The Office of Undergraduate Research, Scholarship, & the Arts Presents:

2019 Summer Undergraduate Research Symposium

September 19, 2019
7:30 AM – 4:00 PM

Lightning Talks: Agricultural and Life Sciences (ALS) 4000 & 4001
Posters: Linus Pauling Science Center (LPSC) 1st Floor
Sponsored by the Office of Undergraduate Education

7:30 AM  Registration and Coffee (Outside ALS 4000 & ALS 4001)

8:00 AM  Welcome (ALS 4000 & ALS 4001)

8:00 AM – 9:50 AM  3 Minute Presentations – Session 1, Concurrent Session A (ALS 4001)

1. Evaluating the community doula project in Linn, Benton, and Lincoln counties. Victoria Keenan (Anthropology). Mentor: Melissa Cheyney *


3. Castle Family Forest research project. Jamie Flynn (Natural Resources). Mentor: Dave Stemper *

4. Creating and testing Redcap data collection software. Benjamin Wu (BioHealth Sciences). Mentor: Denise Hynes


7. Comparing chemical kinetic model reduction techniques using pyMARS. Phillip Mestas III (Computer Science). Mentor: Kyle Niemeyer

8. First generation students and their stories. Olivia Silbernagel (BioHealth Sciences). Mentor: Lindsay Marlow


13. What can water tell us about the future? Alicia Veach (Mechanical Engineering). Mentor: Tim Jensen


* Ecampus student presenting virtually
15. Optimization of hibernation solution for long term organ preservation. Isabel Katlaps (Biology). Mentor: Matthew Andrews


17. Developing a learning progression for units and dimensions. Dustin Treece (Physics). Mentor: Elizabeth Gire


22. Cloning the zebrafish otoferlin b wildtype and a transmembrane mutant to characterize changes in cellular localization. Rebecca France (Biochemistry and Molecular Biology). Mentor: Colin Johnson


25. Studying impacts from different land uses in the Oak Creek watershed. Paul Donsky (Environmental Sciences). Mentor: Carlos Ochoa

8:00 AM – 9:50 AM 3 Minute Presentations – Session 1, Concurrent Session B (ALS 4000)


3. eDNA Sampler - Fully automated 24 valves programmable via web interface. Bao Nguyen (Electrical Engineering and Computer Science) and Kawin Pechetra (Computer Science). Mentor: Chet Udell

4. Helping our students do the math: Real world science applications in introductory calculus. Alena Arounpradith (BioHealth Sciences). Mentor: Devon Quick


* Ecampus student presenting virtually


8. The Dynamics of wild type human Hysp90 vs. nitrated human Hysp90. Dorice Laura Goufack (Biochemistry and Molecular Biology). Mentor: Maria Clara Franco

9. Removal capacity of antibiotic-resistant bacteria by biochar from stormwater. Samantha Lesch (Biology). Mentor: Tala Navab-Daneshmand


11. Role of tyrosine nitration in the regulation of nuclear respiratory factor 2 transcriptional activity. Rina Mullendore (Biochemistry and Molecular Biology). Mentor: Maria Franco

12. Source apportionment of PM2.5 aerosols by quantification of Levoglucosan (1,6-Anhydro-beta-D-glucose). Lauren Lewis (Chemistry). Mentor: Staci L. Massey Simonich

13. Improving translational machinery for the incorporation of 3-nitrotyrosine. Ilana Gottfied-Lee (Biochemistry and Molecular Biology). Mentor: Richard Cooley

14. Trap design based on behavioral manipulation of spotted-wing drosophila. Aleksandar Bozaric (Chemical Engineering). Mentor: Nik Wiman

15. Examining the effect of surface orientation on the activity of TEV Protease with genetic code expansion. Jacob North (Biochemistry and Biophysics). Mentor: Ryan Mehl


17. Promoting the importance of physical activity in youth living in out-of-home care. Hallie Baker (Kinesiology) and Alycia Korn (Kinesiology). Mentor: William Massey

18. Identifying the relationship between Verticillium dahliae growth and verticillium wilt resistance in the wild ancestors of commercial mint. Ruby Clark (Biochemistry and Molecular Biology). Mentor: Kelly Vining


21. Role of tyrosine nitration in survival of glioblastoma multiforme and triple negative breast cancer cells. Mihir Palan (Biochemistry and Molecular Biology). Mentor: Maria Franco

* Ecampus student presenting virtually
22. *At This Point: Expanding the accessibility of science through podcasting.* Tori Puoci (Biochemistry and Molecular Biology). Mentor: Ehren Pflugfelder


9:50 AM **Transition to Posters (1st Floor LPSC)**

10.00 AM – 11:50 AM **Poster Session 1 (1st Floor LPSC)**


3. *Helping our students do the math: Real world science applications in introductory calculus.* Alena Arounpradith (BioHealth Sciences). Mentor: Devon Quick


8. *Dynamics of human wild type Hysp90 vs. human nitrated Hysp90.* Dorice Laura Goufack (Biochemistry and Molecular Biology). Mentor: Dr. Maria Clara Franco


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21. Role of tyrosine nitration in glioblastoma multiforme in metabolic reprogramming and cell survival. Mihir Palan (Biochemistry and Molecular Biology). Mentor: Maria Franco

22. Looking at community programs as a bridge to connect minority parents and teachers in Oregon. Esther Vega (Industrial Engineering). Mentor: Kathryn Ciechanowski

23. The social impacts of Mali's Selingue dam as a platform for future development models. Alexander Chaffin (Sociology). Mentor: Bryan Tilt

24. Willamette River bank erosion. Hunter Ashby (Chemical Engineering). Mentor: Derek Godwin

25. Optimization of cryogenically cooled processor chips under intense mechanical and thermal strain with liquid nitrogen as a working fluid. Renee Aimba (Electrical and Computer Engineering). Mentor: Joshua Gess


27. Undergraduates' perceptions of disability. Samantha Noregaard (Kinesiology). Mentor: Sam Logan


* Ecampus student presenting virtually
30. **Adversarial attack on machine learning.** Kawin Pechetratanapanit (Computer Science). Mentor: Jinsub Kim

31. **The role of Nrf2 in brain cellular senescence.** Grace Ross (Biochemistry and Molecular Biology). Mentor: Viviana Perez

32. **Kisseptin neurons from female mice express receptors for gonadotropin-releasing hormone (GnRH) under specific sex steroid hormone exposure conditions: A potential model for positive feedback required for GnRH preovulatory surges?** Noa Rayzman (UESP). Mentor: Patrick Chappell

33. **Analysis of the puripicar ignimbrite.** Michael Iannuccillo (Earth Sciences). Mentor: Shan de Silva

34. **The State of Oregon’s skilled nursing facilities, SFY 2018.** Alexandra Kaiser (BioHealth Sciences). Mentor: Carolyn Mendez-Luck

35. **Simulating cancer cell morphology and position.** Hunter Nelson (Physics). Mentor: Bo Sun

36. **Gender differences in homecoming experiences and PTSD symptoms of Vietnam War veterans.** Dylan Lee (Biology). Mentor: Carolyn Aldwin

37. **Nitrate heat shock protein 90 (Hsp90) is critical for schwannoma cell survival and proliferation.** Sharon Kim (Biochemistry and Molecular Biology). Mentor: Maria Franco

38. **Optimal synthetic jet specifications for minimal heat entrainment.** Mark Huynh (Electrical Engineering). Mentor: Joshua Gess

39. **Spatial and temporal variation in dune morphology for natural vs. manage systems.** Hannah Lawrence (Earth Sciences). Mentor: Peter Ruggiero

40. **Circadian dysregulation is associated with alterations in tumor suppressor activity in murine mammary tissue.** Hiruni Aponso (Biochemistry and Molecular Biology). Mentor: Patrick Chappell

41. **Identifying vegetative samples submitted to the OSU herbarium with DNA barcodes.** Amanda Roelant (Botany). Mentor: Melanie Link-Perez

42. **Building time: Affecting time perception through environmental manipulation in virtual reality.** Ley Aldinger (Computer Science). Mentor: Raffaele de Amicis

43. **Water insecurity in Asia.** Jaclynn Simmons (Environmental Economics). Mentor: Michael Trevathan *

44. **Comparing the population genetics between native and invasive populations of Ammophila breviligulata.** Emily Miller (Zoology). Mentor: Sally Hacker

45. **Synthesis of vitamin D3 - succinic acid.** Reed Sattizahn (Chemical Engineering). Mentor: Hong Moulton

46. **Environmental scarcity conflicts.** Leah Venkatesan (Political Science). Mentor: Michael Trevathan

* Ecampus student presenting virtually
47. Examining KTaR1 chemosensing in response to temporally varied ATP. Kailie Franco (Biochemistry and Biophysics). Mentor: Bo Sun


49. Bat monitoring in North Coast Cascades Network. Emily Barnett (Environmental Sciences), Anastacia Grigorov (Bioengineering) and Rayanne Mock (Fisheries and Wildlife Sciences). Mentor: Tara Chestnut and Taal Levi

50. Peroxynitrite of Hsp90 on PC 12 cells activates cell apoptosis. Jo Yun Hsu (BioHealth Sciences). Mentor: Alvaro Estevez


52. Examining the differences in phenotypic antimicrobial resistance (AMR) levels on farms in Costa Rica. Elizabeth Carroll (Biology). Mentor: Briana Beechler

53. Determining the impact of land use on water quality in the Oak Creek watershed. Keira Johnson (Environmental Sciences). Mentor: Carlos Ochoa


56. Quantifying patterns of nanoflagellate attack on Pseudo-Nitzschia colonies using imaging flow cytometry. Samantha de Vore (Earth Sciences). Mentor: Maria Kavanaugh

57. Powered by plastics: Plastic to fuel. Garrett DuBow (Mechanical Engineering), Alexander Kosek (Chemistry) and Claire Niemet (Chemical Engineering), Merritt Barber (Chemical Engineering), Aaron Arvidson (Bioengineering) Mentor: Skip Rochefort

58. Hibernation strategies to improve organ preservation and storage. Ellie Yamamoto (Bioengineering), Taylor Kuntz (Biochemistry), and Rosalee Land (Biochemistry). Mentor: Matthew Andrews

59. Impact of UVC sterilization technique on donor milk in maintaining bile salt stimulated lipase activity. Jooyoung Yeo (Biochemistry and Molecular Biology). Mentor: David Dallas

60. The effect of stand age on emergence rate and cocoon mass of Osmia lignaria in managed conifer forests. Nuha Zarifah (Accounting). Mentor: James Rivers

61. The Goldilocks zone for mussel recruitment. Dreagn Bennett (Biology). Mentor: Sarah Gravem


63. Combating adverse childhood experiences. Riley Jones (BioHealth Sciences). Mentor: Megan Pratt

* Ecampus student presenting virtually

11:30 PM – 12:30 PM   Lunch for Presenters (ALS 4000)

12.00 PM – 1:50 PM   Poster Session 2 (1st Floor LPSC)

1. Analysis of complexity measures used to categorize neural network states. Kyra Kadhim (Bioengineering). Mentor: Kevin Brown


3. Evaluation of cutthroat trout as the Willamette River heats up in the summer. Nathan Edwards (Fisheries and Wildlife Sciences). Mentor: Hannah Barrett


5. Identification of anti-rhodococcus tryptanthrin from Strobilanthes cusia 411. Leigh Skala (Chemistry). Mentor: Taifo Mahmud


9. Active lithium analysis for the elimination of battery thermal runaway. Mariya Ray (Chemistry) Mentors: Steve Sloop, Christine Pastorek, Mike Lerner

10. Mathematical modeling of pathogen interaction, determining implications of coinfection on epidemics. Abigail Bernasconi (Health Promotion and Health Behavior). Mentor: Blessing Emerenini

11. Designing appealing interpretive material for trails in the McDonald-Dunn research forest. Ardea Eichner (Biology). Mentor: Dave Stemper


* Ecampus student presenting virtually

15. Shelf-life of whole wheat bread: effects of sourdough and sweeteners. Daisy Chen (Food Science and Technology) and Kellen Ka’imip (Environmental Sciences). Mentor: Andrew Ross


19. Method to determine the concentration of lithium metal in cell anodes via triiodide reduction. Phillip Wallace (Chemistry). Mentors: Steve Sloop and Michael Lerner

20. Vanquishing thermal runaway: Removing hazards of lithium-ion batteries with supercritical CO2. Alden Bergener (Chemical Engineering). Mentors: Lauren Crandon and Steve Sloop (OnTo Technologies) and Skip Rochefort


24. Temporal differences in estrogen receptor expression contribute to negative vs. positive feedback responses of kisspeptin neuronal populations in female mouse neurons in vitro. Christopher Markgraf (Biochemistry and Molecular Biology). Mentor: Patrick Chappell


27. The effects of marijuana use on sleep quality in college students. Sara Tajanlangit (Psychology) and Marika Huffer (Psychology). Mentor: Anita Cservenka


* Ecampus student presenting virtually
30. Analysis of morphological differences between three species of dune grass and an interspecific hybrid. Madeline Marie-Rose (Microbiology). Mentor: Sally Hacker

31. How models and group work affect learning for ESL students. Jaden Berger (Mechanical Engineering). Mentor: Cory Buxton

32. Effects of varying solutions on cellular survival in cold conditions. Rosalee Land, Taylor Kuntz, and Maja Engler (Biochemistry and Molecular Biology). Mentor: Matthew Andrews


34. Defining the Riesz transformation on the unit circle using Neumann boundary conditions. Cooper Nicolaysen (Physics). Mentor: Hoewoon Kim

35. Microstructural evolution in a diffusion-bonding hybrid metal system processed by high-pressure torsion. Taylor Herndon (Mechanical Engineering). Mentor: Megumi Kawasaki

36. Expression of nitrated Hsp90 and P2X7 receptors in patients with chronic fatigue and rheumatic disease using Western blots and ELISA. Cameron Chun (Biochemistry and Molecular Biology). Mentor: Alvaro Estevez


38. Effects of varying solutions on cellular survival in cold conditions. Taylor Kuntz (Biochemistry and Molecular Biology). Mentor: Matt Andrews

39. Methanogenic diversity in the Copper River Delta. Samantha Dawson (Microbiology). Mentor: Frederick Colwell

40. Quantifying polycyclic aromatic hydrocarbon (PAH) losses during sample preparation steps of fine particulate matter (PM2.5) filters. Emma Weeks (Chemistry). Mentor: Staci Simonich

41. Shelf life of suspended, encapsulated, and coencapsulated ATCC 21198. Riley Humbert (Chemical Engineering). Mentor: Lewis Semprini

42. Optimization of the expression and purification of site-specific nitrated Hsp90. Mason Steinbach (Biochemistry and Molecular Biology). Mentor: Maria Franco

43. The regulation of metabolic reprogramming of schwannoma cells by Hsp90. Lydia Bastian (Biochemistry and Molecular Biology). Mentor: Maria Franco

44. Determining the effects of P2X7 inhibition on motor neuron survival. Kevin Sy (Biochemistry and Molecular Biology). Mentor: Alvaro Estevez

45. Circadian clock disruptions via light-at-night exposure alters gene expression of TET1, TET2, TET3 enzymes in murine mammary tissues. Josh Brenne (Biochemistry and Molecular Biology). Mentor: Patrick Chappell

* Ecampus student presenting virtually
46. **Computational evaluations of animal microbiome disruption.** Shalvi Patel (Microbiology). Mentor: Rebecca Vega-Thurber

47. **Investigation of the activation of P38 and JNK MAP kinase when exposed to BzATP.** Gautam Singh (Biochemistry and Biophysics). Mentor: Alvaro Estevez

48. **Assessing best methods for disability pride awareness events.** Sara Robinson (Biology). Mentor: Kathleen Bogart

49. **Green-fluorescent E. coli are a viable method for quantifying engulfment activity in Anoplopoma fimbria (sablefish) phagocytes.** Anabel Mendoza (BioHealth Sciences). Mentor: Carla Schubiger

50. **Towards an electrically-driven quantum light source.** Duy Nguyen (Physics). Mentor: Ethan Minot

51. **Investigating resource use in two species of swallow using stable isotope analysis.** Ryley Tishendorf (Biology). Mentor: Rebecca Terry

52. **Evaluating colostrum quality tests in small ruminants.** Danielle Alexis Cacdac (Animal Sciences). Mentor: Michelle Kutzler

53. **Highlighting Oregon's endangered species through digital animation.** Zoe Moulton (Bioengineering). Mentor: Andrew Myers

54. **Once upon a time in East Germany: (Fairy)tales from behind the wall.** Chloe Jonhston (Psychology). Mentor: Benita Blessing

55. **Evaluating encounters with individuals with disabilities.** Marie Wilkey (Kinesiology). Mentor: Sam Logan

56. **The synthesis and configurational stability of 7-isopropoxy-8-(naphthalen-1-yl)quinoline.** Cindy Cedeno (Chemistry). Mentor: Paul Blakemore

57. **Comparison of stormwater effect on heavy metals Cu2+ and Zn2+ through adsorption.** Rose Johnson (Chemical Engineering). Mentor: Tyler Radniecki


59. **Vibrio coralliilyticus virulence evaluation on Eastern and Pacific oyster larvae.** Elizabeth Carroll (Biology). Mentor: Claudia Hase

60. **A pilot evaluation of BEPA 2.0 implementation, a classroom-based physical activity program aligned to state physical education standards.** Thomas Packebush (Kinesiology). Mentor: Kathy Gunter

61. **Evaluating boiled Salt Water Formation for better heat transfer alternatives.** Benson Ton (Mechanical Engineering). Mentor: Joshua Gess

62. **The digestion of milk peptides inside an infant stomach and their bioactive functions.** Ulises Solis (BioHealth Sciences). Mentor: David Dallas

* Ecampus student presenting virtually
63. *Hydrogel Patches for the Delivery of Medicinal Botanicals.* Paige Sedgwick (Chemical Engineering), Martha Brasted-Maki (Chemical Engineering). Mentor: Slip Rochefort

2:00 PM – 3:50 PM    **Poster Session 3 (1st Floor LPSC)**

1. *The effects of senolytic drugs in the hippocampus of P301S and Nrf2 mice modeling Alzheimers Disease.* Jovita Dimas-Munoz (Biochemistry and Molecular Biology). Mentor: Viviana Perez

2. *Does supranutritional Se supplementation by agronomic biofortification enhance complement mediated bacterial killing in plasma of healthy weaned beef calves?* Ian Thompson (Bioresource). Mentor: Jean Hall


4. *Examining reproductive phenology and success of the common murre (Uria aalge) colony at Yaquina Head Natural Outstanding Area.* Cassidy Turner (Natural Resources). Mentor: Rachael Orben *

5. *Characterizing the role of fas genes in phytopathogenic Rhodococcus fascians.* Jasmine Brandes (Human Development and Family Sciences). Mentor: Jeff Chang


8. *Polymer characterization for 3D printing.* Alyssa Rogers (Bioengineering). Mentor: Skip Rochefort and Kelly Hollenbeck


12. *Lactobacilli and their ability to colonize the gastrointestinal tract of WD fed mice.* Jacob Pederson (Microbiology). Mentor: Natalia Shulzhenko


14. *Fusion of inclusion membranes in cells infected by varying species of Chlamydia.* Addison DeBoer (Biochemistry and Molecular Biology). Mentor: Daniel Rockey

*Ecampus student presenting virtually
15. **Solar TCES pyrolysis of waste plastics.** Alexander Dyall (Chemical Engineering). Mentor: Nick AuYeung

16. **Investigation of peroxide interaction of alkali uranyl triperoxide monomers.** Trevor Arino (Chemical Engineering). Mentor: May Nyman

17. **Evaluating stone-ingesting diet of penguin chicks in Antarctica.** Dania Irhamy (Microbiology). Mentor: Virginia Morandin

18. **Identification of regulator genes to control a cervical cancer network.** Kaito Hioki (Biochemistry and Biophysics). Mentor: Andriy Morgun

19. **Circadian clock disruptions via exposure to light at night (LAN) alters epigenetic modification and expression of DBC1 in marine mammary.** Kathryn Boyd (Public Health). Mentor: Patrick Chappell

20. **How mussel recruitment varies across the Oregon Coast.** Kristen Alvstad (Biology). Mentor: Sarah Gravem

21. **Binding interactions within dynein's cargo attachment subcomplex.** Cat Hoang (Microbiology). Mentor: Elisar Barbar

22. **Examining the juvenile justice system and the discretion making role of juvenile probation officers.** Isabella Ellwein (Anthropology) and Cole Parra (Sociology). Mentor: Michelle Inderbitzin

23. **Barnacles and mussels: Competition in the rocky intertidal.** Derek Yau (Zoology). Mentor: Sarah Gravem

24. **Altering metabolic gene expression in fruit flies: Effects on longevity and brain aging.** Kelsey Shimoda (Biochemistry and Molecular Biology). Mentor: Jaga Giebultowicz

25. **Partial consumption of prey in barred owls (Strix varia) diets.** Uta Briggs (Art). Mentor: Katie Dugger

26. **Digestion of milk proteins and peptides in term and preterm infants.** Ulises Solis (BioHealth Sciences). Mentor: David Dallas

27. **Stable attachment of antibodies to cellulose-derived substrates.** Natalie White (Bioengineering). Mentor: Elain Fu

28. **Nanoparticle fate and transportation in aquatic systems.** Caroline Latimer (Chemical Engineering). Mentor: Jeff Nason

29. **Monitoring the succession and competition of riparian restoration efforts in Coos County.** Mariel King (Natural Resources). Mentor: Jon Souder

30. **Regulation of the P2X7 receptor expression by ALS approved drugs in human astrocytes.** Asra Noor (Biochemistry and Molecular Biology). Mentor: Alvaro Estevez


32. **Regulation of the expression of the P2X7 receptor in astrocyte cells treated with Riluzole derived from healthy controls and ALS patients.** Taylor Foster (Biology). Mentor: Alvaro Estevez

*Ecampus student presenting virtually*
33. Bio-accumulation and trophic transfer of microplastics in Mytilus californianus and its predator, Nucella ostrina. Andrew Williams (Biology). Mentor: Susanne Brander

34. Circadian clock disruptions via exposure to light at night alters epigenetic gene expression. Zackry Rogers (Microbiology). Mentor: Patrick Chappell


37. Modeling photoacoustic imaging in the presence of blood. Mindy Nguyen (Biochemistry and Molecular Biology). Mentor: Oleh Taratula


39. Sea star density and biomass in relation to predation rate. Tory Schroeder (Biology). Mentor: Sarah Gravem

40. Characterizing the accumulation of cellular senescence in the PS19 mouse model. Juno Valerio (Biochemistry and Biophysics). Mentor: Viviana Perez

41. OSUTopia. Yasmeen Pemberton (Bioengineering). Mentor: Rafaelle De Amicis

42. Analyzing hemolytic effects of extracorporeal microfluidic hemodialysis. Kyle Botermans (Chemical Engineering) and Kaylene Lim (Chemical Engineering). Mentor: Goran Jovanovic

43. Anti-mullerian hormone testing to determine reproductive status in pet rabbits. Alissa Meeker (UESP). Mentor: Michelle Kutzler


46. Improvements to the Evaporometer Sensor. Faaiq Waqar (Computer Science). Mentor: John Selker

47. Creating facial recognition software for flexible feature attribute detection. Laura Jiang (Computer Science). Mentor: Jinsub Kim

48. Evaluating the nutrient uptake of photosynthetic properties of red microalgae and the photosynthetic properties of colonial red microalgae. Hayley Zimny (Chemical Engineering). Mentor: Gregory Rorrer

49. Support effects on the ruthenium-catalyzed Fischer-Tropsch synthesis. Michael Vannevel (Chemical Engineering). Mentor: Kostas Goulas

50. Impact on Mytilus edulis shell thickness and growth from increased water temperature. Lynsey Katzler (Biology). Mentor: Sarah Gravem

* Ecampus student presenting virtually
51. Prey sharing between barred owls (Strix varia) in Oregon and Washington. Heather Thomas (Fisheries and Wildlife Sciences). Mentor: Katie Dugger

52. Characterizing a novel interaction between hub protein Light Chain 8 and carcinogenesis preventing protein Kank1. Seth Pickney (Biochemistry and Biophysics). Mentor: Elisar Barbar


54. Forecasting changes in soil trace element concentrations in response to climate change scenarios. Logan Insinga (Ecological Engineering). Mentor: Gerrad Jones

55. Examining the effects of air and water temperature on mussel settlement in the intertidal zone. Gabe Reitzes (English). Mentor: Sarah Gravem

56. Evaluating the physical growth of diatom algea in response to varying methods of segmentation. Annabel Lofts (Bioengineering). Mentor: Evans Ford

57. Presence and succession of cable bacteria at Hydrate Ridge, NE Pacific Ocean. Claire Andrade (Earth Sciences). Mentor: Cheng Li

58. Mapping geographic and genetic information of Mahonia nervosa. Lena Wilhelm (Horticulture). Mentor: Ryan Contreras

59. Using refraction patterning to observe heat distributions through buoyant air. Aiden Shaevitz (Mechanical Engineering). Mentor: Joshua Gess


61. Enzyme kinetics of beta-glucosidase expressed through genetic code expansion. Cormack Pegau (Bioengineering). Mentor: Kate Schilke

* Ecampus student presenting virtually