OSU Undergraduate Research Day at Capitol Square

Ohio Statehouse Rotunda
February 26, 2019
11:30 am to 1:30 pm
It is our great pleasure to welcome you to the Second Annual OSU Undergraduate Research Day at Capitol Square. Twenty-six students, from 15 Ohio counties, will share their research with members of the Ohio General Assembly.

Under the direction of their research mentors, students conducted collaborative research projects to solve pressing local, statewide, national and global issues. We would like to extend a special thank you to our research mentors, volunteers and visitors. Congratulations to our students on their research accomplishments. Have a wonderful day.

Sincerely,

Lorraine S. Wallace

Lorraine S. Wallace, PhD
Director
Undergraduate Research and Creative Inquiry
## Student Presenters

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<th>Poster Number</th>
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<td>Abigail Cordell</td>
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<td>Diana Hallak</td>
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<td>Megan Halloran</td>
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<td>Gretchen Klinger</td>
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<td>Julia Kumar</td>
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<td>Catherine Panchyshyn</td>
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<td>Jack Reifenberg</td>
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<td>Galina Rozenberg</td>
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<td>Brianna Sowers</td>
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Abigail Cordell
Hometown: Garfield Heights
Major: Medical Dietetics
Home Senator: Sandra Williams
Home Representative: Stephanie Howse
Project title: "Examination of Dietary Patterns and Sodium Intake in Patients with Cirrhosis"
Mentor: Kristen Roberts

Harrison Fried
Hometown: Solon
Major: Environmental Policy and Decision-Making
Home Senator: Matt Dolan
Home Representative: Phillip Robinson
Project title: "How do algal and sedimentary turbidity affect the swimming performance of Emerald Shiner and Golden Shiner in Lake Erie?"
Mentor: Suzanne Gray

Diana Hallak
Hometown: Hilliard
Major: Molecular Genetics
Home Senator: Tina Maharath
Home Representative: Adam Miller
Project title: "Influence of Lipid Bilayer Composition on Plasma Membrane Repair Capacity"
Mentor: Noah Weisleder
Megan Halloran  
**Hometown:** Dublin  
**Major:** Neuroscience  
**Home Senator:** Stephanie Kunze  
**Home Representative:** Beth Liston  
**Project title:** "Genetic Ablation of Caveolin-1 Attenuates Pancreatic Cancer in a Transgenic Mouse Model"  
**Mentor:** Terence Williams

Thomas Henry  
**Hometown:** Greenfield  
**Major:** Civil Engineering  
**Home Senator:** Bob Peterson  
**Home Representative:** Shane Wilkin  
**Project title:** "Innovative Long-term Collaborative Partnership for Reclamation of Abandoned Coal-Mined Lands in Ohio"  
**Mentor:** Tarunjit Butalia

Jade Hettick  
**Hometown:** Creston  
**Major:** Molecular Animal Sciences  
**Home Senator:** Kristina Roegner  
**Home Representative:** Scott Wiggam  
**Project title:** "Effects of Lysophospholipids on Production, Nitrogen Utilization, and Rumen Fermentation and Microbial Population in Lactating Dairy Cows"  
**Mentor:** Chanhee Lee
Mindy Hoang
Hometown: Tallmadge
Major: Public Health
Home Senator: Vernon Sykes
Home Representative: Anthony DeVitis
Project title: "Ceramide Nanoparticles as a Potential Treatment for Dedifferentiated Liposarcomas"
Mentor: James Chen

Molly Hunt
Hometown: Greenville
Major: Earth Science /Community Leadership
Home Senator: Stephan Huffman
Home Representative: Jena Powell
Project title: "What's in Your Medicine Cabinet? Engaging 4-H Teens in Addressing the Opioid Epidemic"
Mentor: Theresa Ferrari

Gretchen Klingler
Hometown: West Liberty
Major: Anthropology and Arabic
Home Senator: Matt Huffman
Home Representative: Nino Vitale
Project title: "What is Insecurity?: Experiences of Iraqi Women Refugees in Central Ohio"
Mentor: Jeffrey Cohen
Julia Kumar  
**Hometown:** Cincinnati  
**Major:** Neuroscience  
**Home Senator:** Lou Terhar  
**Home Representative:** Jessica Miranda  
**Project title:** "Post-Injury Sleep Disruption Alters the Behavioral and Inflammatory Response to Traumatic Brain Injury"  
**Mentor:** Olga Kokiko-Cochran

Sidney Long  
**Hometown:** Chatfield  
**Major:** Animal Biosciences  
**Home Senator:** Dave Burke  
**Home Representative:** Riordan McClain  
**Project title:** "Cryopreservation of Dirofilaria Immitis Microfilaria-infected Blood for Teaching Diagnostic Techniques and Practicing Parasite Identification"  
**Mentor:** Antoinette Marsh

Lauren Mansour  
**Hometown:** Columbus  
**Major:** Biomedical Science  
**Home Senator:** Joe Uecker  
**Home Representative:** John Becker  
**Project title:** "Whole Slide Imaging Challenges and Opportunities at OSU Wexner Medical Center: An Interview Study with 11 Pathologists"  
**Mentor:** Emily Patterson
Mohammed Moumen
Hometown: Columbus
Major: Environmental Public Health
Home Senator: Hearcel Craig
Home Representative: Bernadine Kennedy Kent
Project title: "WARNING Messages in Hookah Cafes"
Mentor: Amy Ferketich

Riley Mullins
Hometown: Carroll
Major: Pharmaceutical Sciences
Home Senator: Brian Hill
Home Representative: Tim Schaffer
Project title: "Anti-Androgen Therapy as a Treatment for Hepatocellular Carcinoma"
Mentor: Christopher Coss

Pranav Padmanabhan
Hometown: Boardman
Major: Computer Science and Engineering, Geography: Spatial Analysis
Home Senator: Michael Rulli
Home Representative: Don Manning
Project title: "Preventing Traffic Accidents through Geographic Data Analysis and Machine Learning"
Mentor: Paul Sivilotti
Catherine Panchushyn
Hometown: Dublin
Major: Nutrition Sciences
Home Senator: Stephanie Kunze
Home Representative: Beth Liston
Project title: "Preliminary Trends from the MADDY study: Reducing Hyperactivity in the Classroom"
Mentor: Irene Hatsu

Jack Reifenberg
Hometown: Loveland
Major: Health Sciences
Home Senator: Joe Uecker
Home Representative: John Becker
Project title: "Lateral Pelvic and Trunk Movement During Single Leg Squat and its Relationship to Peak Knee Valgus During Single Leg Hop"
Mentor: James Onate

Galina Rozenberg
Hometown: South Euclid
Major: Pharmaceutical Sciences
Home Senator: Kenny Yuko
Home Representative: Kent Smith
Project title: "Sodium Channels in the Sinoatrial Node"
Mentor: Vadim Fedorov
Annalee Sekulic  
Hometown: Wakeman  
Major: Anthropology and Public Policy Analysis  
Home Senator: Nathan Manning  
Home Representative: Dick Stein  
Project title: "Hyraxes in Human Landscapes of the Arabian Desert"  
Mentor: Joy McCorriston

Joseph Smith  
Hometown: Columbus  
Major: Ecological Engineering/Mandarin Chinese  
Home Senator: Tina Manharath  
Home Representative: Adam Miller  
Project title: "Seasonality on Nutrients in Stormwater Runoff in a Residential Sewershed in Columbus, Ohio"  
Mentor: Ryan Winston

Brianna Sowers  
Hometown: St. Clairsville  
Major: Biology  
Home Senator: Frank Hoagland  
Home Representative: Don Jones  
Project title: "Development of an Infant-Specific Toy Kit for Research in Rehabilitation of Arm and Hand Function"  
Mentor: Nathalie Maitre
Kamila Thompson
Hometown: Pickerington
Major: Electrical Engineering
Home Senator: Brian Hill
Home Representative: Tim Schaffer
Project title: "Developing a Bio-inspired Autonomous Underwater Vehicle for Efficient Marine Exploration"
Mentor: Jeffrey Skidmore

Dan-Ho Tran
Hometown: Columbus
Major: Molecular Genetics
Home Senator: Stephanie Kunze
Home Representative: Allison Russo
Project title: "Identifying New Pathways that Allow Tumor Cells to Bypass Dependence on the Ras Oncogene"
Mentor: Amanda Simox

Samantha Walkin
Hometown: Toledo
Major: Neuroscience
Home Senator: Teresa Fedor
Home Representative: Lisa Sobecki
Project title: "Impact of Eccentric-Focused Downhill Treadmill Training on Locomotor Recovery After Spinal Cord Injury"
Mentor: Michelle Basso
Miranda Westrick
Hometown: Findlay  
Major: Public Health  
Home Senator: Rob McColley  
Home Representative: Jon Cross  
Project title: "Reliability and Construct Validity of the Supplemental Nutrition Assistance Program Education (SNAP-Ed) Youth Behavior Survey"  
Mentor: Carolyn Gunther

Ryan Wilkins
Hometown: Cincinnati  
Major: Biomedical Science  
Home Senator: Steve Wilson  
Home Representative: Thomas Brinkman  
Project title: "The Effects of the Enriched Environment on Breast Cancer Growth in Post-Menopausal Female Mice"  
Mentor: Lei Cao