



Office of  
**UNDERGRADUATE RESEARCH**  
THE UNIVERSITY OF UTAH

# 2018 Undergraduate Research Symposium

**WEDNESDAY, APRIL 11, 2018  
9:00AM - 2:30PM  
OLPIN UNION BLDG.  
UNIVERSITY OF UTAH**



# **2018 UNDERGRADUATE RESEARCH SYMPOSIUM**

Wednesday, April 11, 2018

9:00am – 2:30pm

Olpin Union

University of Utah

We are grateful for the generous support of:



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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# 2018 UNDERGRADUATE RESEARCH SYMPOSIUM PROGRAM SCHEDULE

**NOTE:** All student presenters **MUST** check-in

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

## **SESSION I** 9:00 – 10:30am

8:30am

**Check-in**

Union Corridor

8:45 – 9:00am

**Poster Setup**

Main Ballroom

9:00 – 10:30am

**Poster Session I**

Main Ballroom

9:00 – 10:30am

**Oral Session I**

(Parlor A, Parlor B, Collegiate Room, West Ballroom, Room 311, 312, 319)

## **SESSION II** 10:45 – 12:15pm

10:15am

**Check-in**

Union Corridor

10:30 – 10:45am

**Poster Setup**

Main Ballroom

10:45 – 12:15pm

**Poster Session II**

Main Ballroom

10:45 – 12:15pm

**Oral Session II**

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

## **SESSION III** 1:00 – 2:30pm

12:30pm

**Check-in**

Union Corridor

12:45 – 1:00pm

**Poster Setup**

Main Ballroom

1:00 – 2:30pm

**Poster Session III**

Main Ballroom

1:00 – 2:30pm

**Oral Session III**

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

# 2018 UNDERGRADUATE RESEARCH SYMPOSIUM

## SCHEDULE OF PRESENTATIONS

### ORAL SESSION I

9:00 – 10:30am

#### PARLOR A

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Moderator: **Kim Hackford Peer** (Gender Studies)

- 9:00am      **Kylie Madsen** (Julie Jeon)  
Department of Communication Sciences and Disorders  
*Speech perception ability in persons with diabetes*
- 9:20am      **Victoria Brown** (Bill Oakley)  
Department of Marketing  
*ADTHING: A Student Experience*
- 9:40am      **Chaise Edebiri** (Noel Voltz)  
Department of History  
*Storm at Southern: Hurricane Katrina's Impact on Degree-Completion Rates at Southern University at New Orleans*
- 10:00am     **Madi Limansky** (Kim Hackford-Peer)  
Department of Gender Studies  
*How do fashion and identity intersect?*

#### PARLOR B

---

Moderator: **Jim Curry** (Political Science)

- 9:00am      **Katherine Leibold** (Mark Button)  
Department of Political Science  
*The Electability of Atheists in the United States*

- 9:20am      **Connor Nelson** (James Curry)  
Department of Political Science  
*The Expansion and Management of Executive Power and the Role of Executive Orders in the United States, 2001-2017*
- 9:40am      **Emad Jabini** (Korkut Erturk)  
Department of Economics  
*An examination of switchover costs and their economic ramifications in the pharmaceutical, information technology, and food manufacturing industries.*
- 10:00am     **Nikila Venugopal** (Steven Johnston)  
Department of Political Science  
*Baldwin in Conversation: The Potential for Love in Anti-Racist Projects*

## COLLEGIATE ROOM

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Moderator: **Maureen Mathison** (Writing and Rhetoric Studies)

- 9:00am      **Jon Kim** (Michael Chikinda)  
Department of School of Music  
*Compositional Applications of the IC 3.5 Cycle*
- 9:20am      **Ali DeGrauw** (Maureen Mathison)  
Department of Writing & Rhetoric Studies  
*Thinking About Science: Examining How an Educated Public Conceptualizes Science*
- 9:40am      **Dalton Edwards** (Alf Seegert)  
Department of English  
*Grizzled Man: Blackwood, Herzog, and Nonhuman Agency in Eco-horror*
-

## WEST BALLROOM

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Moderator: **Taylor Sparks** (Materials Science and Engineering)

- 9:00am      **Preston Williams** (Feng Zhang)  
Department of Finance  
*Politics, Twitter And The Stock Market: The Effects Of A Trump Presidency On Market Efficiency*
- 9:20am      **Logan Kiefer** (Taylor Sparks)  
Department of Materials Science and Engineering  
*Temperature effects on electrochromic lenses for use in manually-controllable, variable-tint ski goggles*
- 9:40am      **Simon Redman** (Kobus van der Merwe)  
Department of School of Computing  
*Critical Reroute*

## ROOM 311

---

Moderator: **Jenny Andrus** (Writing and Rhetoric Studies)

- 9:00am      **Madeline Lehman** (Paul Larsen)  
Department of Film & Media Arts  
*Claudette's*
- 9:20am      **Casey Koldewyn** (Jenny Andrus)  
Department of Writing & Rhetoric Studies  
*Disabling Sci-Fi*
- 9:40am      **Megan Hulse** (Glen Feighery)  
Department of Communication  
*Investigative Reporting and the Arts*
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## ROOM 312

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Moderator: **Jennifer Watt** (Geography)

- 9:00am      **Daniel Zhu** (Bruce Gale)  
 Department of Bioengineering  
*Experimental Study Of The Effect Of Fk506 Embedded Plc Wrap  
 On Nerve Regeneration*
- 9:20am      **Kade Lansford** (Bruce Gale)  
 Department of Mechanical Engineering  
*Microfluidic Flow Characterization*
- 9:40am      **Jane Saviers-Steiger** (Robert Hitchcock)  
 Department of Bioengineering  
*Developing Housing for a Flexible Pressure Sensor*
- 10:00am     **Zeke Peterson** (Kerry Kelly)  
 Department of Chemical Engineering  
*Calibration of Low-Cost Ozone Detectors to Measure a Key-  
 Indicator of Summertime Air Quality in the Salt Lake Valley*

## ROOM 319

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Moderator: **Kate Job** (Pediatrics)

- 9:00am      **Ivy Christofferson** (Ivy Christofferson)  
 Department of Biology  
*The connectivity mechanisms underlying multisensory integration  
 in an associative brain center*
- 9:20am      **Joseph Blanton** (Shanti Deemyad)  
 Department of Physics & Astronomy  
*AC Magnetic Susceptibility of Sub-milimeter Superconductor  
 Samples at Extreme Conditions*
- 9:40am      **Deric Session** (Vikram Deshpande)  
 Department of Physics & Astronomy  
*Mechanical Resonators Based on Graphene Heterostructures*



10:00am

**Cole Takasugi** (Daniel Wik)

Department of Physics & Astronomy

*Bench Marking of the Active Shielding Particle Pusher with  
Theoretical Models*

<p><b>ORAL SESSION II</b> 10:45 – 12:15pm</p>
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## **PARLOR A**

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Moderator: **Daniel Levin** (Political Science)

- 10:45am      **Kyra Soboleski** (Jim Agutter)  
Department of Multi-Disciplinary Design  
*Overcrowding in Zion National Park*
- 11:05am      **Athena Ho** (Cord Bowen)  
Department of Multi-Disciplinary Design  
*Redesigning Curriculum in Housing*
- 11:25am      **Kira Wachter** (Bill Oakley)  
Department of Marketing  
*Career Immersion Prior To Graduation: An Analysis Of The Efficacy Of Student Marketing Agencies*
- 11:45am      **Kris Glad** (Susie Porter)  
Department of Gender Studies  
*How We Got To 'Queer': A Sociohistorical Examination of Language Development*

## **PARLOR B**

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Moderator: **TBA**

- 10:45am      **Brian Cottle** (Robert Hitchcock)  
Department of Bioengineering  
*Video Synchronization to Better Understand Intra-Abdominal Pressure in Women*

- 11:05am      **Eric Bellan** (Owen Kingstedt)  
Department of Mechanical Engineering  
*An Experimental Technique for Magnetic-field Actuated  
Intermediate Strain-rate Deformation of Soft Polymers and Bio-  
materials*
- 11:25am      **Shardul Kamat** (Wenda Tan)  
Department of Mechanical Engineering  
*Polymer based additive manufacturing of NiTiInol*
- 11:45am      **Trevor Teerlink** (Bruce Gale)  
Department of Mechanical Engineering  
*Integrated microfluidic device for semen preparation*

## COLLEGIATE ROOM

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Moderator: **Dipayan Chaudhuri** (Internal Medicine)

- 10:45am      **Griffin Durupt** (Simon Fisher)  
Department of Internal Medicine  
*Increased insulin action in the brain regulates counterregulatory  
response to hypoglycemia in diabetic rats*
- 11:05am      **Jerry Bounsanga** (Man Hung)  
Department of Orthopaedics  
*Genome mapping of the Halogeometricum borinquense*
- 11:25am      **LaVar Edwards** (Aaron Secrest)  
Department of Dermatology  
*Predilection Of Keratinocyte Carcinoma Skin Cancer By Age And  
Sex*
- 11:45am      **Chris Stringham** (Wesley Sundquist)  
Department of Biochemistry  
*Designed two-component protein nanocages induce the formation of  
extracellular vesicles*

## WEST BALLROOM

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Moderator: **Doug Mackay** (Oncological Sciences)

- 10:45am      **Lauryn Angell** (Diego Fernandez)  
Department of Geology and Geophysics  
*Uranium Isotopes in Environmental Samples*
- 11:05am      **Sarah Brown** (Carol Lim)  
Department of Pharmaceutics & Pharmaceutical  
Chemistry  
*p53 Induces Apoptosis at the Mitochondria of Ovarian Cancer Cells*
- 11:25am      **Samuel Hatch** (Shawn Owen)  
Department of Pharmaceutics & Pharmaceutical  
Chemistry  
*One Tag to Rule Them All: Split-Luciferase Affinity Tag with  
Multifaceted Utility in the Production and Interrogation of Purified  
Proteins*
- 11:45am      **Madison Abele** (Jason Castillo)  
Department of Social Work  
*Low Income Pregnant Women's Quality of Prenatal Care*

## EAST BALLROOM *(Performance)*

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Moderator: TBA

- 10:45am      **Rachel Luebbert** (Ellen Bromberg)  
Department of School of Dance  
*The Female Bildungsroman through Movement and Performance*

## ROOM 311

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Moderator: **TBA**

- 10:45am      **Christal Hazelton** (Lien Fan Shen)  
Department of Film & Media Arts  
*What We Tell Children: Queer Representation in Children's Animation*
- 11:05am      **Natasha Eldredge** (Natasha Seegert)  
Department of Communication  
*Policies And Procedures In The Communication And Collaboration Of Iep Team Members For Autstic Children*
- 11:25am      **Glory Stanton** (William Smith)  
Department of Education, Culture & Society  
*'Black Men Matter!': Understanding the Biopsychosocial Effects of Educated Black Men Living in Predominately White Communities*

## ROOM 312

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Moderator: **Trevor Tippetts** (Nutrition & Integrative Physiology)

- 10:45am      **Hannah Choi** (Jon Seger)  
Department of Biology  
*A Mathematical Approach to Interpreting the Human Experience: a Compilation of Quantitative Stories*
- 11:05am      **Noble Williamson** (Adam Boocher)  
Department of Mathematics  
*The Herzog-Kühl Equations*
- 11:25am      **Elom Amematsro** (Sophie Caron)  
Department of Biology  
*A Tale of Two Odors- The Affects of Biased Randomness in Drosophila Melanogaster*

11:45am      **Connor Terry Weatherly** (Henry White)  
Department of Chemistry  
*Batteries, Fuel Cells, and Nanobubbles: Concerted Electron and  
Phase Transfer Reactions*

## ROOM 319

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Moderator: **Jennifer Seagrave** (LEAP)

10:45am      **Tyler Young** (Tabitha Benney)  
Department of Political Science  
*A Policy Proposal: Mitigating Externalities and Reaping Benefits of  
Utah Potash Mining*

11:05am      **Kiman Kaur** (Adrienne Cachelin)  
Department of Geography  
*The Intersections of Gender, Race, and the Environment: What Does  
Queer Ecology Tell Us About Power and Place in the Ecosystem?*

11:25am      **Louise Holbrook** (Alan Rogers)  
Department of Anthropology  
*Modern-Archaic Mix-In: Estimating Admixture between Modern  
Humans and Neanderthals*

11:45am      **Elizabeth Curland** (Chris Lippard)  
Department of Film & Media Arts  
*Foreign Cinemas and Documentary*

## ORAL SESSION III

1:00 – 2:30pm

### PARLOR A

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Moderator: TBA

- 1:00pm      **Teddy Anderson** (Ben Bromley)  
Department of Physics & Astronomy  
*Examining the Outer Solar System*
- 1:20pm      **Malika Kadirova** (Martin Horvath)  
Department of Biology  
*Discovery Of The Lutein Bound Stard3 Complex Using Structural Methods*
- 1:40pm      **Atoosa Samani** (Amy sibul)  
Department of Biology  
*Gender Differences and The Learning Outcomes in Chemistry Outreach*
- 2:00pm      **Glenda Palomino Ventura** (Letica Alvarez Gutiérrez)  
Department of Education, Culture & Society  
*Culturally Sustaining Pedagogy: Educators' Pedagogical Support for Elementary Undocumented/Mixed Status Students*

### PARLOR B

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Moderator: TBA

- 1:00pm      **Greg Lee** (Shannon Odelberg)  
Department of Human Genetics  
*Elucidating the Role of the Arf6 Gene in Acute Myeloid Leukemia*



- 1:20pm      **Mikey Vetter** (Weiquan Zhu)  
Department of Human Genetics  
*Vascular Permeability and Age-Related Macular Degeneration*
- 1:40pm      **Spencer Fielding** (Jim Steenburgh)  
Department of Atmospheric Sciences  
*Evaluation of Hot Plate Instrumentation in Alpine Environment*
- 1:40pm      **Zacharu Rieck** (Jim Steenburgh)  
Department of Atmospheric Sciences  
*Evaluation of Hot Plate Instrumentation in Alpine Environment*

## COLLEGIATE ROOM

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Moderator: **Shawn Owen** (Pharmaceutics & Pharmaceutical Chem)

- 1:00pm      **Zack Harmer** (Dana Carroll)  
Department of Biochemistry  
*Influence of chromatin on cleavage by CRISPR/cas9*
- 1:20pm      **Ludovica Farese** (Ty Dickerson)  
Department of Pediatrics  
*Global Health Education in U.S. academic medical centers (AMCs)*
- 1:40pm      **Julie Xu** (Man Hung)  
Department of Orthopaedics  
*Evaluation of Lymph Node Ratio as a Predictor for Breast Cancer Survival*
- 2:00pm      **Deanne Yugawa** (Charles Murtaugh)  
Department of Human Genetics  
*The rescue and reversion of Pancreatic Ductal Adenocarcinoma through the overexpression of PTF1A in vitro*

## WEST BALLROOM

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Moderator: **Leslie Francis** (Philosophy)

- 1:00pm      **William Anderl** (Ken Monson)  
Department of Mechanical Engineering  
*Strain Rate Dependency of Collagen Hybridizing Peptide Attachment to Vessel Wall Collagen*
- 1:20pm      **Brett Reeder** (Pania Newell)  
Department of Mechanical Engineering  
*Numerical Assessment of Additively Manufactured Porous Media*
- 1:40pm      **Yiliang Shi** (Bei Wang Philips)  
Department of School of Computing  
*Visualization and Topological Analysis of Brain Networks with applications in Autism*
- 2:00pm      **Connor Scholes** (Leslie Francis)  
Department of Law  
*The Ethics of Uncertainty in Clinical Genetics Testing*

## EAST BALLROOM

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Moderator: **Susie Porter** (Gender Studies)

- 1:00pm      **Jane Etherington** (Jane Hatter)  
Department of School of Music  
*Incorporating Early Female Composers in Today's Violin Repertoire*
- 1:20pm      **Valeria Jimenez** (Jesus Valero)  
Department of Political Science  
*The Role of Nonprofit Organizations in Promoting Higher Education Among Latina/o Youth: The Case of Latinos in Action (LIA) of Utah*

- 1:40pm      **Joshua Hernandez** (Bonita Austin)  
Department of Entrepreneurship & Strategy  
*Surveying OIS Students' Preparedness and Evaluating the Importance of Soft Skills in the Job Market*
- 2:00pm      **Kiman Kaur** (Susie Porter)  
Department of Gender Studies  
*Can Reproductive Freedom Be Achieved by Decolonizing What Pleasure, Love, and Resistance Look Like? Cases of Womxn of Color Facing Reproductive Injustices*

## ROOM 311

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Moderator: **Catherine Showalter** (Linguistics)

- 1:00pm      **Cassidy Hoff** (Danielle Endres)  
Department of Communication  
*The Utes Nickname: Mascots, Symbols, And Nicknames A Critical Discourse Analysis*
- 1:20pm      **Patrick Warr** (Erin Jensen)  
Department of Writing & Rhetoric Studies  
*Prescription Narcotic and Illicit Drug Abuse: Needed Change in Public Health Policies and Clinical Practices*
- 1:40pm      **Christian Hansen** (Alf Seegert)  
Department of English  
*Visionary Minds, Visionary Worlds: Analysing The Works Of Fumito Ueda, Hidetaka Miyazaki, And Jenova Chen*
- 2:00pm      **Sarah Bischoff** (Lisa Swanstrom)  
Department of English  
*Genre Ghosts: Confessions in Postcolonial Spaces*
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## ROOM 312

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Moderator: **Carlene Diets Lebhn** (Psychology)

- 1:00pm      **April Keene** (Jack Broughton)  
Department of Anthropology  
*Black Bones: Distinguishing Burned from Stained*
- 1:20pm      **Nicolle Eldredge** (Elisabeth Conradt)  
Department of Psychology  
*Maternal Stress And The Development Of Infant Regulatory Processes*
- 1:40pm      **Christopher Jones** (Trafton Drew)  
Department of Psychology  
*Neural Correlates of Consolidation Into Visual Working Memory*
- 2:00pm      **Thulasi Seshan** (Kathleen Nicoll)  
Department of Geography  
*Comparative Indigenous Water Rights in Australia and the Western United States*

## ROOM 319

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Moderator: **Monty Paret** (Art & Art History)

- 1:00pm      **Adam Fuller** (Stephanie Doktor)  
Department of School of Music  
*Wynton Marsalis and Nicholas Payton: A Comparative Discourse*
- 1:20pm      **Angela Lee** (Pamela Geber-Handman)  
Department of School of Dance  
*How Creative Movement Practices, Such As Storytelling And Personal Narrative, Act As A Medium For People With Disabilities To Understand And Express Identity*

1:40pm

**Sayde Price** (Monty Paret)  
Department of Art & Art History  
*To Move and Be Still: Time in Tacita Dean's JG*

2:00pm

**Cece Otto** (Robert Scott Smith)  
Department of Theatre  
*Creating a Devised Theatrical Piece to Travel to the Edinburgh  
Fringe Festival*

## POSTER SESSION I

9:00 – 10:30am

### MAIN BALLROOM

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- Poster 1: **Greydon Benzmilller** (Edward Rubin)  
Department of Linguistics  
*Foul Play: Gender, Perception, and Profanity in 21st century America*
- Poster 1: **Joseph Ciucci Liuzzi** (Edward Rubin)  
Department of Linguistics  
*Foul Play: Gender, Perception, and Profanity in 21st century America*
- Poster 1: **Amber Robb** (Edward Rubin)  
Department of Linguistics  
*Foul Play: Gender, Perception, and Profanity in 21st century America*
- Poster 2: **Mary Stringham** (Sarah Hollenberg)  
Department of Art & Art History  
*Exploring Today's Definition of Global Contemporary Art*
- Poster 3: **Bri Milot** (Jennifer Shah)  
Department of Geography  
*Point Intercept Transect Surveys on Myrtle Spurge (*Euphorbia myrsinites*)*
- Poster 4: **Ria Sandhu** (Ria Sandhu)  
Department of Surgery  
*Dual Reservoir Nerve Guide Conduit Incorporated with FK506 and GDNF as a Novel Approach for Peripheral Nerve Regeneration*
- Poster 5: **Amanda Groneman** (Marissa Diener)  
Department of Family & Consumer Studies  
*Educational Programming: A Coping and Distraction Technique in Pediatric Hospital Settings*

- Poster 6: **Yuanhang Zhao** (Stavros Drakos)  
Department of Internal Medicine  
*Understanding the role of VDAC2 in heart failure and intracellular calcium regulation*
- Poster 7: **Marilynn Santana** (Bruce Ellis)  
Department of Psychology  
*Can Early Childhood Adversity Improve Cognitive Abilities?*
- Poster 8: **Kaley Tucker** (Brian Coddington)  
Department of Anthropology  
*Geospatial Analysis of the Distribution of Spent Cores In Grand County Utah*
- Poster 9: **Megan Shaw** (Caren Frost)  
Department of Social Work  
*Effect of Quality Training for Refugee Childcare Providers*
- Poster 10: **Emily Tippetts** (Julie Hollien)  
Department of Biology  
*Role of Drosophila Ire1's C terminal domain in RIDD pathway specificity*
- Poster 11: **Rebecca Lewis** (Dimitri Trankner)  
Department of Biology  
*Developing an Electric Arena for Testing Cognitive Ability in Mice*
- Poster 12: **Spencer Ericksen** (Spencer Ericksen)  
Department of Internal Medicine  
*Effects of Glycyrrhetic Acid on Wound Healing Processes in a Colorectal Tumor Mouse Model*
- Poster 13: **Jennifer Isenhour** (Lee Raby)  
Department of Psychology  
*Longitudinal Investigation Of The Enduring Effects Of Early Social Deprivation And The Diurnal Cortisol Regulation Of Internationally Adopted Children*
- Poster 14: **Ryan Herman** (Shannon Charles)  
Department of School of Accounting  
*The Impact of Dodd-Frank Legislation on the Mortgage Market Risk Environment*



- Poster 15: **Michelle Ngo** (Carolyn Bliss)  
LEAP  
*The Effect of Prenatal Stress on Early Infant Life*
- Poster 16: **Mary Ngo** (Carolyn Bliss)  
LEAP  
*Gait Speed in Stroke Patients*
- Poster 17: **Ronak Intwala** (Carolyn Bliss)  
LEAP  
*Fluorogenic Probes of Enzyme Activity*
- Poster 18: **Matthew Godinez** (Stephen Trapp)  
Department of Psychology  
*Tilt Tracker*
- Poster 19: **Marisa Bell** (Thomas Kursar)  
Department of Biology  
*Characterization of Polyphenolics in *I. umbellifera**
- Poster 20: **Gannon Day** (Claudia Geist)  
Department of Sociology  
*The Effect of Women Veterans on the Labor Force*
- Poster 21: **Stephanie Mauck** (Claudia Geist)  
Department of Gender Studies  
*Women and the Big Four: PR vs. HR*
- Poster 22: **Artemis Sefandonakis** (Alex Terrill)  
Department of Occupational and Recreation Therapies  
*ReStoreD*
- Poster 23: **Daniela McCroby** (Katherine Supiano)  
Department of Nursing  
*Distance-technology Delivered Grief Support Program-Perceived Quality and Satisfaction of Training Provided to Social Workers*
- Poster 24: **Christopher Rapp** (Bryan Jones)  
Department of Ophthalmology & Visual Sciences  
*ON Cone Bipolar Coupling in Mouse Retina*

- Poster 25: **Jeffrey Lunt** (Donna Cross)  
Department of Radiology & Imaging Sciences  
*FDG-PET Imaging of Repeat Traumatic Brain Injury and Response to Therapy in Mice*
- Poster 26: **Megan Tyler** (Maureen Mathison)  
Department of Writing & Rhetoric Studies  
*Gamification of Biology Literacy*
- Poster 27: **Andrew Sedley** (Dimitri Trankner)  
Department of Biology  
*Egocentric Navigation in a Morris Water Maze for Testing Memory Formation in Mice*
- Poster 28: **Jesus Gomez** (Feng Liu)  
Department of Materials Science and Engineering  
*Managing Musculoskeletal Pain with Combined Modalities in Nanoxene and Thermally Responsive Polymer Networks*
- Poster 29: **Cason Acor** (Bryan Bonner)  
Department of Management  
*The Power of Virtual Reality to Promote Empathy in the Workplace*
- Poster 29: **Chandler Dean** (Bryan Bonner)  
Department of Management  
*Virtual Reality and Its Effects on Empathy*
- Poster 29: **Luke Hansen** (Bryan Bonner)  
Department of Management  
*The Effects of Virtual Reality on Empathy*
- Poster 30: **Lauren Brocious** (Rachel Hayes-Harb)  
Department of Linguistics  
*L2 Orthographic Input and the Three-way Korean Consonant Contrast*
- Poster 31: **Alexander Cipro** (Aniko Csirmaz)  
Department of Linguistics  
*Spatial interpretation of the prepositions 'in' and 'within'*
- Poster 32: **Mauricio Jin** (John Fadul)  
Department of Oncological Sciences

*Oncogenic KRas drives invasion of epidermal cells into the zebrafish body*

Poster 33: **Thanakorn Baker** (Thomas Richmond)

Department of Chemistry  
*Online Faraday Lectures*

Poster 34: **Christina Sanchez** (Ning Tian)

Department of Ophthalmology & Visual Sciences  
*Categorizing the Bipolar Cells in JAMB and BD Cells*

Poster 35: **Max Alfonso** (Susan Bock)

Department of Bioengineering  
*N-glycosylation Analysis of Hemagglutinin Spikes on Influenza Virus-like Particles Produced in Trichoplusia ni Living Bioreactors*

Poster 36: **Michael Gibbons** (Kevin Whitty)

Department of Chemical Engineering  
*Experimental Apparatus and CuO-SiO<sub>2</sub> Particle Development for Chemical Looping with Oxygen Uncoupling (CLOU)*

Poster 37: **Nikol Yonemura** (Micah Drummond)

Department of Physical Therapy and Athletic Training  
*Role of skeletal muscle macrophages in inactivity-induced insulin resistance*

Poster 38: **Zeke Richards** (Shannon Odelberg)

Department of Internal Medicine  
*Development and Characterization of a Genetic Model of Uveal Melanoma*

Poster 39: **Taylor Russell** (Cheryl Wright)

Department of Family & Consumer Studies  
*Choreografish - A VR game aimed at reducing anxiety in young adults with ASD*

Poster 40: **Mariah Arave** (Ryan Schacht)

Department of Anthropology  
*Life Elevated: investigating the association between altitude and depression*

- Poster 41: **Justin Swanger** (Jerry Root)  
Department of World Languages & Cultures  
*Material Reality In and About the Legend of Theophilus*
- Poster 42: **Nathan Crispo** (Claudia Geist)  
Department of Sociology  
*The Effect of Firearm Ownership On Violent Crime*
- Poster 43: **Yasmeen Siripathane** (Annette Fleckenstein)  
Department of Dentistry  
*Methcathinone Administration Decreases Dopamine Transporter Function*
- Poster 44: **Madison Keyser** (Thomas Maloney)  
Department of Economics  
*Utah Nonprofits: Effects on the Economy and Career Opportunities for Women*
- Poster 45: **Phillip Johansen** (Akiko Kamimura)  
Department of Health, Kinesiology, and Recreation  
*Mental Health Perceptions Among College Students in Vietnam and in the US*
- Poster 46: **Miranda Jones** (Akiko Kamimura)  
Department of Sociology  
*Indigenous Peoples' Health in the United States of America: Review of Lifestyle Issues and the Implementation of Community-Based Participatory Research*
- Poster 47: **Sarah Elizabeth Levitt** (Akiko Kamimura)  
Department of Sociology  
*Using the Tool for Assessing Cultural Competence Training (TACCT) to Measure Nutrition and Dietetics Program Curriculums*
- Poster 48: **Zachary Pickering** (Meredith Metzger)  
Department of Mechanical Engineering  
*Glider air craft project*
- Poster 49: **Brenda Espitia** (Carolyn Bliss)  
LEAP  
*The Act of Giving: St. Paul's Food Pantry*

- Poster 50: **Hannah Samowitz** (Monisha Pasupathi)  
 Department of Psychology  
*The effects of air pollution salience and place attachment on supporting an environmental organization*
- Poster 51: **Noelia Juarez** (Akiko Kamimura)  
 Department of Sociology  
*Perspectives of health care services among free clinic patients in the USA: A qualitative study*
- Poster 51: **Emely Puerto** (Akiko Kamimura)  
 Department of Sociology  
*Perspectives of health care services among free clinic patients in the USA: A qualitative study*
- Poster 52: **Henry Doan** (Carolyn Bliss)  
 LEAP  
*The Impacts of College Exposure Among Asian American Youth*
- Poster 53: **Jazmine Hurley** (Akiko Kamimura)  
 Department of Sociology  
*Evaluation of Intimate Partner Violence Curriculum in Residency Training Programs*
- Poster 54: **James Brown** (Kristen Kwan)  
 Department of Human Genetics  
*Abnormal ECM composition disrupts tissue de-adhesion*
- Poster 55: **Maggie Gardner** (Cheryl Wright)  
 Department of Family & Consumer Studies  
*College Experiences of Students with Autism: Parental Perceptions*
- Poster 56: **Barbara Kufiadan** (Deanna Kepka)  
 Department of Nursing  
*Utah Dental Association Perceptions, Knowledge, and Clinical Procedures Regarding Human Papillomavirus Oropharyngeal Cancer*
- Poster 57: **Elizabeth Kaiser** (Rachel Hayes-Harb)  
 Department of Linguistics  
*VOTs of Voiced and Voiceless Stops in Spanish and English: A Partial Replication of Flege and Eefting (1987)*

- Poster 58: **Nicole Mortensen** (Jeffrey Bates)  
Department of Materials Science and Engineering  
*Molecularly Imprinted Hydrogels for Drug Delivery Usages*
- Poster 59: **Danika Sommer** (Sheri Holmen)  
Department of Surgery at Huntsman Cancer Institute  
*Development of an Inducible Rodent Model for BRAFV600E Mutant Gliomas*
- Poster 60: **Kiana Wong** (Carolyn Bliss)  
LEAP  
*Reach For Your Dreams Program: Exposing Third Grade Students to Higher Education*
- Poster 61: **Katheryn Rasmussen** (Megan Reynolds)  
Department of Sociology  
*Awareness and Access to Support Resources among Refugee Women in Salt Lake City Experiencing Sexual and Gender-Based Violence*
- Poster 62: **Bailey Tibbett** (Hongyong Sohn)  
Department of Metallurgical Engineering  
*Photocatalysis Property of Aluminum Doped Zinc Oxide (AZO)*
- Poster 63: **Naveen Rathi** (Bruce Gale)  
Department of Mechanical Engineering  
*A Spiral Channel Device for Microfluidic Sperm Processing: A Potential Tool for Male Infertility*
- Poster 64: **Jennifer Bridgeman** (Cagan Sekercioglu)  
Department of Biology  
*Identifying the Density, Distribution, and Habitat Use of Raptors in City Creek Canyon*
- Poster 65: **Nicholas Bitter** (John Lin)  
Department of Atmospheric Sciences  
*Carbon Dioxide and its Isotopic Composition in Salt Lake City 2001-2017*
- Poster 66: **Crystal Japngie Green** (Anna Hallar)  
Department of Atmospheric Sciences  
*Climatology of Aerosol Optical Properties from Storm Peak Laboratory*

- Poster 67: **Julianne Aldous** (Julianne Aldous)  
 Department of Political Science  
*Deconstructing Arguments Against the Financial Stability Oversight Council and the Consumer Financial Protection Bureau*
- Poster 68: **David Petersen** (Ed Rubin)  
 Department of Linguistics  
*Perceived Importance as a Factor in Second Language Vocabulary Acquisition*
- Poster 68: **Heidee Ward** (Ed Rubin)  
 Department of Linguistics  
*Perceived Importance as a Factor in Second Language Vocabulary Acquisition*
- Poster 69: **Jeeone Park** (Benjamin Ellis)  
 Department of Bioengineering  
*Development of High-Fidelity Computer Simulation Model of Human Cervical Spine*
- Poster 70: **Julia Zhu** (Cynthia Burrows)  
 Department of Chemistry  
*Will guanine undergo oxidation via TET1 and TET2?*
- Poster 71: **Sarah Wilmot** (Andrea Brunelle)  
 Department of Geography  
*A comparison of climate proxy data from two Bonneville basin sediment cores*
- Poster 72: **Caroline Foley** (Shane Macfarlan)  
 Department of Anthropology  
*Movement in 19th Century Baja*
- Poster 73: **Cheryle Lloyd** (Frank Drews)  
 Department of Psychology  
*Barriers in Safety: Face Shield Adherence in Laboratory Settings*
- Poster 74: **Danika Li** (Marjorie Castle)  
 Department of Political Science  
*The Tiananmen Square Massacre: Understanding State-Sponsored Violence*



- Poster 75: **Samantha Cooper** (Carolyn Bliss)  
LEAP  
*Reach for Your Dreams*
- Poster 76: **Carol Foote** (Hugh Cagle)  
Department of History  
*The Opioid Epidemic in Salt Lake City*
- Poster 77: **Kacey Davis** (Martin Horvath)  
Department of Biology  
*Expression and Purification of Augertoxins*
- Poster 78: **Suzannah Stark** (Claudia Geist)  
Department of Sociology  
*Gender and the classroom*
- Poster 79: **Caitlin Tominey** (Susanna Cohen)  
Department of Nursing  
*Can Simulation be done in Low-Resource Settings? Provider Evaluation of PRONTO Training across Four Low-Income Countries*
- Poster 80: **Erica Savage** (Jeffrey Coles)  
Department of Finance  
*Examination of Potential Productivity Decline in the Construction Industry*
- Poster 81: **Megan Adams** (Dmitry Bedrov)  
Department of Materials Science and Engineering  
*Simulation of Silicon and Silicon/Graphite Composite Anodes in Lithium Ion batteries using the Material Point Method.*
- Poster 81: **Galen Grantham** (Dmitry Bedrov)  
Department of Materials Science and Engineering  
*Simulation of Silicon and Silicon/Graphite Composite Anodes in Lithium Ion batteries using the Material Point Method.*
- Poster 81: **David Hancock** (Dmitry Bedrov)  
Department of Materials Science and Engineering  
*Simulation of Silicon and Silicon/Graphite Composite Anodes in Lithium Ion batteries using the Material Point Method*

## POSTER SESSION II

10:45 – 12:15pm

### MAIN BALLROOM

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- Poster 1: **Naomi Baende** (Carolyn Bliss)  
LEAP  
*Utilizing TRPV1-CRE/GCaMP6 Genotype Mice to Investigate Pain Mechanisms*
- Poster 1: **Lesley Mendoza** (Carolyn Bliss)  
LEAP  
*Utilizing TRPV1-CRE/GCaMP6 Genotype Mice to Investigate Pain Mechanisms*
- Poster 1: **Trevon Michael** (Carolyn Bliss)  
LEAP  
*Utilizing TRPV1-CRE/GCaMP6 Genotype Mice to Investigate Pain Mechanisms*
- Poster 2: **Jesus Gomez** (Feng Liu)  
Department of Materials Science and Engineering  
*Comibed heat therapy alongside NIPAAm and butenediol copolymer cross-linked hydrogels and their applications to transdermal drug delivery*
- Poster 3: **Jesse Griffin** (Bruce Gale)  
Department of Bioengineering  
*Integration of Different Materials on a Spiral Channel Design to Optimize Microfluidic Sperm Sorting Continued*
- Poster 4: **Madeline Bernardo** (Gary Rose)  
Department of Biology  
*Gender Plasticity and Social Control of Sex Determination in *Thalassoma Bifasciatum**
- Poster 5: **Sydney Cahoon** (Melissa Schaefer)  
Department of Anthropology  
*Temporal Howler Feeding Patters of La Selva Howler Monkeys (*Alouatta palliata*)*

- Poster 6: **Kaelyn Taylor** (Anne Jamison)  
Department of English  
*Fanfiction and Anxiety*
- Poster 7: **Natalie McElroy** (Jeanine Stefanucci)  
Department of Psychology  
*Investigating Static and Dynamic Spatial Abilities in Dancers*
- Poster 8: **Justin Cho** (Edward Rubin)  
Department of Linguistics  
*Frequently made student errors in adult ESL language acquisition*
- Poster 8: **Sarah Johnson** (Edward Rubin)  
Department of Linguistics  
*Frequently Made Student Errors in Adult ESL Language Acquisition*
- Poster 8: **Chi Hsuan Miao** (Edward Rubin)  
Department of Linguistics  
*Frequently made student errors in adult ESL language acquisition*
- Poster 9: **Jordan Pieper** (Ivis Garcia)  
Department of City & Metropolitan Planning  
*Aging in Place, Life-Space Mobility*
- Poster 10: **Keeton Hodgson** (Rajeev Balasubramonian)  
Department of School of Computing  
*DNA Sequence Alignment*
- Poster 11: **Niklaus Parcell** (Thomas Zangle)  
Department of Chemical Engineering  
*Automated X-Y-Z Translation Stage for Screening of Chemotherapies Using Quantitative Phase Microscopy*
- Poster 12: **Jeong Park** (Thomas Zangle)  
Department of Chemical Engineering  
*Measurements of pH and Oxygen Concentration Using Fluorescent and Luminescent Reporters*
- Poster 13: **Morgan Victorine** (Kenner Kingston)  
Department of School of Architecture  
*Regenerative Design through Material Selection*

- Poster 14: **Amy Record** (Kristine Pankow)  
Department of Geology and Geophysics  
*Determining seismicity in south-central Utah in conjunction with the Play Fairway project*
- Poster 15: **Jennifer Nelson** (Chuck Dorval)  
Department of Bioengineering  
*Real-Time Measurement of Brain Oscillation Power Levels*
- Poster 16: **Charles Hellige** (Stephen Goldsmith)  
Department of City & Metropolitan Planning  
*Effective, Equitable Community Engagement Processes*
- Poster 17: **Alex Blackburn** (H. James de St. Germain)  
Department of School of Computing  
*Learning Musical Style*
- Poster 18: **Asia Susko** (Kevin Jones)  
Department of Biology  
*Mechanism of YM155 in the Inhibition of Survivin in Synovial Sarcomagenesis*
- Poster 19: **Jordin Hartley** (Jennifer Watt)  
Department of Geography  
*Reconstructing a fire History Record and Disturbance Patterns for a High Elevation Site in the Northern Rocky Mountains*
- Poster 20: **Steven Sun** (Jim Germain)  
Department of School of Computing  
*Teaching Computers How to Read Music*
- Poster 21: **Steven Carlson** (Timothy Smith)  
Department of Psychology  
*Emotion Regulation in Sleep and Suicide: A Preliminary Analysis*
- Poster 22: **Brecca Breach** (Claudia Geist)  
Department of Sociology  
*How Gender Biases Deter Women from Entering STEM Fields*
- Poster 23: **Derek Betker** (Ed Rubin)  
Department of Linguistics  
*Code Correction: Breaking The Code*

- Poster 23: **Katrina Bocanegra** (Ed Rubin)  
Department of Linguistics  
*Code Correction: Breaking The Code*
- Poster 23: **Maranda Mumm** (Ed Rubin)  
Department of Linguistics  
*Code Correction: Breaking The Code*
- Poster 24: **Keiko Cawley** (Junco Warren)  
Department of Internal Medicine  
*Epigenetic Regulation of Energy Metabolism by the Histone Methyltransferase Smyd1 in the Murine Diabetic Heart*
- Poster 25: **Emerson Ford** (Brian Haymore)  
Department of School of Computing  
*Dynamic Virtual Resources within a High Performance Computing Environment*
- Poster 26: **Kathryn Donovan** (Sophie Caron)  
Department of Biology  
*Drosophila melanogaster innate response to ethyl isovalerate*
- Poster 27: **Alicia Dibble** (Jeff Bates)  
Department of Materials Science and Engineering  
*Assessing Degradation Lifetimes of Sustainable Alternative Materials for Hygiene Products*
- Poster 28: **Zachary Williams** (Kieth Diaz Moore)  
Department of School of Architecture  
*Spatial Configuration and Life for People with Attention Deficit Hyperactivity Disorder*
- Poster 29: **Alexander Cipro** (Rachel Hayes-Harb)  
Department of Linguistics  
*Effects of Repeated Evaluation on Acceptability Rating of Sentences: A Partial Replication of Zervakis and Mazuka (2012)*
- Poster 30: **Alexander Shu** (Jill Shea)  
Department of Surgery  
*Optimization and Drug Release Kinetics of a Bioresorbable Nerve Conduit*

- Poster 31: **Gemma Clark** (Jennifer Weidhaas)  
Department of Civil and Environmental Engineering  
*Pathogens in Harvested Rooftop Rainwater from Various Roofing Materials*
- Poster 32: **Naveen Rathi** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond Tutoring: Keys to a Successful Leap from High School to College*
- Poster 33: **Ellie Zurbuchen** (Danny Hung-Chieh Chou)  
Department of Chemistry  
*Iminoborane Synthesis For a Glucose Responsive System*
- Poster 34: **Hunter Frederiksen** (Catherine Loc-Carrillo)  
Department of Internal Medicine  
*Pharmacokinetics of Locally Delivered Powder Vancomycin and Vancomycin Loaded Hydrogel*
- Poster 35: **William Finlay** (Rachel Hayes-Harb)  
Department of Linguistics  
*Acoustic features of vowels in clear and conversational speech: A partial replication of Ferguson and Quené (2014)*
- Poster 35: **Julia Vonessen** (Rachel Hayes-Harb)  
Department of Linguistics  
*Acoustic features of vowels in clear and conversational speech: A partial replication of Ferguson and Quené (2014)*
- Poster 36: **Tina Tran** (Josh Bonkowsky)  
Department of Pediatrics  
*Understanding Adrenoleukodystrophy Pathogenesis Through Targeted Screening and Gene Analysis*
- Poster 37: **Spenser Owens** (Yihui Pan)  
Department of Finance  
*Shareholder Activism and Gender Diversity in Public Companies*
- Poster 38: **Tiana Chaparro** (Kim Hackford-Peer)  
Department of Gender Studies  
*Responding to the School to Prison Pipeline through Restorative Practices*

- Poster 39: **Hannah Gay** (Steven Nal)  
 Department of Mechanical Engineering  
*Analyzing Potential Biosorbents for the Purification of Heavy Metal Ions in Wastewater*
- Poster 39: **Ananya Sriram** (Steven Naleway)  
 Department of Mechanical Engineering  
*Analyzing Potential Biosorbents for the Purification of Heavy Metal Ions in Wastewater*
- Poster 40: **Tanner Snow** (Owen Kingstedt)  
 Department of Mechanical Engineering  
*Dynamic Loading of Materials*
- Poster 41: **Kelvin Taylor** (Claudia Geist)  
 Department of Sociology  
*Paternal Leave compared to Maternity Leave in the United States*
- Poster 42: **Shravan Parthasarathy** (Noel Carlson)  
 Department of Neurobiology & Anatomy  
*Examining the Presence of the Interleukin-2 Receptor in Oligodendrocyte Precursor Cells*
- Poster 43: **Bailey Johannsen** (Bailey Johannsen)  
 Department of Bioengineering  
*Assay for presence of allergenic core alpha 1,3 fucose on flu hemagglutinin virus-like particles produced in Trichoplusia ni and Spodoptera frugiperda living insect biofactories*
- Poster 44: **Carly Shields** (Marissa Diener)  
 Department of Family & Consumer Studies  
*Needs of Youth with Autism Spectrum Disorder (ASD) in Health Care Settings*
- Poster 45: **Jackson Bodtker** (Jeffery Moore)  
 Department of Geology and Geophysics  
*Thermal Deformation of Sandstone Arches*
- Poster 46: **Keaton Colledge** (Edward Rubin)  
 Department of Linguistics  
*An analysis of semantic shift in proto-Indo-European cognates in Swedish and Greek*

- Poster 46: **Alyssa Hawkins** (Ed Rubin)  
Department of Linguistics  
*An analysis of semantic shift in proto-Indo-European cognates in Swedish and Greek*
- Poster 47: **Eric Nhem** (Carol Sansone)  
Department of Psychology  
*Comparing Educational Engagement and Extracurricular Activity Participation for First-Generation Versus Continuing-Generation College Students*
- Poster 48: **Sierra Jensen** (Steven Burian)  
Department of Civil and Environmental Engineering  
*Effect of the Future Stormwater Permit Changes on the Flow in the Jordan River*
- Poster 49: **Elizabeth Kaiser** (Tanya Flores)  
Department of World Languages & Cultures  
*Voice Onset Time in Young Spanish-English Bilinguals*
- Poster 50: **Chase Zagorec-Marks** (Matthew Kieber-Emmons)  
Department of Chemistry  
*Understanding Dynamic Motions Involved in the Photocycle of Photoactive Yellow Protein*
- Poster 51: **Zachary Earl** (Ed Rubin)  
Department of Linguistics  
*The Stroop Effect in Kana and Kanji Scripts*
- Poster 51: **Mackenzie Kerr** (Ed Rubin)  
Department of Linguistics  
*The Stroop Effect in Kana and Kanji Scripts*
- Poster 52: **Halley Mallory** (Andy Hoffmann)  
Department of Honors College  
*Best Possibilities for Sustainable Cities*
- Poster 53: **Ronald Nguyen** (Carolyn Bliss)  
LEAP  
*Reach for Your Dreams*



- Poster 54: **Carlo Cardozo** (Bradley Fawver)  
Department of Health, Kinesiology, and Recreation  
*Understanding Diagnostic Errors in Radiology*
- Poster 55: **Sage Yeager** (Gail Zasowski)  
Department of Physics & Astronomy  
*Characterization of Diffuse Interstellar Bands around Young Stellar Objects*
- Poster 56: **Zane Gerber** (Gail Zasowski)  
Department of Physics & Astronomy  
*Detecting the 15272 Angstrom Diffuse Interstellar Band in the circumstellar environment of Be-type stars*
- Poster 57: **Eric Tokita** (Bruce Edgar)  
Department of Human Genetics  
*Validating regional-specific Gal4 Lines and testing the non-autonomous cell activation of Hippo pathway*
- Poster 58: **Mitchell Lee** (Maureen O'Hara Ure)  
Department of Art & Art History  
*A Study in Self Portraiture*
- Poster 59: **Carlie Haacke** (Lauren Liang)  
Department of Educational Psychology  
*Young Readers' Interactions with Storybook Apps*
- Poster 60: **Diana Kelly** (Jared Rawlings)  
Department of School of Music  
*Federal Education Reform and Music Education: A Review of the Literature and Implications for the Future*
- Poster 61: **Jessica Capener** (Claudia Geist)  
Department of Sociology  
*The Great Glass Elevator in Nursing*
- Poster 62: **Chance Miller** (Chance Miller)  
Department of Chemistry  
*Exploring the Relationship Between Activity Coefficients and Water Uptake of Tetraalkyl Ammonium Halide - Polyphenylene Oxide Structured Anion-Exchange Membranes for Alkaline Fuel Cells Utilizing Coarse-Grained Simulations*

- Poster 63: **Dylan Drapeau** (Catherine Loc-Carrillo)  
Department of Surgery  
*Effectiveness of Antimicrobial Treatments on S. Aureus and P. Aeruginosa Biofilms*
- Poster 63: **Madeline Berger** (Catherine Loc-Carrillo)  
Department of Surgery  
*Effectiveness of Antimicrobial Treatments on S. Aureus and P. Aeruginosa Biofilms*
- Poster 64: **Jason Chieh Sheng Tey** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond- West High*
- Poster 64: **Matthew Godinez** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond- West High*
- Poster 64: **Amelia St Clair** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond- West High*

## POSTER SESSION III

1:00 – 2:30pm

### MAIN BALLROOM

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- Poster 1: **Lilly Kanishka** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond Tutoring: Keys to a Successful Leap from High School to College*
- Poster 1: **Karlee Chipman** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond Tutoring: Keys to a Successful Leap from High School to College*
- Poster 1: **Elizabeth Aviles** (Carolyn Bliss)  
LEAP  
*Bryant and Beyond Tutoring: Keys to a Successful Leap from High School to College*
- Poster 2: **Jared Potter** (Kevin Jones)  
Department of Orthopaedics  
*Modeling synovial sarcoma metastasis in the mouse: PI3'-lipid signaling and inflammation*
- Poster 3: **Daniel Razo** (Benjamin Slade)  
Department of Linguistics  
*Repetitives in Spanish, From Older Varieties to Modern Spanish*
- Poster 4: **Annelise Murphy** (Samantha Joel)  
Department of Psychology  
*Consensual Non-Monogamy: Do Motives Matter ?*
- Poster 5: **Jihyun Noh** (Jennifer Follstad-Shah)  
Department of Geography  
*Temperature Sensitivity of Litter Breakdown in Streams Mediated by Microbes and Detritivores Consuming Leaves of Different Quality*

- Poster 6: **Morgan Johnson** (Stacy Manwaring)  
Department of Communication Sciences and Disorders  
*Examination of Play Behaviors in Young Children at-risk for Autism Spectrum Disorder*
- Poster 7: **James Ellis** (Russell Butterfield)  
Department of Neurology  
*Refractory Status Epilepticus and Chronic Kidney Disease in a Large Pedigree Due to a Variant in The Mitochondrially Encoded tRNA Phenylalanine (MT-TF) Gene*
- Poster 8: **Sophia Hill** (Jacqueline Chen)  
Department of Psychology  
*Threat of being labeled a racist and how it affects the ability to pay attention and process complex information.*
- Poster 9: **Leah Fitzgerald** (Stacy Manwaring)  
Department of Communication Sciences and Disorders  
*Effects of Caregiver Response to Children with Language Delay*
- Poster 10: **Laurel Fortun** (Melissa Schaefer)  
Department of Anthropology  
*A Comparison of Intrasexual and Intersexual Affiliative and Agonistic Behaviors Between Mantled Howler Monkey (*Alouatta palliata*) Groups at La Selva Biological Station, Costa Rica*
- Poster 11: **Max Sidesinger** (Mike Shapiro)  
Department of Biology  
*The Developmental Basis of Almond Feather Pigmentation and Eye Defects In Domestic Pigeons*
- Poster 12: **Katherine Allen** (Jeff Bates)  
Department of Materials Science and Engineering  
*Wearable Electronic for Cystic Fibrosis Diagnosis*
- Poster 12: **Leon Hasic** (Jeff Bates)  
Department of Materials Science and Engineering  
*Wearable Electronic for Cystic Fibrosis Diagnosis*
- Poster 13: **Jasmine Reading** (Kathleen Nicoll)  
Department of Geography  
*Mercury in Utah ecosystems*

- Poster 14: **Karissa Wang** (Martin Tristani-Firouzi)  
Department of Pediatrics  
*Correction of mutation in atrial fibrillation susceptibility gene NFATc1 using a CRISPR-Cas9 system*
- Poster 15: **Truc Vuong** (Kent Golic)  
Department of Biology  
*Ring Chromosome Lethality in Drosophila melanogaster*
- Poster 16: **Samantha Hayashi** (Julie Hollien)  
Department of Biology  
*Lysosomal Movement During ER Stress*
- Poster 17: **Bryce Alex** (Çağan Şekercioğlu)  
Department of Biology  
*Generating minimum population size estimate for brown bears in eastern turkey using multilocus genotyping*
- Poster 18: **Kelli Hafer** (Kent Bachus)  
Department of Orthopaedics  
*Negative Pressure Increases Blood Vessel Density around Percutaneous Devices*
- Poster 19: **Daniel Avery** (Angela Rasmussen)  
Department of Electrical and Computer Engineering  
*Mobile Pet Entertainer*
- Poster 20: **Chloe Betts** (Mitchell Power)  
Department of Geography  
*Comparing Ecosystem Structural Development and Fire Adaptation Under Contrasting Precipitation Regimes Over Long-Time Scales*
- Poster 21: **Dallin Romney** (Kay Park)  
Department of Mechanical Engineering  
*Fundamental studies of Nanoscale Electron and Photon Transport*
- Poster 22: **Rebecca Avery** (Neil Cotter)  
Department of Electrical and Computer Engineering  
*Recycled Energy Cooling System*
- Poster 23: **Anderson Fackler** (Erik Jorgensen)  
Department of Biology

*Identification of kin-20 and unc-119 knockout suppressors associated with neuronal development and maintenance in C. elegans*

- Poster 24: **Dorien Butter** (Andrew Merryweather)  
Department of Mechanical Engineering  
*Effect of Terrain Transitions on Postural Imbalances and Gait Discontinuities*
- Poster 25: **Carter Pruetz** (Brandon Peterson)  
Department of Philosophy  
*Material Objects as Divine Intermediaries*
- Poster 26: **John Richardson** (John Richardson)  
Department of Political Science  
*Religious Liberty, Equal Protection, and the Utah Compromise*
- Poster 27: **Myrna Groomer** (Andrea Brunelle)  
Department of Geography  
*Paleoecological reconstruction of ancient Lake Bonneville through sediment analysis*
- Poster 28: **Abbie Ireland** (Abbie Ireland)  
Department of Oncological Sciences  
*Understanding Mechanisms of Progression and Chemo-Resistance of Small Cell Lung Cancer*
- Poster 29: **Mandy Robisom** (Akiko Kamimura)  
Department of Sociology  
*Maliheh Opiod Project*
- Poster 29: **Tuane Ellis** (Akiko Kamimura)  
Department of Sociology  
*Opiod Misuse Amongst Uninsured Patients Utilizing Free Clinic*
- Poster 29: **Sullivan Howard** (Akiko Kamimura)  
Department of Sociology  
*Opioid Abuse Amongst Uninsured Patients Utilizing a Free Clinicd*
- Poster 30: **Anthony Calacino** (Anthony Calacino)  
Department of Political Science  
*Automatic Text Analysis of Constitutions: The Content of Authoritarian Constitutions*

- Poster 31: **Christian Kodele** (Jindrich Kopecek)  
 Department of Pharmaceutics & Pharmaceutical Chemistry  
*Multivalent Human Serum Albumin - Rituximab Fab' Conjugates Induce Apoptosis In Lymphoma Cells*
- Poster 32: **Vasiliki Karahalios** (Christine Jones)  
 Department of World Languages & Cultures  
*19th-Century Sleeping Beauties: Analysis of an Archetype*
- Poster 33: **Ann Rowley** (Kai Kuck)  
 Department of Bioengineering  
*Estimating Energy Expenditure for Elective Surgery Using a Microsoft Kinect*
- Poster 34: **Allison Kachel** (Rajesh Menon)  
 Department of Electrical and Computer Engineering  
*Image reconstruction to overcome light scattering effects of a diffusive medium*
- Poster 35: **Lea Karabegovic** (Catherine Sherwin)  
 Department of Pharmacology and Toxicology  
*Antiepileptic Drug Use during Pregnancy*
- Poster 36: **Saba Saleem** (Carolyn Bliss)  
 LEAP  
*The association of NFAT c1 with atrial fibrillation*
- Poster 37: **Kathryn Hein** (Brendan Duffy)  
 Department of Civil and Environmental Engineering  
*Crash Data Initiative*
- Poster 38: **Sarah Wait** (Trudy Oliver)  
 Department of Oncological Sciences  
*The Role of Neutrophils in the Progression of Lung Cancer*
- Poster 39: **Varun Adhvaryu** (Megan Williams)  
 Department of Neurobiology & Anatomy  
*Localization of Synaptic Specificity Gene Kirrel3 in the Hippocampus*
- Poster 40: **Siani Weston** (Gabriel Fine)  
 Department of Radiology & Imaging Sciences

*Development of T Cell Receptor Transgenic T Cells for the Treatment of Hepatocellular Carcinoma*

- Poster 41: **Merry Joseph** (Jody Rosenblatt)  
Department of Oncological Sciences  
*Asthmatic Bronchoconstriction Through Excessive Extrusion Damages Airway Epithelia*
- Poster 42: **Haisley Brooking** (Mikhail Skliar)  
Department of Chemical Engineering  
*Functional Response of Normal-Like Cells to Oncosomal Signaling*
- Poster 43: **Jenna Novy** (Jason Shepherd)  
Department of Biology  
*Specific Marking of Active Synapses using a Novel Synaptically Localized Activity Reporter (SLAyR)*
- Poster 44: **David Jiang** (Lucas Timmins)  
Department of Bioengineering  
*Design and Construction of a Magnetic Resonance Imaging Compatible Physiologic Flow Circuit*
- Poster 45: **Elizabeth Reiss** (Bill Oakley)  
Department of Marketing  
*Digital Marketing in the 21st Century: The Evolution of the Department of Marketing at the University of Utah*
- Poster 46: **Elizabeth Nguyen** (Dipayan Chaudhuri)  
Department of Biochemistry  
*Using FGF21 as a Biomarker for Mitochondrial Cardiomyopathy*
- Poster 47: **Madelina James** (Natalia Torres)  
Department of Biology  
*Structural Maturity of Induced Pluripotent Stem Cells Derived Cardiomyocytes Depends on Growing Environment*
- Poster 48: **Yaritza Villagomez** (Lauren Lasrich)  
Department of Family & Consumer Studies  
*Autism Patients in Healthcare*
- Poster 49: **Jessica Valdes** (Patricia Kerig)  
Department of Psychology



*Parental Influences On Recidivism For Youth With Posttraumatic Stress Symptoms*

- Poster 50: **David Luna** (Claudia Geist)  
Department of Family & Consumer Studies  
*The low density of Minorities in Upper Management*
- Poster 51: **Stefany Abad** (Eunkyung (Julie) Jeon)  
Department of Communication Sciences and Disorders  
*University of Utah Guidelines for Patients and Parents for Cochlear Implantation*
- Poster 52: **Maya Mukai** (Lynn Bohs)  
Department of Biology  
*Capsi-conundrum: Resolving Relationships within Capsiceae (Solanaceae)*
- Poster 52: **Katie Sanbonmatsu** (Lynn Bohs)  
Department of Biology  
*Capsi-conundrum: Resolving Relationships within Capsiceae (Solanaceae)*
- Poster 53: **Sophie McQuinn** (Tiffany Love)  
Department of Psychiatry  
*The Effects of Childhood Trauma and Sex on Brain Structure*
- Poster 54: **Andre Cruz Delgadillo** (Clement Chow)  
Department of Human Genetics  
*Identifying genetic modifiers influencing retinal degeneration*
- Poster 55: **May Shaaban** (Donna Cross)  
Department of Neurology  
*Using Paclitaxel to Improve the Outcome After the Last Repeat Concussive Controlled Cortical Impacts*
- Poster 56: **Kiana Christensen** (Randall Irmis)  
Department of Geology and Geophysics  
*Analyzing Patterns of Lizard Dental Complexity*
- Poster 57: **Cameron Owen** (Peter Armentrout)  
Department of Chemistry  
*Experimental and Theoretical Investigations of Infrared Multiple*

*Photon Dissociation Spectra of Lysine Complexes with Zn<sup>2+</sup> and Cd<sup>2+</sup>.*

- Poster 58: **Melissa Chao** (Julie Barkmeier-Kraemer)  
Department of Surgery  
*Studying Collagen Angle Variation in the Recurrent Laryngeal Nerve*
- Poster 59: **Takara Truong** (Roseanne Warren)  
Department of Mechanical Engineering  
*Modeling for the Design of Electrochemical Energy Storage Materials.*
- Poster 60: **Andrew Lake** (Sara Yeo)  
Department of Communication  
*Believing Science Satire: Factors that Contribute to Misinterpretation of "Fake News"*
- Poster 61: **Ashley Allen** (Elisabeth Conradt)  
Department of Psychology  
*Maternal Physiologic Stress Responding and Borderline Personality Symptomatology as Predictors of Newborn Neurobehavior*
- Poster 62: **Michael Adkins** (Caroyln Bliss)  
LEAP  
*HoxB8 Microglia Whisker Trim Experiment*
- Poster 63: **Christopher Reay** (Mark Van Langeveld)  
Department of School of Computing  
*Procedural Asset Creation Using L-Systems*
- Poster 64: **Aydin Tasevac** (Monish Pasupathi)  
Department of Psychology  
*Cultural Impacts on Individuals Interpretations of Distraught Memories*
- Poster 65: **Ethan Beseris** (David Carrier)  
Department of Biology  
*Biological Impact Protection In Human Facial Hair*
- Poster 66: **Nick Storey** (Jennifer Follstad Shah)  
Department of Geography

*Identification of Nitrogen Loading in the Jordan River through  
Stable Isotope Analysis*

- Poster 67: **Jameson Berg** (Vikram Deshpande)  
Department of Physics & Astronomy  
*Development of graphene based heterostructures for strain  
experiments*
- Poster 68: **Marianne Mercer** (Katharine Ullman)  
Department of Oncological Sciences  
*Structure Function Analysis of Nup153 to Determine its Role in the  
Reformation of the Nuclear Envelope during Mitosis in Mammalian  
Cells*
- Poster 69: **Nate Schwartz** (Rachel Hayes-Harb)  
Department of Linguistics  
*Experiments on the acceptability and possible readings of questions  
embedded under emotive-factives: A partial replication of Cremers &  
Chemla 2017*
- Poster 70: **Austin Waters** (Sara Hart)  
Department of Nursing  
*Refugee Families Living in Permanent Supportive Housing:  
Perceptions of Health Care Utilization and Barriers to Care*
- Poster 71: **Asia Susko** (Carolyn Bliss)  
LEAP  
*Reach For Your Dreams*
- Poster 72: **Rahul Cheeniyil** (Donna Cross)  
Department of Radiology & Imaging Sciences  
*MRI-Guided High Intensity Focused Ultrasound to Treat  
Traumatic Spinal Cord Injury*
- Poster 73: **Galen Bergsten** (Gail Zasowski)  
Department of Physics & Astronomy  
*Characterizing DIB Properties in Massive Evolved Stars*
- Poster 74: **Anny Pham** (Carolyn Bliss)  
LEAP

*Reach for Your Dreams Program: Exposing Title I Third Grade Students to Higher Education*

- Poster 75: **Karishma Shah** (Martin Tristani-Firouzi)  
Department of Pediatrics  
*Cardiac Phenotype Resulting from nfatc1 Gene Knockdown in Zebrafish Embryos*
- Poster 76: **Nicolo Young** (Kent Udell)  
Department of Mechanical Engineering  
*Structural Design And Optimization Of A Collapsible Solar Array*
- Poster 77: **Vincent Young** (Kent Udell)  
Department of Mechanical Engineering  
*Optimization of Retractable Solar Device*
- Poster 78: **Darian Murray** (Catherine Sherwin)  
Department of Pharmacology and Toxicology  
*Trends in the Use of Neurolytic Injections in Children and Young Adults with Spasticity*
- Poster 79: **Ronald Nguyen** (Andrew Rivera)  
Department of Internal Medicine  
*Determining Influence of SES in Satisfaction of FtM Transgender Patients Following Chest Wall Reconstruction*
- Poster 80: **Allyson Berri** (Caren Frost)  
Department of Social Work  
*Piloting a Mentoring Program with Undergraduate Student Mentors*
- Poster 81: **Andrew Kennedy** (Mitchell Power)  
Department of Geography  
*A fossil-pollen-based climate reconstruction of two lake records from the Uinta mountain range in northern Utah.*
- Poster 82: **Sierra Erickson** (Jayant Agarwal)  
Department of Surgery  
*Release of FK506 and NGF from biodegradable wrap for nerve regeneration*
- Poster 83: **Joseph Lyman** (Sriram Krishnamoorthy)  
Department of Electrical and Computer Engineering

*Optical Transitions in Ultra-Wide Bandgap Oxide Quantum Well Structures*

- Poster 84: **Jonathan Crump** (Eric Garland)  
Department of Psychology  
*Effectiveness of Mindfulness-Oriented Recovery Enhancement (MORE) Therapy: Eye-Blink Rate as a Measure of Dopaminergic Activity*
- Poster 85: **Nicholas Knight** (Owen Chan)  
Department of Internal Medicine  
 *$\beta$ 2-Adrenergic Receptor Expression and Role in the Ventromedial Hypothalamus' Counterregulatory Response to Hypoglycemia*
- Poster 86: **Austin Ulugalu** (Hokulani Aikau)  
Department of Ethnic Studies  
*The Marketing of Pacific Islanders*
- Poster 87: **Jiaqi Cai** (Ofer Rog)  
Department of Biology  
*Using Targeted Mutagenesis by CRISPR/Cas9 in *C. elegans* to Study the Structure and Function of SYP-3 in Meiosis*
- Poster 88: **Enrique Coca Frias** (Martin Tristani-Firouzi)  
Department of Pediatrics  
*Generation of novel collagen-based substrate for in vitro cardiomyocyte differentiation and maturation*
- Poster 89: **Desmond Barker** (Shannon Odelberg)  
Department of Internal Medicine  
*Establishing a Mouse Xenograph Model of Uveal Melanoma Metastasis*
- Poster 90: **Justin Tran** (Donna Cross)  
Department of Radiology  
*Application of Novel Object Recognition Behavioral Testing Traumatic Brain Injury Studies*
- Poster 91: **Samantha Motta** (Hokulani Aikau)  
Department of Ethnic Studies  
*Pacific Island Communities & Relationships*

Poster 92: **Austin Buttars** (Ed Rubin)  
Department of Linguistics  
*L2 Phrasal Verbs: Optimizing Testing to Inform Pedagogical Models*

Poster 92: **Stacie Chadwick** (Ed Rubin)  
Department of Linguistics  
*L2 Phrasal Verbs: Optimizing Testing to Inform Pedagogical Models*

Poster 92: **Devon Hoxer** (Ed Rubin)  
Department of Linguistics  
*L2 Phrasal Verbs: Optimizing Testing to Inform Pedagogical Models*

Poster 92: **Erik Miller** (Ed Rubin)  
Department of Linguistics  
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