phenotyping</i> Biosystems Engineering at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Suxing Lui</p> <p>UROC-Prep</p>
11:00 AM	<p>Akash Ahuja <i>Fetal Heart Monitor for at Home Use</i> Biomedical Engineering at University of Arizona Mentored by: Ravi Goyal, MD, PhD (Obstetrics & Gynecology)</p> <p>MHD</p>

11:20 AM	<p>Nataly A. Karlinsey <i>Spatially Patterned Growth Factor Release from Liquid-Like-Solid (LLS) Scaffolds</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Alexander McGhee, PhD (Biomedical Engineering) and Gabriel Declercq</p> <p>MHD</p>
12:20 PM	<p>Andrew Marcinko-Hernandez <i>Integrating Biodegradable Scaffolds with Wireless Electronics for Bone Repair</i> Biomedical Engineering at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery) and Gerardo Figueroa</p> <p>ASEMS-STARs</p>
12:40 PM	<p>Lazaro Cota <i>Continuous Monitoring of Fracture Healing Using Wireless Sensors</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery), Gerardo Figueroa, and David A. Gonzales</p> <p>ASEMS-STARs</p>
1:00 PM	<p>Janel Hanna <i>Neurovascular Remodeling in the Retina of 5xFAD Mice: A Structural Retinal Biomarker for Alzheimer's Disease</i> 1) Biology 2) Molecular & Cellular Biology at University of Arizona Mentored by: Erika Eggers, PhD (Physiology) and Andrea Wellington</p> <p>ASEMS-STARs</p>

ILC 120	
9:20 AM	<p>Mara Navarro Perez <i>Prevalence and Characterization of Clostridioides difficile in Tucson</i> 1) Biochemistry 2) Microbiology at University of Arizona Mentored by: Gayatri Vedantam, PhD (Animal & Biomedical Sciences) and Farhan Anwar</p> <p>MHD</p>
9:40 AM	<p>Joelle Smith <i>Triaryl Carbenium Ions: Applications in Tethered Metallaphotoredox Catalysis</i> 1) Biochemistry 2) Chemistry 3) Molecular & Cellular Biology at University of Arizona Mentored by: Thomas L. Gianetti, PhD (Biochemistry & Chemistry), Savannah Stull, David Mills, Robert Lozanovski, and Ramandeep Kaur</p> <p>MHD</p>
10:00 AM	<p>Carson Garcia <i>A Root Awakening: Reactive Oxygen Species as a Molecular Messenger in Plants</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jesse Woodson, PhD (Plant Science) and Matthew Lemke</p> <p>MHD</p>
10:20 AM	<p>Trisha T. Dang <i>The Effects of Glucose on Cellular Quiescence Depth</i> Molecular & Cellular Biology at University of Arizona Mentored by: Guang Yao, PhD (Molecular & Cellular Biology) and Qiong Pan</p> <p>MHD</p>
10:40 AM	<p>Chaz DeCoteau <i>Using Co-Immunoprecipitation to Investigate the Potential for SNX1.3 to Disrupt the Interaction Between p120 Catenin and L1</i> 1) Biochemistry 2) Pharmaceutical Sciences at University of Arizona Mentored by: Samuel Campos, PhD (Immunobiology) and Zachary Williamson</p> <p>MHD</p>

11:00 AM	<p>Bianca Baldeon <i>Fabrication and Characterization of Soluplus-based Dissolvable Microneedle Arrays</i> Pharmaceutical Sciences at University of Arizona Mentored by: Abhijit Date, PhD, MPharmSc (Pharmaceutical Sciences) and Manjusha Annaji</p>	MHD
11:20 AM	<p>Zoe Xanthos <i>Supporting That ComEA Protein Assists in Uptake of DNA in Pseudomonas stutzeri</i> 1) Biochemistry 2) Applied Biotechnology at University of Arizona Mentored by: David Baltrus, PhD (Plant Science)</p>	ASEMS-STARs
12:20 PM	<p>Saturn Munstedt <i>The Dynamics Between Nitric Oxide, m6A RNA, and Headache</i> 1) Molecular & Cellular Biology 2) Gender & Women's Studies at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Nhi Van</p>	McNair
12:40 PM	<p>Ellerie Blumenkamp <i>Geographic Patterns of New Clades as a Conservation Aid</i> 1) Organismal Biology 2) Ecology & Evolutionary Biology at University of Arizona Mentored by: John J. Wiens, PhD (Ecology & Evolutionary Biology)</p>	MHD
1:00 PM	<p>Ntsumi Machiana <i>Exploring the Synthesis and Properties of Glyonic Liquids</i> Chemistry at Pima Community College Mentored by: Jeanne Pemberton, PhD (Chemistry & Biochemistry)</p>	SRI
1:20 PM	<p>Daniel A. Musquiz <i>Prediction of Heat Capacity of a Prototypical Medium-Chain Chlorinated Paraffin Using Quantum Chemistry: C₁₄Cl₆H₂₄</i> Chemical Engineering at University of Arizona Mentored by: Paul Blowers, PhD (Chemical and Environmental Engineering)</p>	SRI

ILC 125	
9:20 AM	<p>Beau Carter <i>Feedback Cooling a Torsional Oscillator using an Optical Lever</i> Optical Sciences & Engineering at University of Arizona Mentored by: Dalziel Wilson, PhD (Optical Sciences), Atkin Hyatt, Mitul Dey Chowdhury, Charles Condos, Morgan Choi</p> <p>ASEMS-STARS</p>
9:40 AM	<p>Jahaziel E. Galvan <i>Photoacoustic Imaging and Spectroscopy in Quantifying Soft Tissue Constituents for Better Diagnosis of Cancer</i> Optical Sciences & Engineering at University of Arizona Mentored by: Russell S. Witte, PhD (Medicine), Rianne Hilkemeyer, Margaret Allard, Nadia Farha, Parker Harris, Zoe Huestis, and Armenta Emilio</p> <p>MHD</p>
10:00 AM	<p>Parker Hubbell <i>Histopathology of Tau Biomarker Correlation with Diffusion Tensor Imaging of Hippocampal Brain Regions</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Elizabeth Hutchinson, PhD (Biomedical Engineering)</p> <p>MHD</p>
10:20 AM	<p>Brandon S. Rodriguez <i>Optogenetic Activation of PKC-delta (-) Neurons and Satiation in the Central Nucleus of the Amygdala</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Haijiang Cai, PhD (Neuroscience) and Maša Mišćević</p> <p>MHD</p>
10:40 AM	<p>Emma Smith <i>Evaluating the anti-dyskinetic activity of low-dose ketamine in the context of the BDNF Val66Met Polymorphism</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Torsten Falk, PhD (Neurology and Pharmacology) and Raveena Parmar</p> <p>MHD</p>

11:00 AM	<p>Brianna Leyva <i>Impact of Light Exposure on 5-6 Year Olds' Circadian Rhythms and Sleep Health</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Lauren Hartstein, PhD (Psychiatry)</p> <p>ASEMS-STARS</p>
11:20 AM	<p>Diana Bos <i>Analyzing the Role of MuRF1 and Titin in Early Muscle Atrophy</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Henk Granzier, PhD (Cellular & Molecular Medicine) and Catherine Hoover</p> <p>MHD</p>
12:20 PM	<p>Enrique Caperon <i>Grief: How the Grieving Brain Functions and Implications on Behavior</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: John Allen, PhD (Psychology) and Kelly Chen</p> <p>MHD</p>
12:40 PM	<p>Raksha Vikram Aditya <i>Comparing Vascular BKCa Channel Function in Aging and Alzheimer's Disease</i> 1) Neuroscience & Cognitive Science: Neurobiology emphasis 2) Biochemistry at University of Arizona Mentored by: Paulo W. Pires, PhD (Physiology) and Paige Martin</p> <p>ASEMS-STARS</p>
1:00 PM	<p>Collin Brown <i>Sequential Control of Spatial Orienting Behaviors During Dynamic Movements</i> 1) Neuroscience & Cognitive Science 2) Molecular & Cellular Biology at University of Arizona Mentored by: Melville Wohlgemuth, PhD (Neuroscience)</p> <p>McNair</p>
1:20 PM	<p>Gabriel Encinas Molecular & Cellular Biology at University of Arizona Mentored by: Cynthia Miranti, PhD (Cellular & Molecular Medicine)</p> <p>MHD</p>

1:40 PM	<p>Sailyn Lopez <i>Colocalization of Ash1 mRNA with Ded1 and Edc3 in Stress Granules and P-Bodies During Heat Stress</i> Molecular & Cellular Biology at University of Arizona Mentored by: J. Ross Buchan, PhD (Molecular & Cellular Biology), Jeremy Joseph, and Telsa Mittelmeier</p>	ASEMS-STARs
---------	--	-------------

ILC 129		
9:20 AM	<p>Jacob Agcaoili <i>Evaluation of Carbon Fiber Reinforced Polymers with Optical Emission Spectroscopy</i> Aerospace Engineering at University of Arizona Mentored by: Olesya Zhupanska, PhD and Daniel Diaz, PhD (Aerospace & Mechanical Engineering)</p>	SRI
9:40 AM	<p>Michelle Mendivil Cabral <i>Characterization of Temperature Behavior and Distribution in a Mach 5 Ludwig Tube</i> Mechanical Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering) and Luke Tronstad</p>	McNair
10:00 AM	<p>Jasmine Garnett <i>Wave Propagation Analysis to Characterize Wave Speed in Boundary-Layer Instabilities</i> Aerospace Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering), Adam Skora, Luke Tronstad, and Gray Hardy</p>	SRI
10:20 AM	<p>Razak Adamu Aerospace Engineering at University of Arizona Mentored by: Jekan Thanga, PhD (Aerospace & Mechanical Engineering)</p>	SRI

10:40 AM	<p>Dorian Noriega <i>Evaluating Non-Invasive Methods to Control a Robotic Arm for High-Level Tetraplegics</i> Mechanical Engineering at University of Arizona Mentored by: Andrew J. Fuglevand, PhD (Physiology) and Jehad Abdullah Alfaleh</p> <p>McNair</p>
11:00 AM	<p>Grace Ho <i>Understanding Risk and Resilience Factors of Cognitive Aging</i> Psychological Science at University of Arizona Mentored by: Lee Ryan, PhD (Psychology), Stephanie Matijevic, and Lesley A. Guareña and Lesley A. Guareña</p> <p>MHD</p>
11:20 AM	<p>Natalia Moreno Hendrickson <i>Early Risk, Lasting Impact: Adverse Childhood Experiences and Racial Disparities in Cognitive Aging</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Lee Ryan, PhD (Psychology) and Lesley Guareña</p> <p>ASEMS-STARS</p>
12:20 PM	<p>Zacariah Padron Murrieta <i>W7 as a Therapeutic Modulator of Sarcomeric Dysfunction in R92W-cTnT Mutant Cardiomyopathy</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jil C. Tardiff, MD, PhD (Biomedical Engineering) and Logan Radomsky, MS</p> <p>ASEMS-STARS</p>
12:40 PM	<p>Asmaa Salih <i>Generational Status and the Correlation to Preferences for Self-Sampling versus Provider Sampling for Cervical Cancer and Human Papillomavirus</i> Biology at University of Arizona Mentored by: Purnima Madhivanan, PhD, MBBS, MPH (Public Health) and Rogelio Robles-Morales, MD</p> <p>ASEMS-STARS</p>

1:00 PM	<p>Layla Flores <i>Comparing the Efficacy of PIM447 vs PIMTAC and Their Effects on Autophagy</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Noel Warfel, PhD (Cellular & Molecular Medicine) and Hope Liou</p> <p>MHD</p>
1:20 PM	<p>Sarah Lind <i>Reconstructing 2016 ENSO Variability from Subfossil Corals in the Marshall Islands</i> Biology at University of Arizona Mentored by: Diane Thompson, PhD (Geosciences) and Mudith Weerabaddanage</p> <p>MHD</p>

ILC 135

9:20 AM	<p>Fabiola Mendoza <i>The Link Between Inflammation and Insulin Resistance: How TAK1 and Microtubule Dynamics Affect Glucose Transport</i> 1) Applied Biotechnology 2) Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Paul R. Langlais, PhD (Medicine) and Mary Catherine Roa</p> <p>MHD</p>
9:40 AM	<p>Alexa Laporte <i>Novel Bio-Inspired Xylolipids: Toward Heavy Metal Remediation Strategy Development</i> Applied Biotechnology: Industrial Plant and Microbial Biotechnology emphasis at University of Arizona Mentored by: David E. Hogan, PhD (Environmental Science), Raina M. Maier, Tyler J. Durkin, and Kelsey Graves</p> <p>ASEMS-STARs</p>
10:00 AM	<p>Lauren Whitaker <i>Layer-dependent Photoluminescence in InSe</i> Physics at University of Arizona Mentored by: John Schaibley, PhD (Physics) and Garrett Reichenbach</p> <p>SRI</p>

10:20 AM	<p>Roman Valle <i>Crystal Structure and Magnetic Properties of Transition Metal (Ta, Cr, V; Mo, Fe) Based Inorganic Compounds for Magnetic Applications</i> Physics at University of Arizona Mentored by: Tai Kong, PhD (Physics), Jeremy Philbrick, Brianna Billingsley, and Ali Taha Habiboglu</p> <p style="text-align: right;">ASEMS-STARs</p>
10:40 AM	<p>Julio Alejandro Corona <i>Determining Mass Dependence of the Large-Radius Jet Identification Algorithm at ATLAS</i> 1) Physics 2) Astronomy at University of Arizona Mentored by: Rachel Hyneman, PhD (Physics) and Hava Schwartz, PhD</p> <p style="text-align: right;">McNair</p>
11:00 AM	<p>Jessica Aguayo <i>Stars and Supermassive Black Holes: Exploring the Fitting of AGNs and Star Formation in Galaxies at $z = 2-3$</i> Astronomy at University of Arizona Mentored by: Kevin Hainline, PhD (Astronomy) and Sophie Lebowitz</p> <p style="text-align: right;">ASEMS-STARs</p>
11:20 AM	<p>Katherine Costello <i>Assessing Detectability of Biosignatures in the Near-Infrared for NASA's Habitable Worlds Observatory</i> 1) Planetary Geoscience 2) Mathematics at University of Arizona Mentored by: Tyler Robinson, PhD (Planetary Sciences)</p> <p style="text-align: right;">McNair</p>
12:20 PM	<p>Alondra Salazar Valencia <i>Noise Exposure and Socioeconomic Status: A Gap in Frequency Reporting</i> Medicine at University of Arizona Mentored by: Jennifer A. Teske, PhD (Nutritional Sciences & Wellness)</p> <p style="text-align: right;">ASEMS-STARs</p>

12:40 PM	<p>Bryan Anthony Gramajo <i>Reimagining Joint Analysis: Evaluating a Markerless Motion Capture System</i> Physiology at University of Arizona Mentored by: Daniel Latt, MD, PhD (Orthopaedic Surgery), Francisco Espinoza de los Monteros, PhD, and Christopher Arellano, PhD</p> <p>McNair</p>
1:00 PM	<p>Nicole Dignonno <i>Linking Social Care with Healthcare Systems to Address Social Determinants of Health</i> 1) Physiology and Medical Sciences 2) Spanish at University of Arizona Mentored by: Sairam Parthasarathy, MD (Health Sciences), Kristina Rico, Natalie Provencio Dean, MS, and Christopher Morton</p> <p>ASEMS-STARs</p>
1:20 PM	<p>Amanda T. Le <i>Hispanic Health and Cardiovascular Disease: A Systematic Review & Meta-Analysis of the Longitudinal Literature</i> 1) Medicine 2) Public & Applied Humanities at University of Arizona Mentored by: John Ruiz, PhD (Psychology), Francis Morales-Lozada, MBA, MS, Riley M. O'Neill, Daniel A. Hernandez, and Amelia Ibarra-Mevans</p> <p>McNair</p>
1:40 PM	<p>Jessica Wysong <i>Acid Ceramidase as a Potential Therapeutic Target in Ulcerative Colitis</i> Medicine: Basic Medical emphasis, BS at University of Arizona Mentored by: Ashley Snider, PhD (Nutritional Sciences & Wellness) and Keila Espinoza</p> <p>ASEMS-STARs</p>

ILC 145	
9:20 AM	<p>Cipriano Childers <i>Enhancing Blood-Brain Barrier Penetration of Opioid Peptides via Serine Glycosylation for Improved Pain Therapeutics</i> Biochemistry at University of Arizona Mentored by: Robin Polt, PhD (Chemistry & Biochemistry) and Nicholas Christie</p> <p>McNair</p>
9:40 AM	<p>Shea Hollis <i>The Hidden Switches of Segmentation: Discovering even-skipped Enhancers</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p> <p>SRI</p>
10:00 AM	<p>Victor Vigbedorh <i>Eve Enhancers Can Elucidate Mechanisms Behind Sequential Segmentation in Tribolium Castaneum</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p> <p>UROC-Prep</p>
10:20 AM	<p>Caleb Matthew Carl Konecek <i>Role of Rap1 versus PIP3 in the Regulation of mTORC2</i> 1) Biochemistry 2) Molecular & Cellular Biology 3) Spanish at University of Arizona Mentored by: Pascale Charest, PhD (Molecular & Cellular Biology) and Isaiah Toth</p> <p>MHD</p>
10:40 AM	<p>Kulindu Vithanachchi <i>Effects of Cyclic Heat Stress on the Ability to Metabolize Drugs Observed in Rats</i> Microbiology at University of Arizona Mentored by: Nathan Cherrington, PhD (Pharmacy) and Paxton Alan Sample</p> <p>ASEMS-STARs</p>
11:00 AM	<p>Ash Maxwell <i>An Age and Sex Structured Disease Model: Bovine Tuberculosis in Deer</i> Applied Biotechnology at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Sarita Bugalia</p> <p>MHD</p>

11:20 AM	<p>Kira Kawena Gomez <i>Tracing Zoonotic Tuberculosis in Africa Using Whole-Genome Sequencing</i> Animal Science at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Luis Alegria</p> <p>ASEMS-STARs</p>
12:20 PM	<p>Elizabeth Fuentes <i>Temporal and Contextual Repeatability in a Novel Community Science Dog Cognition Task</i> 1) Veterinary Sciences 2) Spanish at University of Arizona Mentored by: Evan MacLean, PhD (Veterinary Medicine) and Stephanie Hargrave</p> <p>ASEMS-STARs</p>
12:40 PM	<p>George Hyland <i>Understanding the Effect of the Gender of Farm Plot Managers on Measures of Food Security for Smallholder Households in Malawi</i> Agribusiness Economics at University of Arizona Mentored by: Anna Josephson, PhD (Applied Economics) and Jeffrey Michler</p> <p>SRI</p>
1:00 PM	<p>Elias Post <i>Rainfall and Runoff in the Bronx Wash</i> Hydrology and Atmospheric Sciences: Environmental Hydrology and Water Resources emphasis at University of Arizona Mentored by: Martha P.L. Whitaker, PhD (Hydrology & Atmospheric Sciences) and Neha Gupta</p> <p>SRI</p>
1:20 PM	<p>Joe Blickfeldt <i>Complementation of Tripartite Signaling in Arabidopsis thaliana</i> Plant Sciences at University of Arizona Mentored by: Mark Beilstein, PhD (Plant Science) and Matthew Alcaraz</p> <p>ASEMS-STARs</p>
1:40 PM	<p>Fadl Kobeissi <i>Barriers to Low-Sodium Dietary Adherence Among Hemodialysis Patients: Results from a Survey-Based Cross-Sectional Study</i> Nutritional Sciences at University of Arizona Mentored by: Geovana Martin-Alemañy, PhD (Nutritional Sciences & Wellness)</p> <p>ASEMS-STARs</p>

ILC 151	
9:20 AM	<p>Paige M. Navarrete <i>Influences of Climate on an Endangered Squirrel Population and Food Availability in the Southwest United States</i> Natural Resources: Wildlife Conservation and Management emphasis at University of Arizona Mentored by: Bret Pasch, PhD (Natural Resources & the Environment), Sean Mahoney, Nikki Reck, and Vicki Greer</p> <p>ASEMS-STARs</p>
9:40 AM	<p>Gisela Uribe <i>A Preliminary Analysis on Latine Parental Awareness and Attitudes Toward HPV Vaccination in Arizona Border Counties</i> 1) Data Analytics 2) Sociology at Beloit College Mentored by: Sheila Soto, DrPH, MPH (Public Health)</p> <p>SRI</p>
10:00 AM	<p>Gianna Wynn <i>Evaluating self-report and direct assessment of cognitive-linguistic abilities among female Premutation carriers</i> Psychological Science at University of Arizona Mentored by: Nell Maltman, PhD (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>
10:20 AM	<p>Kristen Saunders <i>Exploring Self-Efficacy and Communicative Participation in Adolescents with Down Syndrome: A Qualitative Study of The Caregiver Perspective</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie</p> <p>MHD</p>

10:40 AM	<p>Alicia Salazar Contreras <i>"Sopa de Pescado": Spanish Language Passage Development for the Differential Diagnosis of Motor Speech Disorders</i> 1) Speech, Language, and Hearing Sciences 2) Spanish: Generalist emphasis at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie</p> <p>McNair</p>
11:00 AM	<p>Fernanda Delgado <i>Creating Emotionally Protective Experiences for First-Generation Hispanic High School Students Entering Higher Education Environments</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Genesis Arizmendi, PhD, CCC-SLP (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>
12:20 PM	<p>Franklin Acosta <i>A Clarinetists Guide to Stylistic Authenticity in Klezmer Music: An Exploration of Recordings of Paul Schoenfeld's Klezmer Sonatina</i> Music Performance at East Tennessee State University Mentored by: Jackie Glazier, PhD (Fine Arts)</p> <p>SRI</p>
12:40 PM	<p>Emily Vo <i>Human-Robot Interaction, Public History, and the Museum: A Case Study of Using tēmi in the African American Museum of Southern Arizona (AAMSAz)</i> Computer Science at Cornell University Mentored by: Bryan Carter, PhD (Africana Studies and Humanities)</p> <p>SRI</p>
1:00 PM	<p>Guadalupe Villegas <i>La Santa de Cabora: How Catholicism and Curanderismo affect the perceptions and treatment of women in The Hummingbird's Daughter by Luis Alberto Urrea</i> English: Literature emphasis at California State University, Dominguez Hills Mentored by: Jennifer Jenkins, PhD (English)</p> <p>SRI</p>

1:20 PM	<p>Natalia Morales <i>How Student Centered Learning Can Be Used to Support Hispanic/Latinx Students and Instructors in Higher Education</i> 1) Mexican American Studies 2) Gender & Women's Studies at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies) and Rosa Maldonado</p> <p style="text-align: right;">SRI</p>
1:40 PM	<p>Casandra Chavarria <i>Buscando el Sueño Mexicano: The Educational Goal Setting Behaviors of Mexico's Returning Students</i> Psychology at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies)</p> <p style="text-align: right;">McNair</p>

UROC Programs

ASEMS-STARS	
9:20 AM ILC 125	<p>Beau Carter <i>Feedback Cooling a Torsional Oscillator using an Optical Lever</i> Optical Sciences & Engineering at University of Arizona Mentored by: Dalziel Wilson, PhD (Optical Sciences), Atkin Hyatt, Mitul Dey Chowdhury, Charles Condos, Morgan Choi</p> <p>ASEMS-STARS</p>
9:20 AM ILC 151	<p>Paige M. Navarrete <i>Influences of Climate on an Endangered Squirrel Population and Food Availability in the Southwest United States</i> Natural Resources: Wildlife Conservation and Management emphasis at University of Arizona Mentored by: Bret Pasch, PhD (Natural Resources & the Environment), Sean Mahoney, Nikki Reck, and Vicki Greer</p> <p>ASEMS-STARS</p>
9:20 AM ILC 117	<p>Michael Nguyen <i>Investigation of Acetaminophen's Alteration to Efflux Transporters through Nuclear Receptors in the Blood-Brain Barrier</i> Pharmaceutical Sciences at University of Arizona Mentored by: Patrick Ronaldson, PhD (Medicine) and Collin Krzyzaniak, MS</p> <p>ASEMS-STARS</p>
9:40 AM ILC 135	<p>Alexa Laporte <i>Novel Bio-Inspired Xylolipids: Toward Heavy Metal Remediation Strategy Development</i> Applied Biotechnology: Industrial Plant and Microbial Biotechnology emphasis at University of Arizona Mentored by: David E. Hogan, PhD (Environmental Science), Raina M. Maier, Tyler J. Durkin, and Kelsey Graves</p> <p>ASEMS-STARS</p>

10:00 AM ILC 119	<p>Jonathan Sigona <i>FiberWalk: A Probabilistic Model of Plant Root Architecture</i> 1) Mathematics 2) Statistics & Data Science at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science)</p> <p>ASEMS-STARS</p>
10:20 AM ILC 135	<p>Roman Valle <i>Crystal Structure and Magnetic Properties of Transition Metal (Ta, Cr, V; Mo, Fe) Based Inorganic Compounds for Magnetic Applications</i> Physics at University of Arizona Mentored by: Tai Kong, PhD (Physics), Jeremy Philbrick, Brianna Billingsley, and Ali Taha Habiboglu</p> <p>ASEMS-STARS</p>
10:40 AM ILC 145	<p>Kulindu Vithanachchi <i>Effects of Cyclic Heat Stress on the Ability to Metabolize Drugs Observed in Rats</i> Microbiology at University of Arizona Mentored by: Nathan Cherrington, PhD (Pharmacy) and Paxton Alan Sample</p> <p>ASEMS-STARS</p>
11:00 AM ILC 135	<p>Jessica Aguayo <i>Stars and Supermassive Black Holes: Exploring the Fitting of AGNs and Star Formation in Galaxies at $z = 2-3$</i> Astronomy at University of Arizona Mentored by: Kevin Hainline, PhD (Astronomy) and Sophie Lebowitz</p> <p>ASEMS-STARS</p>
11:00 AM ILC 125	<p>Brianna Leyva <i>Impact of Light Exposure on 5-6 Year Olds' Circadian Rhythms and Sleep Health</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Lauren Hartstein, PhD (Psychiatry)</p> <p>ASEMS-STARS</p>
11:20 AM ILC 145	<p>Kira Kawena Gomez <i>Tracing Zoonotic Tuberculosis in Africa Using Whole-Genome Sequencing</i> Animal Science at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Luis Alegria</p> <p>ASEMS-STARS</p>

11:20 AM ILC 129	<p>Natalia Moreno Hendrickson <i>Early Risk, Lasting Impact: Adverse Childhood Experiences and Racial Disparities in Cognitive Aging</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Lee Ryan, PhD (Psychology) and Lesley Guareña</p> <p>ASEMS-STARs</p>
11:20 AM ILC 120	<p>Zoe Xanthos <i>Supporting That ComEA Protein Assists in Uptake of DNA in Pseudomonas stutzeri</i> 1) Biochemistry 2) Applied Biotechnology at University of Arizona Mentored by: David Baltrus, PhD (Plant Science)</p> <p>ASEMS-STARs</p>
12:20 PM ILC 145	<p>Elizabeth Fuentes <i>Temporal and Contextual Repeatability in a Novel Community Science Dog Cognition Task</i> 1) Veterinary Sciences 2) Spanish at University of Arizona Mentored by: Evan MacLean, PhD (Veterinary Medicine) and Stephanie Hargrave</p> <p>ASEMS-STARs</p>
12:20 PM ILC 119	<p>Andrew Marcinko-Hernandez <i>Integrating Biodegradable Scaffolds with Wireless Electronics for Bone Repair</i> Biomedical Engineering at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery) and Gerardo Figueroa</p> <p>ASEMS-STARs</p>
12:20 PM ILC 129	<p>Zacariah Padron Murrieta <i>W7 as a Therapeutic Modulator of Sarcomeric Dysfunction in R92W-cTnT Mutant Cardiomyopathy</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jil C. Tardiff, MD, PhD (Biomedical Engineering) and Logan Radomsky, MS</p> <p>ASEMS-STARs</p>
12:20 PM ILC 135	<p>Alondra Salazar Valencia <i>Noise Exposure and Socioeconomic Status: A Gap in Frequency Reporting</i> Medicine at University of Arizona Mentored by: Jennifer A. Teske, PhD (Nutritional Sciences & Wellness)</p> <p>ASEMS-STARs</p>

<p>12:40 PM ILC 119</p>	<p>Lazaro Cota <i>Continuous Monitoring of Fracture Healing Using Wireless Sensors</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery), Gerardo Figuero, and David A. Gonzales</p> <p style="text-align: right;"><i>ASEMS-STARs</i></p>
<p>12:40 PM ILC 129</p>	<p>Asmaa Salih <i>Generational Status and the Correlation to Preferences for Self-Sampling versus Provider Sampling for Cervical Cancer and Human Papillomavirus</i> Biology at University of Arizona Mentored by: Purnima Madhivanan, PhD, MBBS, MPH (Public Health) and Rogelio Robles-Morales, MD</p> <p style="text-align: right;"><i>ASEMS-STARs</i></p>
<p>12:40 PM ILC 125</p>	<p>Raksha Vikram Aditya <i>Comparing Vascular BKCa Channel Function in Aging and Alzheimer's Disease</i> 1) Neuroscience & Cognitive Science: Neurobiology emphasis 2) Biochemistry at University of Arizona Mentored by: Paulo W. Pires, PhD (Physiology) and Paige Martin</p> <p style="text-align: right;"><i>ASEMS-STARs</i></p>
<p>1:00 PM ILC 135</p>	<p>Nicole Dignonno <i>Linking Social Care with Healthcare Systems to Address Social Determinants of Health</i> 1) Physiology and Medical Sciences 2) Spanish at University of Arizona Mentored by: Sairam Parthasarathy, MD (Health Sciences), Kristina Rico, Natalie Provencio Dean, MS, and Christopher Morton</p> <p style="text-align: right;"><i>ASEMS-STARs</i></p>
<p>1:00 PM ILC 119</p>	<p>Janel Hanna <i>Neurovascular Remodeling in the Retina of 5xFAD Mice: A Structural Retinal Biomarker for Alzheimer's Disease</i> 1) Biology 2) Molecular & Cellular Biology at University of Arizona Mentored by: Erika Eggers, PhD (Physiology) and Andrea Wellington</p> <p style="text-align: right;"><i>ASEMS-STARs</i></p>

1:20 PM ILC 145	<p>Joe Blickfeldt <i>Complementation of Tripartite Signaling in Arabidopsis thaliana</i> Plant Sciences at University of Arizona Mentored by: Mark Beilstein, PhD (Plant Science) and Matthew Alcaraz</p> <p>ASEMS-STARs</p>
1:40 PM ILC 145	<p>Fadl Kobeissi <i>Barriers to Low-Sodium Dietary Adherence Among Hemodialysis Patients: Results from a Survey-Based Cross-Sectional Study</i> Nutritional Sciences at University of Arizona Mentored by: Geovana Martin-Alemañy, PhD (Nutritional Sciences & Wellness)</p> <p>ASEMS-STARs</p>
1:40 PM ILC 125	<p>Sailyn Lopez <i>Colocalization of Ash1 mRNA with Ded1 and Edc3 in Stress Granules and P-Bodies During Heat Stress</i> Molecular & Cellular Biology at University of Arizona Mentored by: J. Ross Buchan, PhD (Molecular & Cellular Biology), Jeremy Joseph, and Telsa Mittelmeier</p> <p>ASEMS-STARs</p>
1:40 PM ILC 135	<p>Jessica Wysong <i>Acid Ceramidase as a Potential Therapeutic Target in Ulcerative Colitis</i> Medicine: Basic Medical emphasis, BS at University of Arizona Mentored by: Ashley Snider, PhD (Nutritional Sciences & Wellness) and Keila Espinoza</p> <p>ASEMS-STARs</p>

McNair	
9:20 AM ILC 145	<p>Cipriano Childers <i>Enhancing Blood-Brain Barrier Penetration of Opioid Peptides via Serine Glycosylation for Improved Pain Therapeutics</i> Biochemistry at University of Arizona Mentored by: Robin Polt, PhD (Chemistry & Biochemistry) and Nicholas Christie</p> <p>McNair</p>
9:20 AM ILC 119	<p>Alani Jordan <i>Counting Prime Paths Using the Ihara Zeta Function</i> 1) Statistics & Data Science 2) Mathematics at University of Arizona Mentored by: Doug Haessig, PhD (Mathematics)</p> <p>McNair</p>
9:40 AM ILC 129	<p>Michelle Mendivil Cabral <i>Characterization of Temperature Behavior and Distribution in a Mach 5 Ludwig Tube</i> Mechanical Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering) and Luke Tronstad</p> <p>McNair</p>
10:00 AM ILC 151	<p>Gianna Wynn <i>Evaluating self-report and direct assessment of cognitive-linguistic abilities among female Premutation carriers</i> Psychological Science at University of Arizona Mentored by: Nell Maltman, PhD (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>
10:20 AM ILC 117	<p>Alexis Anahi Nevarez <i>The Impact of Empathy-Based Immigration Appeals on Political Efficacy and Support for Undemocratic Actions</i> 1) Psychology 2) Political Science 3) Criminal Justice at University of Arizona Mentored by: Frank Gonzalez, PhD (Government and Public Policy)</p> <p>McNair</p>

10:40 AM ILC 135	<p>Julio Alejandro Corona <i>Determining Mass Dependence of the Large-Radius Jet Identification Algorithm at ATLAS</i> 1) Physics 2) Astronomy at University of Arizona Mentored by: Rachel Hyneman, PhD (Physics) and Hava Schwartz, PhD</p> <p>McNair</p>
10:40 AM ILC 129	<p>Dorian Noriega <i>Evaluating Non-Invasive Methods to Control a Robotic Arm for High-Level Tetraplegics</i> Mechanical Engineering at University of Arizona Mentored by: Andrew J. Fuglevand, PhD (Physiology) and Jehad Abdullah Alfaleh</p> <p>McNair</p>
10:40 AM ILC 151	<p>Alicia Salazar Contreras <i>“Sopa de Pescado”: Spanish Language Passage Development for the Differential Diagnosis of Motor Speech Disorders</i> 1) Speech, Language, and Hearing Sciences 2) Spanish: Generalist emphasis at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie</p> <p>McNair</p>
11:00 AM ILC 151	<p>Fernanda Delgado <i>Creating Emotionally Protective Experiences for First-Generation Hispanic High School Students Entering Higher Education Environments</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Genesis Arizmendi, PhD, CCC-SLP (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>
11:20 AM ILC 135	<p>Katherine Costello <i>Assessing Detectability of Biosignatures in the Near-Infrared for NASA’s Habitable Worlds Observatory</i> 1) Planetary Geoscience 2) Mathematics at University of Arizona Mentored by: Tyler Robinson, PhD (Planetary Sciences)</p> <p>McNair</p>

12:20 PM ILC 117	<p>Leelu Cervantes <i>How History Shapes Perception: Understanding Different Perceptions of the Native American Identity</i> Psychology at University of Arizona Mentored by: Daniel Sullivan, PhD (Psychology) and Alexis Goad</p> <p>McNair</p>
12:20 PM ILC 120	<p>Saturn Munstedt <i>The Dynamics Between Nitric Oxide, m6A RNA, and Headache</i> 1) Molecular & Cellular Biology 2) Gender & Women's Studies at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Nhi Van</p> <p>McNair</p>
12:40 PM ILC 135	<p>Bryan Anthony Gramajo <i>Reimagining Joint Analysis: Evaluating a Markerless Motion Capture System</i> Physiology at University of Arizona Mentored by: Daniel Latt, MD, PhD (Orthopaedic Surgery), Francisco Espinoza de los Monteros, PhD, and Christopher Arellano, PhD</p> <p>McNair</p>
12:40 PM ILC 117	<p>Edwige Ishimwe <i>Does metaphorical framing of self-concept influence attitudes toward oneself more than literal framing?</i> 1) Neuroscience & Cognitive Science 2) Psychological Science at University of Arizona Mentored by: Vicky Lai, PhD (Psychology) and Lindsay Krebs</p> <p>McNair</p>
1:00 PM ILC 125	<p>Collin Brown <i>Sequential Control of Spatial Orienting Behaviors During Dynamic Movements</i> 1) Neuroscience & Cognitive Science 2) Molecular & Cellular Biology at University of Arizona Mentored by: Melville Wohlgemuth, PhD (Neuroscience)</p> <p>McNair</p>

<p>1:20 PM ILC 135</p>	<p>Amanda T. Le <i>Hispanic Health and Cardiovascular Disease: A Systematic Review & Meta-Analysis of the Longitudinal Literature</i> 1) Medicine 2) Public & Applied Humanities at University of Arizona Mentored by: John Ruiz, PhD (Psychology), Francis Morales-Lozada, MBA, MS, Riley M. O'Neill, Daniel A. Hernandez, and Amelia Ibarra-Mevans</p> <p style="text-align: right;"><i>McNair</i></p>
<p>1:40 PM ILC 151</p>	<p>Casandra Chavarria <i>Buscando el Sueño Mexicano: The Educational Goal Setting Behaviors of Mexico's Returning Students</i> Psychology at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies)</p> <p style="text-align: right;"><i>McNair</i></p>

MHD	
9:20 AM ILC 135	<p>Fabiola Mendoza <i>The Link Between Inflammation and Insulin Resistance: How TAK1 and Microtubule Dynamics Affect Glucose Transport</i> 1) Applied Biotechnology 2) Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Paul R. Langlais, PhD (Medicine) and Mary Catherine Roa</p> <p>MHD</p>
9:20 AM ILC 120	<p>Mara Navarro Perez <i>Prevalence and Characterization of Clostridioides difficile in Tucson</i> 1) Biochemistry 2) Microbiology at University of Arizona Mentored by: Gayatri Vedantam, PhD (Animal & Biomedical Sciences) and Farhan Anwar</p> <p>MHD</p>
9:40 AM ILC 125	<p>Jahaziel E. Galvan <i>Photoacoustic Imaging and Spectroscopy in Quantifying Soft Tissue Constituents for Better Diagnosis of Cancer</i> Optical Sciences & Engineering at University of Arizona Mentored by: Russell S. Witte, PhD (Medicine), Rianne Hilkemeyer, Margaret Allard, Nadia Farha, Parker Harris, Zoe Huestis, and Armenta Emilio</p> <p>MHD</p>
9:40 AM ILC 117	<p>Domonique Houston <i>Evaluating Metal Susceptibility with Compounds in Enterobacter aerogenes and Pseudomonas aeruginosa</i> Pharmaceutical Sciences at University of Arizona Mentored by: Michael D. L. Johnson, PhD (Immunobiology) and Meredythe Durckel</p> <p>MHD</p>
9:40 AM ILC 120	<p>Joelle Smith <i>Triaryl Carbenium Ions: Applications in Tethered Metallaphotoredox Catalysis</i> 1) Biochemistry 2) Chemistry 3) Molecular & Cellular Biology at University of Arizona Mentored by: Thomas L. Gianetti, PhD (Biochemistry & Chemistry), Savannah Stull, David Mills, Robert Lozanovski, and Ramandeep Kaur</p> <p>MHD</p>

10:00 AM ILC 120	<p>Carson Garcia <i>A Root Awakening: Reactive Oxygen Species as a Molecular Messenger in Plants</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jesse Woodson, PhD (Plant Science) and Matthew Lemke</p> <p>MHD</p>
10:00 AM ILC 125	<p>Parker Hubbell <i>Histopathology of Tau Biomarker Correlation with Diffusion Tensor Imaging of Hippocampal Brain Regions</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Elizabeth Hutchinson, PhD (Biomedical Engineering)</p> <p>MHD</p>
10:00 AM ILC 117	<p>Mandy Wu <i>Bisphenol A and Photophobia: Dose-Response Curve in Female Adult Rats</i> Pharmaceutical Sciences at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Sophia von Hippel</p> <p>MHD</p>
10:20 AM ILC 120	<p>Trisha T. Dang <i>The Effects of Glucose on Cellular Quiescence Depth</i> Molecular & Cellular Biology at University of Arizona Mentored by: Guang Yao, PhD (Molecular & Cellular Biology) and Qiong Pan</p> <p>MHD</p>
10:20 AM ILC 145	<p>Caleb Matthew Carl Konecek <i>Role of Rap1 versus PIP3 in the Regulation of mTORC2</i> 1) Biochemistry 2) Molecular & Cellular Biology 3) Spanish at University of Arizona Mentored by: Pascale Charest, PhD (Molecular & Cellular Biology) and Isaiah Toth</p> <p>MHD</p>
10:20 AM ILC 125	<p>Brandon S. Rodriguez <i>Optogenetic Activation of PKC-delta (-) Neurons and Satiation in the Central Nucleus of the Amygdala</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Haijiang Cai, PhD (Neuroscience) and Maša Mišćević</p> <p>MHD</p>

10:20 AM ILC 151	Kristen Saunders <i>Exploring Self-Efficacy and Communicative Participation in Adolescents with Down Syndrome: A Qualitative Study of The Caregiver Perspective</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie <div>MHD</div>
10:20 AM ILC 119	Easton Setzer <i>Exploring Effects on Internal Root Anatomy in Drought Conditions</i> Biology at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Alan Cervantes <div>MHD</div>
10:40 AM ILC 120	Chaz DeCoteau <i>Using Co-Immunoprecipitation to Investigate the Potential for SNX1.3 to Disrupt the Interaction Between p120 Catenin and L1</i> 1) Biochemistry 2) Pharmaceutical Sciences at University of Arizona Mentored by: Samuel Campos, PhD (Immunobiology) and Zachary Williamson <div>MHD</div>
10:40 AM ILC 125	Emma Smith <i>Evaluating the anti-dyskinetic activity of low-dose ketamine in the context of the BDNF Val66Met Polymorphism</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Torsten Falk, PhD (Neurology and Pharmacology) and Raveena Parmar <div>MHD</div>
11:00 AM ILC 119	Akash Ahuja <i>Fetal Heart Monitor for at Home Use</i> Biomedical Engineering at University of Arizona Mentored by: Ravi Goyal, MD, PhD (Obstetrics & Gynecology) <div>MHD</div>
11:00 AM ILC 120	Bianca Baldeon <i>Fabrication and Characterization of Soluplus-based Dissolvable Microneedle Arrays</i> Pharmaceutical Sciences at University of Arizona Mentored by: Abhijit Date, PhD, MPharmSc (Pharmaceutical Sciences) and Manjusha Annaji <div>MHD</div>

11:00 AM ILC 129	<p>Grace Ho <i>Understanding Risk and Resilience Factors of Cognitive Aging</i> Psychological Science at University of Arizona Mentored by: Lee Ryan, PhD (Psychology), Stephanie Matijevic, and Lesley A. Guareña and Lesley A. Guareña</p> <p>MHD</p>
11:00 AM ILC 145	<p>Ash Maxwell <i>An Age and Sex Structured Disease Model: Bovine Tuberculosis in Deer</i> Applied Biotechnology at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Sarita Bugalia</p> <p>MHD</p>
11:20 AM ILC 125	<p>Diana Bos <i>Analyzing the Role of MuRF1 and Titin in Early Muscle Atrophy</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Henk Granzier, PhD (Cellular & Molecular Medicine) and Catherine Hoover</p> <p>MHD</p>
11:20 AM ILC 119	<p>Nataly A. Karlinsey <i>Spatially Patterned Growth Factor Release from Liquid-Like-Solid (LLS) Scaffolds</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Alexander McGhee, PhD (Biomedical Engineering) and Gabriel Declercq</p> <p>MHD</p>
12:20 PM ILC 125	<p>Enrique Caperon <i>Grief: How the Grieving Brain Functions and Implications on Behavior</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: John Allen, PhD (Psychology) and Kelly Chen</p> <p>MHD</p>
12:40 PM ILC 120	<p>Ellerie Blomenkamp <i>Geographic Patterns of New Clades as a Conservation Aid</i> 1) Organismal Biology 2) Ecology & Evolutionary Biology at University of Arizona Mentored by: John J. Wiens, PhD (Ecology & Evolutionary Biology)</p> <p>MHD</p>

1:00 PM ILC 129	<p>Layla Flores <i>Comparing the Efficacy of PIM447 vs PIMTAC and Their Effects on Autophagy</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Noel Warfel, PhD (Cellular & Molecular Medicine) and Hope Liou</p>	MHD
1:20 PM ILC 125	<p>Gabriel Encinas Molecular & Cellular Biology at University of Arizona Mentored by: Cynthia Miranti, PhD (Cellular & Molecular Medicine)</p>	MHD
1:20 PM ILC 129	<p>Sarah Lind <i>Reconstructing 2016 ENSO Variability from Subfossil Corals in the Marshall Islands</i> Biology at University of Arizona Mentored by: Diane Thompson, PhD (Geosciences) and Mudith Weerabaddanage</p>	MHD

SRI	
9:20 AM ILC 129	<p>Jacob Agcaoili <i>Evaluation of Carbon Fiber Reinforced Polymers with Optical Emission Spectroscopy</i> Aerospace Engineering at University of Arizona Mentored by: Olesya Zhupanska, PhD and Daniel Diaz, PhD (Aerospace & Mechanical Engineering)</p> <p>SRI</p>
9:40 AM ILC 119	<p>Randall Candaso <i>Using Machine Learning to Project End of Career Athlete Trajectory: What Defines Immortal Legacy?</i> Information Science: Data Science emphasis at University of Arizona Mentored by: Greg Chism, PhD (Information Science)</p> <p>SRI</p>
9:40 AM ILC 145	<p>Shea Hollis <i>The Hidden Switches of Segmentation: Discovering even-skipped Enhancers</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p> <p>SRI</p>
9:40 AM ILC 151	<p>Gisela Uribe <i>A Preliminary Analysis on Latine Parental Awareness and Attitudes Toward HPV Vaccination in Arizona Border Counties</i> 1) Data Analytics 2) Sociology at Beloit College Mentored by: Sheila Soto, DrPH, MPH (Public Health)</p> <p>SRI</p>
10:00 AM ILC 129	<p>Jasmine Garnett <i>Wave Propagation Analysis to Characterize Wave Speed in Boundary-Layer Instabilities</i> Aerospace Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering), Adam Skora, Luke Tronstad, and Gray Hardy</p> <p>SRI</p>

10:00 AM ILC 135	Lauren Whitaker <i>Layer-dependent Photoluminescence in InSe</i> Physics at University of Arizona Mentored by: John Schaibley, PhD (Physics) and Garrett Reichenbach SRI
10:20 AM ILC 129	Razak Adamu Aerospace Engineering at University of Arizona Mentored by: Jekan Thanga, PhD (Aerospace & Mechanical Engineering) SRI
10:40 AM ILC 117	Mikala Chee <i>Two Worlds: The Importance of Ethnic Identity in Higher Education Pursuance Among Native Youth</i> Psychology at Fort Lewis College Mentored by: Christina Andrews, JD, MPH, MBA, MA (Medicine) SRI
11:00 AM ILC 117	Nate Olea Chavez <i>Bridging the Gap Between Moral and Economic Disagreements of Rationalization: A Computational Methodology in Contract Jurisprudence</i> 1) Political Science: Law and Public Policy emphasis 2) Law at University of Arizona Mentored by: David Clark, PhD (Philosophy) SRI
11:20 AM ILC 117	Samantha Morvant <i>Understanding the impact of the COVID-19 pandemic on breast cancer screening rates at Federally Qualified Health Clinics in California</i> 1) Psychology 2) Anthropology at University of Arizona Mentored by: Gloria D. Coronado, PhD (Cancer Center) and Josheili Llavona SRI
12:20 PM ILC 151	Franklin Acosta <i>A Clarinetists Guide to Stylistic Authenticity in Klezmer Music: An Exploration of Recordings of Paul Schoenfeld's Klezmer Sonatina</i> Music Performance at East Tennessee State University Mentored by: Jackie Glazier, PhD (Fine Arts) SRI

12:40 PM ILC 145	<p>George Hyland <i>Understanding the Effect of the Gender of Farm Plot Managers on Measures of Food Security for Smallholder Households in Malawi</i> Agribusiness Economics at University of Arizona Mentored by: Anna Josephson, PhD (Applied Economics) and Jeffrey Michler</p>	SRI
12:40 PM ILC 151	<p>Emily Vo <i>Human-Robot Interaction, Public History, and the Museum: A Case Study of Using tēmi in the African American Museum of Southern Arizona (AAMSAz)</i> Computer Science at Cornell University Mentored by: Bryan Carter, PhD (Africana Studies and Humanities)</p>	SRI
1:00 PM ILC 120	<p>Ntsumi Machiana <i>Exploring the Synthesis and Properties of Glyonic Liquids</i> Chemistry at Pima Community College Mentored by: Jeanne Pemberton, PhD (Chemistry & Biochemistry)</p>	SRI
1:00 PM ILC 117	<p>Grace Mazurik <i>Time interval estimation in the TgF344-AD rat model of Alzheimer's disease</i> Psychological Science at University of Arizona Mentored by: Stephen Cowen, PhD (Psychology) and Russell Dougherty</p>	SRI
1:00 PM ILC 145	<p>Elias Post <i>Rainfall and Runoff in the Bronx Wash</i> Hydrology and Atmospheric Sciences: Environmental Hydrology and Water Resources emphasis at University of Arizona Mentored by: Martha P.L. Whitaker, PhD (Hydrology & Atmospheric Sciences) and Neha Gupta</p>	SRI
1:00 PM ILC 151	<p>Guadalupe Villegas <i>La Santa de Cabora: How Catholicism and Curanderismo affect the perceptions and treatment of women in The Hummingbird's Daughter by Luis Alberto Urrea</i> English: Literature emphasis at California State University, Dominguez Hills Mentored by: Jennifer Jenkins, PhD (English)</p>	SRI

1:20 PM ILC 151	<p>Natalia Morales <i>How Student Centered Learning Can Be Used to Support Hispanic/Latinx Students and Instructors in Higher Education</i> 1) Mexican American Studies 2) Gender & Women's Studies at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies) and Rosa Maldonado</p> <p>SRI</p>
1:20 PM ILC 120	<p>Daniel A. Musquiz <i>Prediction of Heat Capacity of a Prototypical Medium-Chain Chlorinated Paraffin Using Quantum Chemistry: C₁₄Cl₆H₂₄</i> Chemical Engineering at University of Arizona Mentored by: Paul Blowers, PhD (Chemical and Environmental Engineering)</p> <p>SRI</p>
1:20 PM ILC 117	<p>Harmony Switzer-Tryon <i>Examining the Relationship Between Childhood Trauma and Executive Functioning</i> Psychology at California State Polytechnic University, Humboldt Mentored by: John Ruiz, PhD and Ashley Huggins, PhD (Psychology)</p> <p>SRI</p>

UROC-Prep	
10:00 AM ILC 145	<p>Victor Vigbedorh <i>Eve Enhancers Can Elucidate Mechanisms Behind Sequential Segmentation in Tribolium Castaneum</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p> <p style="text-align: right;"><i>UROC-Prep</i></p>
10:40 AM ILC 119	<p>Ruben Peña <i>Development of Sorghum roots under drought stress: An analysis of DIRT/3D pipeline for 3D root phenotyping</i> Biosystems Engineering at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Suxing Lui</p> <p style="text-align: right;"><i>UROC-Prep</i></p>

Poster Session

Friday, August 8 | 1 – 3 pm

North Ballroom, Student Union Memorial Center

1303 E University Blvd, Tucson, AZ 85719

Posters by Number & Program

Program	Poster #s	Program	Poster #s
FRONTERA	1-16	B2 REU	92-100
MHD	17-43	Johnson Lab	101-102
SRI	44-63	Quantum Que	103-104
UROC-Prep	65-66	USIP	105-121
ASEMS-STARS	67-91	McNair	64, 145-160

Posters by Last Name

49	<p>Acosta, Franklin <i>A Clarinetists Guide to Stylistic Authenticity in Klezmer Music: An Exploration of Recordings of Paul Schoenfeld's Klezmer Sonatina</i> Music Performance at East Tennessee State University Mentored by: Jackie Glazier, PhD (Fine Arts)</p>	SRI
44	<p>Adamu, Razak Aerospace Engineering at University of Arizona Mentored by: Jekan Thanga, PhD (Aerospace & Mechanical Engineering)</p>	SRI

45	<p>Agcaoili, Jacob <i>Evaluation of Carbon Fiber Reinforced Polymers with Optical Emission Spectroscopy</i> Aerospace Engineering at University of Arizona Mentored by: Olesya Zhupanska, PhD and Daniel Diaz, PhD (Aerospace & Mechanical Engineering)</p>	SRI
67	<p>Aguayo, Jessica <i>Stars and Supermassive Black Holes: Exploring the Fitting of AGNs and Star Formation in Galaxies at $z = 2-3$</i> Astronomy at University of Arizona Mentored by: Kevin Hainline, PhD (Astronomy) and Sophie Lebowitz</p>	ASEMS-STARS
17	<p>Ahuja, Akash <i>Fetal Heart Monitor for at Home Use</i> Biomedical Engineering at University of Arizona Mentored by: Ravi Goyal, MD, PhD (Obstetrics & Gynecology)</p>	MHD
1	<p>Alkakooz, Raymond <i>Literature Review of Mixed Method Analysis of HPV Vaccine Use, Knowledge, & Beliefs among U.S. Southern Border Communities</i> 1) Biomedical Sciences 2) Global Health at Arizona State University Mentored by: Tomas Nuno, PhD (Epidemiology and Biostatistics)</p>	FRONTERA
18	<p>Baldeon, Bianca <i>Fabrication and Characterization of Soluplus-based Dissolvable Microneedle Arrays</i> Pharmaceutical Sciences at University of Arizona Mentored by: Abhijit Date, PhD, MPharmSc (Pharmaceutical Sciences) and Manjusha Annaji</p>	MHD
2	<p>Barraza Salazar, Karla <i>Mind and Body Medicine: Application in the community</i> 1) Spanish 2) Psychology at University of Arizona Mentored by: Noshene Ranjbar, MD (Psychiatry)</p>	FRONTERA

105	<p>Barron, Daniel <i>Exploring the Effects of Omega-3 Supplementation on Oxylipins in Different Genetic and Racial Backgrounds</i> Nutritional Science and Wellness at University of Arizona Mentored by: Patty Thompson, PhD (Physiology)</p>	USIP
106	<p>Bernal Rios, Adrian <i>Novel Microfluidic Bone-On-A-Chip Model of Prostate Cancer Metastasis</i> Molecular & Cellular Biology at University of Arizona Mentored by: Cynthia Miranti, PhD (Cellular & Molecular Medicine), Hunain Khawaja, Yitshak Zohar, PhD, and Linan Jiang, PhD</p>	USIP
107	<p>Bianes, Arrianna <i>Expanding Therapeutic Scope for MDM2 Degraders: Optimization in Glioblastoma Models</i> Biology at University of Arizona Mentored by: Wei Wang, PhD (Pharmacology & Toxicology) and Alexis Cruickshank-Taylor</p>	USIP
3	<p>Blackman Rico, Max <i>Sex-Based Differences in Parkinson's Disease Progression in WT and α-syn Mouse Models</i> Physiology at University of Arizona Mentored by: Madhavan, Lalitha, MD, PhD (Neurology)</p>	FRONTERA
68	<p>Blickfeldt, Joe <i>Complementation of Tripartite Signaling in <i>Arabidopsis thaliana</i></i> Plant Sciences at University of Arizona Mentored by: Mark Beilstein, PhD (Plant Science) and Matthew Alcaraz</p>	ASEMS-STARS
19	<p>Blomenkamp, Ellerie <i>Geographic Patterns of New Clades as a Conservation Aid</i> 1) Organismal Biology 2) Ecology & Evolutionary Biology at University of Arizona Mentored by: John J. Wiens, PhD (Ecology & Evolutionary Biology)</p>	MHD

108	<p>Bohart, Nate <i>Mitochondrial Transfer from Non-neuronal Cells to Injured Neurons</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Martha Bhattacharya, PhD (Neuroscience)</p> <p>USIP</p>
20	<p>Bos, Diana <i>Analyzing the Role of MuRF1 and Titin in Early Muscle Atrophy</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Henk Granzier, PhD (Cellular & Molecular Medicine) and Catherine Hoover</p> <p>MHD</p>
145	<p>Brown, Collin <i>Sequential Control of Spatial Orienting Behaviors During Dynamic Movements</i> 1) Neuroscience & Cognitive Science 2) Molecular & Cellular Biology at University of Arizona Mentored by: Melville Wohlgemuth, PhD (Neuroscience)</p> <p>McNair</p>
92	<p>Bute, Dominick <i>Sunflowers Adapt to Agrivoltaic Shade Through Morphological and Leaf Trait Responses</i> Environmental Sciences and Sustainability at Chandler-Gilbert Community College Mentored by: Greg Barron-Gafford, PhD (Geography, Development & Environment) and Nesrine Rouini</p> <p>B2 REU</p>
46	<p>Candaso, Randall <i>Using Machine Learning to Project End of Career Athlete Trajectory: What Defines Immortal Legacy?</i> Information Science: Data Science emphasis at University of Arizona Mentored by: Greg Chism, PhD (Information Science)</p> <p>SRI</p>
21	<p>Caperon, Ricky <i>Grief: How the Grieving Brain Functions and Implications on Behavior</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: John Allen, PhD (Psychology) and Kelly Chen</p> <p>MHD</p>

69	<p>Carter, Beau <i>Feedback Cooling a Torsional Oscillator using an Optical Lever</i> Optical Sciences & Engineering at University of Arizona Mentored by: Dalziel Wilson, PhD (Optical Sciences), Atkin Hyatt, Mitul Dey Chowdhury, Charles Condos, Morgan Choi</p> <p>ASEMS-STARS</p>
64	<p>Cervantes, Leelu <i>How History Shapes Perception: Understanding Different Perceptions of the Native American Identity</i> Psychology at University of Arizona Mentored by: Daniel Sullivan, PhD (Psychology) and Alexis Goad</p> <p>McNair</p>
154	<p>Chavarria, Casandra <i>Buscando el Sueño Mexicano: The Educational Goal Setting Behaviors of Mexico's Returning Students</i> Psychology at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies)</p> <p>McNair</p>
47	<p>Chavez, Nate Olea <i>Bridging the Gap Between Moral and Economic Disagreements of Rationalization: A Computational Methodology in Contract Jurisprudence</i> 1) Political Science: Law and Public Policy emphasis 2) Law at University of Arizona Mentored by: David Clark, PhD (Philosophy)</p> <p>SRI</p>
48	<p>Chee, Mikala <i>Two Worlds: The Importance of Ethnic Identity in Higher Education Pursuance Among Native Youth</i> Psychology at Fort Lewis College Mentored by: Christina Andrews, JD, MPH, MBA, MA (Medicine)</p> <p>SRI</p>

146	<p>Childers, Cipriano <i>Enhancing Blood-Brain Barrier Penetration of Opioid Peptides via Serine Glycosylation for Improved Pain Therapeutics</i> Biochemistry at University of Arizona Mentored by: Robin Polt, PhD (Chemistry & Biochemistry) and Nicholas Christie</p> <p>McNair</p>
4	<p>Clinch, Deanna <i>How does food insecurity influence the prevalence of metabolic dysfunction-associated steatotic liver disease (MASLD) among Mexican-Origin adults in Yuma, AZ</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: David Garcia, PhD (Health Promotion Sciences), Edgar Villavicencio, MPH, and Adriana Maldonado, PhD MA</p> <p>FRONTERA</p>
103	<p>Colony, Mason William <i>Quantum changepoint detection</i> Mathematics at University of Arizona Mentored by: Boulat Bash, PhD (Electrical & Computer Engineering) and Tiju John</p> <p>Quantum Que</p>
147	<p>Corona, Julio Alejandro <i>Determining Mass Dependence of the Large-Radius Jet Identification Algorithm at ATLAS</i> 1) Physics 2) Astronomy at University of Arizona Mentored by: Rachel Hyneman, PhD (Physics) and Hava Schwartz, PhD</p> <p>McNair</p>
148	<p>Costello, Katherine <i>Assessing Detectability of Biosignatures in the Near-Infrared for NASA's Habitable Worlds Observatory</i> 1) Planetary Geoscience 2) Mathematics at University of Arizona Mentored by: Tyler Robinson, PhD (Planetary Sciences)</p> <p>McNair</p>

70	<p>Cota, Lazaro <i>Continuous Monitoring of Fracture Healing Using Wireless Sensors</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery), Gerardo Figuero, and David A. Gonzales</p> <p>ASEMS-STARs</p>
22	<p>Dang, Trisha T. <i>The Effects of Glucose on Cellular Quiescence Depth</i> Molecular & Cellular Biology at University of Arizona Mentored by: Guang Yao, PhD (Molecular & Cellular Biology) and Qiong Pan</p> <p>MHD</p>
23	<p>DeCoteau, Chaz <i>Using Co-Immunoprecipitation to Investigate the Potential for SNX1.3 to Disrupt the Interaction Between p120 Catenin and L1</i> 1) Biochemistry 2) Pharmaceutical Sciences at University of Arizona Mentored by: Samuel Campos, PhD (Immunobiology) and Zachary Williamson</p> <p>MHD</p>
93	<p>Delaney-Dye, Taleya <i>Investigating Carbon Flux of Natural Desert Plots as Context for Early Succession on a Controlled Basalt Hillslope</i> Molecular & Cellular Biology at University of Arizona Mentored by: Scott Saleska, PhD (Ecology & Evolutionary Biology), Aaron Bugaj, Wei-Ren Ng, and Matej Durcik</p> <p>B2 REU</p>
5	<p>Delgadillo, Fabiana <i>Examining the potential of the Friendship Bench Model to provide perinatal mental health and behavior support to improve maternal-infant bonding in the rural Latine communities.</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Martha Moore-Monroy, PhD (Health Behavior Health Promotion)</p> <p>FRONTERA</p>

149	<p>Delgado, Fernanda <i>Creating Emotionally Protective Experiences for First-Generation Hispanic High School Students Entering Higher Education Environments</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Genesis Arizmendi, PhD, CCC-SLP (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>
71	<p>Digonno, Nicole <i>Linking Social Care with Healthcare Systems to Address Social Determinants of Health</i> 1) Physiology and Medical Sciences 2) Spanish at University of Arizona Mentored by: Sairam Parthasarathy, MD (Health Sciences), Kristina Rico, Natalie Provencio Dean, MS, and Christopher Morton</p> <p>ASEMS-STARs</p>
24	<p>Encinas, Gabriel Molecular & Cellular Biology at University of Arizona Mentored by: Cynthia Miranti, PhD (Cellular & Molecular Medicine)</p> <p>MHD</p>
6	<p>Fernandez, Ana <i>One Size Doesn't Fit All: Addressing Vaccine Hesitancy Through Patient-Centered Care in Immunocompromised and Hispanic Communities</i> Physiology at University of Arizona Mentored by: John N. Galgiani, MD (Valley Fever Center for Excellence)</p> <p>FRONTERA</p>
7	<p>Flores, Frida <i>Hearts & Minds: Cardiovascular Health and Cognitive Risk in Aging Hispanic Populations</i> 1) Medicine: Emphasis in Basic Medical Sciences 2) French at University of Arizona Mentored by: David Garcia, PhD (Health Promotion Sciences), Edgar Villavicencio, MPH, and Adriana Maldonado, PhD MA</p> <p>FRONTERA</p>
25	<p>Flores, Layla <i>Comparing the Efficacy of PIM447 vs PIMTAC and Their Effects on Autophagy</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Noel Warfel, PhD (Cellular & Molecular Medicine) and Hope Liou</p> <p>MHD</p>

72	<p>Fuentes, Elizabeth <i>Temporal and Contextual Repeatability in a Novel Community Science Dog Cognition Task</i> 1) Veterinary Sciences 2) Spanish at University of Arizona Mentored by: Evan MacLean, PhD (Veterinary Medicine) and Stephanie Hargrave</p> <p>ASEMS-STARs</p>
26	<p>Galvan, Jahaziel E. <i>Photoacoustic Imaging and Spectroscopy in Quantifying Soft Tissue Constituents for Better Diagnosis of Cancer</i> Optical Sciences & Engineering at University of Arizona Mentored by: Russell S. Witte, PhD (Medicine), Rianne Hilkemeyer, Margaret Allard, Nadia Farha, Parker Harris, Zoe Huestis, and Armenta Emilio</p> <p>MHD</p>
27	<p>Garcia, Carson <i>A Root Awakening: Reactive Oxygen Species as a Molecular Messenger in Plants</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jesse Woodson, PhD (Plant Science) and Matthew Lemke</p> <p>MHD</p>
50	<p>Garnett, Jasmine <i>Wave Propagation Analysis to Characterize Wave Speed in Boundary-Layer Instabilities</i> Aerospace Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering), Adam Skora, Luke Tronstad, and Gray Hardy</p> <p>SRI</p>
109	<p>Gazman, Simone <i>Assessing Oncogenic Viruses in Environmental Samples: Implications for Cancer Risk and Public Health in Southern Arizona</i> Microbiology at University of Arizona Mentored by: Walter Betancourt, PhD (Environmental Science)</p> <p>USIP</p>
73	<p>Gomez, Kira Kawena <i>Tracing Zoonotic Tuberculosis in Africa Using Whole-Genome Sequencing</i> Animal Science at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Luis Alegria</p> <p>ASEMS-STARs</p>

110	<p>Gonzalez, Cristian <i>Mapping Advanced Glycation Endproducts (AGEs) and Neuro-Immune Cells' interaction in Ischemic Stroke</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Kristian Doyle, PhD (Immunobiology; Neurology), Sangeetha Kumar, PhD, Boaz Maiyo, BS, and Esther Qiu</p> <p>USIP</p>
150	<p>Gramajo, Bryan Anthony <i>Reimagining Joint Analysis: Evaluating a Markerless Motion Capture System</i> Physiology at University of Arizona Mentored by: Daniel Latt, MD, PhD (Orthopaedic Surgery), Francisco Espinoza de los Monteros, PhD, and Christopher Arellano, PhD</p> <p>McNair</p>
94	<p>Grandy, Jasiella <i>Soil Cover Type and Positions Impact Carbon Accumulation in the Landscape Evolution Observatory (LEO) Soil</i> 1) Biochemistry 2) Biology at Berea College Mentored by: Katerina Dontsova, PhD (Environmental Science), Favianna Cubello, and Matt Peterson</p> <p>B2 REU</p>
74	<p>Hanna, Janel <i>Neurovascular Remodeling in the Retina of 5xFAD Mice: A Structural Retinal Biomarker for Alzheimer's Disease</i> 1) Biology 2) Molecular & Cellular Biology at University of Arizona Mentored by: Erika Eggers, PhD (Physiology) and Andrea Wellington</p> <p>ASEMS-STARS</p>
111	<p>Hernandez, Andrea <i>Exploratory Study of Controlled Activation of BODIPY Photocaging</i> Molecular & Cellular Biology at University of Arizona Mentored by: Wei Wang, PhD (Pharmacology & Toxicology; Chemistry and Biochemistry) and Giri Gnawali, PhD</p> <p>USIP</p>

95	<p>Hillhouse, Jocelyn <i>Continuous Measurements of Net CO₂ and H₂O Gas Exchange Associated to CAM-Photosynthetic Cacti in Open-Dynamic Mesocosm Chambers</i> Plant Biology at University of California, Davis Mentored by: Katerina Dontsova, PhD (Environmental Science) and Clement Lopez-Canfin, PhD</p>	B2 REU
28	<p>Ho, Grace <i>Understanding Risk and Resilience Factors of Cognitive Aging</i> Psychological Science at University of Arizona Mentored by: Lee Ryan, PhD (Psychology), Stephanie Matijevic, and Lesley A. Guareña and Lesley A. Guareña</p>	MHD
51	<p>Hollis, Shea <i>The Hidden Switches of Segmentation: Discovering even-skipped Enhancers</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p>	SRI
29	<p>Houston, Domonique <i>Evaluating Metal Susceptibility with Compounds in Enterobacter aerogenes and Pseudomonas aeruginosa</i> Pharmaceutical Sciences at University of Arizona Mentored by: Michael D. L. Johnson, PhD (Immunobiology) and Meredythe Durckel</p>	MHD
30	<p>Hubbell, Parker <i>Histopathology of Tau Biomarker Correlation with Diffusion Tensor Imaging of Hippocampal Brain Regions</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Elizabeth Hutchinson, PhD (Biomedical Engineering)</p>	MHD

52	<p>Hyland, George <i>Understanding the Effect of the Gender of Farm Plot Managers on Measures of Food Security for Smallholder Households in Malawi</i> Agribusiness Economics at University of Arizona Mentored by: Anna Josephson, PhD (Applied Economics) and Jeffrey Michler</p>	SRI
151	<p>Ishimwe, Edwige <i>Does metaphorical framing of self-concept influence attitudes toward oneself more than literal framing?</i> 1) Neuroscience & Cognitive Science 2) Psychological Science at University of Arizona Mentored by: Vicky Lai, PhD (Psychology) and Lindsay Krebs</p>	McNair
112	<p>Jentoft, Sedona <i>Beneath the Surface: UV Awareness in Aquatic Environments</i> Integrative and Practice focused Medicine at University of Arizona Mentored by: Robin Harris, PhD (Epidemiology and Biostatistics) and Dylan Miller, PhD</p>	USIP
152	<p>Jordan, Alani <i>Counting Prime Paths Using the Ihara Zeta Function</i> 1) Statistics & Data Science 2) Mathematics at University of Arizona Mentored by: Doug Haessig, PhD (Mathematics)</p>	McNair
31	<p>Karlinsey, Nataly A. <i>Spatially Patterned Growth Factor Release from Liquid-Like-Solid (LLS) Scaffolds</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Alexander McGhee, PhD (Biomedical Engineering) and Gabriel Declercq</p>	MHD
76	<p>Kobeissi, Fadl <i>Barriers to Low-Sodium Dietary Adherence Among Hemodialysis Patients: Results from a Survey-Based Cross-Sectional Study</i> Nutritional Sciences at University of Arizona Mentored by: Geovana Martin-Alemañy, PhD (Nutritional Sciences & Wellness)</p>	ASEMS-STARs

34	<p>Konecek, Caleb Matthew Carl <i>Role of Rap1 versus PIP3 in the Regulation of mTORC2</i> 1) Biochemistry 2) Molecular & Cellular Biology 3) Spanish at University of Arizona Mentored by: Pascale Charest, PhD (Molecular & Cellular Biology) and Isaiah Toth</p> <p>MHD</p>
113	<p>Krueger, Andrew <i>Exploring the individual functions of ENA/VASP proteins and their roles in cancer physiology</i> 1) Molecular & Cellular Biology 2) Physiology at University of Arizona Mentored by: Ghassan Mouneimne, PhD (Cellular & Molecular Medicine)</p> <p>USIP</p>
77	<p>Laporte, Alexa <i>Novel Bio-Inspired Xylolipids: Toward Heavy Metal Remediation Strategy Development</i> Applied Biotechnology: Industrial Plant and Microbial Biotechnology emphasis at University of Arizona Mentored by: David E. Hogan, PhD (Environmental Science), Raina M. Maier, Tyler J. Durkin, and Kelsey Graves</p> <p>ASEMS-STARs</p>
96	<p>Lasley, Olivia <i>Influence of Photovoltaic Systems and Plastic Mulch on Dust Accumulation in Arid Environments</i> Environmental Science at University of Arizona Mentored by: Holly Andrews, PhD (Geography, Development & Environment) and Ingrid Holstrom</p> <p>B2 REU</p>
97	<p>Lawrence, Carl <i>Carbon dioxide and water dynamics along successional gradients on an experimental early-successional basalt landscape.</i> Plant Sciences at Cornell University Mentored by: Scott Saleska, PhD (Ecology & Evolutionary Biology), Aaron Bugaj, and Wei-ren Ng</p> <p>B2 REU</p>

153	<p>Le, Amanda T. <i>Hispanic Health and Cardiovascular Disease: A Systematic Review & Meta-Analysis of the Longitudinal Literature</i> 1) Medicine 2) Public & Applied Humanities at University of Arizona Mentored by: John Ruiz, PhD (Psychology), Francis Morales-Lozada, MBA, MS, Riley M. O'Neill, Daniel A. Hernandez, and Amelia Ibarra-Mevans</p> <p>McNair</p>
78	<p>Leyva, Brianna <i>Impact of Light Exposure on 5-6 Year Olds' Circadian Rhythms and Sleep Health</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Lauren Hartstein, PhD (Psychiatry)</p> <p>ASEMS-STARs</p>
35	<p>Lind, Sarah <i>Reconstructing 2016 ENSO Variability from Subfossil Corals in the Marshall Islands</i> Biology at University of Arizona Mentored by: Diane Thompson, PhD (Geosciences) and Mudith Weerabaddanage</p> <p>MHD</p>
79	<p>Lopez, Sailyn <i>Colocalization of Ash1 mRNA with Ded1 and Edc3 in Stress Granules and P-Bodies During Heat Stress</i> Molecular & Cellular Biology at University of Arizona Mentored by: J. Ross Buchan, PhD (Molecular & Cellular Biology), Jeremy Joseph, and Telsa Mittelmeier</p> <p>ASEMS-STARs</p>
8	<p>Lu, Jack <i>Identify and Characterize Uba5 Inhibitors Using Innovative Assay For Therapeutic Research in Alzheimer's Disease.</i> Microbiology at University of Arizona Mentored by: Li, Hongmin, PhD (Pharmacology and Toxicology)</p> <p>FRONTERA</p>
53	<p>Machiana, Ntsumi <i>Exploring the Synthesis and Properties of Glyonic Liquids</i> Chemistry at Pima Community College Mentored by: Jeanne Pemberton, PhD (Chemistry & Biochemistry)</p> <p>SRI</p>

101	<p>Macias, Zabdi <i>Effects of Dithiocarbamates on Gram-Negative Bacterial Growth</i> Chemistry at Haverford College Mentored by: Michael D. L. Johnson, PhD (Immunobiology)</p> <p>Johnson Lab</p>
9	<p>Maldonado, Gabriela <i>Monitoring of a Simulated Fracture Healing Model Using Strain Gauges</i> Physiology and Medical Sciences at University of Arizona Mentored by: David Stephen Margolis, MD, PhD (Orthopaedic Surgery)</p> <p>FRONTERA</p>
80	<p>Marcinko-Hernandez, Andrew <i>Integrating Biodegradable Scaffolds with Wireless Electronics for Bone Repair</i> Biomedical Engineering at University of Arizona Mentored by: David Margolis, MD, PhD (Biomedical Engineering and Orthopaedic Surgery) and Gerardo Figueroa</p> <p>ASEMS-STARs</p>
98	<p>Matheson, Lara <i>Assessing environmental health hazards and social vulnerability: A spatial analysis of contaminants in southern and central Arizona</i> 1) Environmental Science 2) Economics at Skidmore College Mentored by: Joseph Hoover, PhD (Public Health) and Chrisa Whitmore</p> <p>B2 REU</p>
36	<p>Maxwell, Ash <i>An Age and Sex Structured Disease Model: Bovine Tuberculosis in Deer</i> Applied Biotechnology at University of Arizona Mentored by: Liliana Salvador, PhD (Animal & Biomedical Sciences) and Sarita Bugalia</p> <p>MHD</p>
54	<p>Mazurik, Grace <i>Time interval estimation in the TgF344-AD rat model of Alzheimer's disease</i> Psychological Science at University of Arizona Mentored by: Stephen Cowen, PhD (Psychology) and Russell Dougherty</p> <p>SRI</p>

155	<p>Mendivil Cabral, Michelle <i>Characterization of Temperature Behavior and Distribution in a Mach 5 Ludwig Tube</i> Mechanical Engineering at University of Arizona Mentored by: Stuart A. Craig, PhD (Aerospace & Mechanical Engineering) and Luke Tronstad</p> <p>McNair</p>
37	<p>Mendoza, Fabiola <i>The Link Between Inflammation and Insulin Resistance: How TAK1 and Microtubule Dynamics Affect Glucose Transport</i> 1) Applied Biotechnology 2) Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Paul R. Langlais, PhD (Medicine) and Mary Catherine Roa</p> <p>MHD</p>
10	<p>Montano, Arleene <i>Bladder and Prostate Cancer Biomarker Profiling and Clinical Trial Locations in Arizona</i> Physiology and Medical Sciences at University of Arizona Mentored by: Alejandro Recio-Boiles, MD (Cancer Center)</p> <p>FRONTERA</p>
55	<p>Morales, Natalia <i>How Student Centered Learning Can Be Used to Support Hispanic/Latinx Students and Instructors in Higher Education</i> 1) Mexican American Studies 2) Gender & Women's Studies at University of Arizona Mentored by: Anna Ochoa O'Leary, PhD (Mexican American Studies) and Rosa Maldonado</p> <p>SRI</p>
75	<p>Moreno Hendrickson, Natalia <i>Early Risk, Lasting Impact: Adverse Childhood Experiences and Racial Disparities in Cognitive Aging</i> Biology: Biomedical Sciences emphasis at University of Arizona Mentored by: Lee Ryan, PhD (Psychology) and Lesley Guareña</p> <p>ASEMS-STARs</p>

56	<p>Morvant, Samantha <i>Understanding the impact of the COVID-19 pandemic on breast cancer screening rates at Federally Qualified Health Clinics in California</i> 1) Psychology 2) Anthropology at University of Arizona Mentored by: Gloria D. Coronado, PhD (Cancer Center) and Josheili Llavona</p> <p>SRI</p>
114	<p>Moss, Courtney <i>Self-assembling Isoniazid Polymer Conjugates for Prostate Cancer Therapy</i> Pharmaceutical Sciences at University of Arizona Mentored by: Abhijit Date, PhD (Pharmacology & Toxicology) and Chirag Miglani, PhD</p> <p>USIP</p>
156	<p>Munstedt, Saturn <i>The Dynamics Between Nitric Oxide, m6A RNA, and Headache</i> 1) Molecular & Cellular Biology 2) Gender & Women's Studies at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Nhi Van</p> <p>McNair</p>
57	<p>Musquiz, Daniel A. <i>Prediction of Heat Capacity of a Prototypical Medium-Chain Chlorinated Paraffin Using Quantum Chemistry: C₁₄Cl₆H₂₄</i> Chemical Engineering at University of Arizona Mentored by: Paul Blowers, PhD (Chemical and Environmental Engineering)</p> <p>SRI</p>
81	<p>Navarrete, Paige M. <i>Influences of Climate on an Endangered Squirrel Population and Food Availability in the Southwest United States</i> Natural Resources: Wildlife Conservation and Management emphasis at University of Arizona Mentored by: Bret Pasch, PhD (Natural Resources & the Environment), Sean Mahoney, Nikki Reck, and Vicki Greer</p> <p>ASEMS-STARs</p>

32	<p>Navarro Perez, Mara <i>Prevalence and Characterization of Clostridioides difficile in Tucson</i> 1) Biochemistry 2) Microbiology at University of Arizona Mentored by: Gayatri Vedantam, PhD (Animal & Biomedical Sciences) and Farhan Anwar</p>	MHD
157	<p>Nevarez, Alexis Anahi <i>The Impact of Empathy-Based Immigration Appeals on Political Efficacy and Support for Undemocratic Actions</i> 1) Psychology 2) Political Science 3) Criminal Justice at University of Arizona Mentored by: Frank Gonzalez, PhD (Government and Public Policy)</p>	McNair
115	<p>Ngo, Amy <i>Skin Cancer Risk in Outside Workers</i> Molecular and Cellular Biology at University of Arizona Mentored by: Robin Harris, PhD (Epidemiology and Biostatistics) and Dylan Miller, PhD</p>	USIP
82	<p>Nguyen, Michael <i>Investigation of Acetaminophen's Alteration to Efflux Transporters through Nuclear Receptors in the Blood-Brain Barrier</i> Pharmaceutical Sciences at University of Arizona Mentored by: Patrick Ronaldson, PhD (Medicine) and Collin Krzyzaniak, MS</p>	ASEMS-STARS
158	<p>Noriega, Dorian <i>Evaluating Non-Invasive Methods to Control a Robotic Arm for High-Level Tetraplegics</i> Mechanical Engineering at University of Arizona Mentored by: Andrew J. Fuglevand, PhD (Physiology) and Jehad Abdullah Alfaleh</p>	McNair
116	<p>Orrantia, Sofia <i>Novel brain-penetrant bifunctional small molecule inhibitors for glioblastoma therapy</i> Physiology and Medical Sciences at University of Arizona Mentored by: Jennifer Carew, PhD (Medicine) and Steffan Nawrocki, PhD</p>	USIP

83	<p>Padron Murrieta, Zacariah <i>W7 as a Therapeutic Modulator of Sarcomeric Dysfunction in R92W-cTnT Mutant Cardiomyopathy</i> Molecular & Cellular Biology at University of Arizona Mentored by: Jil C. Tardiff, MD, PhD (Biomedical Engineering) and Logan Radomsky, MS</p> <p>ASEMS-STARs</p>
11	<p>Pasillas, Jennifer <i>Effects of Community Resources and Community Health Workers on Rural Health Care, Health, & Society at University of Arizona</i> Mentored by: Sheila Soto, DrPH, MPH (Public Health)</p> <p>FRONTERA</p>
65	<p>Peña, Ruben <i>Development of Sorghum roots under drought stress: An analysis of DIRT/3D pipeline for 3D root phenotyping</i> Biosystems Engineering at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Suxing Lui</p> <p>UROC-Prep</p>
12	<p>Perea, Romina <i>Impact of Social Adversity and Allostatic Load on Function and Quality of Life in the PVDOMICS Cohort</i> Physiology and Medical Sciences at University of Arizona Mentored by: Rischard, Franz, DO (Internal Medicine)</p> <p>FRONTERA</p>
104	<p>Perez-Pina, Manuel <i>3-D scan-Based Digital Twins for Laboratory Equipment</i> Cyber Operations and Forensics at University of Arizona Mentored by: Pratik Satam, PhD (Systems & Industrial Engineering) and Yu-Zheng Lin</p> <p>Quantum Que</p>

13	<p>Pimentel, Sebastian <i>Play in Medical Education: A novel intervention to address significant needs in medical training</i> 1) Biochemistry 2) Anatomy 3) Physiology and Medical Sciences at University of Arizona Mentored by: Julie Jernberg, MD (Internal Medicine)</p> <p>FRONTERA</p>
58	<p>Post, Elias <i>Rainfall and Runoff in the Bronx Wash</i> Hydrology and Atmospheric Sciences: Environmental Hydrology and Water Resources emphasis at University of Arizona Mentored by: Martha P.L. Whitaker, PhD (Hydrology & Atmospheric Sciences) and Neha Gupta</p> <p>SRI</p>
38	<p>Rodriguez, Brandon S. <i>Optogenetic Activation of PKC-delta (-) Neurons and Satiation in the Central Nucleus of the Amygdala</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Haijiang Cai, PhD (Neuroscience) and Maša Mišćević</p> <p>MHD</p>
33	<p>Romero, Melissa <i>Building Bridges: The Impact of a Culturally Responsive Language Curriculum on High School Students' Identity and Community Belonging</i> Neuroscience & Cognitive Science, BS at University of Arizona Mentored by: Genesis Arizmendi, PhD, CCC-SLP (Speech, Language, and Hearing Sciences)</p> <p>MHD</p>
14	<p>Rosas, Ana <i>Research Strategy: Border Insights. Understanding and Enhancing Cervical Cancer Screening Among Hispanic Women along the Arizona-Sonora Border</i> BSM at University of Arizona Mentored by: Purnima Madhivanan, MBBS, MPH, PhD (Health Promotion Sciences) and Rogelio Robles-Morales, MD</p> <p>FRONTERA</p>

117	<p>Sadhasivam, Shruthi <i>Evaluation of Postoperative Thrombophylaxis in Patients with Gastrointestinal Malignancies</i> Pharmaceutical Sciences at University of Arizona Mentored by: Taylor Riall, MD/PhD (Surgery) and Evelyn Alexander, PGY-2</p> <p>USIP</p>
159	<p>Salazar Contreras, Alicia <i>"Sopa de Pescado": Spanish Language Passage Development for the Differential Diagnosis of Motor Speech Disorders</i> 1) Speech, Language, and Hearing Sciences 2) Spanish: Generalist emphasis at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie</p> <p>McNair</p>
84	<p>Salazar Valencia, Alondra <i>Noise Exposure and Socioeconomic Status: A Gap in Frequency Reporting</i> Medicine at University of Arizona Mentored by: Jennifer A. Teske, PhD (Nutritional Sciences & Wellness)</p> <p>ASEMS-STARs</p>
85	<p>Salih, Asmaa <i>Generational Status and the Correlation to Preferences for Self-Sampling versus Provider Sampling for Cervical Cancer and Human Papillomavirus</i> Biology at University of Arizona Mentored by: Purnima Madhivanan, PhD, MBBS, MPH (Public Health) and Rogelio Robles-Morales, MD</p> <p>ASEMS-STARs</p>
99	<p>Samuel, Darnilla <i>Analyzing the spatial and seasonal variations of the Gadolinium (Gd) anomaly in surface water at sampling locations along the Animas and San Juan River in New Mexico, Utah, and Arizona-</i> Chemistry at University of the Virgin Islands Mentored by: Joseph Hoover, PhD (Public Health) and Anu Sethuraman</p> <p>B2 REU</p>

39	<p>Saunders, Kristen <i>Exploring Self-Efficacy and Communicative Participation in Adolescents with Down Syndrome: A Qualitative Study of The Caregiver Perspective</i> Speech, Language, and Hearing Sciences at University of Arizona Mentored by: Meghan Darling-White, PhD, CCC-SLP (Speech, Language, and Hearing Sciences) and Trianna Oglivie</p>	MHD
100	<p>Schoonover, Mia <i>Can tropical leaves thermoregulate to withstand high temperatures in a warming world?</i> Environmental Science at Skidmore College Mentored by: Joost Van Haren, PhD (Honors College) and Justin Beslity</p>	B2 REU
40	<p>Setzer, Easton <i>Exploring Effects of Drought on Sorghum Root Anatomy</i> Biology at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science) and Alan Cervantes</p>	MHD
86	<p>Sigona, Jonathan <i>FiberWalk: A Probabilistic Model of Plant Root Architecture</i> 1) Mathematics 2) Statistics & Data Science at University of Arizona Mentored by: Alexander Bucksch, PhD (Plant Science)</p>	ASEMS-STARS
41	<p>Smith, Joelle <i>Triaryl Carbenium Ions: Applications in Tethered Metallaphotoredox Catalysis</i> 1) Biochemistry 2) Chemistry 3) Molecular & Cellular Biology at University of Arizona Mentored by: Thomas L. Gianetti, PhD (Biochemistry & Chemistry), Savannah Stull, David Mills, Robert Lozanovski, and Ramandeep Kaur</p>	MHD
42	<p>Smith, Emma <i>Evaluating the anti-dyskinetic activity of low-dose ketamine in the context of the BDNF Val66Met Polymorphism</i> Neuroscience & Cognitive Science at University of Arizona Mentored by: Torsten Falk, PhD (Neurology and Pharmacology) and Raveena Parmar</p>	MHD

118	<p>Smith, Auttum <i>Investigating LXR Agonists as a Potential Therapeutic for Glioblastoma in a Human Malignant Astrocytoma Cell Line</i> Applied Biotechnology at University of Arizona Mentored by: Greg Thatcher, PhD (Pharmacology & Toxicology), Anandhan Annaduri, Fahmida Alam, and Candace Outten</p> <p>USIP</p>
102	<p>Stolzfus, Lena <i>Investigating the antibacterial effects of transition metals and dithiocarbamate derivatives on Gram-positive bacteria</i> Biology at Haverford College Mentored by: Michael D. L. Johnson, PhD (Immunobiology)</p> <p>Johnson Lab</p>
59	<p>Switzer-Tryon, Harmony <i>Examining the Relationship Between Childhood Trauma and Executive Functioning</i> Psychology at California State Polytechnic University, Humboldt Mentored by: John Ruiz, PhD and Ashley Huggins, PhD (Psychology)</p> <p>SRI</p>
119	<p>Thim, Linnea <i>Study of Biased Signaling of Human Melanocortin-1 Receptors Using Plasmon Waveguide Resonance Spectroscopy (PWR)</i> 1) Chemistry 2) Spanish: Translation and Interpretation emphasis at University of Arizona Mentored by: Minying Cai, PhD (Chemistry & Biochemistry) and Adrian de la Peña</p> <p>USIP</p>
60	<p>Uribe, Gisela <i>A Preliminary Analysis on Latine Parental Awareness and Attitudes Toward HPV Vaccination in Arizona Border Counties</i> 1) Data Analytics 2) Sociology at Beloit College Mentored by: Sheila Soto, DrPH, MPH (Public Health)</p> <p>SRI</p>

15	<p>Valdez, Lorenia <i>The Association Between Perceived Psychological Stress and MASLD Among Mexican-origin Migrant Farmworkers in Southern, Arizona</i> Physiology at University of Arizona Mentored by: David Garcia, PhD (Health Promotion Sciences), Edgar Villavicencio, MPH, and Adriana Maldonado, PhD MA</p> <p>FRONTERA</p>
87	<p>Valle, Roman <i>Crystal Structure and Magnetic Properties of Transition Metal (Ta, Cr, V; Mo, Fe) Based Inorganic Compounds for Magnetic Applications</i> Physics at University of Arizona Mentored by: Tai Kong, PhD (Physics), Jeremy Philbrick, Brianna Billingsley, and Ali Taha Habiboglu</p> <p>ASEMS-STARs</p>
66	<p>Vigbedorh, Victor <i>Eve Enhancers Can Elucidate Mechanisms Behind Sequential Segmentation in Tribolium Castaneum</i> Molecular & Cellular Biology at University of Arizona Mentored by: Lisa Nagy, PhD (Molecular & Cellular Biology)</p> <p>UROc-Prep</p>
88	<p>Vikram Aditya, Raksha <i>Comparing Vascular BKCa Channel Function in Aging and Alzheimer's Disease</i> 1) Neuroscience & Cognitive Science: Neurobiology emphasis 2) Biochemistry at University of Arizona Mentored by: Paulo W. Pires, PhD (Physiology) and Paige Martin</p> <p>ASEMS-STARs</p>
61	<p>Villegas, Guadalupe <i>La Santa de Cabora: How Catholicism and Curanderismo affect the perceptions and treatment of women in The Hummingbird's Daughter by Luis Alberto Urrea</i> English: Literature emphasis at California State University, Dominguez Hills Mentored by: Jennifer Jenkins, PhD (English)</p> <p>SRI</p>

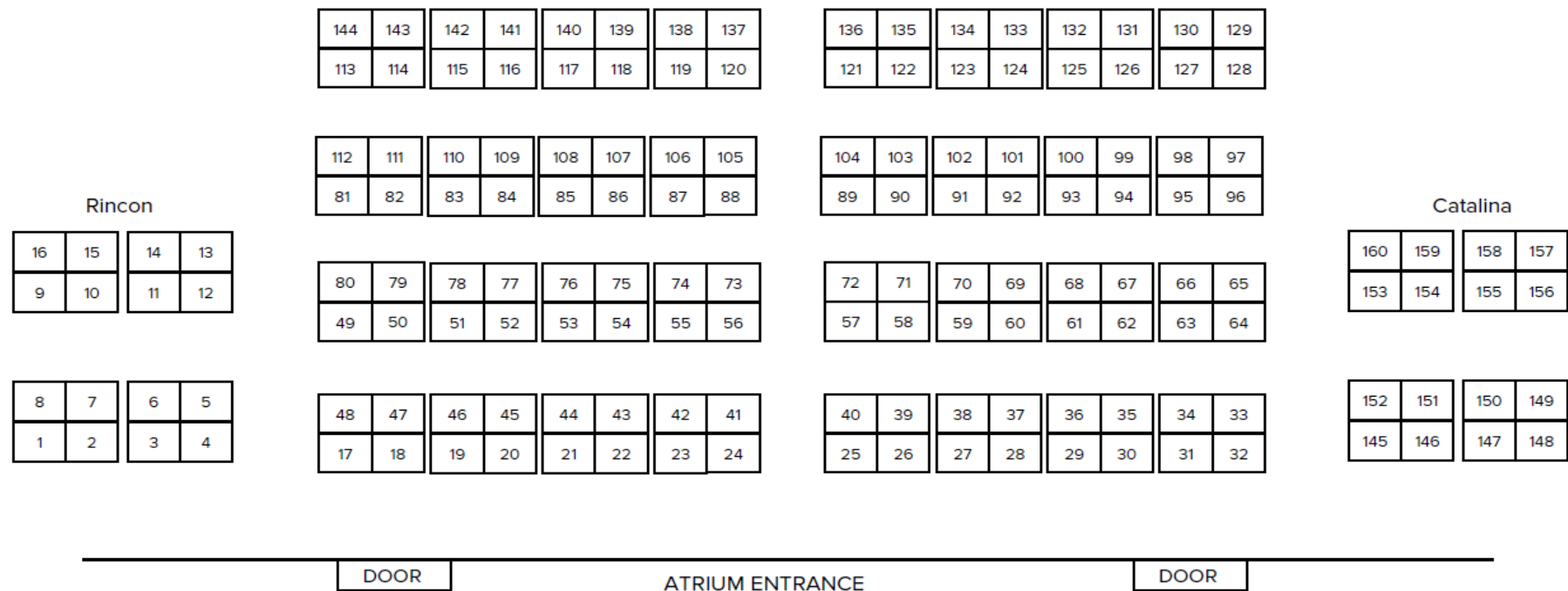
89	<p>Vithanachchi, Kulindu <i>Effects of Cyclic Heat Stress on the Ability to Metabolize Drugs Observed in Rats</i> Microbiology at University of Arizona Mentored by: Nathan Cherrington, PhD (Pharmacy) and Paxton Alan Sample</p> <p>ASEMS-STARS</p>
62	<p>Vo, Emily <i>Human-Robot Interaction, Public History, and the Museum: A Case Study of Using tēmi in the African American Museum of Southern Arizona (AAMSaz)</i> Computer Science at Cornell University Mentored by: Bryan Carter, PhD (Africana Studies and Humanities)</p> <p>SRI</p>
63	<p>Whitaker, Lauren <i>Layer-dependent Photoluminescence in InSe</i> Physics at University of Arizona Mentored by: John Schaibley, PhD (Physics) and Garrett Reichenbach</p> <p>SRI</p>
120	<p>Windels, Sidonia <i>Measuring IL-6 as a Marker of Inflammation in the Omega-3D Trial Using ELISA</i> Biochemistry at University of Arizona Mentored by: Patty Thompson, PhD (Physiology)</p> <p>USIP</p>
43	<p>Wu, Mandy <i>Bisphenol A and Photophobia: Dose-Response Curve in Female Adult Rats</i> Pharmaceutical Sciences at University of Arizona Mentored by: Tally Largent-Milnes, PhD (Pharmacology) and Sophia von Hippel</p> <p>MHD</p>
160	<p>Wynn, Gianna <i>Evaluating self-report and direct assessment of cognitive-linguistic abilities among female Premutation carriers</i> Psychological Science at University of Arizona Mentored by: Nell Maltman, PhD (Speech, Language, and Hearing Sciences)</p> <p>McNair</p>

90	<p>Wysong, Jessica <i>Acid Ceramidase as a Potential Therapeutic Target in Ulcerative Colitis</i> Medicine: Basic Medical emphasis, BS at University of Arizona Mentored by: Ashley Snider, PhD (Nutritional Sciences & Wellness) and Keila Espinoza</p> <p>ASEMS-STARS</p>
91	<p>Xanthos, Zoe <i>Supporting That ComEA Protein Assists in Uptake of DNA in Pseudomonas stutzeri</i> 1) Biochemistry 2) Applied Biotechnology at University of Arizona Mentored by: David Baltrus, PhD (Plant Science)</p> <p>ASEMS-STARS</p>
16	<p>Yepez, Diego <i>Functionality of ADC26.2 Cells In Hypoxic Conditions</i> Physiology and Medical Sciences at University of Arizona Mentored by: Klearchos K Papas, PhD (Surgery) and Amy Kelly, PhD</p> <p>FRONTERA</p>
121	<p>Young, Taneyah <i>Protein Purification of TORC1 and PKA Substrates to Explore Kinase Substrate Affinities</i> Pharmaceutical Sciences at University of Arizona Mentored by: Andrew Capaldi, PhD (Molecular and Cellular Biology) and Kamran Alamdari, BS</p> <p>USIP</p>

Poster Map

UNDERGRADUATE RESEARCH OPPORTUNITIES CONSORTIUM ANNUAL POSTER SESSION

STUDENT UNION MEMORIAL CENTER BALLROOM



Closing Ceremony

Friday, August 8 | 3:30 – 5 pm

South Ballroom, Student Union Memorial Center

1303 E University Blvd, Tucson, AZ 85719

UROC Outstanding Student Award

Collin Brown

Neuroscience & Cognitive Science | Molecular & Cellular Biology

Ronald E. McNair Postbaccalaureate Achievement Program

Arizona Science, Engineering, and Math Scholar (ASEMS)

As an ASEMS and McNair Scholar, Collin embodies the spirit of UROC. He is community oriented, intellectually curious, and deeply enthusiastic about his research, academics, and goals. He consistently seeks opportunities to further his learning and personal growth. Which is clearly on display when graciously and thoughtfully receives feedback from the McNair teaching team and when giving feedback to his peers. It's evident his definition of success is inextricably linked to the success of his colleagues. Because of this, he pushes his colleagues and himself towards excellence in the most holistic sense. His energy and enthusiasm are contagious – he was practically vibrating with excitement in the spring semester before he started his research with Dr. Wohlgemuth. Altogether, this makes Collin a uniquely engaging and effective researcher.

We're thankful we have been part of his academic journey and know there are great things on the horizon for him.

Keynote Speaker

Ilina Reyes, PhD

Associate Dean

Professor, Teaching, Learning & Sociocultural Studies

Associate Professor, Second Language

Acquisition/Teaching – GIDP



Ilina Reyes, Ph.D. UC Berkeley (2001), is the Associate Dean for Academic Affairs and Community and International Partnerships at the College of Education, University of Arizona. She is the Co-Director of the Borderlands Education Center (BEC), focusing her research in a range of educational issues on early childhood education, multilingualism, and Immigration and Borderlands Pedagogies impacting early childhood educators, families and their young children. She has conducted research in Central México on multilingual education and community literacy issues in an indigenous, Náhuatl-Spanish, immigrant communities with family, children and teachers as collaborators to revitalize the indigenous language. She is a board member of the Tucson Children's Project, a non-profit organization focusing on teacher professional development of the Reggio Emilia approach. Previously, she was a Researcher Scientist at CINVESTAV in Mexico City and is an affiliated faculty with the University of Arizona Center for Latin American Studies and the Second Language and Acquisition Teaching Program. Dr. Reyes' projects have been supported by grants from the Foundation for Child Development, HELIOS Education Foundation, the International Reading Association, and UC-MEXUS-CONACYT among others. She is the author of multiple publications, including the book *Advancing Educational Equity for Students of Mexican Descent: Creating an Asset-based Bicultural Continuum Model* (2022). She has conducted international research and professional development programs in US, Italy, Mexico, Colombia, the Borderlands and abroad.

2025 UROC Program Staff & Sponsors

UROC Graduate College Programs

Minimizing Health Disparities (MHD)

Program Coordinator: Karla Smith, MPA

Professor of Practice: Caitlin Rosario Kelly, ABD

Sponsor: University of Arizona Graduate College

Ronald E. McNair Postbaccalaureate Achievement Program (McNair)

PI/Program Director: Caitlin Rosario Kelly, ABD

Administrative Assistant: Tori Juvera

Graduate Teaching Assistant: Astrid Liu, MFA

Sponsors: U.S. Department of Education, Federal TRIO Program, Ronald E. McNair

Postbaccalaureate Achievement Program (Award: #P217A220105), University of Arizona Graduate College

Summer Research Institute (SRI)

Program Coordinator: Karla Smith, MPA

Instructor: Karla Smith, MPA

Graduate Teaching Assistants: Carolyn Tureaud, ABD

Sponsor: University of Arizona Graduate College

UROC-Prep

Program Coordinator: Karla Smith, MPA

Instructor: Karla Smith, MPA

Graduate Teaching Assistants: Sergio Castro, ABD

Sponsor: University of Arizona Graduate College

UROC Affiliate Programs

ASEMS Scholar Training Academy for Research in STEM (STARS)

PI: Jennifer Batchelder, PhD

Co-PI: Rebecca Gomez, PhD

Co-PI: Nura Dualeh, MA

Coordinator: Leah Callovini, MS

Instructor: Leah Callovini, MS

Graduate Teaching Assistants: Melinda Willet Struyk, MA, ABD; Collin Krzyzaniak, MS; Athip

Thirupathi Raj, Doctoral Candidate

Sponsors: Gordon and Betty Moore Foundation, Arizona Science, Engineering, and Math Scholars (ASEMS) Program, University of Arizona Graduate College

Environmental and Earth Systems Research at Biosphere 2 (B2 REU)

PI: Katerina Dontsova, PhD

Co-PI: Kevin Bonine, PhD

Sponsors: National Science Foundation Research Experiences for Undergraduates (NSF REU)

Program and University of Arizona Graduate College

UROC Guest Programs**NSF Quantum Que Program**

PI: Dr. A. Huff (UA) and Dean, E. Halvorson (PCC)

CoPI: Dr. B. Bash (UA)

Sponsor: National Science Foundation

Undergraduate Summer Internship Program (USIP)

PI/Program Director: Jacob Schwartz, PhD

Academic Programs Officer: Megan McKay

Sponsor: American Cancer Society Center for Innovation in Cancer Research Training

INTR-23-1040488-01-INTR

FRONTERA Summer Internship

PI: Francisco Moreno, MD

Director: Alejandra Zapien Hidalgo, MD, MPH

Program Coordinator: N/A

Sponsor: HRSA & Office of Student Engagement and Career Advancement

Johnson Lab

PI: Michael D.L. Johnson, PhD