2019 Undergraduate Research Symposium

TUESDAY, APRIL 9, 2019
9:00AM - 2:30PM
OLPIN UNION BLDG.
UNIVERSITY OF UTAH
2019 UNDERGRADUATE RESEARCH SYMPOSIUM

Tuesday, April 9, 2019
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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Sharon and Karl Schatten

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Chevron Foundation

University of Utah Parent Fund
2019 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, Collegiate Room, East Ballroom)

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, Collegiate Room, Room 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, Collegiate Room, East Ballroom, Room 312)
2019 UNDERGRADUATE RESEARCH SYMPOSIUM
SCHEDULE OF PRESENTATIONS

ORAL SESSION I
9:00 – 10:30AM

PARLOR A

Moderator: Andrea Brunelle (Geography and Global Change and Sustainability Center)

9:00am  Melissa Brewster (Lesa Ellis)
Department of Psychology
Linguistic Stigmas and Perceptions

9:20am  Summer Vazquez (Trafton Drew)
Department of Psychology
Residual Costs of Interruption in Diagnostic Radiology

9:40am  Sarah Orozco (Ed Munoz)
Department of Ethnic Studies
We are Race Swami!: Cultivating a Critical Cultural Framework through Community Engaged Learning

10:00am  Michelle James (Helene Shugart)
Honors College
Framing History: An Analysis of News Coverage of the 2016 Presidential Debates

COLLEGIATE ROOM
Moderator: Cindy Furse (Electrical and Computer Engineering)

9:00am  Enrique Coca (Martin Tristani)
Department of Pediatrics
Improved Structural Organization of Human Cardiomyocytes on Decellularized Extracellular Heart Matrix

9:20am  Brett Reeder (Pania Newell)
Department of Mechanical Engineering
Compressive Behavior of Additively Manufactured Sandstone Structures

9:40am  Janki Patel (Shelley Minteer)
Department of Chemistry
Immobilization of Nitrogenase for Bioelectrocatalysis

EAST BALLROOM

Moderator: Maximilian Werner (Writing & Rhetoric Studies)

9:00am  Shaela Adams (Maximilian Werner)
Department of Writing & Rhetoric Studies
Hope in an Age of Environmental Crisis

9:20am  Gabrielle Zweifel (Disa Gambera)
Department of English
"The Meaning of 'No'"

9:40am  Aileen Norris (Satu Hummasti)
School of Dance
Dance as Activism: Exploring Gun Violence through Movement and Text
ORAL SESSION II
10:45AM – 12:15PM

PARLOR A

Moderator: Caren Frost (Social Work)

10:45am Sofia Filip (Elizabeth Craft)
School of Music
*The Role of Popular Theatre in the American Women’s Suffrage Movement*

11:05am Sabita Bastakoti (Sarah Hollenberg)
Department of Art & Art History
*Influence of Literary Journals in 1960s Nigeria and Uganda*

11:25am Christina Niemann (Sarah Sinwell)
Department of Film & Media Arts
*Be Alright*

11:45am Cory Wayman (Sarah Hollenberg)
Department of Art & Art History
*When Art and Pornography Share a Bed*

COLLEGIATE ROOM

Moderator: Michael Gills (Honors College)
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45am</td>
<td>Jasmine Robinson</td>
<td><em>Social Justice in Novel Writing: An Exploration of Social Justice</em></td>
<td>Honors College</td>
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<td></td>
<td></td>
<td><em>Issues in The United States Today</em></td>
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<tr>
<td>10:55am</td>
<td>Michele Southworth</td>
<td><em>Telling My Story-Writing My First Novel</em></td>
<td>Honors College</td>
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<td></td>
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<td><em>An Experimental Technique for Magnetic-field Actuated</em></td>
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<td><em>Intermediate Strain-rate Deformation of Soft Polymers and Bio-materials</em></td>
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<tr>
<td>11:05am</td>
<td>Tosha Sanchez</td>
<td><em>A Myriad of Dreams</em></td>
<td>Honors College</td>
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<tr>
<td>11:15am</td>
<td>Karishma Shah</td>
<td><em>About a Mango Tree</em></td>
<td>Honors College</td>
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<tr>
<td>11:25am</td>
<td>Ashley Roberts</td>
<td><em>Our View</em></td>
<td>Honors College</td>
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<tr>
<td>11:35am</td>
<td>Jack Veverka</td>
<td><em>The Process of Rewriting Prague</em></td>
<td>Honors College</td>
</tr>
<tr>
<td>11:45am</td>
<td>Clark Nielson</td>
<td>&quot;Generational Trauma and the Death of Uncle Roger&quot;</td>
<td>Honors College</td>
</tr>
<tr>
<td>11:55am</td>
<td>Abby Bowe</td>
<td><em>Of the Marvelous</em></td>
<td>Honors College</td>
</tr>
</tbody>
</table>
12:05pm   **Ivana Martinez** (Michael Gills)  
Honors College  
*The Other Side Her*

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**ROOM 312**

Moderator: **Ty Dickerson** (Pediatrics)

10:45am   **Kate McCauley** (Elizabeth Tenney)  
Department of Management  
*Amplification and Bystander Bullying Behaviors in the Workplace*

11:05am   **Dylan Neff** (Elisabeth Conradt)  
Department of Psychology  
*Prenatal Programming of the Infant Sympathetic Nervous Response System*

11:25am   **Kylee Groft** (Sharon Mastracci)  
Department of Political Science  
*Minding the Gap: Measuring the Impact of Global Financial Crisis on Gender Equality*

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**ROOM 319**

Moderator: **Tom Zangle** (Chemical Engineering)
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45am</td>
<td>Zachary Zundel (Chris Myers)</td>
<td>Department of Electrical and Computer Engineering</td>
<td>SynBioHub: A Standards-Enabled Data Repository</td>
</tr>
<tr>
<td>11:05am</td>
<td>Justin Griffin (Thomas Zangle)</td>
<td>Department of Chemical Engineering</td>
<td>Low Refractive Index Microfluidic Single-Cell Array for High Throughput Quantitative Phase Imaging</td>
</tr>
<tr>
<td>11:25am</td>
<td>Atoosa Mohammadi Samani (Kelly Hughes)</td>
<td>Department of Biological Sciences</td>
<td>Towards A Better Understanding of The Flagellar FlgM Secretion Signal</td>
</tr>
<tr>
<td>11:45am</td>
<td>Shelby Kirby (Aimee Hersh)</td>
<td>Department of Pediatrics</td>
<td>Graduating to Adult Care (GRAD): A Comprehensive Program to Improve Transition from Pediatric to Adult Care (Interim Results)</td>
</tr>
</tbody>
</table>
PARLOR A

Moderator: Kate Mattingly (School of Dance)

1:00pm  Tori Holmes (Kate Mattingly)
School of Dance
Classicism Has No Color: Examining the Careers of Often-Overlooked African-American Ballet Dancers

1:20pm  Kiki Karahalios (Lela Graybill)
Department of Art & Art History
Tensions in Mary Edmonia Lewis’s Minnehaha and Hiawatha of 1868

1:40pm  Taylor Mott (Sonia Albert-Sobrino)
Department of Film & Media Arts
Political Messages in Nuevo Cine Espanol

ROOM 312

Moderator: Ole Fischer (School of Architecture)

1:00pm  Tally Tabish (Ole Fischer)
School of Architecture
The Intersection of Parametric Design and Biomimicry
1:20pm  Austin Anderson (Micheal Young)  
School of Computing  
*Extended Fiction in Game Design*

1:40pm  Skyler Hektner (Ladislav Kavan)  
School of Computing  
*Parallels: Using Convergent Spaces through Modern Rendering Techniques to Enhance Video Game Storytelling*

### COLLEGIATE ROOM

Moderator: **Tobias Hofmann** (Department of Political Science)

1:00pm  Kellsey Ly (John David Symons)  
Department of Nutrition and Integrative Physiology  
*Late-in-life treadmill-training lessens the aging-associated decline in cardiac autophagy*

1:20pm  Lauren Thompson (J. David Symons)  
Department of Nutrition and Integrative Physiology  
*Inducible disruption of endothelial cell ceramide biosynthesis: vascular implications*

1:40pm  Connor Morgan (Tabitha Benney)  
Department of Political Science
Securitizing Climate Change: The Efficacy Of Linking Climate Change With National Security To Change The Opinions Of Political Elites In Utah

2:00pm  
Anna Paseman (Tobias Hofmann)  
Department of Political Science  
Migration and Financial Innovation: Analyzing the Cost of Remittances across Time and Space

EAST BALLROOM

Moderator: Luke Dahn (School of Music)

1:00pm  
Mitchell Atencio (Luke Dahn)  
School of Music  
Back to Bagatelles: Realizing the Remainder of György Ligeti’s Musica Ricercata

1:30pm  
Alexander Norton III (Elizabeth Craft)  
School of Music  
How Much of What We Did Was Good?
POSTER SESSION I
9:00 – 10:30AM

MAIN BALLROOM

Poster 1: Ivonne Paredes Romero (Annie Fukushima)
Division of Ethnic Studies
Aquí y Allá: An Oral History Project

Poster 2: Julia Moncur (Brian Baucom)
Department of Psychology
Technological Advancements in the Observational Assessment of Communicative Behavior

Poster 2: Brandon Moncur (Brian Baucom)
Department of Psychology
Technological Advancements in the Observational Assessment of Communicative Behavior

Poster 3: Danielle Beatty (Taylor Sparks)
Department of Materials Science and Engineering
Design of a Hydrophobic, Oleophilic Sponge for Marine Oil Spill Remediation

Poster 4: Ming Zhang (Balamurali Ambati)
Department of Ophthalmology & Visual Sciences
Dual Suppression of Growth Factors in the Management of Age-related Macular Degeneration

Poster 4: Daniel Fang (Lara Carroll)
Department of Ophthalmology & Visual Sciences
Dual Suppression of Growth Factors in the Management of Age-related Macular Degeneration

Poster 5: Sarah Elizabeth Levitt (Akiko Kamimura)
Department of Sociology
Impact of Volunteering at a Free Clinic for Physician Assistant Students
Poster 6: **Sarah Elizabeth Levitt** (Akiko Kamimura)
Department of Sociology
*The Usage of Alternative and Complementary Medicine within Refugee Populations in Utah*

Poster 6: **Naima Dahir** (Akiko Kamimura)
Department of Sociology
*The Usage of Alternative and Complementary Medicine within Refugee Population in Utah*

Poster 7: **Tina Tran** (Carolyn Bliss)
LEAP
*Promoting Education in an Underserved Student Population*

Poster 8: **Erika Kusakabe** (Larry Coats)
Department of Geography
*Study of Packrat Middens from the Crawford Mountains*

Poster 9: **Nyia Hanseen** (Melissa Zahl)
Department of Occupational and Recreation Therapies
*The Effects of Exercise on Pain among Individuals with Spinal Cord Injury: Implications for Recreational Therapy*

Poster 9: **Allison Qualls** (Melissa Zahl)
Department of Occupational and Recreation Therapies
*The Effects of Exercise on Pain Reduction among Individuals with Spinal Cord Injury: Implications for Recreational Therapy*

Poster 9: **Clara Hawkes** (Melissa Zahl)
Department of Occupational and Recreation Therapies
*The Effects of Exercise on Pain Reduction among Individuals with Spinal Cord Injury: Implications for Recreational Therapy*

Poster 10: **Hunter Ellis** (Cynthia Furse)
Department of Electrical and Computer Engineering
*Using SSTDR of PV systems*

Poster 11: **Alex Allan** (Jocelyn Todd)
Department of Bioengineering
*Measurement and Validation of Transchondral Strain in the Human Hip*
Poster 12: Travis Allen (Taylor Sparks)
Department of Materials Science and Engineering
*The Thermoelectric Properties of GdTaO4*

Poster 13: Jarem Anderson (Wenda Tan)
Department of Mechanical Engineering
*Printing of a Functionally Gradient Material*

Poster 14: Tanner Andrews (Jiyoung Chang)
Department of Mechanical Engineering
*Translational Coaxial Electrospinning with Rotating Drum Collector for Highly Aligned Hollow Nanofiber Generation*

Poster 15: Alysha Armstrong (Amir Allam)
Department of Geology and Geophysics
*Modeling Precariously Balanced Rocks Along the Wasatch Front*

Poster 16: Harley Astin (Benjamin Ellis)
Department of Bioengineering
*Craniocervical Junction Biomechanics Of A Patient With Down’s Syndrome*

Poster 17: Vineeth Bajji (Melodie Weller)
School of Dentistry
*The Role of Differential Viral Profiles in the Pathogenesis of Sjogren’s Syndrome*

Poster 18: Micah Ballif (Kathleen Job)
Department of Pediatrics
*Medications and Pregnancy: Clinical Management with a Cystic Fibrosis Focus*

Poster 19: Kelsey Barnick (Cagan Sekercioglu)
School of Biological Sciences
*Wasatch Wildlife Watch*

Poster 20: Amber Barron (Jeff Bates)
Department of Materials Science and Engineering
*Biodegradable Hot Melt Adhesives for Disposable Hygiene Products*
Poster 21: Galen Bergsten (Gail Zasowski)  
Department of Physics & Astronomy  
*An APOGEE-2 Survey of Stellar Populations in the M31 Group*

Poster 22: Anne Marie Bitter (Ella Myers)  
Department of Political Science  
*The Use of Women’s Safety in Arguments of Continued Criminalization and Decriminalization of Prostitution in the U.S.*

Poster 23: Kayla Blickensderfer (Matthew Sigman)  
Department of Chemistry  
*Enantioselective Redox-Relay Heck Reaction of Bis- and Tris- Homoallylic Alkenols*

Poster 25: Ryan Boekholder (Sheri Holmen)  
Department of Surgery  
*Exploring the role of IDH1R132H in glioma maintenance in vitro and in vivo*

Poster 26: Brianna Brammer (Jessica Brown)  
Department of Pathology  
*Morphology affects the dissemination of a fungal pathogen*

Poster 27: Sydney Cahoon (Melissa Seaboch)  
Department of Anthropology  
*Primate Pets and Why Its Not So #Cute*

Poster 28: Kevin Castell (Christopher Butson)  
Department of Bioengineering  
*Employing Data Capture to Improve Deep Brain Stimulation Therapy*

Poster 29: Nestor Chavez (Elizabeth Archuleta)  
Division of Ethnic Studies  
*GPA and College Preparedness among Latinx Youth*

Poster 30: Cassidy Chester (Kent Bachus)  
Department of Orthopaedics  
*Determining optimal size using virtual implantation for a transtibial osseointegrated implant*
Poster 31:  Joon Cho (Andy Hoffmann)
Department of Honors
_The Patriot_

Poster 32:  Dillon Clark (Steven Lobell)
Department of Political Science
_The Georgia-Russian War; Power Projection, Deterrence Strategies, and Escalation Dynamics in an Era of Challenging Near Peers, Rogue States, and Terrorist and Insurgent Organizations_

Poster 33:  Cedar Coba (Larry Coats)
Department of Geography
_A Paleoeological Reconstruction of Late-Plisstocene Life Groups in Eastern Nevada_

Poster 34:  Rachel Coy (Shane Macfarlan)
Department of Anthropology
_A Cross Cultural Analysis of Post Combat Killing Rituals in Small Scale Societies_

Poster 35:  Kaili Curtis (Wayne Potts)
School of Biological Sciences
_The Effect Of Inflammatory Components On Influenza A Virulence Evolution_

Poster 36:  Marcus D’Ambrosio (John McLennan)
Department of Chemical Engineering
_Enhanced Geothermal Energy - Reservoir Simulations for Optimizing Well Connections_

Poster 37:  Gabriel DeNiro (Kimberley Evasen)
Department of Pathology
_A New Method for Quantifying Liver Size in Zebrafish by Mechanical Isolation and Hemocytometer Analysis_

Poster 38:  Lauren Ericksen (Tiffany Love)
Department of Psychiatry
_Impact of Chronic Pain on Neural Responses to Monetary Reward and Loss_
Poster 39: **Maison Evensen** (Tanya Flores)  
Department of World Languages and Cultures  
*Plosive Aspiration of Bilingual Children*

Poster 40: **Steffi Falla** (Trafton Drew)  
Department of Psychology  
*Neural Measures of Tracking Multiple Objects Through Occlusions*

Poster 41: **Nicholas Forbes** (Keith Koper)  
Department of Geology and Geophysics  
*Seismic Monitoring of Mass Wasting Events Following the 2017 Brian Head Wildfire in Southern Utah*

Poster 42: **Bella Fregoso** (James Curry)  
Department of Political Science  
*Public Understanding of Polling Results*

Poster 43: **Jessica Gallafent** (Jennifer Follstad Shah)  
Department of Geography  
*Detangling the effects of temperature, nutrient availability, and stream invertebrates on leaf litter decomposition*

Poster 44: **Savannah Gelhard** (Joe Mendez)  
Department of Neurosurgery  
*Cost Comparison of Consolidation Techniques in Primary Central Nervous System Lymphoma*

Poster 45: **Lorhen Gomez-Alvarez** (Claudio Holzner)  
Department of Political Science  
*A Crisis on the Border: An Unexpected Crisis or an Expected Outcome*

Poster 46: **Matthew Goodell** (Wenda Tan)  
Department of Mechanical Engineering  
*Freeze Casting of Porous Sheet Metals with High Electrical Conductivity*

Poster 47: **Quinn Graves** (Jennifer Watt)  
Department of Geography  
*A Climatic History of a Ciénega in the Sierra de San Pedro Mártir, Baja California, Mexico*
Poster 48: **Andy Gunnell** (Tommaso Lenzi)  
Department of Mechanical Engineering  
*Gait and balance analysis of amputees using an advanced prosthetic leg*

Poster 49: **Riley Haag-Roeger** (Allison Payne)  
Department of Bioengineering  
*Implementing Magnetic Resonance Guided Focused Ultrasound to Open the Blood Spinal Cord Barrier*

Poster 50: **William Haddick** (Sarah Lambart)  
Department of Geology and Geophysics  
*Investigating Melt-Rock Interactions in Gabbroic Rocks from the Atlantis Massif: Implications for Oceanic Crustal Accretion*

Poster 51: **Aubrey Hawks** (Nitin Phadnis)  
School of Biological Sciences  
*Homologous Chromosome Pairing in Interspecies Drosophila crosses*

Poster 52: **Andrew Hayes** (Erin Beeghly)  
Department of Philosophy  
*Reappropriating Slurs and Slurring Reappropriations*

Poster 53: **Jordan Hendriksen** (Kelly Hughes)  
School of Biological Sciences  
*Characterization of the Function of Flagellar Protein FliE*

Poster 54: **Logan Hill** (Timothy Garrett)  
Department of Atmospheric Sciences  
*Classification of Arctic Hydrometeors*

Poster 55: **Carly Ho** (Nitin Bakshi)  
Department of Operations & Information Systems  
*Applying Game Theory to the Human Trafficking Supply Chain*

Poster 56: **Jerry Howard** (Krista Carlson)  
Department of Metallurgical Engineering  
*Calcium Phosphate Microspheres: A Novel Approach to Calcium Phosphate Cements*
Poster 57: **Noelle Huhn** (Yan Ting Shiu)  
Department of Internal Medicine  
*Association between Preoperative Collagen Fiber Configuration and the Outcome of Arteriovenous Fistula*

Poster 58: **Sarah Hyatt** (Bethany Everett)  
Department of Sociology  
*Sexual Orientation and Well-being in Parenthood*

Poster 59: **Erin Jackson** (Jerry Root)  
Department of World Languages & Cultures  
*Representation and Interpretation: The Artist's Approach to Images in the Romance of the Rose*

Poster 60: **Mckay Jensen** (Günseli Berik)  
Department of Economics  
*Quantifying Sexism on Twitter*

Poster 61: **Bill Jiang** (Liliana Werner)  
Department of Ophthalmology & Visual Sciences  
*In Vivo Evaluation of a New Hydrophobic Acrylic Intraocular Lens in the Rabbit Model*

Poster 62: **Dylan Johnson** (Karl Schwede)  
Department of Mathematics  
*Exploring a Connection Between Abstract Algebra and Geometry*

Poster 63: **Jackie Jolley** (Aaron Kaplan)  
Department of Linguistics  
*Vowel Harmony in Abkhaz*

Poster 64: **Noelia Juarez** (Akiko Kamimura)  
Department of Sociology  
*Observations of Patient Interactions at a Free Clinic*

Poster 65: **Asal Kareem** (Troy Madsen)  
Department of Physical Medicine & Rehabilitation  
*Dedicated Emergency Department Physical Therapy Reduces Imaging, Opioid Administration, and Length of Stay*
Poster 66: **Jackson Keller** (Gabriel Olson)
Department of Film & Media Arts
*Designing for Interactivity: The Camera in 3D Video Games*

Poster 67: **Carson Kennedy** (Marry Hartnett)
Department of Ophthalmology & Visual Sciences
*Erythropoietin receptor signaling helps preserve retinal structure and function in response to oxygen-induced damage*

Poster 68: **Dan Kim** (Lucas Timmins)
Department of Bioengineering
*Change in Vessel Curvature After Flow-Diverter Placement*

Poster 69: **Scott King** (Julie Barkmeier-Kraemer)
Department of Surgery
*Upward Effortful Pitch Glide as a Predictor of Swallow Function in Individuals with Upper vs. Lower Motor Neuron Lesions*

Poster 70: **Noel LeBaron** (Michael Czabaj)
Department of Mechanical Engineering
*Analyzing the Manufacturing Stages of Ceramic Matrix Composites*

Poster 71: **Kaul Lee** (Monisha Pasupathi)
Department of Psychology
*Adolescents and Their Ways of Communicating about Anger*

Poster 72: **Wonmi Lee** (Jules Magda)
Department of Chemical Engineering
*Development of a Smart Hydrogel Based Sensor for Monitoring and Preventing Opioid Overdose.*

Poster 73: **William Lewis** (Heath Henninger)
Department of Orthopaedics
*Shoulder Kinematics in Normal and Reverse Total Shoulder Arthroplasty Subjects*

Poster 74: **Catherine Youatt** (Maggie Cummings)
Department of Mathematics
*The Dynamic Mathematics of Swan Lake*
Poster 75: **Meredith Liddiard** (James Gagnon)  
School of Biological Sciences  
Tracing the tissue origins and maintenance of the zebrafish gonad

Poster 76: **Rich Lisonbee** (Andrew Anderson)  
Department of Bioengineering  
Subtalar Kinematics Analysis Following Tibiotalar Arthrodesis

Poster 77: **Angelina Liu** (Erin Zinkhan)  
Department of Pediatrics  
Development of Atherosclerosis and Insulin Resistance in a Rat Model of Intrauterine Growth Restriction Combined with a Maternal High Fat Diet

Poster 78: **Kathryn Loden** (Howard Lehman)  
Department of Political Science  
Human Rights in Russia: The Impact of Globalization and Economic Sanctions

Poster 79: **Arielle Lupo** (Kent Lai)  
Department of Pediatrics  
Development of a Genotyping Protocol to Identify Pgm2-Deficient Mice

Poster 80: **Joshua Martineau** (Weiyi Kong)  
Department of Chemical Engineering  
Asphaltene Precipitation and Ultra-Fine Solid Aggregation in Diluted Bitumen

Poster 81: **Eliza McKinney** (Elizabeth Clement)  
Department of History  
The Aids Crisis in Conservative America

Poster 82: **Allison Mervin** (Shane Macfarlan)  
Department of Anthropology  
The Historical Demography of Baja California

Poster 83: **Kevin Moffatt** (Kuan Chen)  
Department of Mechanical Engineering  
Active Aerodynamics on the Formula U Racecar

Poster 84: **Camille Morgenstern** (Brent Steele)  
Department of Political Science
Powerful Paradigms: Theoretical frameworks activated in national discourse

Poster 85: Mia Mortensen (Rhonda Nelson)
Department of Occupational and Recreation Therapies
Using Video Journaling with Adults in Substance Use Disorder Treatment

Poster 86: Nicole Mortensen (Jeffrey Bates)
Department of Materials Science and Engineering
Drug Concentration Analysis on Molecularly Imprinted Hydrogels for Drug Delivery Usages

Poster 87: Alaina Mothershead (Susie Porter)
Division of Gender Studies
Gay Cuba: Oppression Under the Revolutionary Government

Poster 88: Ashley Mowery (Maria Newton)
Department of Health, Kinesiology, and Recreation
The Effect Of A Physical Activity Intervention On Facets Of Mental Well-Being

Poster 89: Janet Munoz (Sujee Jeyapalina)
Department of Bioengineering
Developing a Bone Grafting Device for Pediatric craniofacial defects

Poster 90: Justin Nemelka (Michael Deans)
Department of Neurobiology & Anatomy
Mechanisms guiding stereociliary bundle organization in the developing mouse cochlea.

Poster 91: Matthew Ney (Tabitha Benney)
Department of Political Science
The Impact of Religiosity upon Attitudes towards Climate Change in Utah

Poster 92: Miley Nguyen (Thunder Jalili)
Department of Nutrition and Integrative Physiology
Does dietary magnesium alter gluconeogenic regulatory enzymes during diabetes?

Poster 93: Lily Nilsen (Eric Garland)
College of Social Work
Integrative Medicine Research on Mindfulness-Oriented Recovery Enhancement for Long-Term Prescription Opioid Use

**Poster 94:** Baylee Olds (McKenzie Skiles)
Department of Geography
*Black Carbon Analysis of Snow Samples from the Wasatch Front using the Single Particle Soot Photometer*

**Poster 95:** Jeffrey Orrego (Drew Trafton)
Department of Psychology
*Memory Encoding during Consistent and Variable Target Mapping in Real-World Visual Search with Mobile Eye-Tracking*

**Poster 96:** Travis Parsons (Peter Lippert)
Department of Geology and Geophysics
*A Preliminary Paleomagnetic Test for Incremental Pluton Emplacement*

**Poster 97:** Ashlea Patterson (Shelley Minteer)
Department of Materials Science and Engineering
*Hydrogel Design for Enzymatic Fuel Cells*

**Poster 98:** Julia Peek (Ilya Zharov)
Department of Chemistry
*Study of Electronic Double Layer Capacitors of Carbon Nanostructures: Analyzing The Relationships Between Pore Size, Specific Surface Area, and Capacitance*

**Poster 99:** Lizethe Pendleton (William Brazelton)
School of Biological Sciences
*Tracking Contamination in Precious Subseafloor Core Samples*

**Poster 100:** Maura Perez (Rob MacLeod)
Department of Bioengineering
*Comparison of Model Based Coronary Vasculature with Experimental Ischemic Zones*

**Poster 101:** Hanthao Phan (Lilliam Pinzon)
School of Dentistry
*Bond Strength of Caries-Affected Teeth Treated with Silver Compounds.*
Poster 102: **Anthony Phero** (Norman Taylor)
Department of Anesthesiology
*The Rostromedial Tegmental Nucleus: a key modulator of nociception and opioid analgesia*

Poster 103: **Sydney Porter** (Kim Martinez)
Department of Art & Art History
*Connecting Lives on Canvas - The Murray Murals Project*

Poster 104: **Sri Radhakrishnan** (Gregory Clark)
Department of Bioengineering
*Improved Control Algorithms for Low-Cost Myoelectric Prostheses*

Poster 105: **Lynette Randall** (Mark de St. Aubin)
College of Social Work
*Young Adults, the Impact and Experience of Commemoration*

Poster 106: **Lisa Richardson** (Margaret Wan)
Department of World Languages & Cultures
*Digital Humanities Approaches to the Traditional Chinese Novel*

Poster 107: **Jasmine Robinson** (David Derezotes)
College of Social Work
*The Black Perspective: Historical and Structural Violence to the Black Community*

Poster 108: **Dallin Romney** (Kay Park)
Department of Mechanical Engineering
*Fundamental studies of Nanoscale Electron and Photon Transport*

Poster 109: **Madalin Rooker** (Philip Jeffs)
Department of School of Accounting
*The History and Future of the United States Estate Tax*

Poster 110: **Caleb Roundy** (Joel Trinity)
Department of Internal Medicine
*Optimization and Verification of Doppler Ultrasound Analysis to Maximize Clinical Usability*
Poster 111: **Bianca Ruiz-Negron** (Man Hung)
Department of Orthopaedics
*Application of machine learning for recommendation of dental care*

Poster 112: **Lindsay Rupp** (Rob MacLeod)
Department of Bioengineering
*Ventricular Pacing Depth Localization Based on Epicardial Activation Maps*

Poster 113: **Simranpreet Saini** (Jessica Kramer)
Department of Bioengineering
*Synthesizing Antifreeze Glycopolypeptides Found in Nature to be used in Cryopreservation of Cells*

Poster 114: **Sophia Schuman** (Martin McMahon)
Department of Oncological Sciences
*Identifying Resistance Mechanisms to Hydroxychloroquine/Trametinib in Pancreatic Ductal Adenocarcinoma*

Poster 115: **Karishma Shah** (Martin Tristani-Firouzi)
Department of Pediatrics
*Confocal Imaging Analysis of Disruption of Nuclear Translocation of NFATc1 Caused by M527L Point Mutation*

Poster 116: **Shakir Shaharudin** (Paul Jewell)
Department of Geology and Geophysics
*Effect of Water Irrigation System and Snowmelt on Groundwater Level of Sunset Drive Landslide, Layton*

Poster 117: **Michelle Simmons** (Hanseup Kim)
Department of Electrical and Computer Engineering
*Modeling a Percolating System*

Poster 118: **Tanner Snow** (Owen Kingstedt)
Department of Mechanical Engineering
*Fracture Behavior of of Type-II Diabetes Mimetic Bone*

Poster 119: **Becca Westenskow** (Rhonda Nelson)
Department of Occupational and Recreation Therapies
*The Use of Robotic Pets to Address Mood and Behavior in Older Adults*
**Poster 119:** Emma Janusz (Rhonda Nelson)  
Department of Occupational and Recreation Therapies  
*The Use of Robotic Pets to Address Mood and Behavior in Older Adults*

**Poster 119:** Erica Emery (Rhonda Nelson)  
Department of Occupational and Recreation Therapies  
*The Use of Robotic Pets to Address Mood and Behavior in Older Adults*

**Poster 120:** Joshua Stephens (Lee Dibble)  
Department of Physical Therapy and Athletic Training  
*Visuospatial Construction and Motor Learning: The Relationship Between Cognition and a Motor Performance Plateau*

**Poster 121:** Hannah Stevens (Mitchell Power)  
Department of Geography  
*Fire History of Pyramid Lake, Uinta Mountains, Utah, U.S.A. Through Charcoal Analysis*

**Poster 122:** Taylor Stringam (Kim Hackford-Peer)  
Division of Gender Studies  
*Queer Curriculum Building*

**Poster 123:** Rachel Struhs (Mitchell Power)  
Department of Geography  
*Fire History in the Mezber Valley of Ethiopia*

**Poster 124:** Samantha Sueoka (Kenneth Raby)  
Department of Psychology  
*Secure Base Scripts and Social Competence Among High and Low Risk Children*

**Poster 125:** Evan Tayler (Shane Macfarlan)  
Department of Anthropology  
*Historical Demography Trends of Old California*

**Poster 126:** Matthew Ticknor (Jennifer Shumaker-Parry)  
Department of Chemistry  
*Parasitic Growth of Gold Nano-Mite Structures*
Poster 127: Jared Coles (Shanti Deemyad)
Department of Physics & Astronomy
*Transportable Ruby Spectrometer for High Pressure Measurements*

Poster 127: Jordan Lybarger (Shanti Deemyad)
Department of Physics & Astronomy
*Transportable Ruby Spectrometer for High Pressure Measurements*

Poster 128: Richie Torney (Marjorie Chan)
Department of Geology and Geophysics
*Textural Characteristics of Moqui Marbles in Grand Staircase Escalante National Monument, Utah*

Poster 129: Landon Troester (Julie Ault)
Department of History
*Communities and New Americans: The Process of Joining and Building Communities among 1880-1920 Immigrants and World War II Refugees*

Poster 130: Tessa Truman (Akiko Kamimura)
Department of Sociology
*Knowledge, beliefs, and experiences about immunization among refugees resettled in the United States from the Thailand-Myanmar border*

Poster 131: Fa Tuuhetaufa (Ka-Ho Wong)
Department of Neurology
*Beat-to-beat Blood Pressure Accurately Predicts Subsequent Arm Cuff Blood Pressure Variability after Acute Ishemic Stroke*

Poster 132: Vivek Vankayalapati (Daniel Wik)
Department of Physics & Astronomy
*Unraveling the Merger Dynamics in One of the Hottest and Richest Galaxy Clusters in the Universe*

Poster 133: Holly Vasic (Sean Lawson)
Department of Communication
*Slender Man*

Poster 134: Natalie Vukic (Carol Sogard)
Department of Art & Art History
*Graphic Design Alumni Booklet/Exhibition*
Poster 135: Molly Wabel (Brian Codding)  
Department of Anthropology  
*Geographic Determinants of Traditional Biomass Harvesting in Southern Utah*

Poster 136: John Wagner (Glenna Wallis)  
Department of Pharmacology and Toxicology  
*Optimizing Image Analysis Techniques for Quantifying Distinctive Intracellular Calcium Characteristics in Brain Microglia*

Poster 137: Catherine Warner (Gil Moss)  
Department of Mathematics  
P-Adic Numbers

Poster 138: Austin Waung (Masood Parvania)  
Department of Electrical and Computer Engineering  
*Modifying Electric Vehicle Charge Rates*

Poster 139: Christian Weinrich (Don Feener)  
School of Biological Sciences  
*Polyandrous Pogonomyrmex: How multiple matings affect foraging in harvester ants*

Poster 140: Michelle White (Nitin Phadnis)  
School of Biological Sciences  
*A mutagenesis experiment to discover the systems of genes underlying sex-ratio chromosomal drive in Drosophila pseudoobscura*

Poster 141: Beth Wineke (John Francis)  
Department of Political Science  
*Telehealth Utilization in Rural Utah*

Poster 142: Katie Winter (Courtenay Strong)  
Department of Atmospheric Sciences  
*Navajo Nation*

Poster 143: Selena Wirthlin (Bryan Jones)  
Department of Ophthalmology & Visual Sciences  
*Comparative anatomy and connectivity of the Aii amacrine cell in mouse and rabbit retina*
Poster 144: Nathaniel Wright (Jessica Kramer)  
Department of Bioengineering  
*Design of Tunable Mucin Gels*

Poster 145: Erika Feten (Peter Flynn)  
Department of Chemistry  
*Comparison of Ubiquitin Variants via NMR Relaxation*

Poster 145: Kevin Alvarez (Peter Flynn)  
Department of Chemistry  
*Comparison of Wild Type and V26A Ubiquitin via NMR Relaxation*

Poster 145: Aryana Vadipour (Peter Flynn)  
Department of Chemistry  
*Comparison of Wild Type and V26A Ubiquitin via NMR Relaxation*

Poster 146: Riley Pence (Peter Flynn)  
Department of Chemistry  
*Crowding Molecule Applications in Relaxation NMR*

Poster 147: Devan Anderson (Rob MacLeod)  
Department of Bioengineering  
*Comparison of Impaired Coronary Blood Flow and Electrocardiographic Metrics of Myocardial Ischemia*

Poster 148: Roman Clark (Christopher Butson)  
Department of Bioengineering  
*Statistical Shape Analysis of the Head*

Poster 149: Liam Machado (Zvonimir Rakamaric)  
School of Computing  
*Extending Boogie to Support the SMT-LIB FloatingPoint Theory*

Poster 150: Marissa Grande (Donna Cross)  
Department of Radiology & Imaging Sciences  
*Determination of Sex Differences with the Repeat Concussive Controlled Cortical Impact Mouse Model of Traumatic Brain Injury*
Poster 151: Connor Keller (Caren Frost)
College of Social Work
Food security at the university of utah

Poster 152: Dylan Wootton (Miriah Meyer)
School of Computing
Improving Air Quality Modeling in Salt Lake City through Visualization and Machine Learning

Poster 153: Stephanie Hopkins (Deb Penney)
College of Nursing
Lost In Translation: Perceptions of Patient Centered Care among Iraqi Muslim Women
MAIN BALLROOM

Poster 1: **Jae Miner** (Angela Smith)
Division of Gender Studies
*Existence is Resistance: Queer/Disabled Bodies and the Self*

Poster 2: **Carlo Cardozo** (Carolyn Bliss)
LEAP
*Promoting Education in Underserved Students*

Poster 2: **Taylor Russell** (Carolyn Bliss)
LEAP
*Promoting Education in an Underserved Student Population*

Poster 3: **Sam Anderson** (Gannet Hallar)
Department of Atmospheric Sciences
*Analysis of Black Carbon Aerosols at Storm Peak Laboratory to Determine Source Location and Effects on Weather*

Poster 4: **Bella Archibald** (Erik Jorgensen)
Department of Biological Sciences
*Patient Mutation Affecting Synaptic Vesicle Fusion*

Poster 5: **Arlyne Arteaga** (Ron Hughen)
Department of Anesthesiology
*Utilizing Mouse Pain Models to Understand the Analgesic Effects of Compounds from Marine Snail Invertebrate*

Poster 6: **Emma Ker** (Ty Dickerson)
Department of Pediatrics
*Barriers and Facilitators to Comprehensive Craniofacial Care in Ghana: Findings From a Focus Group of Medical Providers on a Multidisciplinary Craniofacial Team in Kumasi, Ghana.*
Poster 6: **Ellie Taylor** (Ty Dickerson)
Department of Pediatrics
*Barriers and Facilitators to Comprehensive Craniofacial Care in Ghana: Findings From a Focus Group of Medical Providers on a Multidisciplinary Craniofacial Team in Kumasi, Ghana.*

Poster 6: **Ali Palmer** (Ty Dickerson)
Department of Pediatrics
*Barriers and Facilitators to Comprehensive Craniofacial Care in Ghana: Findings From a Focus Group of Medical Providers on a Multidisciplinary Craniofacial Team in Kumasi, Ghana.*

Poster 7: **Madeline Engel** (David Curtis)
Department of Family & Consumer Studies
*Geolocating Neighborhood Resources that Facilitate Physical Activity: Understanding Inequalities by Neighborhood Economic Deprivation*

Poster 8: **DJ Zdunich** (Cynthia Furse)
Department of Electrical and Computer Engineering
*3D Printing Inside The Body*

Poster 9: **Eldon Pe'a** (Cynthia Furse)
Department of Electrical and Computer Engineering
*Lens Into The Body*

Poster 10: **Kaitlin Hall** (Cynthia Furse)
Department of Electrical and Computer Engineering
*Design of an Interstitial Microwave Applicator for 3D Printing Antennas in the Body*

Poster 11: **Eric Lindstrom** (Cynthia Furse)
Department of Electrical and Computer Engineering
*Lens in the Body*

Poster 12: **Jordan Gardner** (Cynthia Furse)
Department of Electrical and Computer Engineering
*Lens into the body*

Poster 13: **Naomi Baende** (Carolyn Bliss)
LEAP
**Poster 13:** Yaritza Villagomez (Carolyn Bliss)
LEAP
Bryant and Beyond

**Poster 14:** Leota Coyne (Mitchell Power)
Department of Geography
*Geochemistry of Sediment from Aksumite Empire on the Tigray Plateau, Ethiopia*

**Poster 15:** Michael Allred (Cynthia Furse)
Department of Electrical and Computer Engineering
*PV SSTDR*

**Poster 16:** Cassie Randle (Claudia Geist)
Division of Gender Studies
*Queer Representation in Modern Media*

**Poster 16:** Grace Mason (Claudia Geist)
Department of Sociology
*Queer Representation in Modern Media*

**Poster 17:** Natalie Fillerup (Larry Coats)
Department of Geography
*The Arrival of Colorado Pinyon Pine population in Northeastern Utah*

**Poster 18:** Naima Dahir (Claudia Geist)
Department of Sociology
*The risk of mislabeling pregnancy; an analysis of pregnancy in patients with obesity and/or diabetes*

**Poster 18:** Johnny Rodriguez (Claudia Geist)
Department of Sociology
*The risk of mislabeling pregnancy; an analysis of pregnancy in patients with obesity and/or diabetes*

**Poster 18:** Dominic Hussain (Claudia Geist)
Division of Gender Studies
Poster 19: **Alexandra Kandas Yengich** (Carolyn Bliss)
LEAP
*Optimization of NFATc1 Immunostaining in the Zebrafish Heart*

Poster 20: **Bryce Alex** (Bryn Dentinger)
Department of Biological Sciences
*Temporal Changes in Rust Fungi Dispersal by Blue-gray Gnatcatchers (Polioptila caerulea)*

Poster 21: **Yousef Alsanea** (Brittany Coats)
Department of Mechanical Engineering
*Correlating Collagen Orientation and Density with Vitreoretinal Adhesion*

Poster 22: **Ashley Anderson** (Matt Euler)
Department of Psychology
*Conscientiousness and Cognitive Effort: an EEG study*

Poster 23: **Connor Anderson** (Chuck Dorval)
Department of Bioengineering
*Fabrication of the μDBS for improved Parkinson's treatment*

Poster 24: **Darby Anderson** (Seung-Hee Claire Son)
Department of Educational Psychology
*Book Genres and Children’s Literacy*

Poster 25: **Ariana Bernuy** (Carolyn Bliss)
LEAP
*Comorbidities of Atrial Fibrillation*

Poster 25: **Karen Cardenas Lara** (Carolyn Bliss)
LEAP
*Comorbifities of Atrial Fibrillation.

Poster 26: **Dash Anderson** (Stephen Tatum)
Department of English
*Economic, Social, and Societal underlinings in Noir Literature: Motivations, Undertones, and Criticisms*
Poster 27: Alison Bagley (John Faith)
Department of Anthropology
Ecometrics and Human Evolution in East Africa: Ungulate Dental Morphologies as a Tool for Paleoclimate Reconstruction

Poster 28: Hannah Gay (Swomitra Mohanty)
Department of Chemical Engineering
Development of an Automated Water Drone for Water Contamination Detection

Poster 28: Alex Koloveas (Swomitra Mohanty)
Department of Chemical Engineering
Development of an Automated Water Drone for Water Contamination Detection

Poster 29: Shaelyn Barber (Glen Feighery and Brent Steele)
Department of Communication and Political Science
Volunteer Tourism in Cambodia: Persuasive Strategies of Recruitment and Postcolonial Impacts

Poster 30: Kelsey Barney (Timothy Smith)
Department of Psychology
Emotional Regulation: A potential link between family background and later emotional reactivity

Poster 31: Benjamin Battistone (Kali Dale)
Department of Oncological Sciences
Tetracycline Inducible shRNAs: Establishment of a Gene-Silencing Platform

Poster 32: Zane Bellows (Scott Jarvis)
Department of Linguistics
Affixation in a McWorld

Poster 33: Marcus Blackburn (Frank Sachse)
Department of Bioengineering
Using Electrical Conduction Modeling in the Heart to Investigate Mechanisms of Arrhythmogenesis
Poster 34: **Erika Brcko** (Bellamkonda Kishore)  
Department of Internal Medicine  
*Role of AdeR in Hepatic Lipid Metabolism*

Poster 35: **Cassie Buhler** (Frederick Adler)  
Department of Mathematics  
*Mathematical Modeling of Adaptive Therapy in Prostate Cancer*

Poster 36: **Abigail Busath** (Gail Towsley)  
College of Nursing  
*Me & My Wishes: An examination of resident preferences in nursing home care conferences*

Poster 37: **Austin Buttars** (Scott Jarvis)  
Department of Linguistics  
*The Language of Consent*

Poster 38: **Barbara Camara** (Elisabeth Conradt)  
Department of Psychology  
*Can More Sensitive Caregiving Reduce The Negative Effect Of Maternal Depression On Child Problem Behavior?*

Poster 39: **Asher Campbell** (Danielle Geerling)  
Department of Psychology  
*Perceptions of gender non-conforming individuals in a professional setting*

Poster 40: **Noelle Huhn** (Claudia Geist)  
Department of Sociology  
*Global Analysis of Sexual and Reproductive Education*

Poster 40: **Gabby Snow** (Claudia Geist)  
Department of Sociology  
*Global Analysis of Sexual and Reproductive Education*

Poster 40: **Kate McFarland** (Claudia Geist)  
Department of Sociology  
*Global Analysis of Sexual and Reproductive Education*

Poster 41: **Rachel Cantrell** (Ryan Looper)  
Department of Chemistry
**POSTER SESSION II | 10:45AM – 12:15PM**

*Synthesis of the TAN-1057 D Antibiotic Candidate and Development of Biologically Relevant Analogs*

**Poster 42:** Ryan Carlson (Matt Euler)  
Department of Psychology  
*Neural Correlates of Top-Down and Bottom-Up Interactions*

**Poster 43:** Maria Carrillo Castillo (Claire Son)  
Department of Educational Psychology  
*Examining Narrative Skills of Young at-risk Children*

**Poster 44:** Sam Carter (Gabe Bowen)  
Department of Geology and Geophysics  
*Soil Carbon Preservation in Axehandle Canyon, UT over the Paleocene-Eocene Thermal Maximum (PETM)*

**Poster 45:** Alex Cherry (Erik Jorgensen)  
Department of Biological Sciences  
*A novel knockout of a calcium channel beta-subunit in Caenorhabditis elegans suppresses a CaV1 mutation responsible for Timothy syndrome*

**Poster 46:** Matthew Christensen (Rogelio Cardona-Rivera)  
School of Computing  
*Generating Compelling Narrative*

**Poster 47:** Piper Christian (Andrew Linke)  
Department of Geography  
*Understanding adaptation to land use changes resulting from climate change in the developing world using population surveys*

**Poster 48:** Paul Colgan (Greg Clark)  
Department of Bioengineering  
*Development of a Motion Tracking Dataglove for Amputee Rehabilitation*

**Poster 49:** Maya Correa (Carolyn Bliss)  
LEAP  
*Development of a Multi-level Intervention for the Implementation of HPV Education & the Integration of Healthcare Systems to Improve HPV Vaccination Receipt Among Young Dental Patients*
Poster 50: **Jayla Lundstrom** (Claudio Holzner)  
Department of World Languages & Cultures  
*Pathways to Political and Civil Participation for Undocumented Immigrants*

Poster 50: **Camille Morgenstern** (Claudio Holzner)  
Department of Political Science  
*Political Participation of Undocumented Immigrants*

Poster 51: **Bradley Cottle** (Chris Pantelides)  
Department of Civil and Environmental Engineering  
*Effectiveness of Different Materials for Reinforcing Concrete in a Highly Corrosive Environment*

Poster 52: **Sarah Cronin** (Nicholas Hebdon)  
Department of Geology and Geophysics  
*The Hydrodynamic Efficiency of Different Ammonite Shell Morphologies Between Ammonites Living in the Triassic and Jurassic Time Periods.*

Poster 53: **Maddie Davis** (Catherine Loc-Carrillo)  
Department of Pathology  
*PAC Hydrogels in the Treatment of Polymicrobial Wounds*

Poster 54: **Gabriel DeNiro** (Kimberley Evasion)  
Department of Pathology  
*Determining the role of HTR2 Family Serotonin Receptors on Liver Size and Hepatocellular Carcinoma in Transgenic Zebrafish*

Poster 55: **Brandon Dennison** (My Helms)  
Department of Internal Medicine  
*Effects of Chronic Oxygen Exposure on Kidney Injury*

Poster 56: **Alicia Dibble** (Dmitry Bedrov)  
Department of Materials Science and Engineering  
*Computer simulation-aided design of single ion-conducting structures for solid polymer electrolytes in lithium ion batteries*

Poster 57: **Isabelle Falzon** (Yan-Ting Shiu)  
Department of Internal Medicine  
*Increasing Vessel Dilation For Patients With Kidney Failure*
Poster 58: **Nima Fatahian** (Yukio Saijoh)
Department of Neurobiology & Anatomy
*3-O-Sulfotransferase (3OST) 3a1 and 3b1 Mutant Analysis of Heart Structure and Functioning*

Poster 59: **Carrie Felton** (Kevin Coe)
Department of Communication
*The Argumentation of Religious Policy Change in Restoration England*

Poster 60: **Billy Finlay** (Shannon Barrios)
Department of Linguistics
*The online processing of phonological cohorts*

Poster 61: **Ariel Flores Mena** (Aaron Phillips)
Department of Management
*The "Working Identity": A New Lens Towards Discrimination of Latinx Students*

Poster 62: **Lydia Fries** (Matthew Sigman)
Department of Chemistry
*Ligand Effects on the Rate of Disproportionation of Electrochemically Generated Co(I) Species*

Poster 63: **Trevon Michael** (Carolyn Bliss, Ph.D.)
LEAP
*Reach for Your Dreams*

Poster 63: **Saba Saleem** (Carolyn Bliss)
LEAP
*Reach for your Dreams*

Poster 63: **Liz Nguyen** (Carolyn Bliss)
LEAP
*Reach for Your Dreams*

Poster 64: **Sydney Friesen** (Claudia Geist)
Department of Sociology
*Contraception switching and discontinuation based on key demographic characteristics and side effect reporting among women who received no cost contraception*
**Poster 65:** Luke Garcia (Katsu Funai)  
Department of Physical Therapy and Athletic Training  
*Exercise Training Induced Mitochondrial Genesis*

**Poster 66:** Loveleen Ghuman (Alan Light)  
Department of Neurobiology & Anatomy  
*Alternative Pharmaceutical Approach to Opioid Epidemic through Analysis of Sensory Neurons that Signal Pain and Fatigue*

**Poster 67:** Katy Glattli (Joshua Bonkowsky)  
Department of Pediatrics  
*JB1001 as a Potential Rescue for Vanishing White Matter Disease*

**Poster 68:** Brandt Graham (Matthew Kieber-Emmons)  
Department of Chemistry  
*Towards Understanding the Signaling Mechanism in Photoactive Yellow Protein*

**Poster 69:** McKay Hall (Richard Fowles)  
Department of Economics  
*Contextualizing American Higher Education Policies Globally*

**Poster 70:** Anna Neibling Harding (Gregory Clark)  
Department of Bioengineering  
*Low-cost Surface Electromyography Sleeve for Quick and Repeatable Decoding of Motor Intent*

**Poster 71:** Brittney Hayes (David Curtis)  
Department of Family & Consumer Studies  
*Economic patterning of local parks in the Wasatch Front: The importance of measuring quality*

**Poster 72:** Moriah Henning (Andrew Merryweather)  
Department of Mechanical Engineering  
*Characterization of an Open Source 3D-Printed Robotic Hand*

**Poster 73:** Ronaldo Herrera (Owen Kingstedt)  
Department of Mechanical Engineering  
*Image Processing Approach and Techniques Towards Digital Volume Correlation in Polymer Specimens with Density Inclusions*
Poster 74: Olivia Olsen (Andrea Brunelle)
Department of Geography
*Multiproxy paleoenvironmental analysis in Range Creek Canyon*

Poster 75: Stefania Wilks (Andrea Brunelle)
Department of Geography
*Reconstructing fire history from soil sediment samples near a Fremont site concentration in Cherry Meadows, Range Creek Canyon, Utah.*

Poster 76: Rebecca Higham (Akiko Kamimura)
Department of Sociology
*Stress Management Classes for Uninsured Free Clinic Patients in the United States*

Poster 77: Emily Huang (Simon Fisher)
Department of Internal Medicine
*Role of Parasympathetic Nervous System in Mediating Severe Hypoglycemia-Induced Cardiac Arrhythmias through the Blockade of Nicotinic Receptors.*

Poster 78: Dawson Hughes (Scott Schaefer)
Department of Finance
*Analysis of Economic Drivers of Attendance at Minor League Baseball Games*

Poster 79: Marybai Huking (Lee Raby)
Department of Psychology
*Impacts of Early Adversity on the Social-Emotional Functioning of Internationally Adopted Children*

Poster 80: Fine Inukihaangana (Hokulani Aikau)
Department of Ethnic Studies
*Decolonizing Mormonism*

Poster 81: Nour Jaatoul (Paul White)
Department of Psychology
*Evaluating Underrepresented Students’ Perspectives Of The University Of Utah’s Campus Racial Climate*

Poster 82: David Jenkins (McKenzie Skiles)
Department of Geography
Spaceborne Snow Water Equivalent Compared to Airborne Snow Water Equivalent

Poster 83: **Max Jin** (Tyler Huth)
Department of Geology and Geophysics
"Trace Element in Laminated Soil Carbonates: First Steps towards Understanding the Signal"

Poster 84: **Preston Johnson** (Swomitra Mohanty)
Department of Chemical Engineering
Automated Volatile Organic Biomarker Disease Detection

Poster 85: **Emily Kam** (Brenda Bowen)
Department of Geology and Geophysics
Creating a method using Landsat 8 Imagery and ENVI to measure NDVI and calculate amount of discharge from Blue Lake, Utah

Poster 86: **Andre Cruz Delgadillo** (Carolyn Bliss)
LEAP
Bryant and Beyond: Promoting Academic Success in Students of Low-Income Communities

Poster 86: **Michelle Ngo** (Carolyn Bliss)
LEAP
Bryant and Beyond: Promoting Academic Success in Students of Low-Income Communities

Poster 87: **Susannah Anders** (Andrea Brunelle)
Department of Geography
Reconstructing a Fire History for Range Creek Canyon

Poster 88: **Luke Koenen** (Timothy Brusseau)
Department of Health, Kinesiology, and Recreation
Relationship between screen time and leisure physical activity in elementary age children

Poster 89: **Joanne Kohler** (Dr. Maria Newton)
Department of Health, Kinesiology, and Recreation
Impact of Physical Activity and Sedentary Behavior on Psychological Thriving
Poster 90: James Kowalski (Pete Lippert)  
Department of Geology and Geophysics  
"Land Erosion and Coastal Sedimentation in the Sub-Tropics During Rapid Planetary Warming: Environmental Magnetism of the Zumaia, Spain Paleocene-Eocene Thermal Maximum Record."

Poster 91: Zo Kronberg (Villu Maricq)  
Department of Neurobiology & Anatomy  
*Genetic Investigation of Kainate Receptor Function*

Poster 92: Nathan Kunz (Thomas Maloney)  
Department of Economics  
*Children's Budget Report*

Poster 93: Alex Lake (Hokulani Aikau)  
Division of Ethnic Studies  
*The Tragedy of Language Loss and How To Reclaim It*

Poster 94: Roxanne Lois Lamson (Brian Codding)  
Department of Anthropology  
*Using the Gini in the Bottle: Can the Gini Coefficient Detect Social Inequality in Prehistoric Basin-Plateau Populations?*

Poster 95: Jenna Langford (Tara Deans)  
Department of Bioengineering  
*Understanding the Role of the Extracellular Matrix in the Hematopoietic Stem Cell Microenvironment*

Poster 96: Stephanie Laubacher (Paul White)  
Department of Psychology  
*Preemptive Disclosure and Bullshit Receptivity*

Poster 97: Richard Lee (Matthew Kieber-Emmons)  
Department of Chemistry  
*Developing spectroscopic methodology to unravel respiration*
Poster 98: Carolyn Li (Allison Weis)
Department of Pathology
*Erdr1 Expression in Different Mice Immune Cell Types*

Poster 99: Chelsea Li (Douglas Grossman)
Department of Dermatology
*Investigating Expression of CDKN2A (p16) and IMPDH in Human Nevus and Melanoma Cells and Tissue* 48

Poster 100: Maura Cheney (Claudia Geist)
Department of Sociology
*Local Rhetoric on Abortion*

Poster 100: Carter Bennett (Claudia Geist)
Division of Gender Studies
*Local Rhetoric on Abortion*

Poster 101: Tiffany Liu (Neil Cotter)
Department of Electrical and Computer Engineering
*Comparison of neural net training approaches with small networks*

Poster 102: Jennifer Loya (Alexandra Terrill)
LEAP
*Positive Psychology Intervention to Promote Well-being in Couples* 48
*Coping with Stroke*

Poster 103: Luisa Lugo (Annie Fukushima)
Division of Ethnic Studies
*The Worker Experiences of Latinos in Salt lake City*

Poster 104: Jessica Lusty (Craig Selzman)
Department of Surgery
*Cardioprotective Effect of Amniotic Fluid in Rat Model of Ischemia Reperfusion*

Poster 105: Cole McCubbins (Natalie Gochnour)
Department of Economics
*The Effects of LDS Welfare on Poverty in Utah [Tentative]*
Poster 106: Shannon McNatt (Scott Schaefer)  
Department of Finance  
*Do Family Demographics Explain Middle Class Status? Utah vs U.S.*

Poster 107: Jarom Mercer (Tom Zangle)  
Department of Chemical Engineering  
*Fabrication of PDMS stencils for micropatterning cell cultures*

Poster 108: Haley Meyer (James Agutter)  
Multi-Disciplinary Design Program  
*Elderly Care Bot*

Poster 109: Nate Naylor (Melodie Weller)  
Dentistry  
*How Environmental Chemicals Effect the Oral Cavity*

Poster 110: Jennifer Nelson (Rogelio Cardona-Rivera)  
School of Computing  
*Natural Language From a Planning Perspective*

Poster 111: Amy Nguyen (Carolyn Bliss)  
LEAP  
*Trisomy 21- Progressive Hearing Loss*

Poster 112: Ronny Nguyen (Mark Fisher)  
Department of Pathology  
*Quantifying Aminorarabinose (Ara4N) on Bacterial Membranes*

Poster 113: Milan Oxspring (Simon Fisher)  
Department of Internal Medicine  
*The Effects of Vagus Nerve Transection in Diabetic Rats*

Poster 114: Dylan Palomino (Dennis Parker)  
Department of Radiology & Imaging Sciences  
*MRI-Guided Hyperthermia of Pancreatic Tumors*

Poster 115: Sarai Patterson (Shelley Minteer)  
Department of Chemistry  
*Polymeric electrode design for improved biocatalytic current in photomicrobial fuel cell systems*
Poster 116: Brenda Payan Medina (Erik Jorgensen)
Department of Biological Sciences
Tagging the C. elegans genome with CRISPR

Poster 117: Rachel Payne (Tara Mastren)
Department of Civil and Environmental Engineering
Development of 161Tb Production Methods and Optimization of Separation Techniques using Extraction Chromatographic Resins

Poster 118: Patrick Pearson (Benjamin Ellis)
Department of Bioengineering
Finite Element Analysis of Laminectomies on the Lumbar Spine

Poster 119: Daniel Peterson (Melissa Cortez)
Department of Neurology
Advancement of Photoplethysmography as a Diagnostic Tool for Migraines

Poster 120: Madison Putich (Anandh Velayutham)
Department of Nutrition and Integrative Physiology
Effect of Strawberry Supplementation on Metabolic Milieu on High Fat Diet Fed C57BL/6J Mice

Poster 121: Garrick Quackenbush (Gary Rose)
Department of Biological Sciences
Identifying the Possible Underlying Neural Pathway Socially Controlled Female to Male Sex Change in the Bluehead Wrasse (Thalassoma bifasciatum).

Poster 122: Jessie Rabe (Jennifer Brown)
Department of Finance
Effects of British Columbia's Carbon Tax on CO2 Emissions

Poster 123: Kasra Rahmati (David Blair)
Department of Biological Sciences
Prokaryotic Flagellar Switch Mechanism

Poster 124: Boris Rangelov (Daniel Leung)
Department of Internal Medicine
Effect of HIV infection on Mucosal Associated Invariant T (MAIT) Cell Plasticity
Poster 125: **Chris Rapp** (Bryan Jones)
Department of Ophthalmology & Visual Sciences
*ON Cone Bipolar Coupling Networks in Mouse Retina*

Poster 126: **Alexander Reifsnyder** (Krista Carlson)
Department of Metallurgical Engineering
*"Formation of Interconnected Porosity Aerogels For Use As Filtration Membranes"*

Poster 127: **Stuart Robertson** (Shelley Minteer)
Department of Chemistry
*The Effects of Continuous Flow on the Bioelectrochemical Performance of a Hypersaline Microbial Fuel Cell*

Poster 128: **Kristin Rominger** (Edward Hsu)
Department of Bioengineering
*Quantifying Bone Density Using Conventional Radiography*

Poster 129: **Ana Rosas** (Kelly Hughes)
Department of Biological Sciences
*Analysis of specific protein secretion through the bacterial flagellum*

Poster 130: **Zahra Saifee** (Krista Carlson)
Department of Metallurgical Engineering
*Calcium Phosphate Cements for Dental Pulp Capping*

Poster 131: **Melinda Salisbury** (Larissa McGarrity)
Department of Physical Medicine & Rehabilitation
*Psychological health of Bariatric Surgery patients*

Poster 132: **Cassidy Scovil** (Dimitri Trankner)
Department of Biological Sciences
*Novel Modular System to Measure Cognitive Performance in Mice*

Poster 133: **Erna Serezlic** (Boyd Richards)
Department of Pediatrics
*Comparison between Race/Ethnicity, Gender & Age in Medical School Admission Interview*
Poster 134: Vanessa Srivastava (Brennan Payne)  
Department of Psychology  
*The Effects of Text Captioning on Bilingual Non-Native English Speaker’s English Language Comprehension and Memoryc*

Poster 135: Steph St Clair (Sara Simonsen)  
College of Nursing  
*Some Key Questions: A Reproductive Justice Analysis of Preventative Reproductive Healthcare*

Poster 136: Tyler Laws (Edward Rubin)  
Department of Linguistics  
*Variations in phonology across musical genres*

Poster 136: Paul Olea (Ed Rubin)  
Department of Linguistics  
*Variations in phonology across musical genres*

Poster 136: Amanda Goodner (Ed Rubin)  
Department of Linguistics  
*Variations in Phonology Across Musical Genres*

Poster 137: Robert Stahulak (Yue Zhao)  
Department of Physics & Astronomy  
*Bayesian Modeling of the PSR J0737-3039A Moment of Inertia*

Poster 138: Chris Stehn (Sheri Holmen)  
Department of Surgery  
*Signaling Pathway Aberrations in Metastatic Melanoma*

Poster 139: Westin Stieglitz (Sungwon Kim)  
Department of Mechanical Engineering  
*Fracture Toughness with adhesives*

Poster 140: Katelynn Stroth (Dennis Parker)  
Department of Physics & Astronomy  
*Damage Done by Radio-Frequency Heating on the Eye-Cow Model*

Poster 141: Paige Takasugi (James Gagnon)  
Department of Biological Sciences  
*Functional and Orthogonal CRISPR-Cas Systems in Zebrafish*
Poster 142: **Aydin Tasevac** (Trafton Drew)  
Department of Psychology  
*Quantifying The Cost Of Interruptions On Visual Search*

Poster 143: **Kendall Thiede** (Scott Hale)  
Department of Pathology  
*Defining the role of Tet2 in early T follicular helper cell differentiation*

Poster 144: **Avy Thind** (Matthew Thiese)  
Department of Family & Preventative Medicine  
*Relationships between the Duration and Intensity of Physical Activity and Sleep*

Poster 145: **Alyssa Varghese** (Hillary Crandall)  
Department of Pediatrics  
*Unique molecular epidemiology of invasive Haemophilus influenzae in the Intermountain West*

Poster 146: **Ruli Velarde** (Matthew Kieber-Emmons)  
Department of Chemistry  
*Computational Investigation on Tuning the BDFE of a Dinuclear-Copper μ-Hydroxo Catalyst*

Poster 147: **Ericka Vladovich** (Kaylee Jones)  
Department of Geography  
*Paleoenvironmental Reconstruction of the Bonneville Basin at Antelope Springs, UT*

Poster 148: **Kate Warnock** (Paul White)  
Department of Psychology  
*Effect of Stereotype Threat on Stereotype Activation*

Poster 149: **Trayce Webb** (Lisa Henry Benham)  
School of Architecture  
*Queer Architecture: Equity in Space*

Poster 150: **Colton West** (Annie Fukushima)  
Division of Ethnic Studies  
*The Latina Health Care Experience in Utah*
Poster 151: Victoria Wilson (Trafton Drew)  
Department of Psychology  
*Have I looked for this before? Neural processing of previously encountered search targets.*

Poster 152: Alejandra Mendez (Matthew Mulvey)  
Department of Pathology  
*Evolution of Extraintestinal Pathogenic Escherichia Coli in the Gastrointestinal (GI) Tract Over Time*

Poster 153: Trevor Hobbs (Claudia Geist)  
Department of Sociology  
*The Marketing of Masculinity in Condom Advertisements*

Poster 153: Leo Condon (Claudia Geist)  
Division of Gender Studies  
*The Marketing of Masculinity in Condom Advertisements*

Poster 153: Bryn Dayton (Claudia Geist)  
Department of Sociology  
*The Marketing of Masculinity in Condom Advertisements*

Poster 153: Lauren Cordova (Claudia Geist)  
Division of Gender Studies  
*The Marketing of Masculinity in Condom Advertisements*

Poster 155: Jill Arndt (Brian Baucom)  
Department of Psychology  
*Negative Couples Communication Behaviors and Suicidality in National Guard Populations*
Poster 1: **Zane Bellows** (Edward Rubin)  
Department of Linguistics  
*Bulgarian: Null Subject Classification*

Poster 2: **Michael Allen** (Taylor Sparks)  
Department of Materials Science and Engineering  
*Carbon Nanofiber Sponges for Controlled Cleanup of Oil Spills*

Poster 3: **Madelina James** (Carolyn Bliss)  
LEAP  
*Developing Better Student Success Programs: Bryant and Beyond a Case Study*

Poster 3: **Michael Adkins** (Carolyn Bliss)  
LEAP  
*Developing Better Student Success Programs: Bryant and Beyond a Case Study*

Poster 3: **Lesley Mendoza** (Carolyn Bliss)  
LEAP  
*Developing Better Student Success Programs: Bryant and Beyond a Case Study*

Poster 4: **Nate Schwartz** (Ed Rubin)  
Department of Linguistics  
*Inter-lingual errors among English and Japanese L2 learners*

Poster 5: **Callie Avondet** (Akiko Kamimura)  
Department of Sociology  
*Intimate Partner Violence Among Refugees: Awareness and Prevention in Community Theater*
Poster 5: **Seattle Shakur** (Akiko Kamimura)  
Department of Sociology  
*Intimate Partner Violence Among Refugees: Awareness and Prevention in Community Theater*

Poster 6: **Morgan Arseneau** (Lisa Taylor-Swanson)  
College of Nursing  
*Social Media Discussions of Menopause*

Poster 7: **Presley Azarcon** (Ofer Rog)  
Department of Biological Sciences  
*Optimizing Use Of Janelia Fluor® Dyes In The C. Elegans Germline To Investigate The Role Of Htp-3 Protein In Synaptonemal Complex Assembly*

Poster 8: **Camryn Fife** (Claudia Geist)  
Department of Sociology  
*Local Rhetoric on Abortion*

Poster 9: **Ronak Intwala** (Carolyn Bliss)  
Department of English  
*Reach For Your Dreams: Progression of Reading Fluency and College Introductions for Third Graders*

Poster 9: **Artemis Sefandonakis** (Carolyn Bliss)  
Department of English  
*Reach For Your Dreams: Progression of Reading Fluency and College Introductions for Third Graders*

Poster 9: **Mary Ngo** (Carolyn Bliss)  
Department of English  
*Reach For Your Dreams: Progression of Reading Fluency and College Introductions for Third Graders*

Poster 10: **Sadia Al-Hilo** (Jeremiah Jaggers)  
College of Social Work  
*The effectiveness of a Multi-treatment approach on adult males and females experiencing chronic homelessness*
Poster 11: **Emily Anderson** (Shannon McGregor)
Department of Communication
*Executive Time: The Meaning and Reach of Presidential Tweets Regarding Middle East Policy in the Press*

Poster 12: **Matthew Anderson** (Meredith Metzger)
Department of Mechanical Engineering
*Lift and Drag Coefficients of UAV Wings for Use in Measuring Pollution Concentrations*

Poster 13: **Elliot Ansari** (Timothy Smith)
Department of Psychology
*Effects of Partner Affiliation and Control on Cardiovascular Reactivity and Behavior during Social Interaction*

Poster 14: **Parker Ballard** (Lee Dibble)
Department of Physical Therapy and Athletic Training
*Measuring Treatment Fidelity of Gaze and Postural Stability Interventions to Improve the Balance of Patient’s with Multiple Sclerosis*

Poster 15: **Mary Banks** (Paul Reeve)
Department of History
*Century of Black Mormons*

Poster 16: **Adoula Biar** (Hokulani Aikau)
Division of Ethnic Studies
*The Intersections of Colorism*

Poster 17: **Sarah Allen** (Kimberley Johnson)
Department of Psychology
*The role of depression on empathy: How depressive-like symptoms interact with empathetic response in stressful situations*

Poster 17: **Adrian Sadler** (Kimberley Johnson)
Department of Psychology
Poster 18: **Danielle Bonser** (Kent Golic)  
Department of Biological Sciences  
*Exploring the Effects of Replication Stress on Chromosome Fragile Sites in Drosophila melanogaster*

Poster 19: **Taylor Briggs** (Julie Metos)  
Department of Nutrition and Integrative Physiology  
*School Lunches and the National Health Crisis*

Poster 20: **Reuben Ryan Cano** (Dean Tantin)  
Department of Pathology  
*The Reciprocal Regulation of BRCA1 by Oct1*

Poster 21: **Ivan Cardenas** (Mary Elizabeth Hartnett)  
Department of Ophthalmology & Visual Sciences  
*Effect of Erythropoietin receptor signaling on ganglion cell number and visual acuity after oxygen-induced damage*

Poster 22: **James Carrington** (Minna Roh-Johnson)  
Department of Biochemistry  
*Dissecting the tumor microenvironment in zebrafish models of melanoma*

Poster 23: **Tomas J. Cartmill** (Sujee Jeyapalina)  
Veterans Affairs  
*Developing an Infection Model for Percutaneous Implant Applications*

Poster 24: **Bryan Casselman** (Joanna Schaefer)  
College of Social Work  
*College student depression: The potential impact of social media use*

Poster 25: **Karina Cedeno** (Martin Horvath)  
Department of Biological Sciences  
*Purification of alpha9 Nicotinic Acetylcholine Receptor (a9 nAChR), a Non-opioid Receptor Target for Treatment of Chronic Neuropathic Pain*

Poster 26: **Lilibeth Ceja** (Hokuani Aikau)  
Division of Ethnic Studies  
*Latinx Origin*
Poster 27: Rahul Cheeniyil (Donna Cross)  
Department of Radiology & Imaging Sciences  
*Multi-modal imaging of spinal cord injury and response to therapy in rats*

Poster 28: Camila Coca (My Helms Helms)  
Department of Internal Medicine  
*Glutathione Disulfide Regulation of δ-ENaC Subunit Plays an Important Role in Renal Injury.*

Poster 29: Tana Corsetti (Scott Benson)  
Department of Family & Preventative Medicine  
*Carbapenem Resistance in Community Latrines in the Barekese Subdistrict of Ghana*

Poster 30: Teylor Crenshaw (Heather Melton)  
Department of Sociology  
*Sexual Assault Kits and the Criminal Justice System’s Response*

Poster 31: Rachel D’Agostini (Krista Carlson)  
Department of Metallurgical Engineering  
*Destruction of Biofilms using Electrocatalytic Ceramic Probe*

Poster 32: Gabriel DeNiro (James Marvin)  
HSC Cores  
*Evaluation of methods of assessing sensitivity and instrument characterization applied to the Beckman Coulter CytoFLEX platform*

Poster 33: Sam Desjardins (Anne Cook)  
Department of Educational Psychology  
*Using Eye-tracking Technology to Investigate Processing of Idioms During Reading*

Poster 34: Jen Farnsworth (Jen Farnsworth)  
College of Nursing  
*An Exploration Of Narrative Medicine With Pediatric Cancer Patients Using A Symptom Tracking App*

Poster 35: Erin Feeley (Erin Castro)  
Department of Educational Leadership & Policy  
*Mass Incarceration, Family, and Access to Higher Education*
Poster 36: **Stormy Foster-Palmer** (Susan Hall)  
College of Nursing  
*An Informal Program Analysis of the University of Utah’s Interprofessional Student Hotspotting Learning Collaborative*

Poster 37: **Dalin Froerer** (John Phillips)  
Department of Internal Medicine  
*Understanding how the transporter ABCB6 changes the distribution of Heme and Porphyrins (Heme precursors) or other cellular molecules and the impact the ABCB6 gene makes within the cell.*

Poster 38: **Jessica Garcia** (Bryan Jones)  
Department of Ophthalmology & Visual Sciences  
*OFF-layer Branches of ON Cone Bipolar Cells in Early Retinal Degeneration*

Poster 39: **Jack Garzella** (Zvonimir Rakamaric)  
School of Computing  
*Verifying Libraries used in Particle Physics*

Poster 40: **Kelli Geskes** (Timothy Smith)  
Department of Psychology  
*Interpersonal Correlates of Grit and Self-Control: A Circumplex Analysis*

Poster 41: **Rene Gilfillan** (Cynthia Berg)  
Department of Psychology  
*Patient and Partner Illness Appraisal in Type 1 Diabetes: Observed and Perceived Negativity in Diabetes-Related Discussion Task*

Poster 42: **Kallin Glauser** (Elizabeth Clement)  
Department of History  
*Babies, Bibles and Barricades: Birth Control in 1960’s and 1970’s Utah*

Poster 43: **Suliana Gonzalez** (Richard Dorsky)  
Department of Neurobiology & Anatomy  
*lef1 in the Posterior Hypothalamus and Creert2 germline mutant expression*

Poster 44: **Stephanie Hawkins** (Joshua Stover)  
Department of Bioengineering  
*Identification of Mechanisms of Discogenic Pain Utilizing an in Vitro*
Model Of Nociceptive Neuron Activity in the Degenerative Intervertebral Disc

Poster 45: **Cj Holdeman** (Michael Scarpulla)
Department of Materials Science and Engineering
*New Methods for Synthesizing Ultra-pure Gallium Oxide*

Poster 46: **Marielle Hollstein** (Ramesh Goel)
Department of Civil and Environmental Engineering
*Cyanotoxin Impact on Microbial-Mediated Nitrogen Transformations*

Poster 47: **Dominic Hussain** (Hokulani Aikau)
Division of Ethnic Studies
*Race, Vagrancy, and their Legacy in Utah*

Poster 48: **Sean Hutchings** (Brenda Bowen)
Department of Geology and Geophysics
*Constraining Detection Limits for Brine Chemistry Analysis using Portable X-Ray Florescence (pXRF)*

Poster 49: **Jenny Huynh** (Jeffrey Rose)
Department of Health, Kinesiology, and Recreation
*Environmental and Health Impacts of Unsheltered Homelessness: A Case Study of Pioneer Park in Salt Lake City, Utah*

Poster 50: **Emmalyn Irvin** (Monica Vetter)
Department of Neurobiology & Anatomy
*Identifying Subpopulations of Brain Microglia Resistant to CSF1R Inhibition*

Poster 51: **Elizabeth Izampuye** (Akiko Kamimura)
Department of Sociology
*Knowledge and Perceptions of Reproductive Health Among College Students in Vietnam and the U.S.*

Poster 52: **Brianne Jacobson** (Lonnie Schnieder)
Department of Physical Medicine & Rehabilitation
*Evaluation of Neuropathic Pain and Mitochondrial Function After Spinal Cord Injury*
Poster 53: **Se I Jung** (Ansuk Jeong)
Department of Psychology
*Motivation and Decision-making Process of LDLT Donors in Korea*

Poster 54: **Jamie Kelemen** (Brady Goenner)
Department of Mechanical Engineering
*Roughness of Channels*

Poster 55: **Maya Kobe-Rundio** (Robin Jensen)
Department of Communication
*In Our Element: Outdoor Recreation as a Tool for Female Empowerment and Community Building*

Poster 56: **Joshua Krahulec** (Mitchell Power)
Department of Geography
*Dendroecology of Pinus Ponderosa in the Uinta Mountains, Utah*

Poster 57: **Evelyn Lauren** (Man Hung)
Department of Orthopaedics
*Predicting 30- and 90-Day Re-admission Rates for Atrial Fibrillation Patients Undergoing Catheter Ablation*

Poster 58: **Tyler Laws** (Mary Ann Christison)
Department of Linguistics
*Differences in voice onset time in Spanish between first language, second language, and heritage speakers*

Poster 60: **Chloe Lim** (Kimberley Evason)
Department of Pathology
*Investigating the Role of Serotonin Transporters in Hepatocellular Carcinoma*

Poster 61: **Cait Linder** (Lauri Linder)
College of Nursing
*Daily Experiences Reported by Children with Cancer Using a Game-Based App*

Poster 62: **Cailey Lloyd** (Shannon Barrios)
Department of Linguistics
*The role of written input in the adult acquisition of L2 voicing alternations: Evidence from perception*
Poster 63: **Vista Lloyd** (Neil Vickers)
Department of Biological Sciences
*Mating Behavior of Helicoverpa zea in Response to Environmental Changes*

Poster 64: **Timmanee Loveless** (Ashley Spear)
Department of Mechanical Engineering
*Effect of Intra-Build Location and Loading Orientation on Mechanical Response of As-Built and Heat-Treated Additively Manufactured Inconel 718*

Poster 65: **Bryan Luu** (Ivis Garcia)
Department of City & Metropolitan Planning
*Affordable Housing Plan Development for the Puerto Rican Agenda*

Poster 66: **Savannah Mailloux** (Monisha Pasupathi)
Department of Psychology
*Mapping Vitality in Utah’s Salt Lake County*

Poster 67: **Chris Marston** (Neil Vickers)
Department of Biological Sciences
*The Effect of Atmospheric Turbulence on Female Mosquito Activity*

Poster 68: **Alexis May** (Alexis May)
Department of Psychology
*The Intergenerational Transmission of Attachment in Internationally Adopted Children*

Poster 69: **Akbar Nabi** (Kurt Albertine)
Department of Pediatrics
*Assessment of the number of neuronal progenitor cells in the brain of former preterm lambs*

Poster 70: **Kelli Nelson** (Mikhail Skliar)
Department of Chemical Engineering
*Label-Free Visualization of Dielectrophoretic Nanoparticle Separation According to Surface Chemistry*
Poster 71: **Kate Nicponski** (Bill Johnson)  
Department of Geology and Geophysics  
"Monitoring and Characterization of Sediment Organic Matter to Understand Future Trajectories of Methylmercury Concentrations in Water, Sediment and Ecosystem of the Great Salt Lake, Utah"

Poster 72: **Chris O'Connor-Coates** (Tyler Faith)  
Department of Anthropology  
*Reconstructing Paleoclimate in the Great Basin Using Size Clines in the Faunal Remains from Homestead Cave*

Poster 73: **Aubrey O'Farrell** (Anandh Velayutham)  
Department of Nutrition and Integrative Physiology  
*Effect of Dietary Strawberry on Endothelial Dysfunction in Metabolic Syndrome*

Poster 74: **Yasmin Peralta** (Michaela Mozley)  
Department of Psychology  
*The Roles of Emotion Dysregulation and Hopelessness in the Delinquent and Aggressive Behavior of Justice-Involved Youth*

Poster 75: **Sophia Perez** (Markus Babst)  
Department of Biological Sciences  
*The Role of Palmitoylation as a Regulator of Nutrient Transport Stability*

Poster 76: **Liam Perri-Reichert** (Elijah Millgram)  
Department of Philosophy  
*An Etiology of Dogmatism*

Poster 77: **Myranda Peterson** (David Derezotes)  
College of Social Work  
*The Wounded Healer: A Descriptive Analysis Of The Thematic Material Of The Wounded Healer Archetype In Connection With The Therapeutic Healing*

Poster 78: **Hannah Potter** (Jim de St. Germain)  
School of Computing  
*Lifting Coach: Using Machine Learning to Battle Musculoskeletal Damage*
Poster 79: Kristianna Radley (Ken Smith)
Department of Family & Consumer Studies
Searching for the Fountain of Ute: Birthplace and Longevity in Utah

Poster 80: Anthony Randazzo (Erik Crosman)
Department of Atmospheric Sciences
Data Analysis of Intellisense MWS

Poster 81: Chris Rapp (Gannet Hallar)
Department of Atmospheric Sciences
Measuring Aerosol Size Distributions During PCAP's

Poster 83: Alexia Savas (Amanda Smith)
Department of Mechanical Engineering
Quantifying Electricity-Related Emissions for On-Campus Buildings

Poster 84: Hanin Sheikh (Sarah Franklin)
Department of Internal Medicine
The Role of Smyd1 as a Histone Methyltransferase in Heart Disease

Poster 85: Rija Siddiqui (Caren Frost)
College of Social Work
Pilot testing a rapport building checklist with law enforcements and immigrant communities

Poster 86: Minta Siripong (Tobias Hofmann)
Department of Political Science
Foreign Aid, Domestic Politics, and Time to Development: An Analysis of Sub-national Aid Efficacy

Poster 87: Hayley Smihula (Sara Weisenbach)
Department of Psychiatry
Explaining Dysfunction in Walking, Thinking, and Feeling Among Older Adults: A Study of Brain White Matter Microstructure

Poster 88: Gus Stevens (Elena Asperahova)
Department of Finance
The Role of Team Selection in Competition Preferences Gender Gap

Poster 89: Jessica Stoker (Sarah Creem-Regehr)
Department of Psychology
The influence of visual and body-based cues on path integration in a virtual environment: A comparison of children and adults

**Poster 90:** Kira Tanghe (Jim Martin)  
Department of Nutrition and Integrative Physiology  
*Don’t Overestimate the Power of the Force*

**Poster 91:** Daniel Theriault (Brent Steele)  
Department of Political Science  
*An Appeal to Identity and Mobilizing Humanitarian Intervention: The 2014 Yazidi Crisis*

**Poster 92:** Dana Tran (Jennifer Weidhaas)  
Department of Civil and Environmental Engineering  
*Improving Sustainable Industrial Wastewater Treatment*

**Poster 93:** Jonathan Trousdale (Dimitri Trankner)  
Department of Biological Sciences  
*Streamline of Program for a Behavioral Mouse Box*

**Poster 94:** Kunani Tuttle (Kalani Raphael)  
Department of Internal Medicine  
*Effect of Sodium Bicarbonate on Physical Function*

**Poster 95:** Caitlin Vance (Sara Weisenbach)  
Department of Psychology  
*Effects of Facebook Interactions on Mental Well-Being*

**Poster 96:** Julia Vonessen (Rachel Hayes-Harb)  
Department of Linguistics  
*The impact of listener attitudes on the comprehension of nonnative-accented speech*

**Poster 97:** Truc Vuong (Kent Golic)  
Department of Biological Sciences  
*Why do ring chromosomes cause lethality in Drosophila melanogaster?*

**Poster 98:** Katya Wagstaff (Jakob Jensen)  
Department of Communication  
*Marketing the Arts: Social Media Marketing and the University of Utah College of Fine Arts*
Poster 99: **Geyu Weng** (Heidi Febinger)  
Department of Bioengineering  
*Evaluating the Motor Behavioral Effects of Gradual Dopamine Depletion*

Poster 100: **Walker West** (Marissa Diener)  
College of Social Work  
*An Analysis of Development and Language Effects on Patients Who Were Exposed to Cytomegalovirus In-Utero*

Poster 101: **Jonathan Wiggins** (Yong Kong)  
Department of Mechanical Engineering  
*Algorithmic Methods for 3D Printing on Uneven Surfaces Through Topology Analysis*

Poster 102: **Matthew Wilson** (Tucker Hermans)  
School of Computing  
*Teaching Robots to Play With Blocks: Manipulating Object Collections using Learned State Representations*

Poster 103: **Michael Xiao** (Chintan Kikani)  
Department of Biochemistry  
*Role of PAS Kinase (PASK) in Muscle Stem Cell Differentiation and Self-Renewal*

Poster 104: **Serena Yang** (Sarah Creem-Regehr)  
Department of Psychology  
*Another Big Foot Study: Gap Width Perception using Virtual Foot Scaling in Children*

Poster 105: **Kana Yoshigi** (Julie Kadrmas)  
Department of Oncological Sciences  
*Localization Of Integrin Effector Proteins To Circular Dorsal Ruffles In Pdgf-Stimulated Fibroblasts*

Poster 106: **Haoyang Zhou** (Kyla Ost)  
Department of Pathology  
*Intestinal IgA target Candida albidans adhesion*

Poster 107: **Angela Zhu** (Yelena Wu)  
Department of Dermatology
Relationship between self-reported time outside and objectively measured outdoor ultraviolet radiation exposure in families

**Poster 108:** Madeline Whitney (Katharine Ullman)
Department of Biological Sciences
*Characterization of Cytoplasmic Focit in RPE-1 Cells During Abscission Checkpoint*

**Poster 109:** Katie Brown (Jennifer Weidhaas)
Department of Civil and Environmental Engineering
*The effects of using lagoon treated wastewater on Kale, and human health.*

**Poster 110:** Josh Christensen (Jim de St. Germain)
School of Computing
*Finding a basis for Optimal Racing Lines through Machine Learning*

**Poster 111:** Katherine Laub (Susan Bock)
Department of Bioengineering
*Bromelain released hemagglutinin to be used during evaluation of broadly protective flu vaccines*

**Poster 112:** Gabriella Dull (Linda Edelman)
College of Nursing
*Opioid Use for Pain Management in Long-Term Care*

**Poster 113:** Aubrey Ahlstrom (Lori Kowaleski-Jones)
Department of Family & Consumer Studies
*The Effect of Religion on Adolescent Development*

**Poster 114:** Elizabeth Pohl (Kim Korinek)
Department of Sociology
*Exploring Identity: The One-Child Policy and Chinese Adoptees*

**Poster 115:** Tamara Calzado Real (Ariel Blair)
Department of Management
*The Effect of Racial Dissimilarity on Underrepresented Student’s Participation in Groups*

**Poster 116:** Junior Onyeagba (Melodie Weller)
School of Dentistry
Detection of Mouse Mammary Tumor Virus (MMTV) in Non-Obese Diabetic (NOD) Salivary Gland Tissue

Poster 117: Garrison Colvin (Gregory Clark)  
Department of Bioengineering  
*Sensory Feedback Utilizing Multi-Channel Electrotactile Stimulation*

Poster 118: Kohl Schoensee (Henry Fu)  
Department of Mechanical Engineering  
*U of U FSAE Aero Package CFD Optimization & Structural FEA*

Poster 119: Ruoxin Yao (Don Delker)  
Department of Nutrition and Integrative Physiology  
*Understanding BRAF mutation and epi-genetic biomarkers in serrated colon polyps as a prognostic indicator of cancer risk*

Poster 120: Constance Caparas (Martin Tristani-Firouzi)  
Department of Pediatrics  
*Improving the Efficiency of HDR CRISPR for Induced Pluripotent Stem Cells*

Poster 121: Jonathan Voyles (Keith Koper)  
Department of Geology and Geophysics  
*Test of a Magnitude-Based Depth Discriminant Using Revised Magnitudes and Locations of Explosions in the Utah Region, USA*

Poster 123: Madison Barker (Shane McFarlan)  
Department of Anthropology  
*Hunting Purification Rituals and Moral Trauma*

Poster 124: Spencer Claflin (Richard Paine)  
Department of Anthropology  
*Sexual dimorphism in risk of ancient disease*

Poster 125: Claire Ticknor (Jill Shea)  
Department of Surgery  
*Constructing Neurotrophic Gradient-Generating Peripheral Nerve Conduits*
Poster 126: **Thomas Brown** (Shane McFarlan)  
Department of Anthropology  
*Post War Cleansing Rituals*

Poster 127: **Mercedes Brown** (Claudia Geist)  
Division of Gender Studies  
*Representation of Men in Online Parenting Resources*

Poster 127: **Casie Lambert** (Claudia Geist)  
Division of Gender Studies  
*Representation of Men in Online Parenting Resources*

Poster 128: **Javier Hernandez** (Charles Sepulveda)  
Division of Ethnic Studies  
*Xochitlahtolli & resisting Mexican Hegemony through literature*

Poster 129: **Robert Schwartz** (Ravi Ranajn)  
Department of Surgery  
*Correlating Fibrosis in the Heart seen through Magnetic Resonance Imaging to Electroanatomical Voltage Maps*

Poster 130: **Justin Baker** (Elena Cherkaev)  
Department of Mathematics  
*Designed Swarming Behavior Using Optimal Transportation Networks*

Poster 131: **Keith Zehnder** (Monica Vetter)  
Department of Biological Sciences  
*Identification of Retinal Degeneration Phenotypes and Genotypes in Common Mouse Strains*

Poster 132: **Douglas Nagie** (Robert Goldberg)  
Department of History  
*We Go Where They Go: A History of Anti-Racist Action*

Poster 133: **Owen Kahn** (Rose Smith)  
Department of School Of Biological Sciences  
*The Effects of Bioswales on Stormwater Transport of Nutrients, Metals, and Contaminants*
Poster 134: **Nguyen Tran** (Vivek Srikumar)
School of Computing

*Supersense disambiguation of English prepositions*