

OFFICE OF UNDERGRADUATE RESEARCH

**Undergraduate Research Symposium  
2016**



**U** THE UNIVERSITY OF UTAH®

TUESDAY APRIL 12, 2016 OLPIN UNION  
9:00 a.m. – 2:30 p.m.

**UNDERGRADUATE RESEARCH  
SYMPOSIUM**

**2016**

**TUESDAY, APRIL 12, 2016  
OLPIN UNION BUILDING  
UNIVERSITY OF UTAH  
9:00 AM – 2:30 PM**

We are grateful for the generous support of:  
The Office of Undergraduate Research  
The Office of Undergraduate Studies  
and  
The Honors College

We would like to acknowledge the Office of the President, the Office of the Senior Vice President for Academic Affairs, and the Office of the Vice President for Research.

Finally, we would like to extend our utmost pride and congratulations to the students, graduate students, and faculty mentors without whose efforts and dedication this event would not be possible.

# THANK YOU DONORS

The Office of Undergraduate Research is grateful for  
generous support from:

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**University of Utah**  
**Undergraduate Research Symposium 2016**  
**Tuesday, April 12, 2016 – Olpin Union Building**  
**9:00 am – 2:30 pm**

**PROGRAM SCHEDULE**

**(NOTE: ALL STUDENT PRESENTERS MUST CHECK-IN)**

*Snacks available at 10:30 am and 1:30 pm in the Main Ballroom*

**SESSION I (9:00 – 10:30)**

**8:30 – Check-in, Union Lobby**

**8:45 – 9:00 Poster set-up, Main Ballroom**

**9:00 – 10:30 Poster Session I, Main Ballroom**

**9:00 – 10:30 Morning Oral Session and Performance Session**

**(Parlor A, Parlor B, Collegiate Room, East Ballroom, Room 311, Room 312, Room 319 and Common Room)**

**SESSION II (10:45 – 12:15)**

**10:15 – Check-in, Union Lobby**

**10:30 – 10:45 Poster set-up, Main Ballroom**

**10:45 – 12:15 Poster Session II, Main Ballroom**

**10:45 – 12:15 Oral Session**

**(Parlor A, Parlor B, Room 311, Room 312, and Room 319)**

**SESSION III (1:00 – 2:30)**

**12:30 – Check-in, Union Lobby**

**12:45 - 1:00 Poster set-up, Main Ballroom**

**1:00 – 2:30 Poster Session III, Main Ballroom**

**1:00 – 2:30 Afternoon Oral Session and Performance Session**

**(Parlor A, Parlor B, Collegiate Room, East Ballroom, Room 311, Room 312, and Room 319)**

UNDERGRADUATE RESEARCH SYMPOSIUM 2016  
SCHEDULE OF PRESENTATIONS

**ORAL SESSION I**

9:00 – 10:30

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**PARLOR A**

Moderator: Michael Czabaj, **Department of Mechanical Engineering**

**9:00 Kristoffer Matheson (Michael Czabaj)**

**Department of Mechanical Engineering**

*Design Of A Novel X-Ray CT In Situ Experiment For Imaging 3D Deformation Of Aluminum Foam Materials*

**9:20 Aleksandr Luchinovich (Mike Scarpulla)**

**Department of Electrical Engineering**

*Improving Measurements on Thin Film Solar Cells*

**9:40 Fei Wang (David Grainger)**

**Department of Bioengineering**

*In Vitro Evaluation of Silver Nanoparticles to Treat Acute Sinusitis*

**10:00 Chris Widmer (Kerry Kelly)**

**Department of Chemical Engineering**

*Developing Accurate, Affordable, and Portable Air Quality Monitors for the Salt Lake Valley*

## **PARLOR B**

Moderator: Tanya Flores, **Department of Languages & Literature**

**9:00 Samantha Pannier (Nadja Durbach)**

**Department of History**

*Women, African-Americans, and the 1910 Flexner Report*

**9:20 Nathan Porter (Elijah Millgram)**

**Department of Philosophy**

*The Best of Both Habits: John Stuart Mill, William Wordsworth, and the Power of Poetry*

**9:40 Alexander Nash (Benjamin Slade)**

**Department of Linguistics**

*The Proto-Indo-European Urheimat: The Armenian Hypothesis*

**10:00 Kyle Criddle (Leslie Francis)**

**Department of Philosophy**

*Feasibility of the Lake Powell Pipeline Development Act And Proposed Water Conservation Alternatives*

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## **COLLEGIATE ROOM**

Moderator: Jeff Bates, **Department of Materials Science & Engineering**

**9:00 Yun- Fang (Candice) Cho (Yan-Ting Shiu)**

**Department of Internal Medicine**

*The Effect of the Uremic Toxin Indoxyl Sulfate on the Expression of ETS-1 in Hemodialysis Fistulas.*

**9:20 Holly Astin (Amnon Schlegel)**

**Department of Internal Medicine**

*Modulating Intestinal Liver X Receptor Activity To Alter The Development Of Atherosclerosis In Zebrafish*

**9:40 Shirley Luo (Dustin Williams)**

**Department of Orthopaedics**

*Development of a Bioabsorbable Active Release Antimicrobial Coating for Orthopedic Implants*

**10:00 Anthony Crum (Man Hung)**

**Department of Orthopaedics**

*Mental Health Treatment Utilization Among Illicit Drug Users*

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**ROOM 311**

Moderator: Kelly O'Neill, Honors College

**9:00 James Newton (Adam Douglass)**

**Department of Neurobiology & Anatomy**

*Social Behaviors In The Developing Danio Rerio Larva And Adult Danionella*

**9:20 Scott Anjewierden (Adam Douglass)**

**Department of Neurobiology & Anatomy**

*Automated Kinematic Analysis of Prepulse Inhibition in Larval Zebrafish*

Oral Session I – ROOM 311 Continued

**9:40 Lilly Kanishka (Timothy Graham)**

**Department of Biochemistry**

*Developing Mouse Models to Study The Role of Immune System in Type 2 Diabetes in Humans*

**10:00 David Bennion (Jim Martin)**

**Department of Exercise & Sport Science**

*Validation of Force Pedals for Bilateral Strength Deficiency Testing*

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**COMMON ROOM**

Moderator: Lyndi Duff, **Undergraduate Studies**

**9:00 L Brock James (Richard Paine)**

**Department of Anthropology**

*Effects of Roman Imperialism on Central European Populations*

**9:20 Lanie Dixon (Jeanine Stefanucci)**

**Department of Psychology**

*A Comparison of Female Gamers and Non-Gamers on Spatial Cognitive Abilities*

**9:40 Jean Kim (Claudia Geist)**

**Department of Sociology**

*Female Labor Participation in South Korea: Policy and Cultural Implications*



**10:00 Jose Montero (Peter Philips)**

**Department of Economics**

*Impact of the Implementation of Helper Program on the Western  
Boilermaker Union*

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**ROOM 312**

Moderator: Liz Taylor, **Undergraduate Studies**

**9:00 Lisa Hawkins (John Francis)**

**Department of Political Science**

*Private Capital for Public Good*

**9:20 Matthew Kirkegaard (Tabitha Benney)**

**Department of Political Science**

*Transboundary Water Conflict, Cooperation, and Regional Integration:  
MERCOSUR and the La Plata Basin*

**9:40 Vivian Nguyen (Yanqi Tong)**

**Department of Political Science**

*The Clash of Identities: Taiwan & China*

**10:00 Morgan Cassidy (Matthew Burbank)**

**Department of Political Science**

*The Effects of Clean Election Laws in Maine and Arizona*

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**ROOM 319**

Moderator: Andrea Haag, **Undergraduate Studies**

**9:00 Martha Mendes (Eric Garland)**

**Department of Social Work**

*Clinical Trial of Mindfulness-Oriented Recovery Enhancement  
Intervention for Prescription Long-Term Opioid Misuse*

**9:20 Elizabeth Gamarra (Joanna Bettmann Schaefer)**

**Department of Social work**

*Resettlement Experiences of Children who Entered the United States as  
Refugees*

**9:40 Brandon Bertelsen (Daniel Dustin)**

**Department of Parks, Recreation & Tourism**

*Word of the Wild*

**10:00 Cynthia Chen (Jane Hatter)**

**Department of Music**

*Examining the Use of Exoticism as Pedagogy in Schumann's Album for  
the Young*

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# PERFORMANCE SESSION I

9:00 – 10:30

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## **EAST BALLROOM**

Moderator: Martine Green-Rogers, **Department of Theatre**

**9:00 Stephanie Espinoza (Laurel Caryn)**

**Department of Art & Art History**

*The Keepsake*

**9:30 Laurel Myler (Randall Stewart)**

**Department of Languages & Literature**

*Conversations with Caligula*

**10:00 Alex Vermillion (Martine Green-Rogers)**

**Department of Theatre**

*Translating and Producing Modern Language Shakespeare*

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## ORAL SESSION II

10:45 – 12:15

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### **PARLOR A**

Moderator: David Moody, **Department of Pharmacology & Toxicology**

**10:45 Mckell Denna (Don Wardell)**

**Department of Operations & Information Science**

*The Influence Of Operational Changes On Employee Engagement And Customer Satisfaction; An Exploratory Study*

**11:05 Ariel Herbert-Voss (Suresh Venkatasubramanian)**

**Department of Computing**

*Composing Cover Songs Using Deep Neural Networks*

**11:25 Dasha Pruss (Miriah Meyer)**

**Department of Computing**

*Toward Interactive Visualization of Connectome Paths*

**11:45 Andrew Gilbert (Gianluca Lazzi)**

**Department of Electrical Engineering**

*Computational Modeling of the Rat Hippocampus for Improving Electrode Placement and Design*

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## **PARLOR B**

Moderator: Masha Sukovic, **Department of Communication**

**10:45 Kira Kiko Lian (Masha Sukovic)**

**Department of Communication**

*Barriers To Healthcare For Trans And Gender Non-Conforming Adults*

**11:05 Mark Lavelle (Masha Sukovic)**

**Department of Communication**

*A Feminist Textual Analysis Of Film Depictions Of Defecation*

**11:25 Christine Kannapel (Katharine Coles)**

**Department of English**

*A Place by the Tay*

**11:45 Kathryn Macdonald (Mark Matheson)**

**Department of English**

*Invasion Frenzy: Shakespeare's Political Insights on Henry V's Invasion of France*

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## **COLLEGIATE ROOM**

Moderator: Jill Shea, **Department of Surgery**

**10:45 Giulia Soto (Susie Porter)**

**Department of History**

*Peruvian Immigrant Paradox: Exploring Differences in Learning Cultures and Mathematics Curriculum*

**11:05 Hillary Hermansen (Christopher Lewis)**

**Department of Languages & Literature**

*Male Mediators of Feminine Subjects: Clarice Lispector's The Hour of the Star*

**11:25 Ross Jensen (Lex Newman)**

**Department of Philosophy**

*Cartesian Phenomenal Conservatism: A Satisfying Response to Radical Skepticism*

**11:45 John Doyle (Jack Broughton)**

**Department of Anthropology**

*The Influence Of El Niño On Marine Mammal Abundance And Human Habitation Of Coastal Baja California, Mexico: Evidence From Abrigo De Los Escorpiones.*

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**ROOM 311**

Moderator: Srividya Bhaskara, **Department of Radiation Oncology**

**10:45 Brian Flach (Naveen Nagarajan)**

**Department of Human Genetics**

*Examining the Effects of Whisker Trimming on Mouse Brain Cell Growth*

**11:05 Emily Dennis (Srividya Bhaskara)**

**Department of Radiation Oncology**

*Effect of HDAC inhibition on Genome Stability*

**11:25 Alen Delic (David Krizaj)**

**Department of Ophthalmology & Visual Sciences**

*Study of TRP Channels in Retinal Cells*

**11:45 Samuel Clairmont (Keith Koper)**

**Department of Geology & Geophysics**

*Ground Shaking Caused by Ancient Earthquakes: Mapping the Distribution of Precariously Balanced Rocks Near the Wasatch Fault*

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**ROOM 312**

Moderator: Jeff Bates, **Department of Materials Science & Engineering**

**10:45 Kaden Colton (Mary Ann Jenkins)**

**Department of Atmospheric Sciences**

*An Investigation Of The Meteorological Conditions Associated With The Patch Springs Fire*

**11:05 Cole Richards (Keith Koper)**

**Department of Geology & Geophysics**

*Physical Mineral Characteristics of the Wasatch and Hurricane Faults as a Function of Distance from the Core*

**11:25 Jake Reitman (Keith Koper)**

**Department of Geology & Geophysics**

*Earthquake Focal Mechanisms in Southern California*

**11:45 Philip Simon (Orest Symko)**

**Department of Physics & Astronomy**

*A Study of Loading Thermoacoustic Stirling Heat Engines*

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**ROOM 319**

Moderator: Kathie Supiano, **College of Nursing**

**10:45 Charles Koronkowski (Edmund Fong)**

**Department of Political Science**

*Prince Hall Freemasonry: Forming a Free African American Community*

**11:05 Patrick Stewart (Trafton Drew)**

**Department of Psychology**

*A Real-World Investigation Of The Attentional Capture Paradigm*

**11:25 Anne Gry Wheaton (Dr. Craig Bryan)**

**Department of Psychology**

*Effects Of Intimate Partner Relationships Problems On Depression, PTSS  
And Combat Intensity In Pararescuemen*

**11:45 Emily Stephens (Heather Melton)**

**Department of Sociology**

*Do Children Affect An Abused Parent's Choice To Seek Treatment?*

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## ORAL SESSION III

1:00 – 2:30

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### **PARLOR A**

Moderator: Ole W Fischer, **Department of Architecture**

**1:00 Drew Emeney (Ole Fischer)**

**Department of Architecture**

*Sensory Experience in Space - An Analysis of the Sensation of Visiting Wineries*

**1:20 Tyler Cain (Divya Chandrasekhar)**

**Department of City & Metropolitan Planning**

*The Shakedown: The Implementation and Implications of Natural Disaster Response Protocols on a Local Level*

**1:40 Mariko Azuma (Winston Kyan)**

**Department of Art & Art History**

*Yin Yu Tang and the Effects of Re-contextualization on Vernacular Architecture*

## **PARLOR B**

Moderator: Mathieu Francoeur, **Department of Mechanical Engineering**

**1:00 Connor Healy (Tara Deans)**

**Department of Bioengineering**

*Targeted Apoptosis: Controlling Gene Expression in Engineered Tissues and Cells*

**1:20 James Lohse (Reza Sanati-Mehrizy)**

**Department of Computing**

*Data Mining in Call Centers*

**1:40 Calli Clark (Angela Rasmussen)**

**Department of Electrical Engineering**

*Studying Hypothetical Earthquake Precursors using a Global FDTD Model*

**2:00 Austin Bingham (Michael Hoepfner)**

**Department of Chemical Engineering**

*Reversibility of Asphaltene Precipitation Using Temperature-Induced Aggregation*

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## **COLLEGIATE ROOM**

Moderator: Alexis Christensen, **Department of Languages And Literature**

**1:00 Oliver Richardson (Michael Gills)**

**Department of English**

*Themes in Mathematics: AI and Creativity*

**1:20 Kylee Ehmann (Andrew Franta)**

**Department of English**

*Jane Austen's Realism Revisited: Pride & Prejudice, Emma, and Sanditon in the Digital Age*

**1:40 Colby Townsend (David Bokovoy)**

**Department of Languages & Literature**

*The Influence of the Yahwist's Creation Account on the Book of Mormon*

**2:00 Colby Townsend (Margaret Toscano)**

**Department of Languages & Literature**

*The Use of Scripture in 1 Enoch 1-36*

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**ROOM 311**

Moderator: Helong Zhao, **Department of Human Genetics**

**1:00 Avani Latchireddi (Joseph Tonna)**

**Department of Division of General Surgery, Surgical Critical Care and Division of Emergency Medicine**

*Improvement of Care in the Surgical Intensive Care Unit Through Family Feedback*

**1:20 Samuel Hunter (John Parkinson)**

**Department of Biology**

*Analysis of E248: A Critical Packing Residue of the Serine Chemoreceptor of E. coli*

**1:40 Henrik O'Brien (Helena Safavi-Hemami)**

**Department of Biology**

*The Role of Endoplasmic Reticulum Oxidoreductin 1 in the Folding of Cone Snail Toxins*

**2:00 Nathan Odendahl (Valeria Molinero)**

**Department of Chemistry**

*Watching Antifreeze Proteins Inhibit Ice: A Molecular Dynamics Approach*

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**ROOM 312**

Moderator: John Francis, **Department of Political Science**

**1:00 Joshua Lipman (Elizabeth Cashdan)**

**Department of Anthropology**

*Hybrid Faith: LDS Philosemitism and Jewish Mormons*

**1:20 Brianna Bartholomew (Elizabeth Cashdan)**

**Department of Anthropology**

*Mobility, Risk-Preference, And Genetics*

**1:40 Lauren Doxey (Peregrine Schwartz-Shea)**

**Department of Political Science**

*"An Exact Portrait of the People": The Need for Gender Parity in US Congress for Legitimate Government*

**2:00 Kaitlin Jowers (John Francis)**

**Department of Political Science**

*The Foreign Policy of Vladimir Putin*

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**ROOM 319**

Moderator: Claudia Geist, **Department of Sociology**

**1:00 Madeleine McCarty (Frank Drews)**

**Department of Psychology**

*Effects of Auditory Working Memory Tasks while Switching Between Autonomous and Manual Driving*

**1:20 Lea Hunter (Claudia Geist)**

**Department of Sociology**

*The 'Tampon Tax': Public Discourse of Policies Concerning Menstrual Taboo*

**1:40 Anastasia Najarian (Jeanine Stefanucci)**

**Department of Psychology**

*Treating Dual Diagnosis by Addressing the Genesis of Self Sabotage*

**2:00 Gordon Chan (Robert Mayer)**

**Department of Family & Consumer Studies**

*How Has The Demand For Automobile Based Travel Changed In The Past Decade Among Millennials In The State Of Utah?*

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**PERFORMANCE SESSION III**

1:00 – 2:30

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**EAST BALLROOM**

Moderator: Don Wardell, **Department of Operations & Information Science**

**1:00 Dalena Tran (Connie Wilkerson)**

**Department of Film & Media Arts**

*Bay Noal*

**1:20 Nicolas Goller (Robert Kessler)**

**Department of Computing**

*Iterative Game Development with Unity*

**1:40 Meagan Bertelsen (Bruce Dain)**

**Department of History, Honors College**

*Selfless Creation: Solo Improvisations In Modern Dance*

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## **POSTER SESSION I**

**9:00 – 10:30**

### **MAIN BALLROOM**

**Poster 1: Patrick Crompton (Keith Bartholomew)**

**Department of City & Metropolitan Planning**

*Public Engagement in Urban Planning: An Analysis of Pedagogy and Real-World Planning Practices*

**Poster 3: Diego Garrido (Erin Carraher)**

**Department of Architecture**

*FOREFRONT: Leading Collaborative Architectural Practice*

**Poster 3: Michael Hoehn (Erin Carraher)**

**Department of Architecture**

*FOREFRONT: Leading Collaborative Architectural Practice*

**Poster 4: Christianna Johnson (Sarah Hanners)**

**Department of City & Metropolitan Planning**

*The Local Food Movement: Personal Factors Influencing Community Garden Participation*

**Poster 5: Erika Longino (Jose Galarza)**

**Department of Architecture**

*Beyond Hogans: A Sustainable Framework Plan For Designbuildbluff*

**Poster 6: Katja Lund (Ben Hagenhofer-Daniell)**

**Department of Architecture**

*Post-Tensioned Heavy Timber Research*

**Poster 6: Scott Thorne (Ben Hagenhofer-Daniell)**

**Department of Architecture**

*Transversally Post-Tensioned Heavy Timber*

**Poster 7: Ethan Zagorec Marks (Anne Mooney)**

**Department of Architecture**

*Mountain West Regionalism*

**Poster 8: Colten Kurumada (Brian Cadman)**

**Department of Accounting**

*Salary Cap Accounting: The Unique Financial Constraint for Professional Sports Organizations*

**Poster 9: Aalia Fields (Dr. Seeung-Hee Claire Son)**

**Department of Educational Psychology**

*The Relationship Between Preschoolers' Reading Engagement and Executive Functioning*

**Poster 10: Kallie Bracken (Joseph Zachary)**

**Department of Computing**

*Applying Machine Learning to the Extraction of Deep Insights from High-Dimensional Data: Deconstruction of the NYC School Survey*



**Poster 11: Olivia Davidson (Tara Deans)**

**Department of Bioengineering**

*Using Synthetic Biology to Enhance Platelet Production*

**Poster 12: Bryton Davis (Robby Bowles)**

**Department of Bioengineering**

*Improving the Success Rate of Spinal Fusion Surgery through the Use of CRISPR Genome-Editing Technologies*

**Poster 14: Kacey Gao (Gregory Clark)**

**Department of Bioengineering**

*Tactile Stimulation Device for Human Amputees to Recognize Sensory Receptor Activation during Utah Slanted Electrode Array Stimulation*

**Poster 15: Austin Gottschalk (John Mclellan)**

**Department of Chemical Engineering**

*Continued Study of Methanogens Surviving Encapsulation*

**Poster 16: Christina Hyer (Susan Bock)**

**Department of Bioengineering**

*Influenza Vaccine Virus-Like Particle (VLP) Production in Trichoplusia Ni*

**Poster 17: Yekaterina Romanovskaya Robinson (Susan Bock)**

**Department of Bioengineering**

*Production of a Virus-Like Particle (VLP) Vaccine for H2 Influenza*

**Poster 18: James Jones (Behrouz Farhang)**

**Department of Electrical & Computer Engineering**

*Optimizing MAP Detector Algorithms*

**Poster 19: Alberto Martinez (Milind Deo)**

**Department of Chemical Engineering**

*Effect of Nanoporous Materials on Saturation Pressure in Shale Reservoirs*

**Poster 20: Daniel Milovich (Mathieu Francoeur)**

**Department of Mechanical Engineering**

*Measurement Of Near-Field Radiative Heat Transfer Between Two Surfaces For Nanoscale-Gap Thermophotovoltaic Power Generation*

**Poster 20: Lei Tang (Mathieu Francoeur)**

**Department of Mechanical Engineering**

*Measurement Of Near-Field Radiative Heat Transfer Between Two Surfaces For Nanoscale-Gap Thermophotovoltaic Power Generation*

**Poster 21: Sara Mitchell & Daniel White (Steve Burian)**

**Department of Civil & Environmental Engineering**

*Evaluating the Use of Hydroponics for Food Production in Salt Lake City*

**Poster 22: William Nguyen (Milind Deo)**

**Department of Chemical Engineering**

*Flow in Nanoporous Rocks*

**Poster 23: Nikole Palmieri (Rajesh Menon)**

**Department of Electrical & Computer Engineering**

*Calibrating a Diffusive Medium for Image Reconstruction*

**Poster 25: Hendrik Stegall (Robert Hitchcock)**

**Department of Bioengineering**

*Modification of an Intra-Vaginal Pressure Transducer*

**Poster 26: Tobin Yehle (Vivek Srikumar)**

**Department of Computing**

*DERP-P: A Probabilistic Derivative Based Parser*

**Poster 27: Justin Allen (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Rearfoot Varus: A Study of the Quantification of Kinematics, Kinetics, and Strength Disparities Among College Athletes*

**Poster 27: Seth Garvin (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Rearfoot Varus: A Study of the Quantification of Kinematics, Kinetics, and Strength Disparities Among College Athletes*

**Poster 27: Eric Battista (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Rearfoot Varus: A Study of the Quantification of Kinematics, Kinetics, and Strength Disparities Among College Athletes*

**Poster 28: Haily Augustine (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Collegiate Athlete with an Extra Vertebrae-SI Joint Dysfunction: A Case Study*

**Poster 29: Tyler Bean (J. David Symons)**

**Department of Nutrition and Integrative Physiology**

*Endothelial Cell Specific Disruption of Autophagy: Effects on Blood Pressure, Arterial Stiffness, and Arterial Permeability in Mice.*

**Poster 30: Jessica Challburg (Thunder Jalili)**

**Department of Nutrition**

*Magnesium Bioavailability between Organic and Inorganic Supplemental Forms*

**Poster 31: Daniel Eike (Anita Leopardi)**

**Department of Health Promotion & Education**

*Nutritional Assessment Of Children Ages 0-5 Years In Rural Punjab, India*

**Poster 32: Shantae George (Heather Hayes)**

**Department of Physical Therapy**

*The Influence of Cognition in Implicit Motor Sequence Learning in Persons with Stroke*

**Poster 33: Grace Hunt (Bo Foreman)**

**Department of Physical Therapy**

*Calculation Of Spinal Curvature Using Dynamic Motion Capture Skin Markers And Comparison To Current Radiographic Methods For Calculating Spinal Curvature*

**Poster 34: Kathryn Lami (Sihem Boudina)**

**Department of Nutrition**

*Dynamic Autophagy in the Insulin Resistant Heart*

**Poster 35: Michael Papadakis (Maria Newton)**

**Department of Exercise & Sport Science**

*Moral Identity and Moral Self-Regulation in Collegiate Contact Sport Athletes*

**Poster 36: Mercedes Robinson (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Professional Vs. Nonprofessional Exercise Advice And Injury Correlations In Campus Recreation Facility Users*

**Poster 37: Dianna Humphrey (Patricia Rohrer)**

**Department of Philosophy**

*Oh The Humanities!: The Significance of Art History Education*

**Poster 38: Aja Swalberg (Tanya Flores)**

**Department of Languages & Literature**

*Verb Morphology Mixing in Japañol*

**Poster 39: Haoran Yu (Danielle Endres)**

**Department of Communication**

*How Do Nuclear Scientists And Engineers Talk Internally Among Themselves About The Fukushima Energy Crisis?*

**Poster 40: Blaine Bentley (Balamurali Ambati)**

**Department of Ophthalmology & Visual Sciences**

*The Overexpression of Dicer1 to Prevent the onset of Dry AMD*

**Poster 41: Jerry Bounsanga (Man Hung)**

**Department of Orthopaedics**

*Information Engagement And Health Outcomes*

**Poster 42: Brett Brailsford (Cheryl Pirozzi)**

**Department of Internal Medicine**

*Effects of Air Pollution on Idiopathic Pulmonary Fibrosis*

**Poster 43: Alexander Chang (Matthew Mulvey)**

**Department of Pathology**

*Gluconeogenesis Is Critical For Expect To Utilize Intestinal Mucus In Vitro*

**Poster 44: Samantha Cooper (Brian Chapman)**

**Department of Radiology**

*Pulmonary Arterial Hypertension*

**Poster 45: Sarmishta Diraviam Kannan (Kevin Jones)**

**Department of Oncological Sciences**

*The Role That Lysosomes And Autophagy Play In Synovial Sarcoma, Alveolar Soft Parts Sarcoma And Clear Cell Sarcoma*

**Poster 46: Enoabasi Etokidem (Kent Lai)**

**Department of Pediatrics**

*The Utilization of GALT Suppressor Genes in the Inhibition of Cancer Growth*

**Poster 47: Maggie Flood (Bala Ambati)**

**Department of Ophthalmology & Visual Sciences**

*Lens Capsule Biodegradable Lipid Implant for Sustained-Release Anti-VEGF Therapy of Neovascular AMD*

**Poster 48: William Floor (Melinda Angus-Hill)**

**Department of Gastroenterology**

*An Examination of Microbial Communities in the Colon and their Effect on Gut Barrier Function and Tumorigenesis*

**Poster 49: Elliott Hurd (Andrew Anderson)**

**Department of Orthopaedics**

*Effect of FAI on Femur-Labrum Kinetics*

**Poster 50: Alya Hussain (Bala Ambati)**

**Department of Ophthalmology & Visual Sciences**

*Ophthalmic Specificity And Safety In Flt23k Treatment Of Choroidal Neovascularization*

**Poster 51: Karen Johnson (Kevin Whitehead)**

**Department of Cardiovascular Medicine**

*Case Report: Acute onset of Telangiectasia in HHT*

**Poster 52: Alexander Jones (Norman Hu)**

**Department of Pediatrics**

*Regulation of Zyxin with Altered Hemodynamics in Developing Chick Hearts*

**Poster 53: Sheridan Joseph (Christian Yost)**

**Department of Pediatric Administration**

*Elucidating Differences in the Regulatory Mechanisms that Govern the Inflammatory Response in Preterm Infants: The Role of the Polymorphonuclear Leukocyte*

**Poster 54: Olivia Kosterlitz (Akiko Okifuji)**

**Department of Anesthesiology**

*Relationship Between Fibromyalgia Syndrome And Sleep*



**Poster 55: Maranda Lebrecht (Kurt Albertine)**

**Department of Pediatrics**

*Effects of Ventilatory Regimens on the Prevalence of a Common Gastrointestinal Disease in Neonates*

**Poster 56: Wade Mather (Joseph Tonna)**

**Department of Surgery**

*Extracorporeal Membrane Cardiopulmonary Resuscitation - Predicting Survival*

**Poster 57: Kevin McKennon (Hong Mu)**

**Department of Pathology**

*The Role Of Mycoplasma Arthritis Mitogen In Rheumatoid Arthritis Development In Mice*

**Poster 58: Edin Mustafic (David Krizaj)**

**Department of Ophthalmology & Visual Sciences**

*Characterizing The Role Of The Osmo-Sensitive Cation Channel TRPV4 In Retinal Microglia*

**Poster 59: John Stuart Peterson (Howard Colman)**

**Department of Neurosurgery**

*Epigenetic And Signaling Pathway Regulation Factors In The Mesenchymal Shift In GBM*

**Poster 60: Erin Ritchie (David Grunwald)**

**Department of Human Genetics**

*Visualizing Calcium in Zebrafish Ryanodine Receptor Mutants*

**Poster 61: Amber Staples (Daniel Scoles)**

**Department of Neurology**

*Characterization of ATXN2 Gene in iPSC-based Motor Neurons of SCA2 Patients*

**Poster 62: Deanne Yugawa (Charles Murtaugh)**

**Department of Human Genetics**

*Determining the Effect of Sox9 Deletion in PTF1A Knockouts*

**Poster 63: Steven Clark (Jim Steenburgh)**

**Department of Atmospheric Sciences**

*Forecast Verification for the NCAR Ensembles, NAEFS Downscaling Technique, and Human Forecaster in The Western United States*

**Poster 63: Jeff Jenkins (Jim Steenburgh)**

**Department of Atmospheric Sciences**

*Forecast Verification for the NCAR Ensembles, NAEFS Downscaling Technique, and Human Forecaster in The Western United States*

**Poster 63: Cameron Negrete (Jim Steenburgh)**

**Department of Atmospheric Sciences**

*Forecast Verification for the NCAR Ensembles, NAEFS Downscaling Technique, and Human Forecaster in The Western United States*

**Poster 63: Sam Postich (Jim Steenburgh)**

**Department of Atmospheric Sciences**

*Forecast Verification for the NCAR Ensembles, NAEFS Downscaling Technique, and Human Forecaster in The Western United States*

**Poster 64: Kyle Mika (Marjorie Chan)**

**Department of Geology & Geophysics**

*Concretion Characterization of the Lisbon Valley fault*

**Poster 65: Elliott Smith (Mark Loewen)**

**Department of Geology & Geophysics**

*Trace fossil evidence for the presence of social insects in the Late Jurassic Morrison Formation of Utah*

**Poster 66: Andy Trow (Fan-Chi Lin)**

**Department of Geology & Geophysics**

*H/V Ratios in Upper Geyser Basin, Yellowstone National Park*

**Poster 67: Christina Woltz (Gabriel Bowen)**

**Department of Geology & Geophysics**

*From Headwaters to the City: Changes in Soil Nitrogen Cycling and Stream-Soil Connections along a Riparian Gradient, Red Butte Creek UT*

**Poster 68: Geethanjali Muruganandam (Kuberan Balagurunathan)**

**Department of Pharmaceutics & Pharmaceutical Chemistry**

*Heparan Sulfate Biosynthesis in Planaria*

**Poster 69: Sheyenne Shamsa (Kuberan Balagurunathan)**

**Department of Medicinal Chemistry**

*Synthesis Of Click-Xylosides And Their Analogues For Modulating Glycosaminoglycan Biosynthesis*

**Poster 70: Teresa Ta (Hamid Ghandehari)**

**Department of Pharmaceutics & Pharmaceutical Chemistry**

*MRI Analyses of Orthotopic Rodent Liver Cancer Treated with Drug Loaded Silk-Elastinlike Protein Polymer*

**Poster 71: Sydney Wyatt (Andrea Bild)**

**Department of Pharmacology & Toxicology**

*Emerging Method: BH3 Profiling*

**Poster 72: Ashlee Burton (Cynthia Burrows)**

**Department of Chemistry**

*Poly-Cytidine I-Motifs*

**Poster 73: Emily Dart (William Brazelton)**

**Department of Biology**

*Microbial Communities and Metabolic Potential in Sites of Continental Serpentinization*

**Poster 74: Phuong Vy Doan (Shelley Minter)**

**Department of Chemistry**

*Characterizing TEMPO derivatives for Future Application of Biofuels*

**Poster 75: Wantong Du (Fred Adler)**

**Department of Mathematics**

*The Role of mRNA Decay in a Genetic Switch*

**Poster 76: Josiana Goodman (Nitin Phadnis)**

**Department of Biology**

*The Molecular Basis of Segregation Distortion in *Drosophila pseudoobscura**

**Poster 77: Hannah Hanson (Çağan Şekerciöğlü)**

**Department of Biology**

*Using Mitochondrial DNA Barcoding To Identify Tyrant Flycatcher Species And Subspecies And Map Their Population Distributions In Utah*

**Poster 78: Julie Imig (Inese Ivans)**

**Department of Physics & Astronomy**

*Chemical Composition of Ultra-Faint Dwarf Galaxy Bootes I*

**Poster 79: Scott Khuu (Rodney Stewart)**

**Department of Chemistry**

*Identifying Retinoic Acid Dependent Mechanisms of NC EMT*

**Poster 80: Jenny Le (Pinar Bayrak-Toydemir)**

**Department of Pathology**

*Autism Spectrum Disorder: The Development Of A Comprehensive Approach For The Molecular Diagnosis Of Autism*

**Poster 81: Jennifer Martin (Danny Chou)**

**Department of Chemistry**

*Developing Stable Glucagon Analogs*

**Poster 82: Adam Nau (Franz Goller)**

**Department of Biology**

*The Role Of Heparan Sulfate In Maintaining Stereotyped Birdsong*

**Poster 83: Cassidy Pearson (Wayne Potts)**

**Department of Biology**

*Major Urinary Proteins as a Signal of Genetic Quality and Infection Status*

**Poster 84: Mats Peterson (Leslie Sieburth)**

**Department of Biology**

*Mapping & Molecular Characterization of URSULA: A Locus Shown to Suppress mRNA Decapping Mutants in Arabidopsis*

**Poster 85: Nicole Russell (Baldomero Olivera)**

**Department of Biology**

*The Role of Introns within  $\alpha$ -Conotoxin Genes in Cone Snails*

**Poster 86: Mercede Shaw (Cagan Sekercioglu)**

**Department of Biology**

*Estimating Effective Population Size Of Individual Eurasian Brown Bears (Ursus Arctos Arctos) By Using Noninvasive DNA Samples*

**Poster 87: Alexander Shu (Nitin Phadnis)**

**Department of Biology**

*Hybrid Incompatibility in Drosophila Species and the gzf Gene*

**Poster 88: Joseph Thomas (Michael Bastiani)**

**Department of Biology**

*Endosomal Trafficking in Damaged or Severed Axons in C. Elegans*

**Poster 89: Amanda Van Leeuwen (Cagan Sekercioglu)**

**Department of Biology**

*Preliminary Camera Trap Study of Mammals in the Rio Mesa Center*

**Poster 90: McKenzi Yocus (Colleen Farmer)**

**Department of Biology**

*The Effects of Altitude on Blood and Bone Histometry and Body Size in Peromyscus from Nevada and Utah*

**Poster 91: Margaret Baker (Lisbeth Louderback)**

**Department of Anthropology**

*Comparative Morphology of Chenopodium berlandieri Seeds and Fruits from Cowboy Cave, Utah: Implications for Cultivation and Domestication*

**Poster 92: Tsivya Devereaux (Leslie Knapp)**

**Department of Anthropology**

*Gene Diversity in the Major Histocompatibility Complex of Wild and Captive Gorillas*

**Poster 94: Zijian Gao (Richard Fowles)**

**Department of Economics**

*Big Brothers Big Sisters*

**Poster 94: Alphonse Havugimana (Richard Fowles)**

**Department of Economics**

*Big Brothers Big Sisters*

**Poster 94: Van Le (Richard Fowles)**

**Department of Economics**

*Big Brothers Big Sisters*

**Poster 94: Xinyang Teng (Richard Fowles)**

**Department of Economics**

*Big Brothers Big Sisters*

**Poster 94: Weifeng Wang (Richard Fowles)**

**Department of Economics**

*Big Brother Big Sister*

**Poster 94: Wenda Xu (Richard Fowles)**

**Department of Economics**

*Big Brothers Big Sisters*



**Poster 95: Kevin Greenberg (David Strayer)**

**Department of Psychology**

*The Effects Duration And Location Of Rest Breaks Have On Attention And Reaction Time Based On The Sustained Attention To Response Task*

**Poster 96: Emily Hansen (Sheila Crowell)**

**Department of Psychology**

*Distraction Based Coping And Emotion Dysregulation As Predictors Of High Risk Behavior*

**Poster 97: Christopher Hom (Richard Fowles)**

**Department of Economics**

*Per Pupil Cost Comparison Between Youth In Detention And Traditional Education System In Utah*

**Poster 97: Guowang Rao (Richard Fowles)**

**Department of Economics**

*Cost Per Pupil Analysis On Youth In Detention Center Compared With Public Education Systems In Utah*

**Poster 97: Tristan Taylor (Richard Fowles)**

**Department of Economics**

*Per Pupil Cost Comparison Between Youth In Detention Center And Traditional Education Systems In Utah*

**Poster 98: Sydney Magana (Marissa Diener)**

**Department of Family & Consumer Studies**

*Parent Involvement and Children's Distress During IV Placement*

**Poster 99: Clint Murray (Cihan Bilginsoy)**

**Department of Economics**

*The Influence of Keynes's Practical Investment Experience on His Economic Theory*

**Poster 100: Scott Neville (Duncan Metcalfe)**

**Department of Anthropology**

*Feasible Years for Radiocarbon Dating*

**Poster 101: D Nicolas Oakey-Frost (Craig Bryan)**

**Department of Psychology**

*Associations Between Reasons For Living, Depression, And Suicide Symptoms In A Sample Of Active Duty Military Personnel*

**Poster 102: Jordan Pistorius (Steven Lobell)**

**Department of Political Science**

*The Operational Code Of Presidential Candidate Hillary Clinton*

**Poster 103: Cheyenne Powell (Heather Melton)**

**Department of Sociology**

*The Unforgiven: Pathways to Homelessness*

**Poster 104: Nicholas Warren (Akiko Kamimura)**

**Department of Sociology**

*Perceptions of Aging and Disability among College Students in Japan*

**Poster 105: Cristina Aguayo Romero (Annie Fukushima)**

**Department of Social Work**

*Examining Perceptions of Domestic Work Human Trafficking Cases in California*

**Poster 106: Christie Morgan (Lindsay Gezinski)**

**Department of Social Work**

*Sex Trafficking in Utah: Perceptions of Criminal Justice Professionals*

**Poster 107: Sam Ham (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Bryant Scholars: Mentor Impact On High School Students*

**Poster 107: Jessica Luviano (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Bryant Scholars: Mentor Impact On High School Students*

**Poster 108: Jennifer Mejia (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Tutoring Bryant And Beyond Students: East High*

**Poster 108: Will Tang (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Tutoring Bryant And Beyond Students: East High*

**Poster 109: Kimberly Vargas (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Quality of life in Transgender Female to Male Patients Undergoing Chest Masculinization*

**Display 110: Christian Clarke (Maureen O'Hara Ure)**

**Department of Art & Art History**

*Visual Records: Re-Imagining Individuals of the Past*

**Poster 111: Jean Anewschka Robles (Irene Ota)**

**College of Social Work**

*Exhibits That Teach--Artists/Scholars-in-Residence*

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**POSTER SESSION II**

10:45 – 12:15

**MAIN BALLROOM**

**Poster 1: Nick Hadfield (Stephen Goldsmith)**

**Department of City & Metropolitan Planning**

*Pathways of the Great Salt Lake*

**Poster 2: Peter Curtis (Christopher German)**

**Department of Dentistry**

*Effects Of Methamphetamine On Presynaptic Vesicular Monoamine Transporter-2 Distribution And Function*

**Poster 3: Anand Singh (Kelly Broadhead)**

**Department of Bioengineering**

*Determining Polyurethane Molecular Weight And Its Impact On Drug Loading In Antimicrobial Catheters*

**Poster 4: Cameron Taylor (Benjamin Ellis)**

**Department of Bioengineering**

*Modeling Ligaments in the Cervical Spine By Varying Springs Types*

**Poster 6: Hunter Grayson (Rajesh Menon)**

**Department of Electrical & Computer Engineering**

*Ultra-Fast 3D Printing Via Projection Stereolithography*

**Poster 7: Adam Brandt (Greg Nash)**

**Department of Energy & Geoscience Institute**

*A Comparison of Two Geothermal Play Fairway Modelling Methods as Applied to the Tularosa Basin, New Mexico*

**Poster 8: Cecilia Cardozo (Stacy Manwaring)**

**Department of Communication Sciences & Disorders**

*Social-Emotional Problems in Toddlers: Relationship with Language Development and Autism Risk*

**Poster 9: Marshall Hall (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Wrist Strengthening And Pain Reduction In Break-Dancers*

**Poster 10: Alexis Lee (Janet Shaw)**

**Department of Exercise & Sport Science**

*Shifting Gender Norms and Physical Activity Patterns among Women: the Potential Impact on Pelvic Floor and Skeletal Health*

**Poster 11: Chaniece Pollock (Julie Metos)**

**Department of Nutrition**

*Addressing The Emotional Health Of College Students Through A Therapeutic Cooking Class*

**Poster 12: Emily Preib (Thunder Jalili)**

**Department of Nutrition**

*Quercetin and Its Anti-Inflammatory and Anti-Atherosclerotic Capabilities in Endothelial Cells*

**Poster 13: Emad Jabini (Andrew Deiss)**

**Department of Honors**

*The Parallax of Justice: Probable Cause and Civil Asset Forfeiture.*

**Poster 14: Sydney Trimble (Michael Gills)**

**Department of Honors**

*National Culture Impact on Corporate Culture in Japan: Analysis from an International Perspective*

**Poster 15: Haoran Yu (Yvette Shen)**

**Department of Communication**

*My Research Question Is: Visualization Of Air Quality Changes In Major U.S. Cities*

**Poster 16: Robert Prestgard-Duke (Edward Davies)**

**Department of History**

*The Significance of Chinese Nuclear Arms to American efforts Towards the 1968 Treaty on Nonproliferation*

**Poster 17: Aja Swalberg (Aaron Kaplan)**

**Department of Linguistics**

*Downstep In Phonological And Intonational Phrase In Japanese*

**Poster 18: Arelys Desouza (Alan Light)**

**Department of Anesthesiology**

*Dorsal Root Ganglion Neurons Innervating Muscle Response to Different Stimuli and Receptors*

**Poster 19: Chad Sundberg (Yan-Ting Shiu)**

**Department of Internal Medicine**

*The Pharmacokinetics And Pharmacodynamics Of E74-Like Factor (ELF) Dominant Negative Peptides Released From Polymer Delivery Vehicles For Preventing Stenosis Of Hemodialysis Fistulas*

**Poster 20: Michael Angerbauer (Yukio Saijoh)**

**Department of Neurobiology & Anatomy**

*Investigating The Expression Patterns Of 3-OST3a1 And 3-OST3b1 Genes In Mouse Hearts*

**Poster 21: Samantha Chadwick (Ning Tian)**

**Department of Neurobiology & Anatomy**

*Mapping the Synaptic Connections of Retinal Ganglion Cells*

**Poster 22: Kapil Sharma (Sunil Sharma)**

**Department of Oncological Sciences**

*The Relationship between PKM2, Beta-Catenin, and TBL1 proteins in Human Cancers*

**Poster 23: Anthony Esplin (Nicole Mihalopoulos)**

**Department of Pediatrics**

*Heart Disease Risk in Sedentary Young Adults with Obesity*

**Poster 24: Emilie Ungricht (Joseph Tonna)**

**Department of Surgery**

*Causes of Rapid Response Calls*

**Poster 25: Nick DeJong (John Lin)**

**Department of Atmospheric Sciences**

*Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM<sub>2.5</sub>) and Associated Trace Gasses*



**Poster 25: Ian Hazel (John Lin)**

**Department of Atmospheric Sciences**

*Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM<sub>2.5</sub>) and Associated Trace Gasses*

**Poster 25: Courtney Pratt (John Lin)**

**Department of Atmospheric Sciences**

*Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM<sub>2.5</sub>) and Associated Trace Gasses*

**Poster 25: Amy Record (John Lin)**

**Department of Atmospheric Sciences**

*Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM<sub>2.5</sub>) and Associated Trace Gasses*

**Poster 25: Nick Todorov (John Lin)**

**Department of Atmospheric Sciences**

*Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM<sub>2.5</sub>) and Associated Trace Gasses*

**Poster 26: Olivia Jenkins (Kathleen Ritterbush)**

**Department of Geology & Geophysics**

*Hydrodynamics of Ammonites*

**Poster 27: Nathan Ong (Randall Irmis)**

**Department of Geology & Geophysics**

*A Histological Study Of Ontogenetic And Taxonomic Variation In Shell Ornamentation Of Trionychoid Turtles Of The Kaiparowits Formation*

**Poster 29: Alexander Lark (Mark Koopman)**

**Department of Metallurgical Engineering**

*Titanium Syntactic Foams for Sustainable Aerospace Applications*

**Poster 30: Christina Triptow (Katherine Supiano)**

**Department of Nursing**

*Asking the Right Questions: Enhanced Recruitment Using In-person Research Interviews*

**Poster 31: Annwin Chen (Amy Barrios)**

**Department of Medicinal Chemistry**

*The Human Microbiome*

**Poster 32: Caleb Ham (David Moody)**

**Department of Pharmacology & Toxicology**

*Mechanistic Inhibition of Opioid Metabolism*

**Poster 33: William Barbeau (Markus Babst)**

**Department of Biology**

*Ribosome Stalling is a Trigger for Cotranslational Protein Quality Control*

**Poster 34: Austin Green (Cagan Sekercioglu)**

**Department of Biology**

*Estimating Occupancy of Medium-to-Large-Sized Mammals In Red Butte Canyon Research Natural Area*

**Poster 35: Lori Healey (Martin Horvath)**

**Department of Biology**

*Molecular Interactions Between Photoprotective Pigment Zeaxanthin And Binding Protein GSTP1*

**Poster 36: Tina Xu (Mary Beckerle)**

**Department of Biology**

*Cellular Roles for the Integrin Effector Protein RSU1*

**Poster 37: Elisabeth Zachary (Wayne Potts)**

**Department of Biology**

*Do Populations Of MHC Heterozygotes Have An Advantage In A Single-Pathogen System?*

**Poster 38: Koun Lim (Shelley Minteer)**

**Department of Chemistry**

*Deglycoylation Of Glucose Oxidase*

**Poster 39: Cameron Owen (Peter Armentrout)**

**Department of Chemistry**

*Thermodynamics of the Oxidation Chemistry of Holmium*

**Poster 40: Brady Bowen (Kenneth Golden)**

**Department of Mathematics**

*Modeling The Fractal Geometry Of Arctic Melt Ponds Using The Level Sets Of Random Surfaces*

**Poster 41: Tyler McDaniel (Braxton Osting)**

**Department of Mathematics**

*Utah's Pathways to Higher Education: A Quantitative, Critical Analysis*

**Poster 42: Stephen McKean (Don Tucker)**

**Department of Mathematics**

*Fluid Dynamics and Traffic Flow*

**Poster 43: Masen Christensen (Saveez Saffarian)**

**Department of Physics & Astronomy**

*Cooperative Primers : Intersecting Spherical Model for Optimization of Linker and Gap Lengths*

**Poster 44: Savanna Agardy (Brian Coddling)**

**Department of Anthropology**

*Archaeological Investigations of Red Butte Canyon*

**Poster 44: L Brock James (Brian Coddling)**

**Department of Anthropology**

*Archaeological Investigations of Red Butte Canyon*

**Poster 45: Jess Esplin (Cihan Bilginsoy)**

**Department of Economics**

*Capital Account Liberalization & Income Inequality: 1980-2009*

**Poster 46: Basil Vetas (Rugider von Arnim)**

**Department of Economics**

*Remittances And Food Price Shocks: The Effect On Food Security And Consumption Patterns In Developing Nations*

**Poster 48: Hailey Schiff (Mitchell Power)**

**Department of Geography**

*Sediment Analysis Of Coastal Salt Ponds In The British Virgin Islands*

**Poster 49: Mackenzie Comstock (Howard Lehman)**

**Department of Political Science**

*Has The Time Come For The U.S. To Join The International Criminal Court?*

**Poster 50: Keli Fine (Sam Goldstein)**

**Department of Psychology**

*Executive Functioning and Grade Point Average in College Students*

**Poster 51: Kelly Gardner (Jason Watson)**

**Department of Psychology**

*Individual Differences in Inhibition and Emotion*

**Poster 52: Mira Reynolds (Craig Bryan)**

**Department of Psychology**

*Guilt and Shame Among Military Veterans and Personnel who have Experienced Military Sexual Trauma*

**Poster 53: Paige Victorine (Sheila Crowell)**

**Department of Psychology**

*Examining Treatment Optimism and Therapist Expectancies as Predictors of Success in DBT Gift Group Participants*

**Poster 54: Margaret Carlson (Akiko Kamimura)**

**Department of Sociology**

*Knowledge and Perceptions of Intimate Partner Violence among Medical Students and Primary Care Residents in the USA*

**Poster 55: Chloe Preble (Heather Melton)**

**Department of Sociology**

*The development of the Witch in Medieval Europe*

**Poster 56: Katrina Farkas Hinecker (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Reach for Your Dreams*

**Poster 56: Jordan O'Neal (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Reach for Your Dreams*

**Poster 57: Pamela Giebler (Marissa Diener)**

**Department of Family & Consumer Studies**

*Children's Distress Levels in Hospitals*

**Poster 58: Sydney Magana (Caroline Bliss)**

**Undergraduate Studies, LEAP**

*Children's Distress Levels in Hospitals*

**Poster 59: Mackenzie Hirai (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Reach +M67:X67for Your DreamsReach for Your Dreams*

**Poster 59: Aesher Ossana (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Reach for Your Dreams*

**Poster 60: Minh Nguyen (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Atrial Arrhythmia*

**Poster 61: William Tang (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Developing a Tutoring Program*

**Poster 61: Jennifer Mejia (Carolyn Bliss)**

**Undergraduate Studies, LEAP**

*Developing a Tutoring Program*

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**POSTER SESSION III**

1:00 – 2:30

**MAIN BALLROOM**

**Poster 1: Alexis Suggs (Joerg Ruegemer)**

**Department of Architecture**

*Passive Cooling Strategies For Utah*

**Poster 2: Emmaline Deiss (Paul Brown)**

**Department of Entrepreneurship & Strategy**

*Measuring Social Impact for Bottom of the Pyramid Consumers and Shopkeepers: Income By Proxy*

**Poster 3: Allison Uchida (David Plumlee)**

**Department of Accounting**

*Leases: Analyzing the Proposed Changes in Financial Reporting*



**Poster 4: Elizabeth Cook (Ed Buendia)**

**Department of Education, Culture & Society**

*Integrating Heritage Language and Culture to Teach English Language Learners*

**Poster 5: Mercedes Jorgensen (Lauren Liang)**

**Department of Educational Psychology**

*"Popular" Vs. "Award-Winning" Children's Literature*

**Poster 6: Amber Barron (Jeff Bates)**

**Department of Materials Science & Engineering**

*Absorbent Natural Materials for Biodegradable Feminine Hygiene Products*

**Poster 7: Jessica Delacenserie (Jim de St Germain)**

**Department of Computing**

*Utilizing Classroom Technology to Promote Elementary School Learning*

**Poster 8: Snehal Gajiwala (Christopher Butson)**

**Department of Bioengineering**

*Characterization of Depressive Brain Circuitry Variation Among Healthy Patients*

**Poster 9: Omar Kergaye (Yousef Mohassab)**

**Department of Metallurgical Engineering**

*Kinetics of the Reduction of Magnetite Concentrate Particles by CO + H<sub>2</sub> Gas Mixture Relevant to a Novel Flash Ironmaking Process*

**Poster 10: Stephanie Lietzke (Susan Bock)**

**Department of Bioengineering**

*Removal of Endotoxins from Recombinant Antithrombin*

**Poster 11: Silvia Padilla (Sanja Miskovic)**

**Department of Metallurgical Engineering**

*Bootstrapping for Sample Size Distribution*

**Poster 12: Shalauna Thompson (Kevin Whitty)**

**Department of Chemical Engineering**

*Analyzing Carbon Capture Ability of Solid Sorbents Using Thermogravimetric Analysis*

**Poster 13: Michael Zhang (Chris Myers)**

**Department of Electrical & Computer Engineering**

*Updating SBOL Designer to Support New SBOL 2.0 Features*

**Poster 14: Kelly Farmer (Charlie Hicks-Little)**

**Department of Exercise & Sport Science**

*Comminuted Proximal Phalangeal Fracture in a Division 1 Football Player*

**Poster 15: Joshua Mines (Jim Martin)**

**Department of Exercise & Sport Science**

*Test-Retest Reliability of a Repeated-Sprint Protocol*

**Poster 17: Zachary Whalen (Winthrop Adams)**

**Department of History**

*Statesmen in the Arena: the Policy and Politics of the Ancient Games*

**Poster 18: Peter Ahorukomeye (Paul Shami)**

**Department of Internal Medicine**

*Making Chemotherapy Useful for Acute Myeloid Leukemia*

**Poster 19: Amanda Barrett (Daniel Leung)**

**Department of Internal Medicine**

*Use Of Stool Immune Transcriptome To Predict Recurrent Clostridium Difficile Infection*

**Poster 20: Madison Black (Kevin Nelson)**

**Department of Pediatrics**

*The Impact of Tobacco Smoke Exposure and Outlier Body Mass Indices on Asthma Outcomes*

**Poster 21: Huy Doan (Suzanne Mansour)**

**Department of Human Genetics**

*Examination of the Expression Patterns of FGF-regulated Genes Involved in Inner Ear Morphogenesis*

**Poster 22: Camila Esposito (Jill Shea)**

**Department of Surgery**

*Axl Inhibitors for the Treatment of Pancreatic Ductal Adenocarcinoma*

**Poster 23: Ludovica Farese (Sarah Franklin)**

**Department of Biochemistry**

*Smyd1 Regulates Cardiac Metabolism Through ADSS*

**Poster 24: Hunter Frederiksen (Catherine Loc-Carrillo)**

**Department of Orthopaedics**

*Fracture Model on Live Sedated Rates and Pharmacokinetics of Locally administered Powdered Vancomycin on Fracture Model*

**Poster 25: Abigail Greer (Gillian Stanfield)**

**Department of Human Genetics**

*Identification of Genes that Regulate the Activation of C. elegans Sperm*

**Poster 26: Bradley Hillyard (Catherine Sherwin)**

**Department of Pediatrics**

*Trends of Tacrolimus Use in Pediatric Transplant Recipients*

**Poster 27: Kiera Jorgensen (Joshua Schiffman)**

**Department of Oncological Sciences**

*Methylation of PEG10 alleles in Ewing Sarcoma*

**Poster 28: Stuart Loertscher (Jun Yang)**

**Department of Ophthalmology & Visual Sciences**

*Examination of Phenotype for C8orf37 Mutant Mice in Retinal Degeneration*

**Poster 29: Sara Mann (Steve Alder)**

**Department of Family & Preventive Medicine**

*A Health Behavioral Model Deconstruction of End of Life Care*

**Poster 30: Kevin Nelson (Matthew Mulvey)**

**Department of Pathology**

*The Role of sRNA in Pathogenesis of EXPEC*

**Poster 31: Kevin Nguyen (Jun Yang)**

**Department of Ophthalmology & Visual Sciences**

*Interacting Proteins of C8ORF37*

**Poster 32: Vivek Patel (Mark Fisher)**

**Department of Pathology**

*Large Scale Genetic Screen to Identify Genes Important for Survival of Yersinia pestis in a Flea Vector*

**Poster 33: William Andy Renz (Jeff Zhang)**

**Department of Radiology**

*Assessment of Exercise-Stimulated Tissue Oxygenation in Calf Muscle with functional MRI*

**Poster 34: Johnny Trang (John Carlquist)**

**Department of Internal Medicine**

*Circulating microRNA in Chronic Heart Failure Patients During Unloading with Continuous Flow LVAD*

**Poster 35: Derek Woodruff (Megan Williams)**

**Department of Neurobiology & Anatomy**

*Identifying Synaptic Defects Resulting From Loss Of Kirrel3; An Autism Associated Gene*

**Poster 36: Rudi Zurbuchen (Danny Chou)**

**Department of Biochemistry**

*Macrocyclization of Glucagon-Like Protein (GLP-1) to Improve Stability and Agonistic Activity*

**Poster 37: Jane Baer (Kathleen Ritterbush)**

**Department of Geology & Geophysics**

*Deposition and Preservation of Spicules in Cross Section*

**Poster 38: Alexa Brooks (Alexa Doig)**

**Department of Nursing**

*Survey of Microbiology Education in Nursing*

**Poster 39: Mikaelyn Kooyman (Alexa Doig)**

**Department of Nursing**

*Alarm Fatigue: An Alarming Situation*

**Poster 41: Susanna Phinney (Lauri Linder)**

**Department of Nursing**

*What Makes a Good Day for Children with Cancer as Portrayed by Their Drawings*

**Poster 42: Wyatt Zagorec-Marks (Matthew Kieber-Emmons)**

**Department of Chemistry**

*Understanding Dynamic Motions Involved in the Photocycle of Photoactive Yellow Protein*

**Poster 43: Lehi Acosta (Wayne Potts)**

**Department of Biology**

*Genotype-specific susceptibility to Influenza A virus is altered depending on mode of infection*

**Poster 44: Ben Berger (Bethany Buck-Koehntop)**

**Department of Chemistry**

*Biophysical Characterization of DNA Interactions by the Methyl-CpG Binding Protein Kaiso*

**Poster 45: Joseph Blanton (Shanti Deemyad)**

**Department of Physics & Astronomy**

*Observing Superconducting Phase Transitions Using AC Magnetic Susceptibility*

**Poster 46: Robert Byron (Julie Hollien)**

**Department of Biology**

*Mutational Analysis Of Ire1 And The RIDD Pathway*

**Poster 47: Yusef Farah (Matthew Kieber-Emmons)**

**Department of Chemistry**

*Oxidation versus Oxygenation of C-H Bonds by [(Tp(tBu,Me))Ni(O<sub>2</sub>)]*

**Poster 48: Taylor Gemperline (David Belnap)**

**Department of Biochemistry**

*Symmetric Helical Bundles in Murine Polyomavirus*

**Poster 49: Evan George (Martin Horvath)**

**Department of Biology**

*Structural Discovery Of Stard3 Bound With Lutein Using X-Ray Crystallography And Refinement Techniques*

**Poster 50: Josh Hanes (Clayton Williams)**

**Department of Physics & Astronomy**

*Comparing Traditional Chemical Rocket with Nuclear Thermal Rockets During a Mission to Mars Propulsion Systems*



**Poster 51: Gabriella Hestwood (John David Symons)**

**Department of Exercise & Sport Science**

*Histological Evaluation Of Arteries From Mice With Endothelial-Cell Specific Disruption Of Autophagy*

**Poster 52: Parker Holzer (Inese Ivans)**

**Department of Physics & Astronomy**

*Understanding Planet Harboring Stars in the Open Cluster M67*

**Poster 53: Evelyn Kimbrough (Jennifer Heemstra)**

**Department of Chemistry**

*Coupling Qpcr To Split Aptamer Ligation For The Detection Of Steroid Targets*

**Poster 54: Benjamin Knowlton (Antonio D. Montero-Dorta)**

**Department of Physics & Astronomy**

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**Poster 56: Ethan Petersen (Fred Adler)**

**Department of Biology**

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**Poster 72: William Rath (Brian Coddling)**

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**Poster 72: Anastasia Rath (Brian Coddling)**

**Department of Anthropology**

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