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

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

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
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

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*
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
Ressettlement 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
PERFORMANCE SESSION I
9:00 – 10:30

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
ORAL SESSION II
10:45 – 12:15

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
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

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*
Oral Session II – ROOM 311 Continued

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

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 (Ketih 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*

**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?*
ORAL SESSION III
1:00 – 2:30

PARLOR A
Moderator: Ole W Fischer, Department of Architecture

1:00 Drew Emey (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

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

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?

PERFORMANCE SESSION III
1:00 – 2:30

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
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 Hinners)
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 McLennan)  
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  
Gluconeogensis Is Critical For Expec 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 Prevelance 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 Minteer)
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 psuedoobscura*

**Poster 77: Hannah Hanson (Çağan Şekercioğlu)**  
*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 α-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 gfzf 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 Session I – MAIN BALLROOM Continued

**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 (PM2.5) and Associated Trace Gasses*
Poster 25: Ian Hazel (John Lin)
Department of Atmospheric Sciences
Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM2.5) and Associated Trace Gasses

Poster 25: Courtney Pratt (John Lin)
Department of Atmospheric Sciences
Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM2.5) and Associated Trace Gasses

Poster 25: Amy Record (John Lin)
Department of Atmospheric Sciences
Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM2.5) and Associated Trace Gasses

Poster 25: Nick Todorov (John Lin)
Department of Atmospheric Sciences
Mobile and Stationary Measurements of Wasatch Front Particulate Matter (PM2.5) 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
Deglycoyslation 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 Codding)  
Department of Anthropology  
Archaeological Investigations of Red Butte Canyon

Poster 44: L Brock James (Brian Codding)  
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 Session II – MAIN BALLROOM Continued

**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 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 Session II – MAIN BALLROOM Continued

**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 Session III – MAIN BALLROOM Continued

**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 + H2 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 For 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(O2)]*

**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  
The PRIMUS Luminosity Function of Galaxies

Poster 55: Lane Mulvey (Nitin Phadnis)  
Department of Biology  
Sexual Selection and the Evolution of Pigment Selection in Drosophila

Poster 56: Ethan Petersen (Fred Adler)  
Department of Biology  
Exploring the Marginal Value Theorem-Optimal Information Use and Varying Responses to Fluctuation in Patch Quality
Poster 57: Benjamin Riseman (Vikram Deshpande)
Department of Physics & Astronomy
Investigating the Pseudomagnetic Field of Graphene

Poster 58: Karlee Stokes (Ryan Looper)
Department of Chemistry
Advanced SAR Studies of Antibiofilm Antibiotics

Poster 59: Joshua Visser (Cythia Burrows)
Department of Chemistry
Effects of Oxidized Guanine Lesions on DNA Base Insertion and Elongation

Poster 60: Cedar Briem (Andrea Brunelle)
Department of Geography
Magnetic Susceptibility And Loss On Ignition Analyses Of A Sediment Core From The Bonneville Basin

Poster 61: Willem Collier (Stephen Bannister)
Department of Economics
Stabilization and Adjustment in Economies of Transition: Are There Prerequisites for Success?

Poster 62: Micah Crapo (Jason Watson)
Department of Psychology
Transitioning Control
**Poster 63: Connor Estes (Masha Sukovic)**
Department of Communication
*Tending To The Roots: Assessing Refugees’ Cultural Perceptions Of Health And Wellness Through Participant-Driven Community-Based Participatory Research*

**Poster 64: Jamie Falvo (Cihan Bilginsoy)**
Department of Economics
*Wage Gap Analysis between Hispanic and White Workers in Utah versus Intermountain Region*

**Poster 65: Riley Greenwood (Cihan Bilginsoy)**
Department of Economics
*Changes in Peruvian Income Distributions from 2004-2014*

**Poster 66: Dean Hawkley (Thomas Maloney)**
Department of Economics
*Metropolitan Divergence: Home Ownership and Race in Postwar Detroit and New York*

**Poster 67: Carter Holt (Marianna Di Paolo)**
Department of Anthropology
*Boosting Phonetics Research through Technology*
**Poster 68: Thomas Kidd (Shane Macfarlan)**
Department of Anthropology
*Aridland Springs And Rancher Environmental Knowledge In Baja California Sur, Mexico*

**Poster 69: Rachel Kunzler (Karen Kramer)**
Department of Anthropology
*Pume Children’s Subsistence Contributions*

**Poster 69: Tiana Chaparro (Karen Kramer)**
Department of Anthropology
*Pume Children’s Subsistence Contributions*

**Poster 70: Van Le (Thomas Maloney)**
Department of Economics
*Social Public Benefit of Community College*

**Poster 71: Cassandra Oliveira (Mitchell Power)**
Department of Geography
*Pollen Analysis of Coastal Salt Ponds in the British Virgin Islands*

**Poster 72: William Rath (Brian Codding)**
Department of Anthropology
*Red Butte Canyon Preliminary Survey and LiDAR Analysis*
Poster 72: Anastasia Rath (Brian Codding)
Department of Anthropology
Survey Results and LiDAR Analysis of Red Butte Canyon, Utah

Poster 73: Alex Veilleux (Jennifer Shah)
Environmental & Sustainability Program
CO2 Concentration Comparison Study And Community Outreach In Salt Lake Valley

Poster 73: Luis Vidal (Jennifer Shah)
Environmental & Sustainability Program
CO2 Concentration Comparison Study And Community Outreach In Salt Lake Valley

Poster 74: Matt Westover (Masha Sukovic)
Department of Communication
Game of Thrones and Popular Television’s Capacity to Mediate Viewers’ Attitudes on Gender

Poster 75: Heather King (Jaehee Yi)
Department of Social Work
The Experiences of Female Adult Cancer Survivors: A Photovoice Study

Poster 76: Monica Scott (Akiko Kamimura)
Department of Sociology
Experiences of Immigrant Women who Applied for VAWA Self-Petition: Analysis of Legal Affidavits
**Poster 77: Cecilia Cardozo (Carolyn Bliss)**  
Undergraduate Studies, LEAP  
*Reach for Your Dreams: A Community-Research Project*

**Poster 78: Amy Yu (Carolyn Bliss)**  
Undergraduate Studies, LEAP  
*LGBT Healthcare Education: The Annual Provider Summit*

**Poster 79: Kylie Kida (Carolyn Bliss)**  
Undergraduate Studies, LEAP  
*Evaluation Of Atrial Fibrosis Using Delayed Enhancement MRI For Treatment And Understanding Of Atrial Fibrillation And Success Of LA Ablation Procedure*

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**Student Index**

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