2017 Undergraduate Research Symposium

TUESDAY, APRIL 4, 2017
9:00AM - 2:30PM
OLPIN UNION
UNIVERSITY OF UTAH
2017 UNDERGRADUATE RESEARCH SYMPOSIUM
Tuesday, April 4, 2017
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:

Francis Family Foundation
Sharon and Karl Schatten
Lawrence T. and Janet T. Dee Foundation
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Chevron Foundation
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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, room 312, room 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, room 312, room 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, room 312, room 319
2017 UNDERGRADUATE RESEARCH SYMPOSIUM
SCHEDULE OF PRESENTATIONS

ORAL SESSION I
9:00 – 10:30am

PARLOR A

Moderator: Andrew Merryweather, Department of Mechanical Engineering

9:00am  Rachel Huynh (Alan Dorval)
         Department of Bioengineering
         A Novel Protocol to Modify Multi-Neural Connectivity using Spike-timing-dependent Plasticity

9:20am  Jayden Plumb (Ashley Spear)
         Department of Mechanical Engineering
         3D Grain Characterization of Open Cell Aluminum Foam

9:40am  Nathan Porter (Elijah Millgram)
         Department of Philosophy
         Life with No Strings Attached: Nietzsche and the Eternal Recurrence

10:00am Sarah Patterson (Danielle Endres)
         Department of Communication
         Ute Nickname Research Project: The Rhetoric Surrounding the University of Utah’s Nickname on Social Media and its Influence on Representation of the Northern Ute Nation

COLLEGIATE ROOM

Moderator: Tim Chambless, Department of Political Science

9:00am  Morgan Lami (Stephen Tatum)
         Department of English
         Subverting the Stereotype: Sherman Alexie’s An Absolutely True Diary of a Part Time Indian
9:20am  **Daniel Christensen** (Therese De Raedt)  
Department of Languages & Literature  
*The Franco-German Identity of Alsace-Lorraine: A Literary Analysis*

9:40am  **Jonah Katz** (Margaret Wan)  
Department of Languages & Literature  
*Defining Space: Boundary and Enclosure in Dream of the Red Chamber*

10:00am  **Anna Mala** (Margaret Wan)  
Department of Languages & Literature  
*The Usage of the Supernatural in Pu Songling’s and Gogol’s Short Stories*

**ROOM 312**

Moderator: **Catherine Sherwin**, Department of Pediatrics

9:00am  **Petra Soininen** (Balamurali Ambati)  
Department of Ophthalmology & Visual Sciences  
*Photobiomodulation therapy for diabetic retinopathy*

9:20am  **Paisley Tarboton** (Alex Shcheglovitov)  
Department of Neurobiology & Anatomy  
*Examining apoptotic cells in cortical organoids*

9:40am  **Steffan Sowards** (Colleen Farmer)  
Department of Biology  
*Computational Fluid Dynamics Simulation of Python Respiratory System*

10:00am  **Michael Zhao** (Gordan Savin)  
Department of Mathematics  
*Pointed Hermitian Spaces and Optimal Embeddings*
ROOM 319

Moderator: Claudia Geist, Department of Sociology

9:00am  Heidi Qin (Delores Delgado Bernal)
Department of Education, Culture & Society
Queer and Trans Students of Color: Survival and Resistance in Predominately White Institutions

9:20am  Kimberly Sholler (Sarah Creem-Regehr)
Department of Psychology
A Comparison of Types of Low Vision on Spatial Learning while Navigating

9:40am  Aaron Cardenas-Paredes (Theresa Martinez)
Department of Sociology
Religious Teachings, Perceptions, and Intimate Partner Violence: A Pilot Project

10:00am  Warren Jensen (Claudia Geist)
Department of Sociology
"Determined to Make Righteous Homes": LDS expressions of masculinity and family formation
ORAL SESSION II
10:45 – 12:15pm

PARLOR A

Moderator: Stacy Manwaring, Department of Communication Sciences & Disorders

10:45am  **Tisileli Tuifua** (Dimitri Trankner)
Department of Human Genetics
*A Flexible and Inexpensive Setup to Quantify Cognitive Behaviors in Mice*

11:05am  **Megan Dearden** (Ravi Ranjan)
Department of Cardiovascular Medicine
*Studying the Relationship between Scar Tissue Formation and Catheter Contact Force for Ablation Procedures*

11:25am  **Joshua Winger** (Mike Scarpulla)
Department of Materials Science & Engineering
*Novel Cadmium Telluride Processing Method: Strip Annealing with High Power Lamps*

11:45am  **Brianna Potter** (Keunhan Park)
Department of Mechanical Engineering
*Nanoscale Graphene Thickness and Electrical Behavior*

PARLOR B

Moderator: Jane Hatter, Department of Music

10:45am  **Jay T Anderson** (Elizabeth Tashjian)
Department of Finance
*Abnormal Stock Returns and Hurricanes - Event Study of the Five Most Destructive Hurricanes to Make Landfall in the U.S. Since 2005*

11:05am  **Darlene Castro** (Jane Hatter)
Department of Music
*The Sound and the Fusae: Music Notation as a Means of Time Travel*
11:25am  Collett Litchard (Christie Toth)
Department of Writing & Rhetoric Studies
Identifying Effective Social Media Writing by Utah Cities to Implement Change and Increase Voter Engagement

**COLLEGIATE ROOM**

Moderator: Michael Gills, Honors College

10:45am  Shaela Adams (Michael Gills)
Honors College
*Honors Novel Writing Workshop*

10:55am  Samantha Duzy (Michael Gills)
Honors College
*City Pallor - A Novel*

11:05am  Dalton Edwards (Michael Gills)
Honors College
*We Were Maniacs*

11:15am  James Ehlers (Michael Gills)
Honors College
*Cyclicality*

11:25am  Jenna Gardner (Michael Gills)
Honors College
*Engaging the Novel Writing Process*

11:35am  Emad Jabini (Michael Gills)
Honors College
*Made in America*

11:45am  Madeline Lehman (Michael Gills)
Honors College
*Honors Novel Workshop*

11:55am  Michelle Rohbock (Michael Gills)
Honors College
*Novel Writing Workshop*
ROOM 312

Moderator: Karen Krapcho, Department of Biology

10:45am    Ethan Frehner (Çağan Şekercioğlu)
Department of Biology
Subterranean Caching of Domestic Cow Carcasses by American Badgers in the Great Basin Desert of Utah

11:05am    Alex Hyer (William Brazelton)
Department of Biology
Metagenomic Characterization of Serpentinization-Influenced Groundwater collected at the Coast Range Ophiolite Microbial Observatory

11:25am    Rahee Kim (Ansuk Jeong)
Department of Psychology
Psychosocial Adaptation after Mastectomy

11:45am    Ciriac Alvarez Valle (Theresa Martinez)
Department of Sociology
Undocumented Undergraduates at the University of Utah

ROOM 319

Moderator: Andrey Rogachev, Department of Physics & Astronomy

10:45am    Jessica Schulze (Ryan Steele)
Department of Chemistry
Computational Investigation of Quantum Motion in Iron Hydrides and Hydrogenation Catalysis

11:05am    Sebastian Atwood (Carleton DeTar)
Department of Physics & Astronomy
Employing the S-Step Conjugate Gradient Method to Solve Quark Propagators

11:25am    Jamie Dyer (Kyle Dawson)
Department of Physics & Astronomy
Spectral Variation of Quasars With Multi-Epoch Analyses
11:45am  Alexis Wilson (Anil Seth)  
Department of Physics & Astronomy  
*West Antarctica as a Natural Laboratory for Single- and Mixed-Phase Cloud Microphysics*
ORAL SESSION III
1:00 – 2:30pm

PARLOR A

Moderator: Ole W Fischer, Department of Architecture

1:00pm Hannah Van Hollebeke (Mike Shapiro)
Department of Biology
Variation in Beak Morphology in Domestic Pigeons

1:20pm Zach Clegg (Ole Fischer)
Department of Architecture
Manifesting Nationalism During Interwar Germany and the United States (1933-1939): Memorializing, Maintaining and Investing Nationalism Through Architecture

1:40pm Annika Erickson (Bill Oakley)
Department of Marketing
Case study: An attempt to change the marketing paradigms for manufacturing as a career path

2:00pm Christina Jones (Lela Graybill)
Department of Art & Art History
Evelyn De Morgan’s Portrait of Jane Morris (Study for The Hourglass) and the Politics of Gender in Pre-Raphaelite Art

COLLEGIATE ROOM

Moderator: Alexis Christensen, Department of Worlds Languages and Cultures

1:00pm Sally Goodger (Maeera Shreiber)
Department of English
The Holocaust and Identity in Young Adult Fantasy Novels

1:20pm Peter Davidson (Jeff Metcalf)
Department of English
Diego’s Dream
1:40pm  **Emma Martin** (Jerry Root)  
Department of Languages & Literature  
*Medieval Perspectives in Religious and Secular Contexts: the Legend of Theophilus and the Romance of the Rose*

2:00pm  **Alexandria DeGrauw** (Maureen Mathison)  
Department of Writing & Rhetoric Studies  
*Tracking Student’s Responses to Hot Topics in Science*

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**ROOM 312**

**Moderator:** Ka-Ho Wong, Department of Neurology

1:00pm  **Kevin Yang** (John Symons)  
Department of Nutrition and Integrative Physiology  
*Exercise-Training Increases Basal Autophagy in Endothelial Cells of Adult Mice*

1:20pm  **Dakota Crocker** (Catherine Loc-Carrillo)  
Department of Pathology  
*A Comparison of BMD Changes During Local Versus Systemic Antibiotic Treatments for Osteomyelitis*

1:40pm  **Itzel Estrella** (Peter Jenkins)  
Department of Radiology  
*Radiation Doses For Nuclear Medicine Procedures: A Compiled Resource*

2:00pm  **Katherine Coombs** (Ana Sanchez-Birkhead)  
Department of Nursing  
*Understanding Breast Cancer disparities among Latina women*

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**ROOM 319**

**Moderator:** Jennifer Seagrave, Undergraduate Studies

1:00pm  **Satin Tashnizi** (Tim Chambless)  
Department of Political Science  
*Mobilizing Generation Y - Bringing Polling locations to Campus*
1:20pm  **India Young** (Matthew Basso)
Department of History
*From Genealogy to Family History: How 1970s Family History Practices Filled the Void in an Age of Social Fracture*

1:40pm  **Emilia Tugolukova** (Jesse Rowley)
Department of Biology
*The Role of Drp1 in Platelet Formation*

2:00pm  **Tyler Crum** (John Parkinson)
Department of Biology
*Mutational Analysis of a Highly Conserved Glycine Residue in the Serine Receptor of Escherichia coli*
POSTER SESSION I
9:00 – 10:30am

MAIN BALLROOM

Poster 1: **Alec Hansen** (Man Hung)
Department of Orthopaedics
*Impact of the Bundled Payment System on Today’s World of Healthcare*

Poster 1: **Dominique Nielson** (Man Hung)
Department of Orthopaedics
*Impact of the Bundled Payment System on Today’s World of Healthcare*

Poster 2: **Adam Thorne** (John Langell)
Department of Bioengineering
*Visual Light Phototherapy Catheter Research*

Poster 3: **Elizabeth Aviles** (Carolyn Bliss)
LEAP
*CMV in Utah Research Study*

Poster 4: **Diane Dohee Jeong** (Ansuk Jeong)
Department of Psychology
*College students’ stress and their psychosocial behavior*

Poster 4: **Je uk Ryu** (Ansuk Jeong)
Department of Psychology
*College students’ stress and their psychosocial behavior*

Poster 5: **Cecily Bader** (Martin Horvath and Leslie Sieburth)
Department of Biology
*The Response Of Arabidopsis Mutant Bps 1-2 On Salt Media*

Poster 6: **Jane Baer** (Kathleen Ritterbush)
Department of Geology & Geophysics
*Deposition and Preservation of Spicules Within Biosilicious Glass Ramps*
Poster 7: **Tyler Bean** (John David Symons)
Department of Nutrition and Integrative Physiology
*Histological evaluation of tissues from mice with temporal deletion of Atg3 specifically in endothelial cells*

Poster 8: **John Beaufort** (Wayne Potts)
Department of Biology
*Father’s Social Status Influences Offspring Growth Rate in Wild-derived Mice*

Poster 9: **Amanda Bischoff** (Matthew Sigman)
Department of Chemistry
*Predicting the Selectivity of the Bis(pyridine) Silver Permanganate Mediated Oxidation of Dimeric Diketopiperazine Derivatives*

Poster 10: **Hailey Blair** (Cagan Sekercioglu)
Department of Biology
*Biodiversity Along The Wildland-Urban Interface Of Red Butte Creek*

Poster 11: **Madison Weaver** (Ryan Schacht)
Department of Anthropology
*Changing Fertility to Save the Climate*

Poster 11: **Judy Chen** (Ryan Schacht)
Department of Anthropology
*Changing Fertility to Save the Climate*

Poster 11: **Annie-Louise Holbrook** (Ryan Schacht)
Department of Anthropology
*Changing Fertility to Save the Climate*

Poster 12: **Trevor Bonn** (John David Symons)
Department of Nutrition and Integrative Physiology
*Coronary vascular function is improved in ischemic patients after continuous-flow left ventricular assist device (LVAD) implantation*

Poster 13: **Clayton Booth** (Akiko Kamimura)
Department of Sociology
*Refugee Oral Health*
Poster 14: **Jerry Bounsanga** (Man Hung)
Department of Orthopaedics
*Meaningful interpretation of the PROMIS and legacy scales for musculoskeletal care*

Poster 15: **Amber Bowler** (Thomas O'Hare)
Department of Oncological Sciences
*Ponatinib resistant BCR-ABL1 compound mutations can be overcome by ABL001 allosteric inhibition in conjunction with low-dose ponatinib therapy in Philadelphia chromosome-positive leukemia*

Poster 16: **Hayden Brady** (Bruce Gale)
Department of Mechanical Engineering
*Utilization of Fluid Dynamic Testing to Improve Fluid Transport on Microfluidic PCR Chips*

Poster 17: **Cedar Briem** (Andrea Brunelle)
Department of Geography
*Staley Spring Sediment Core Analysis*

Poster 18: **Paige Brimley** (Jules Magda)
Department of Chemical Engineering
*Synthesis of Hydrogels in Yeast Media*

Poster 19: **Jared Bunn** (Jeff Bates)
Department of Materials Science & Engineering
*Hydrogel Stability for Sensors as a Function of the Mechanical Swelling Response*

Poster 20: **David Burkhardt** (Taylor Sparks)
Department of Materials Science & Engineering
*Porous Hydrogel Synthesis for Controlled Bacteria Release*

Poster 21: **Gemma Clark** (Jennifer Weidhaas)
Department of Civil & Environmental Engineering
*A Study of Contaminants in Rooftop Rainwater Runoff*

Poster 22: **Julia Cortino** (Osama Abdullah)
Department of Bioengineering
*Using Fourier Transform to Expedite Cell Width Measurement*
Poster 23: **Molly Davis** (Carol Sansone)
Department of Psychology
*Exploring how first-generation college students motivate themselves in academic settings*

Poster 24: **Rachel Davis** (Angela Smith)
Department of English
*Fiction Seeps into Reality: Traumatic Media in The Babadook and The Ring*

Poster 25: **Christine DeDen** (Benjamin Ellis)
Department of Bioengineering
*Finite Element Analysis of Lamellae Fiber Angles in Lumbar Intervertebral Discs*

Poster 26: **Henry Doan** (Carolyn Bliss)
LEAP
*Molecule Mechanisms of Muscle Fatigue*

Poster 27: **Grant Doxey** (Diane Pataki)
Department of Biology
*The Nitrogen Content of Urban & Riparian Soils*

Poster 28: **Connor Dustin** (Sujee Jeyapalina)
Department of Bioengineering
*Percutaneous Bone Anchored Implants - A Method for Understanding Epithelial Down-growth and Attachment Locations*

Poster 29: **Colter Dye** (Amy Sibul)
Department of Biology
*Kestrels on Campus*

Poster 30: **Chris Eixenberger** (Vladimir Hlady)
Department of Bioengineering
*Immobilized Heparin’s Effect in Attenuating Upstream Platelet-Agonist Interactions*
Poster 32: **Arelys Desouza** (Carolyn Bliss)  
LEAP  
*The Impact of an Undergraduate Volunteer in Third Grade Classroom on Awareness of Higher Education*

Poster 32: **Sydney Magana** (Carolyn Bliss)  
LEAP  
*The Impact of an Undergraduate Volunteer in a Third Grade Classroom on Awareness of Higher Education*

Poster 33: **Erin Feeley** (Cheryl Wright)  
Department of Family & Consumer Studies  
*The Development of an Employment Assessment Tool for Young Adults with Autism*

Poster 34: **Elizabeth Fine** (Jerry Root)  
Department of Languages & Literature  
*In His Own Hands: Images Of Hands In The Legend Of Theophilus*

Poster 35: **Zippy Ford** (Kate Canas)  
Department of Management  
*Why the Wage Gap?*

Poster 36: **Heilly Galvez** (Jaclyn Winter)  
Department of Medicinal Chemistry  
*Analysis of Ectoine Derivative Biosynthesis in Actinomycetes Through Media Changes and Cell Mechanics Model Analysis*

Poster 37: **Logan Gaykowski** (Robin Jensen)  
Department of Communication  
*Birth Control and Depression*

Poster 38: **Dietrich Geisler** (Zvonimir Rakamaric)  
Department of Computing  
*Formal Verification of the Floating Point Type in Boogie and SMACK*

Poster 39: **Matthew Givens** (Kam Leang)  
Department of Mechanical Engineering  
*Empirical Characterization of Ground Effects for Quadcopter Drones*
Poster 40: Matthew Godinez (Ron Hughen)
Department of Anesthesiology
Muscle Fatigue

Poster 41: Astin Goff (Alexa Doig)
Department of Nursing
The Cost of Responding to Clinical Alarms in the Hospital Environment

Poster 42: Forrest Gowen (Melissa Cortez)
Department of Neurology
Analysis of autonomic biomarkers in concussion

Poster 43: Yushan Gu (Man Hung)
Department of Orthopaedics
Exploring the Psychometric Properties of the PROMIS Pain Interference Instrument in an Orthopaedic Population

Poster 44: Christopher Haisley (Brian Codding)
Department of Anthropology
To Guard or Not to Guard? Territorial Behavior in Foraging Societies

Poster 45: Shelby Harris (Joel Miller)
Department of Chemistry
Phenaleny1 Complexes for Organic Magnets

Poster 46: Catherine Heiner (Heather Bruce)
Department of Writing & Rhetoric Studies
Man Up: How Ideas of Masculinity Impact Conversations on Sexual Violence

Poster 47: Hannah Hendrickson (Stephen Goldsmith)
Department of City & Metropolitan Planning
Improving Health Outcomes for the Homeless

Poster 48: Michael Herron (Benjamin Ellis)
Department of Bioengineering
Development of Pediatric Cervical Spine Models for Use in Finite Element Analysis
Poster 49: **Austin Holmes** (Brian Codding)  
Department of Anthropology  
*Examining Disproportionate Proximal Impacts of Uranium Mining Relating to Socioeconomic Status on the Navajo Nation*  

Poster 50: **Julie Imig** (Inese Ivans)  
Department of Physics & Astronomy  
*Galactic Evolution of Phosphorus and Sulfur Using Star Clusters*  

Poster 51: **Devin Davis** (Joseph Tonna)  
Department of Surgery  
*Family Satisfaction with Care in the Intensive Care Unit*  

Poster 51: **Tyson Lambert** (Joseph Tonna)  
Department of Surgery  
*Family Satisfaction with Care in the Intensive Care Unit*  

Poster 52: **Jake Immonen** (Swomitra Mohanty)  
Department of Chemical Engineering  
*Integrating Smartphone Technology in Chemical Engineering Research, Education and Outreach*  

Poster 53: **Katharin Jensen** (Kam Leang)  
Department of Mechanical Engineering  
*Coverage Planning with Applications in Environmental Monitoring Using Aerial Robots*  

Poster 54: **Sergio Juarez** (Vandana Ramachandran)  
Department of OIS  
*Empirical Analysis Of The Participation Behaviors Of Investors On Crowdfunding Platforms*  

Poster 56: **Arezu Kazerooni** (Carolyn Bliss)  
LEAP  
*The Study of Atrial Fibrillation (Still in the works)*  

Poster 57: **Danielle Kfoury** (Alexa Doig)  
Department of Nursing  
*Improving Medication Understanding and Adherence with Pictograph Stickers*
Poster 58: **Scott Khuu** (Rodney Stewart)  
Department of Oncological Sciences  
*Identifying Retinoic Acid Dependent Mechanisms of NC EMT*

Poster 59: **LeAnn Lam** (Robby Bowles)  
Department of Bioengineering  
*Treating Back Pain using CRISPR Epigenome Editing to Restore Extracellular Matrix in Degenerated Intervertebral Discs*

Poster 60: **Bryce Larson** (Julie Barkmeir-Kraemer)  
Department of Surgery  
*Use of dynamic real-time MRI to image speech mechanisms in the presence of vocal tremor*

Poster 61: **Roxanne Lebenzon** (Jack Broughton)  
Department of Anthropology  
*Taxonomic identifications of two species of Neotoma using geometric morphometrics*

Poster 62: **Marley Lebrecht** (Sheila Crowell)  
Department of Psychology  
*The Effect of a Close Friendship on Number of Suicide Attempts in Adolescent Girls*

Poster 63: **Elliot Lee** (Nels Elde)  
Department of Human Genetics  
*Signs of Molecular Arms Races in Immunity Genes*

Poster 64: **Tanner LeSueur** (David Krizaj)  
Department of Ophthalmology & Visual Sciences  
*TRPV4 mediates mechanical ocular injury following exposure to high-pressure blast trauma*

Poster 65: **Conor Lyne** (Adam Meirowitz)  
Department of Finance  
*ISIL, Inc. - The Finance of Terror*
Poster 66: Kyle McDougle (Lauren Clark)  
Department of Nursing  
*Disclosing News of a Child’s Diagnosis of Down Syndrome or Spina Bifida*

Poster 67: Trevin Michael (Simon Fisher)  
Department of Endocrinology  
*Novel Treatment options in the Reduction of Neuron Damage Caused by Hyperinsulinemic Hypoglycemia*

Poster 68: Matthew Miller (Anne Yeagle)  
Department of Economics  
*The Affordable Care Act And The Future Of Us Healthcare: Consumer Driven Care And Value Driven Care*

Poster 69: Robert Moesinger (Alan Dorval)  
Department of Bioengineering  
*Novel Method of Murine Gait Analysis*

Poster 70: Alexandra Moody (Jesse Rowley)  
Department of Pulmonary  
*The Impact of Mitofusin 2 on Complex 1, and other Mitochondrial Proteins*

Poster 71: Uriel Morales (Michelle Mendoza)  
Department of Oncological Sciences  
*Differential Regulation of Tumor Invasion by RSK Family Isoforms*

Poster 72: Mikala Mortensen (James Gardner)  
Department of Music  
*Challenges in Playing the Flute and Their Specific Application to Solo Flute Literature*

Poster 73: Max Mroz (Shad Roundy)  
Department of Mechanical Engineering  
*Exploration of Magnetic Field Actuated Strings of Spherical Magnets for Swimming Robot Locomotion*
Poster 74: Jennifer Ellen Mueller (Anandh Babu Pon Velayuthm)  
Department of Nutrition and Integrative Physiology  
*Strawberry supplementation reduces blood pressure in diabetic db/db mice*

Poster 75: Jiyeon Mun (Yukio Saijoh)  
Department of Neurobiology & Anatomy  
*Investigating heparan sulfate structural determinants in mouse models*

Poster 76: Elizabeth Nakashima (Johanna Watzinger-Tharp)  
Department of Linguistics  
*Reclamation of Negative Speech in the LGBTQ+ Community*

Poster 77: Michael Navidomskis (Jennifer Follstad Shah)  
Department of Geography  
*An Isotopic Analysis of the Jordan River Nitrogen Cycle*

Poster 79: Yennhi Nguyen (Jeff Weiss)  
Department of Bioengineering  
*Riboflavin Collagen Gels Using 2D Plastic Compression*

Poster 80: Yolancee Nguyen (Sheri Holmen)  
Department of Surgery  
*Dissecting the function of different AKT isoforms in melanoma metastasis*

Poster 81: Madeleine Odette (Eric Garland)  
Department of Social Work  
*Neural Mechanisms of Mindfulness-Oriented Recovery Enhancement Therapy*

Poster 82: Eve Olson (Rachel Hayes-Harb)  
Department of Linguistics  
*Voice Onset Time in Arabic and English Stop Consonants*

Poster 83: Elaine Ong (Clement Chow)  
Department of Human Genetics  
*Identifying genetic modifiers influencing retinal degeneration diseases*
Poster 84: Patricia Pedersen (Jeffrey Moore)
Department of Geology & Geophysics
Reconstructing the Devils Castle rock avalanche, Albion Basin, Utah

Poster 85: Anny Pham (Alessandra Angelucci)
Department of Ophthalmology & Visual Sciences

Poster 86: Christopher Quach (Alex Shcheglovitov)
Department of Neurobiology & Anatomy
Potential Link of MAPK Genes to Phelan-McDermid Syndrome

Poster 87: Emir Rahislic (Kevin Whitty)
Department of Chemical Engineering
Development of a Copper-Based Oxygen Carrier for Chemical Looping with Oxygen Uncoupling

Poster 88: Alexandria Redd (Aster Tecle)
Department of Social Work
Promoting Intercultural Communication Between Refugees and Their Host Counties

Poster 89: Nicholas Ridge (Colleen Farmer)
Department of Biology
Computational Simulation of Airflow in Pogona vitticeps (Bearded Dragon)

Poster 90: Jessica Roestenburg (Franz Goller)
Department of Biology
Testing the Perceptual Salience of Spectral Content in Zebra Finch Song

Poster 91: Amira Sabry (Junco Warren)
Department of Internal Medicine
Role of The Histone Methyltransferase Smyd1 in Transcriptional Regulation of Cardiac Metabolism

Poster 92: Samah Safiullah (Stephen Goldsmith)
Department of Architecture
Transportation Discrimination and Apartheid in US Metropolitan Areas
Poster 93: **Jane Saviers-Steiger** (Tomasz Petelenz)  
Department of Bioengineering  
*Material Testing and Prototyping for a Flexible Load Evaluation Transducer*

Poster 94: **Kali Scott** (Sydney Cheek-O'Donnell)  
Department of Theatre  
*You Do You: A Theoretical Exploration Of Audience Agency In Theatre*

Poster 95: **Artemis Sefandonaklis** (Jill Shea)  
Department of Surgery  
*Fat transplant for glitazone delivery and adiponectin production to inhibit breast cancer cells*

Poster 96: **Stephanie Shelton** (Michelle Wolfe)  
Department of History  
*Viewing People as Property: Slave Life Insurance and Industrialization 1830-1861*

Poster 97: **Saeed Shihab** (Derek Dosdall)  
Department of Bioengineering  
*Developing a data acquisition system to analyze of Cardiac Signals in Real Time Through Automated Activation Maps using the Utah Electrode Array (UEA)*

Poster 98: **Alison Shimko** (Sean Redmond)  
Department of Communication Sciences & Disorders  
*Sex as a Potential Source of Bias in Adult Judgments of Children with and without Neurodevelopmental Disorder*

Poster 99: **Pei-Yu Shyu** (Craig Dworkin)  
Department of English  
*Electronic Experimental Literature: A Tale of Endings and Beginnings*

Poster 100: **Alexa Sime** (Shane Macfarlan)  
Department of Anthropology  
*Inter-Group Biases, Group-Level Reputations and Parochial Altruism*
Poster 101: Justin Skinner (Andrew Anderson) 
Department of Orthopaedics 
Quantification of Bone Morphology of the Talus and Calcaneus using Statistical Shape Modeling

Poster 102: Amber Staples (Daniel Scoles) 
Department of Neurology 
Understanding Stress Granule Formation in Spinocerebellar Ataxia Type II Patient Cells

Poster 103: Asia Susko (Carolyn Bliss) 
LEAP 
Role of Bcl2 in Synovial Sarcomagenesis

Poster 104: Jason Chieh Sheng Tey (Yan-Ting Shiu) 
Department of Internal Medicine 
Degree of Damaged Collagen in Pre-surgical and Post-Surgical Arteriovenous Fistula Vessels in Rats with Chronic Kidney Disease

Poster 105: Justin Tse (Tom Alberts) 
Department of Mathematics 
Last Passage Percolation

Poster 106: Felix Vivanco (Norman Waitzman) 
Department of Economics 
Healthcare Disparities among Latinos in Utah

Poster 107: Shannon Weaver (Akiko Kamimura) 
Department of Sociology 
Self-Reported Diagnosis of Type 1 and Type 2 Diabetes and Lifestyle Change Among Uninsured Primary Care Patients

Poster 108: Tyler Gill (Charlie Hicks-Little) 
Department of Exercise & Sport Science 
Vertical Jump comparing ground reaction force with height and weight

Poster 109: Nathan Wilkinson (Ashley Spear) 
Department of Mechanical Engineering 
Applying Machine Learning to Microstructurally Small Fatigue Crack Propagation in 3-D
Poster 110: **Shane Williams** (Shad Roundy)  
Department of Mechanical Engineering  
*Modeling of Kinetron microharvester*

Poster 111: **Savannah Williams** (Edmund Fong)  
Department of Political Science  
*American Exceptionalism and Its Role in Foreign Policy and Culture*

Poster 112: **Paul Wissler** (Robert Bowles)  
Department of Bioengineering  
*Epigenome editing of TGF-beta receptors using the dCas9-KRAB system to alter mesenchymal stem cell differentiation potential*

Poster 113: **KayLene Yamada** (Denise Dearing)  
Department of Biology  
*Comparing Tolerance Of Native Versus Native Toxic Diets In Neotoma Lepida*

Poster 114: **Jonathan Zubair** (Kam Leang)  
Department of Mechanical Engineering  
*Design and Implementation of a Shrouded Rotor for Increasing Quadcopter Performance*

Poster 115: **Mary Stoddard** (Akiko Kamimura)  
Department of Sociology  
*Motivations and Outcomes of Volunteers at a Non-student-run Free Clinic*

Poster 116: **Hunter Howe** (Peregrine Schwartz-Shea)  
Department of Political Science  
*Not a Glass Ceiling, a Glass Institution*

Poster 117: **Austin Russon** (Hong-Hua Mu)  
Department of Internal Medicine  
*The Use of Mycoplasma Arthritidis in Animal Models: Monitoring Cytokine Expression of Induced Arthritis*
Poster 118:  **Lily Wetterlin** (Brenda Bowen)  
Department of Geology & Geophysics  
*Micro-scale textures and composition in the sediments on the Bonneville Salt Flat*
POSTER SESSION II
10:45 – 12:15pm

MAIN BALLROOM

Poster 1: **Kevin Voll** (Alan Light)
Department of Anesthesiology
*Purine Effects on Mouse Dorsal Root Ganglion Neurons*

Poster 1: **Jay Jensen** (Alan Light)
Department of Anesthesiology
*Purine Effects on Mouse Dorsal Root Ganglion Neurons*

Poster 2: **Ann Rowley** (Kai Kuck)
Department of Anesthesiology
*Designing and Developing a Capnograph for Use in Developing Countries and Low-Resource Areas*

Poster 3: **Savanna Agardy** (Brian Codding)
Department of Anthropology
*Flow of the people: How obsidian artifacts reveal patterns of mobility in the Prearchaic Great Basin*

Poster 4: **Olivia Juarez** (Brian Codding)
Department of Anthropology
*From Food Waste to Hunger Relief: A Novel Approach to Food Recovery*

Poster 5: **Joanna Lam** (Adrian Bell)
Department of Anthropology
*Perceptions of Personality: Sojourners and Immigrants Between China and America*

Poster 6: **Alina Paegle** (Adrian Bell)
Department of Anthropology
*Activation and Construction of Ethnic Markers in an Immigrant Community*

Poster 7: **Dori Peers** (Brian Codding)
Department of Anthropology
*Australian Aboriginal Ethno linguistics*
Poster 8: **Tuscan Thompson** (Steve Alam)  
Department of Biochemistry  
*Interactions between PPxY Motifs in AMOT and WW Domains in NEDD4L Function in Viral Budding*

Poster 9: **Ana Chacin** (Robert Hitchcock)  
Department of Bioengineering  
*Designing, Building, and Testing a Next Generation Intra-Abdominal Pressure Sensor Calibration Instrument*

Poster 10: **Steven Deng** (Alexey Zaitsev)  
Department of Bioengineering  
*Mitochondrial versus cellular permeability post heart attack - What is the Chicken and what is the Egg?*

Poster 11: **Caleb Parry** (Susan Bock)  
Department of Bioengineering  
*Purification and Characterization of a Virus-Like-Particle Vaccine from Insect Pupae*

Poster 12: **Jimena Schultz** (Hamid Ghandehari)  
Department of Bioengineering  
*Synthesis of a tumor extracellular matrix-responsive docetaxel-eluting hydrogel*

Poster 13: **Ivy Christofferson** (Sophie Caron)  
Department of Biology  
*Elucidating the neuronal pathway underlying gustatory associative learning in Drosophila melanogaster*

Poster 14: **Gabrielle Ghabash** (Thomas Kursar)  
Department of Biology  
*Primary Metabolites In Plant Defenses: Overexpression Of L-Tyrosine In The Tropical Tree Genus Inga (Fabaceae)*

Poster 15: **Ping Guo** (Nitin Phadnis)  
Department of Biology  
*Over-expression of gene gfzf may cause inviability in non-hybrid offspring in D. melanogaster*
Poster 16: **Gabrielle Hoyer** (Erik Jorgensen)  
Department of Biology  
*Calcium Control of Vesicle Fusion at Neuromuscular Junctions*

Poster 17: **John Jackson** (Graham Goodman)  
Department of Biology  
*Do Birds that Preen More also Allopreen More?*

Poster 18: **Stephanie VanBeuge** (Nitin Phadnis)  
Department of Biology  
*Fine mapping of the genetic architecture contributing to speciation between fruit fly subspecies*

Poster 19: **Shalauna Thompson** (Kevin Whitty)  
Department of Chemical Engineering  
*Investigation of the Carbon Capture Ability of Solid Sorbents Using Thermogravimetric Analysis*

Poster 20: **Jacob Tuttle** (Kody Powell)  
Department of Chemical Engineering  
*High Temperature Thermal Energy Storage of Concentrated Solar Power for Power Generation*

Poster 21: **Cameron Owen** (Peter Armentrout)  
Department of Chemistry  
*Structures of the Dehydrogenation Products of Methane Activation by 5d Transition Metal Cations Revisited: Deuterium Labeling*

Poster 22: **Guillermina Loyola Pelaez** (Andrea Garfunkel)  
Department of City & Metropolitan Planning  
*Ecological Literacy and Future Teachers: A Study of State Universities in Utah*

Poster 23: **Cameron Reinhart** (Tatjana Jevremovic)  
Department of Civil & Environmental Engineering  
*Radiation Shielding Ability of La-Ce:Nb Metallic Glass Formations*
Poster 24: Monica Scott (Danielle Endres)  
Department of Communication  
How Nuclear Science Professional Society Presidents Frame Nuclear Energy

Poster 25: Adam Whalen (Sara Yeo)  
Department of Communication  
Attitudes Toward the Utes Nickname & Logo

Poster 26: Danielle Ensign (Suresh Venkatasubramanian)  
Department of Computing  
Performativity in Algorithm Fairness

Poster 27: Maria David (Eric Sjöberg)  
Department of Economics  
The effect of physician altruism on patient health outcomes

Poster 28: Devan Parkinson (Thomas Maloney)  
Department of Economics  
The Inequality of Public Spending on Education and Income Inequality

Poster 29: Chandler Stepan (Thomas Maloney)  
Department of Economics  
Differences in Income Mobility in Salt Lake and the United States

Poster 30: Carmen Flores Gonzalez (Maria Franquiz)  
Department of Education, Culture & Society  
Multicultural Literacy in the 21st Century Classrooms

Poster 31: Nickolas Lee (Eric Poitras)  
Department of Educational Psychology  
Design of a visual procedural modeling language processing application for clearly communicating precise knowledge

Poster 32: Vai Suliafu (Eric Poitras)  
Department of Educational Psychology  
Using Mouse Cursor Coordinates to Predict the Learner’s Usefulness Rankings of Online Resources with an Intelligent Web Browser
Poster 33: Nathan Curtis (Joel Harley)  
Department of Electrical & Computer Engineering  
Ultrasonic Characterization and Inspection of 3D Printed Metals

Poster 33: Carl Herriott (Joel Harley)  
Department of Electrical & Computer Engineering  
Ultrasonic Characterization and Inspection of 3D Printed Metals

Poster 34: John Robe (Jon Davies)  
Department of Electrical & Computer Engineering  
The Design and Implementation of Autonomous Robotic Systems using ROS

Poster 35: Curtis Pierce (Robert Dubil)  
Department of Finance  
Technology Adoption as a Predictive Measure of Financial Performance

Poster 36: Travis Warner (Scott Schaefer)  
Department of Finance  
Using term spreads to predict recessions: a comparison

Poster 37: Anna Albertsen (Jennifer Follstad Shah)  
Department of Geography  
Possible Benefits Of Ectomycorrhizal Infection Of Conifer Seedlings At Alta Ski Area

Poster 38: Amber Henshaw (Kathleen Nicoll)  
Department of Geography  
Public Perceptions of Air Pollution and Health Risks: A Community Survey

Poster 39: Shelby Sly (Andrea Brunelle)  
Department of Geography  
Reconstructing a Late Holocene Disturbance Record in Range Creek Canyon, Utah

Poster 40: Daniel Nielsen (Mitch Power)  
Department of Geography  
Anomalous Populations of Ponderosa Pine on the Wasatch Front
Poster 41: **Lucas Bohne** (Paul Brooks)
Department of Geology & Geophysics
*Quantifying surface water chemistry variations in canyons of the Salt Lake City watershed*

Poster 42: **Alexander Kim** (Anthea Letsou)
Department of Human Genetics
*Dpp Signal Regulation through O-linked Glycosylation*

Poster 43: **Erin Ritchie** (David Grunwald)
Department of Human Genetics
*The Contribution of Ryanodine Receptors to Left/Right Asymmetry Patterning*

Poster 44: **Alexandra Mortenson** (Deberniere Torrey)
Department of Languages & Literature
*No Longer A Guest: Christianity’s Role In Hwang SŏK-YŏNg’s Metaphorical Exorcism*

Poster 45: **Samantha Cooper** (Carolyn Bliss)
LEAP
*Community Involvement*

Poster 46: **Enoabasi Etokidem** (Carolyn Bliss)
LEAP
*The Reach for your Dreams Program at Mountain View Elementary School*

Poster 47: **Alexander Chang** (Carolyn Bliss)
LEAP
*Bryant And Beyond Scholarship Eligibility*

Poster 47: **Philip Ngo** (Carolyn Bliss)
LEAP
*Bryant And Beyond Scholarship Eligibility*

Poster 47: **Peter Ahorukomeye** (Carolyn Bliss)
LEAP
*Bryant And Beyond Scholarship Eligibility*
Poster 48: **Minh Nguyen** (Carolyn Bliss)
LEAP
*Tutoring for Bryant Scholar*

Poster 49: **Stephanie Yu** (Elizabeth Tenney)
Department of Management
*The Belief that Optimism Improves Performance (China)*

Poster 50: **Sierra Anderson** (Tony Passey)
Department of Marketing
*How Implementing Search Engine Optimization Can Increase Digital Presence*

Poster 51: **Emily Timmins** (Michael Scarpulla)
Department of Materials Science & Engineering
*Laser annealing of Te inclusions in bulk CdTe single crystal detectors*

Poster 52: **Dietrich Geisler** (Aaron Bertram)
Department of Mathematics
*Construction of the Simple Lie Algebras from Associated Dynkin Diagrams*

Poster 53: **Carlisle Fauver** (Steven Naleway)
Department of Mechanical Engineering
*Complex Structuring of Porous Ceramic Materials by Freeze Casting under Magnetic Fields*

Poster 54: **Alec Mittelstadt** (Krista Carlson)
Department of Metallurgical Engineering
*Development and optimization of titanium dioxide nanotube-based arrays for use in sustainable technologies*

Poster 55: **Ashley Timmerman** (Krista Carlson)
Department of Metallurgical Engineering
*Interactions of Zn-plated TiO2 Nanotubes with Ibuprofen for Applications in Point-of-Use Electrochemical Detection*
Poster 56: **Andrea Evans** (Alexa Doig)  
Department of Nursing  
Assessment of Patient Knowledge and Awareness of Hypertension at the Midvale and Salt Lake Orthopaedic Clinics

Poster 57: **Karlee Chipman** (Sihem Boudina)  
Department of Nutrition and Integrative Physiology  
Studying the role of retinol transporter STRA6L in regulation of immune gene expression in lymphoid and non-lymphoid tissues: relevance in development of metabolic disease

Poster 58: **Lilly Kanishka** (Sihem Boudina)  
Department of Nutrition and Integrative Physiology  
Using a mouse model to study the role of immune system in Type 2 Diabetes: deletion of retinol transporter in dendritic cells protects mice from obesity induced glucose intolerance and insulin insensitivity

Poster 59: **Reghan Boelter** (Rodney Stewart)  
Department of Oncological Sciences  
Does TRAP1 Accelerate MYCN-Driven Neuroblastoma in Zebrafish

Poster 60: **Sarmishta Diraviam Kannan** (Kevin Jones)  
Department of Oncological Sciences  
The Role of Lysosomes and Autophagy in Alveolar Soft Parts Sarcoma, Clear Cell Sarcoma and Synovial Sarcoma

Poster 61: **Curtis Stone** (Craig Gygi)  
Department of Operations & Information Science  
Six Sigma and The Toyota Way

Poster 62: **Taylor Webster** (Mary Elizabeth Hartnett)  
Department of Ophthalmology & Visual Sciences  
Ocular Injuries and Protective Eyewear use in Sports

Poster 63: **Matthew Driscoll** (Andrew Anderson)  
Department of Orthopaedics  
Quantification of Healthy Tibiotalar and Subtalar Joint Angles during Multiple Activities
Poster 64: Carol Castaneda (Mary Burbank)
Department of Urban Institute for Teacher Education
Integrating Social Justice in a Spanish High School Classroom to Increase Motivation and Proficiency in Learning Spanish as a Second/World Language

Poster 65: Jennifer Nielsen (Adrienne Cachelin)
Department of Environmental & Sustainability
The Impact of Real Food Labeling on Student Food Choice Behavior and Attitudes

Poster 66: Jonathon Reynolds (Ty Dickerson)
Department of Pediatrics
Efficacy of Rapid Diagnostic Tests for Malaria in Children of Rural Ghana

Poster 67: Zachary Barber (Hamid Ghandehari)
Department of Pharmaceutics & Pharmaceutical Chemistry
Hollow Mesoporous Silica Nanorattles For Controlled Drug Delivery

Poster 68: Nikol Yonemura (Micah Drummond)
Department of Physical Therapy
Role of skeletal muscle macrophages in inactivity-induced insulin resistance

Poster 69: Timothy Allen (Jordan Gerton)
Department of Physics & Astronomy
Extracting Wavelength Data from a Modified Point Spread Function: A Collection of Monte Carlo Simulations

Poster 71: Yae Ji Kim (Ansuk Jeong)
Department of Psychology
Depressive disorder and personality after mastectomy

Poster 72: Mark Lavelle (Matthew Euler)
Department of Psychology
EEG Time-Frequency Dynamics Associated with Eye Blink Suppression
Poster 73: **Piper Meisinger** (Sarah Creem-Regehr)  
Department of Psychology  
*How Teaching Egocentric and Allocentric Learning Strategies Affect Spatial Learning*

Poster 74: **Isabel Reback** (Trafton Drew)  
Department of Psychology  
*Low Target Prevalence Exacerbes Problems with Computer-Aided Detection (CAD) During Visual Search*

Poster 75: **Katharine Roth** (Sheila Crowell)  
Department of Psychology  
*Mother’s Mental Health And Emotional Validation Towards Their Daughters*

Poster 76: **Ashma Shrestha** (Elisabeth Conradt)  
Department of Psychology  
*A biobehavioral Approach to Measuring Emotion Dysregulation in Pregnancy*

Poster 77: **Dominique Pablito** (Vidya Bhaskara)  
Department of Radiation Oncology  
*Slot-Blot Analysis to Detect Nascent Chromatin bound proteins*

Poster 78: **Kai Sin** (Akiko Kamimura)  
Department of Sociology  
*Lifestyle issues related to cardiovascular disease among refugees in Utah*

Poster 79: **Calli Bennett** (Megan Reynolds)  
Department of Sociology  
*Transgenderism and healthcare: Barriers at the provider level*

Poster 80: **Maggie Hope** (Heather Melton)  
Department of Sociology  
*The Problem with Unsubmitted Sexual Assault kits*

Poster 81: **Katie Houser** (Claudia Geist)  
Department of Sociology  
*LGBT Involvement in Federal Health Policy and Program Development*
Poster 82:  **Siosaia Langi** (Theresa Martinez)  
Department of Sociology  
*Holistic Learning and Youth Empowerment*

Poster 83:  **Whitney Russell** (Charlie Hicks-Little)  
Department of Health Promotion & Education  
*Quantification of Movement Analysis and Functional Testing in Dancers*

Poster 84:  **Kira Norcross** (Melissa Schaefer)  
Department of Anthropology  
*An explorative study of Lemur fitness in relation to litter size Or ”A Lack Thereof”*

Poster 85:  **Amber Barron** (Jeff Bates)  
Department of Materials Science & Engineering  
*Natural Materials for Biodegradable Feminine Hygiene Products*
POSTER SESSION III
1:00 – 2:30pm

MAIN BALLROOM

Poster 1:  **James Perkins** (Karen Kramer)
Department of Anthropology
*Risk Orientation and Individual Variation*

Poster 2:  **Sean Heslin** (Thomas Reichler)
Department of Atmospheric Sciences
*Low-Frequency Variations of Extreme Stratospheric Circulation Events*

Poster 3:  **Arielle Hassett** (Benjamin Ellis)
Department of Bioengineering
*Finite Element Analysis of Stress in the Pars Interarticularis after Laminectomy*

Poster 4:  **Elizabeth Pumford** (Vladimir Hlady)
Department of Bioengineering
*Platelet Rolling and Adhesion Following Upstream Activation*

Poster 5:  **Granger Cocke** (Denise Dearing)
Department of Biology
*CYP2B Active Site Diversity in Neotoma albigula and Neotoma stephensi*

Poster 6:  **Kacey Davis** (Martin Horvath)
Department of Biology
*Predatory Marine Snail Toxins: a Study of Protein Fold and Function*

Poster 7:  **Vincent Fu** (Martin Horvath)
Department of Biology
*Laminins As A Potential Enhancer Of Beta Islet Of Langerhans Proliferation And Subsequent Gene Expression*

Poster 8:  **Alex Geertsen** (J. Michael McIntosh)
Department of Biology
*Identifying a9-Nicotinic Acetylcholine Receptors in Human Mammary Gland Epithelia*
Poster 9: **Anthony Mills** (Lissy Coley)  
Department of Biology  
*In-Silico Library Generation and MS/MS Fragmentation for Secondary Metabolite Identification in Inga*

Poster 10: **Lane Mulvey** (Nitin Phadnis)  
Department of Biology  
*Study of the Genetic Basis of Speciation Using Two Subspecies of Drosophila pseudoobscura*

Poster 11: **Yajaira Peralta** (Wayne Potts)  
Department of Biology  
*Paternal social status influences offspring body mass: A role for epigenetics?*

Poster 12: **Josue Seoane** (Nitin Phadnis)  
Department of Biology  
*Characterization of the Gene Overdrive in Drosophila melanogaster*

Poster 13: **Sydney Stephens** (Denise Dearing)  
Department of Biology  
*Changing diets and chiseling away dogmas regarding saltbush specialization in Dipodomys microps*

Poster 15: **Anastasia Borodai** (Thomas Richmond)  
Department of Chemistry  
*Faraday at Home: Continuing Faraday from the "U" to the youth*

Poster 16: **Dietrich Geisler** (Michael Grünwald)  
Department of Chemistry  
*Deep Neural Network Time Extension of DFT-Modeled Thermodynamic Systems*

Poster 17: **Evan Hurlow** (Jon Rainier)  
Department of Chemistry  
*The Diversification of an Aggregate Busting Quinone-Amino Acid Conjugate*
Poster 18: **Chance Miller** (Valeria Molinero)  
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 19: **Weston Wood** (Leonard Hawes)  
Department of Communication  
*Consciousness is a Conversation: Towards an Eco-Dialogical Theory of Communication*

Poster 20: **Dahee Yun** (Paul Rose)  
Department of Communication  
*Project Longbridge*

Poster 21: **Breanna Gabaldon** (Stacy Manwaring)  
Department of Communication Sciences & Disorders  
*Maternal Gesture Use In Toddlers With Language Delays And Typical Development*

Poster 22: **Elise Mori** (Stacy Manwaring)  
Department of Communication Sciences & Disorders  
*Analysis of Spontaneous Language in Children with Autism Spectrum Disorder Compared to Typical Development*

Poster 23: **Elizabeth Utchel** (Stacy Manwaring)  
Department of Communication Sciences & Disorders  
*Exploring Play in Toddlers with Language Delay and Typical Development*

Poster 24: **Conan Zhang** (Robert Kessler)  
Department of Computing  
*Fundraising Game Development through Crowdfunding*

Poster 25: **Rajeev Sahay** (Joel Harley)  
Department of Electrical & Computer Engineering  
*Effects of Environmental Factors on Ultrasonic Guided Wave Technology*
Poster 25: **Yisong Zhang** (Joel Harley)
Department of Electrical & Computer Engineering
*Effects of Environmental Factors on Ultrasonic Guided Wave Technology*

Poster 26: **Rachael Palmer** (Rajesh Menon)
Department of Electrical & Computer Engineering
*Lensless Computational Imaging*

Poster 27: **Anna Birtulescu** (Cathleen Zick)
Department of Family & Consumer Studies
*Healthy Eating in 1936 and its Associated Factors*

Poster 28: **Georgie Corkery** (Jennifer Watt)
Department of Geography
*Investigating Historic Mountain Pine Beetle Outbreaks in the Sawtooth Mountains, Idaho, USA*

Poster 29: **Marianne Newell** (Andrea Brunelle)
Department of Geography
*Study of Utah’s Climate History by Analysis of Lake Cores Collected from Lake Bonneville Sites*

Poster 30: **Sarah Wilmot** (Andrea Brunelle)
Department of Geography
*Fire ecology at Simpson Spring Snake Pit*

Poster 32: **Taylor Almond** (Bruce Dain)
Department of History
*Sisters in Zion: Mormon Energy Healers in Utah*

Poster 33: **Daniel McClellan** (Ravi Ranjan)
Department of Internal Medicine
*Improving Reproducibility of Scar Tissue Maps For Repeat Ablation Scans*

Poster 34: **Sarmishta Diraviam Kannan** (Carolyn Bliss)
LEAP
*Creating Awareness on Transgender Health*
Poster 34: **Ludovica Farese** (Carolyn Bliss)  
LEAP  
*Creating transgender Health awareness*

Poster 35: **Annwin Chen** (Carolyn Bliss)  
LEAP  
*Connect2Health: Connecting Patients to their Community*

Poster 36: **Brenda Espitia** (Carolyn Bliss)  
LEAP  
*Atrial Fibrillation within obese patients*

Poster 38: **Jenica Jessen** (Abby Kaplan)  
Department of Linguistics  
*Musical Evidence for Syllabification Patterns of Highly Moraic Structures in English*

Poster 38: **Sara Ng** (Abby Kaplan)  
Department of Linguistics  
*Musical Evidence for Syllabification Patterns of Highly Moraic Structures in English*

Poster 38: **Joselyn Rodriguez** (Abby Kaplan)  
Department of Linguistics  
*Musical Evidence for Syllabification Patterns in English*

Poster 40: **Kenneth Zheng** (Tom Alberts)  
Department of Mathematics  
*Dyck Paths and Random Trees*

Poster 41: **Christopher Anjewierden** (Stephen Mascaro)  
Department of Mechanical Engineering  
*Anatomically Correct Modeling of the Human Hand*

Poster 42: **Anup Khadka** (Eric Pardyjak)  
Department of Mechanical Engineering  
*Understanding the Interaction of Microclimate and Building Energy Use through a Distributed Sensor Network*
Poster 43: **John Lillquist** (Andrew Merryweather)  
Department of Mechanical Engineering  
*Speed Controlled Braking System for Safe Recreational Rehabilitation*

Poster 44: **Naveen Rathi** (Bruce Gale)  
Department of Mechanical Engineering  
*Microfluidic Sperm Processing as a Potential Treatment for Male Infertility*

Poster 45: **Samantha Tan** (Steven Naleway)  
Department of Mechanical Engineering  
*3D printed templating, mechanical testing, and computational analysis of porous ceramic structures*

Poster 46: **Amelia St Clair** (Amy Barrios)  
Department of Medicinal Chemistry  
*Investigation of Caspase 1 Inhibition via Au(I) Phosphines*

Poster 47: **Michael Guo** (Matt Wachowiak)  
Department of Neurobiology & Anatomy  
*Facilitating the Mapping of the Olfactory Bulb*

Poster 47: **Mia Wipfel** (Matt Wachowiak)  
Department of Neurobiology & Anatomy  
*Facilitating the Mapping of the Olfactory Bulb*

Poster 48: **Derek Woodruff** (Megan Williams)  
Department of Neurobiology & Anatomy  
*Uncovering synaptic defects resulting from loss of the intellectual disability and autism-associated gene Kirrel3*

Poster 49: **Emmie Msiska** (Linda Edelman)  
Department of Nursing  
*Building Resilience in Long Term Care Nursing*

Poster 50: **Matthew Harmon** (J. David Symons)  
Department of Nutrition and Integrative Physiology  
*Nasal Administration of Diesel Exhaust Particles Does Not Evoke Dysfunction or Initiate Autophagy in Murine Femoral Arteries*
Poster 51: **Kiana Wong** (Anandh Babu Pon Velayutham)  
Department of Nutrition and Integrative Physiology  
*Strawberry Supplementation Improves Vascular Complications in Diabetes by Activating eNOS/NO/cGMP Signaling*

Poster 52: **Jacob Wiscomb** (Margit Amsbury)  
Department of Obstetrics & Gynecology  
*Development of a Chemoresistant Murine Ovarian Cancer*

Poster 53: **Garrett Christensen** (Adam Cohen)  
Department of Oncological Sciences  
*Retrospective Analysis of Treatment Regimens on Oligodendroglioma Patient Outcomes*

Poster 54: **Abbie Ireland** (Trudy Oliver)  
Department of Oncological Sciences  
*Differential Gene Expression and Therapeutic Response of Distinct Subtypes of Small Cell Lung Cancer*

Poster 55: **Jameieka Price** (Douglas Mackay)  
Department of Oncological Sciences  
*Probing the Function of NUP 153 in NUP 50 Interaction in DNA Damage Response*

Poster 57: **Samuel Colby** (Andrew Anderson)  
Department of Orthopaedics  
*Finite Element Analysis of Cartilage Stresses Across across a Variety of Activities of Daily Living Using Kinematics from Dual Fluoroscopy*

Poster 58: **Morgan Izykowski** (Heath Henninger)  
Department of Orthopaedics  
*Forces in the Residual Humerus of Amputees During Activities of Daily Living*

Poster 59: **Karl Ramirez** (Candace Chow)  
Department of Other  
*A qualitative investigation of physician identities and patient interactions*
Poster 59: **Shiya Zeng** (Candace Chow)  
Center for Clinical and Translational Science  
*A qualitative investigation of physician identities and patient interactions*

Poster 60: **Allan Anderson** (David Derezotes)  
Department of Social Work  
*Educating future peacemakers*

Poster 61: **Reuben Ryan Cano** (Dean Tantin)  
Department of Pathology  
*Transcription Factor Oct1 is Ubiquitinated by BRCA1 to Regulate Metabolism*

Poster 62: **Alexandra Heitkamp** (Sherwood Casjens)  
Department of Pathology  
*Study of bacteriophage P22 superinfection exclusion protein SieA*

Poster 63: **Raymond Reynolds** (Jessica Brown)  
Department of Pathology  
*Cryptococcus neoformans pathogenesis*

Poster 64: **Virginia Young** (Catherine Sherwin)  
Department of Pediatrics  
*Antidepressant Comedication Use During Pregnancy*

Poster 65: **Mai Doan** (Jindrich Kopecek)  
Department of Pharmaceutics & Pharmaceutical Chemistry  
*Developing HPMA Copolymer-Affibody Conjugates for Targeted Drug Delivery Applications*

Poster 66: **Sarah Smith** (Karen Wilcox)  
Department of Pharmacology & Toxicology  
*Transfection of Novel Genes via Electroporation to Understand Mitochondrial Function in Astrocytes*

Poster 67: **Preston Brunker** (Micah Drummond)  
Department of Physical Therapy  
*Effect of Neuromuscular Electrical Stimulation on mTORC1 Signaling in Skeletal Muscle of Older Adults on Bed Rest*
Poster 68: **Kirsten Gorski** (Lee Dibble)  
Department of Physical Therapy  
*Does the Dosage of Practice in Standard Balance Rehabilitation Maximize Retention and Transfer of Balance Skill?*

Poster 69: **Devan Anderson** (Inese Ivans)  
Department of Physics & Astronomy  
*Planet Formation’s Imprint on the Host Star’s Spectrum*

Poster 70: **Asma Rokhaneevna** (Clayton Williams)  
Department of Physics & Astronomy  
*Preparation of Single Mode Optical Fibers for Application in 3D Interferometry*

Poster 71: **Tingshiuan Wu** (David Kieda)  
Department of Physics & Astronomy  
*Characterizing the Matched-Run Method for analyzing images of Extended γ-Ray Sources using VERTIAS*

Poster 72: **Zinaida Bougri** (Tabitha Benney)  
Department of Political Science  
*Refugee Governance: Finding Solutions Through Policy Reform*

Poster 74: **Arcadia Payne** (Marjorie Castle)  
Department of Political Science  
*Preventing Crisis: Identifying and Understanding Causes of Genocide in Fragile States*

Poster 75: **Taylor Adams** (David Sanbonmatsu)  
Department of Psychology  
*Social Perception Study*

Poster 76: **William Hynes** (Monisha Pasupathi)  
Department of Psychology  
*Audience Tailoring: Implications for Narrative Identity Formation*

Poster 77: **Yu Kyoung Kang** (Ansuk Jeong)  
Department of Psychology  
*Well-being of People with Myasthenia Gravis (MG)*
Poster 78: **Aashild Renee Nilssen** (Michael Himle)
Department of Psychology
*Assessment of Personal Relationships, Loneliness and Quality of Life Among Adults with ASD*

Poster 79: **Erin O'Connor** (Yana Suchy)
Department of Psychology
*The Use of Speed-Accuracy Trade-Off in the Delis-Kaplan Executive Function System*

Poster 80: **Mitch Whitfield** (David Strayer)
Department of Psychology
*Sensitivity of the Visual Detection Response Task: Interacting with a Touch Screen in a Driving Simulator*

Poster 81: **Emily Dennis** (Srividya Bhaskara)
Department of Radiation Oncology
*Genome Stability and Cancer*

Poster 82: **Kyler Hodgson** (Ed DiBella)
Department of Radiology
*Image-based prognosis of stroke using NODDI model*

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