The 13th Annual

Fall
Undergraduate Research Festival

Wednesday, November 2, 2022
4:00pm-6:00pm

University of Iowa
University Capitol Centre
2nd floor South Atrium
Iowa City, Iowa
This event is hosted by the Iowa Center for Research by Undergraduates.

ICRU promotes undergraduate involvement in research and creative projects at the University of Iowa, serving students, staff, and faculty.

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The 202 Fall Undergraduate Research Festival (FURF) is proud to showcase visual presentations focusing on the research and creative work performed by undergraduates at the University of Iowa. Presenters work in over **40 different departments** and major in over **35 different disciplines**, representing a broad range of sciences, arts, and humanities.

Odd numbered posters will present from 4:00-5:00PM
Even numbered posters will present from 5:00-6:00PM

**Please note that at 5:00, all of the boards will be turned around to show the even numbering and the second hour presenters’ posters**

Many thanks to all of the people who make FURF a possibility - all undergraduates presenting their research and creative work, all poster judges, all mentors of undergraduate researchers, the Office of the Provost, the Office of the Vice President for Research and Economic Development, and the ICRU Research Ambassadors.

Programs with full abstracts are available on the ICRU website.

Upcoming ICRU Events and Opportunities

- Excellence in Undergraduate Research Award
- Distinguished Mentor Award
- ICRU Research Fellowships
- Research in the Capitol
- Spring Undergraduate Research Festival (SURF)
4:00 Presentations  
(Odd-numbered Posters)

1. Morgan Anderson  
Genome size in triploid snail  
Major: Biology  
Graduation: Spring 2024  
Mentor: Dr. Maurine Neiman (Biology)

3. Jessica Andrew-Udoh  
Gynecologic Tumor Organoid Models for Therapeutic Efficacy  
Major: Biochemistry  
Graduation: Spring 2023  
Mentor: Dr. Kristina Thiel (OB/GYN)

5. Ahmed Baig  
Examination of Dorsal Striatal Cell Density After Prenatal Stress & IL-6 Exposure  
Major: Neuroscience  
Graduation: Spring 2025;  
Mentor: Dr. Hanna Stevens (Psychiatry)

7. Kelsey Baller  
Do White Matter Lesions Affect the Relationship Between Cardiorespiratory Fitness and Processing Speed in Aging?  
Major: Post-Bacc Researcher  
Graduation: Fall 2020  
Mentor: Dr. Michelle Voss (Psychological and Brain Sciences)

9. Elsy Barahona  
A Roadmap to Health Equity  
Major: Public Health, Pre-medicine  
Graduation: Fall 2025  
Mentor: Dr. Martha Carvour (Internal Medicine)

11. Liz Barroso  
The Role of Hepatic IRE1 in Protecting the Host During Sepsis  
Major: Biochemistry  
Graduation: Spring 2025  
Mentor: Dr. Ling Yang (Anatomy & Cell Biology)

13. Ferris Bissen; Lizzie Van Es  
Microbial Growth on Disposable Masks: How Gross are They?  
Majors: Chemistry; Pharmacy Interest  
Graduation: 2024; 2027  
Mentor: Scott Shaw (Chemistry)
15. Ethan Bley

*Encrinuridae Trilobites from the Late Ordovician Maquoketa Formation of Northeast Iowa.*
Major: Environmental Science and Geoscience
Graduation: Spring 2024
Mentor: Dr. Jonathan Adrian (Earth and Environmental Sciences)

17. Solange Bolger

*College-Aged Men’s Beliefs about Sexual Consent: Links to Sexual Aggression*
Major: Psychology
Graduation: Spring 2023
Mentor: Dr. Teresa Treat (Psychological and Brain Sciences)

19. Delaney Catania

*Structure Determination of the Staphylococcal aureus SrrB Histidine Kinase Cache Domain*
Major: Biochemistry
Graduation: Spring 2023
Mentors: Nicholas Hammons and Dr. Ernesto J Fuentes (Biochemistry and Molecular Biology)

21. Kiley Christopher

*The Role of C5a and C5aR1 in Pain Sensitization*
Majors: Biochemistry, Neuroscience
Graduation: Spring 2025
Mentor: Dr. Yuriy Usachev (Neuroscience and Pharmacology)

25. Allison Eagen

*CNTNAP2 deficiency leads to reduced parvalbumin reactivity in the basolateral amygdala of adult mice.*
Major: Biomedical Science
Graduation: Spring 2023
Mentor: Dr. Hildegard Janouschek (Psychiatry)

27. Melanie Flores

*Lexical access in school-age bilingual: a study of bilingual vocabulary development*
Major: Speech and Hearing Science
Graduation: Spring 2025
Mentor: Dr. Kristi Hendrickson (Communication Sciences and Disorders)

29. Daniel Fu

*A splice acceptor variant in RGS6 associated with intellectual disability, microcephaly, and cataracts disproportionately promotes the expression of a subset of RGS6 isoforms*
Major: Biomedical Sciences
Graduation: Spring 2023
31. Jason Gao  
_The Role of ATF4 in the Favorable Metabolic Phenotype of OPA1 Skeletal Muscle KO Mice_  
Major: Biomedical Sciences  
Graduation: May 2023  
Mentor: Dr. Jennifer Streeter (Internal Medicine)

33. Nathaniel Gehrke  
_Conjugate Reduction of Vinyl Bisphosphonates_  
Majors: Chemistry, Mathematics  
Graduation: Spring 2023  
Mentor: Dr. David Wiemer (Chemistry)

35. Noah Gilkes  
_Type I interferon receptor knockout reduces immune system activation and improves behavioral outcomes after traumatic brain injury._  
Majors: Neuroscience, Philosophy  
Graduation: Spring 2023  
Mentor: Dr. Elizabeth Newell (Pediatrics)

37. Walter Golay  
_Beam me up, SCOTTY! New algorithms for characterizing the beams of next-generation CMB experiments_  
Majors: Astronomy, Physics  
Graduation: Spring 2023  
Mentor: Dr. Robert Mutel (Physics and Astronomy)

39. Lauren Groenenboom  
_A qualitative analysis of undergraduate students’ modes of reasoning for organic chemistry reactions_  
Majors: Human Physiology, Enterprise Leadership  
Graduation: Spring 2023  
Mentor: Dr. Nicole Becker (Chemistry)

41. Lydia Guo  
_CFTR-F508del Ferret Model Responds to CFTR Modulator Therapy and Exhibits Mucus Phenotype_  
Major: Biomedical Sciences  
Graduation: Fall 2022  
Mentors: Drs. John Engelhardt and Idil Apak Evans (Anatomy and Cell Biology)
43. Claire Haas; Isaiah Pielak  
*Banzhaf Index and the Electoral College: An Analysis of 2020 Census Data*  
Majors: Electrical Engineering; Political Science, Psychology, Ethics and Public Policy  
Graduation: Fall 2025; Spring 2026

45. Aden Hageman  
*Telecom-band single-photon sources*  
Major: Physics  
Graduation: Spring 2024  
Mentor: Dr. Ravitej Uppu (Physics and Astronomy)

49. Grace Heft  
*Role of Vangl2 in regulating gut-endoderm morphogenesis*  
Major: Biomedical Sciences  
Graduation: Spring 2024  
Mentor: Dr. Fang Lin (Anatomy & Cell Biology)

51. Felipe Herrmann  
*Educating during the COVID-19 pandemic: The effects of psychological flexibility on depression and anxiety*  
Major: Psychology  
Graduation: Spring 2023  
Mentor: Dr. Emily Thomas (Psychological and Brain Sciences)

53. Jason Homann; Will Meiners  
*Sensing Oxygen and Nitrogen Composition (SONiC)*  
Majors: Physics, Astronomy; Physics, Astronomy  
Graduation: Spring 2025; Spring 2025  
Mentor: Dr. David Miles (Physics and Astronomy)

55. Rongzhuo (Selina) Hua  
*Characterization of the newly discovered lymphatic vascular system of inner ear*  
Majors: Biomedical Sciences, Art  
Graduation: Spring 2024  
Mentor: Dr. Marlan Hansen (Otolaryngology)

57. Madeleine Humpal-Pash  
*MSCs: The Future of Drug Delivery?*  
Major: Biomedical Engineering  
Graduation: Fall 2022  
Mentor: Dr. James Ankrum (Biomedical Engineering)
59. Mara Jendro
Selective Vulnerability in Von Economo Neurons in Frontotemporal Lobar Degeneration
Major: Neurobiology
Graduation: Fall 2022
Mentor: Dr. Queena Lin (Iowa Neurobank Core)

61. Preston Johnson
Optimal cut scores for the SPQ-BRU to identify psychosis risk in a non-help seeking undergraduate sample: A Multi-site Study
Major: Neuroscience
Graduation: Spring 2023
Mentor: Dr. Amanda McCleery (Psychological and Brain Sciences)

63. Jamie Jones
Plant Distribution at Ashton Prairie Living Laboratory
Major: BA Environmental Science
Graduation: Spring 2024
Mentor: Dr. Kate Tierney (Earth and Environmental Sciences)

65. Emily Kalmanek
Role of obesity in cancer cachexia
Major: Human Physiology
Graduation: Spring 2023
Mentor: Dr. Erin Talbert (Health and Human Physiology)

67. Miles Kramer
Forever Conquered: The Changing Significance of Vikings in Modern and Contemporary Anglo-American Culture
Major: History
Graduation: Spring 2023
Mentor: Drs. Alyssa Park and Nick Yablon (History)

69. Ryan Langstraat
Development Of An Automated Geometric Lung Meshing Tool
Major: Biomedical Engineering
Graduation: Spring 2023
Mentor: Dr. Suresh Raghavan (Biomedical Engineering)

71. Dana Lapinski
Effect of sleep state and time of day on breathing following seizures in amygdala kindled serotonergic deficient mice
Major: Neuroscience
Graduation: Spring 2023
Mentor: Dr. Gordon Buchanan (Neuroscience)
73. Trevor Larkin
Preparation and Evaluation of Lanthanide Catalysts for Oxygen Reduction
Major: Chemistry
Graduation: Fall 2023
Mentor: Josh Coduto and Kasun Dadallegei (Chemistry)

75. Ondrea Li
Disaster, Migration and Violence in Thailand
Majors: International Relations, Journalism
Graduation: Spring 2025
Mentor: Dr. Elise Pizzi (Political Science)

77. Carson Lovig
Analyzing STEM instructor classroom facilitation
Majors: Neuroscience, Biochemistry
Graduation: Spring 2025
Mentor: Nicole States and Dr. Renee Cole (Chemistry)

81. Megan McGovern
Extremophile mRNA Delivery for Radioprotection
Major: Biomedical Sciences
Graduation: Spring 2024
Mentors: Drs. James Byrne and Jianling Bi (Radiation Oncology, Biomedical Engineering)

83. Jesse Miller
"License to do Evil in the Name of Good": Political Radicalization and Rhetorical Adaptation During the Wilmington Coup
Major: Social Studies Education, History
Graduation: Spring 2024
Mentors: Drs. Alyssa Park and Nick Yablon (History)

85. Aracely Miron-Ocampo
Searching for Novel Antifungal Treatments and Regulatory Pathways via the Characterization of a Fluphenazine Derivative Against C. albicans
Major: Microbiology, Global Health Studies Certificate
Graduation: Spring 2023
Mentors: Drs. Damian Krysan and Sarah Beattie (Microbiology & Immunology)

87. Lilian Montilla
Identifying cognitive abnormalities following cerebellar strokes
Major: Neuroscience
Graduation: Spring 2025
Mentor: Dr. Victoria Muller Ewald (Psychiatry)
89. Joanna Moody  
Majors: Public Health, Microbiology  
Graduation: Fall 2023  
Mentors: Kelsey Dawes and Dr. Robert Philibert (Psychiatry)

93. Ana Novella Maciel; Benjamin Kreitlow  
_Circadian modulation of seizure-associated death in the Scn1aR1407X/+ mouse model of Dravet Syndrome_  
Major: Neuroscience; MSTP  
Graduation: Visiting Scholar; Fall 2024  
Mentor: Dr. Gordon Buchanan (Neurology)

95. Dean Omar  
_Renal Dysfunction Caused by Multiple Myeloma in Mouse Model_  
Major: Human Physiology  
Graduation: Spring 2025  
Mentor: Dr. Dao-Fu Dai (Pathalogy)

97. Precious Pate  
_Apple Snails as Model for Gene Modification_  
Major: Public Health, Pre-Medicine  
Graduation: Spring 2024  
Mentor: Dr. Maurine Neiman (Biology)

99. Mackenzie Pattridge  
_Establishment of pure primary rat astrocyte cultures to study the metabolism and toxicity of polychlorinated biphenyls (PCBs)_  
Major: Public Health, Pre-PA  
Graduation: Spring 2023  
Mentor: Dr. Hans-Joachim Lehmler (Occupational and Environmental Health)

101. Melissa Peters  
_Examining Electrostatic Waves at Harmonics of the Electron Cyclotron Frequency at the Moon_  
Majors: Physics, Math  
Graduation: Spring 2023  
Mentor: Dr. Jasper Halekas (Physics and Astronomy)

103. John Piaszynski  
_Lesion Network Mapping: A Novel Approach to Brain Lesion Research_  
Majors: Statistics, Computer Science  
Graduation: Spring 2023  
Mentor: Dr. Kanchna Ramchandran (Internal Medicine)
105. Joseph Schopen  
Entangled Photon Sources in the Infrared  
Majors: Physics, Astronomy  
Graduation: Spring 2024  
Mentor: Dr. Ravitej Uppu (Physics)

107. Darrell Smith  
Prediction of the HOMO-LUMO gap of organic molecules with graph neural networks  
Majors: Chemical Engineering, Biochemistry  
Graduation: Spring 2023  
Mentor: Dr. Joe Gomes (Chemical and Biochemical Engineering)

109. Deven Strief  
Optimizing Immunofluorescence Staining of Microglia in Thick Human Brain Tissues  
Major: Biomedical Sciences  
Graduation: Fall 2025  
Mentor: Dr. Michael Dailey (Biology)

111. Zach Vig  
Quantifying geochemical provenance of the beaverhead group in southwestern montana using unsupervised machine learning on a sparse dataset  
Majors: Physics, Geology  
Graduation: Fall 2022  
Mentor: Dr. Emily Finzel (Earth and Environmental Sciences)

113. Gracie Weeks  
Cardiometabolic Confounding on cg19693031 Methylation Limits Utility for Diabetes Medicine  
Major: Human Physiology  
Graduation: Spring 2024  
Mentor: Kelsey Dawes and Dr. Robert Philibert (Psychiatry)

115. Natalia Weinzierl  
Modeling Cancer Cachexia in KPP Mice  
Major: Human Physiology  
Graduation: Spring 2023  
Mentor: Dr. Erin Talbert (Health and Human Physiology)
117. Kaylee Weaver  
*Psychiatric and Obstetric Disease Share Vascular Mechanisms in the RGS2 Knockout Mouse*  
Major: Human Physiology  
Graduation: Spring 2023  
Mentor: Dr. Serena Banu Gumusoglu (Obstetrics and Gynecology)

119. Alexander Williams  
*The Relationship Between Rejection of Care, Pain, and Delirium in Hospitalized Patients with Dementia*  
Major: Nursing  
Graduation: Spring 2023  
Mentors: Drs. Ruth Grossmann and Clarissa Shaw (Nursing)

121. Aasthika Das  
*Inhibition of FGF13 in adipose tissue increases caveolae density*  
Majors: Biology, Chemistry  
Graduation: Spring 2023  
Mentor: Dr. Bhagirath Chaurasia (Internal Medicine)

123. Bailey Goodman  
*Epidemiology of Gestational Diabetes Mellitus Before and During the COVID-19 Pandemic*  
Major: Public Health, Pre-Medicine  
Graduation: Spring 2025  
Mentor: Dr. Martha Carvour (Internal Medicine)
2. Jacob Andrews
*DUNE, Deep Learning for Neutrino Physics*
Major: Physics
Graduation: Spring 2025
Mentor: Dr. Jane Nachtman (Physics and Astronomy)

4. Emily Arndt
“There Ain’t No Shame in Looking for a Better World”: The Evolution of Cultural Influence Behind the Folklore of Robin Hood
Majors: History, English and Creative Writing
Graduation: Spring 2024
Mentor: Dr. Sarah Bond (History)

6. Roxanna Barbulescu
"Nobody is Nostalgic for Stalinism, but..." Post-Communist Nostalgia in the Memory of Romanian Immigrants in Iowa
Major: History and Health and Human Physiology
Graduation: Spring 2023
Mentors: Drs. Elizabeth Heineman and Alyssa Park (History)

8. Leighton Barnes
*Hysterical Women: The Fight for an Expanded British Franchise*
Majors: Chemistry, History
Graduation: Spring 2024
Mentors: Drs. Elizabeth Yale and Alyssa Park History (History)

10. Nicole Boodhoo
*Mortality following induced seizures in amygdala kindled mice: investigation of the corticosterone stress pathway*
Major: Biomedical Sciences
Graduation: Spring 2024
Mentor: Dr. Gordon F. Buchanan Buchanan (Neurology)

12. Tom Bruner
*Quality Control and Assembly Automation for Upgrades to the CMS Outer Tracker*
Majors: Physics, Philosophy
Graduation: Spring 2023
Mentors: Drs. Jane Nachtman and Yasar Onel (Physics)
14. Nina Carnevale  
*Inhibition of the pentose phosphate pathway in malignant peripheral nerve sheath tumors (MPNSTs)*  
Major: Biomedical Sciences  
Graduation: Spring 2024  
Mentor: Dr. Rebecca Dodd (Internal Medicine)

16. Gloria Chang  
*Social and Structural Correlates of Instrumental and Emotional Support Following a Natural Disaster*  
Major: Psychology  
Graduation: Spring 2023

18. Allison Clark  
*Commodifying the Spirit Lake Massacre: Abbie Gardner Sharp and Her Role in the Settler-Centric Memory of the Event*  
Major: History  
Graduation: Spring 2023  
Mentor: Dr. Stephen Warren (History)

20. Aditya Desai  
Majors: Physics, Economics  
Graduation: Spring 2023  
Mentor: Dr. Thomas Folland

22. William Dong  
*Heating and artifact testing of a nitinol breast biopsy clip in a high-resolution magnetic resonance imaging (MRI) environment.*  
Major: Biomedical Engineering  
Graduation: Spring 2024  
Mentor: Dr. Kanchna Ramchandran (Internal Medicine)

24. Aidan Drozdick  
*Investigation of the Impact of Tim Ubiquitination Site Deletions on Ebolavirus Infection*  
Major: Microbiology  
Graduation: Spring 2023  
Mentor: Dr. Wendy Maury (Microbiology and Immunology)

26. Carter Dwyer  
*Investigating Viability Assays to Monitor Microbicidal Activity Against Leishmania*  
Major: Microbiology  
Graduation: Spring 2023  
Mentor: Dr. Mary Wilson (Microbiology and Immunology)
28. Myles Evangelista  
*Sprayable biopolymer improves surgical handling of corneal endothelial cell grafts*  
Major: Biomedical Engineering  
Graduation: Spring 2023  
Mentors: Drs. Kristan Worthington (Biomedical Engineering) and Christopher Sales (Ophthalmology and Visual Sciences)

30. Jordan Ewald  
*Novel Lead (203Pb/212Pb) Theranostic Pair Targeting CXCR4 in Small Cell Lung Cancers*  
Major: Biomedical Engineering  
Graduation: Fall 2022  
Mentor: Dr. Melissa Fath (Radiation Oncology)

32. Hanlong Fan  
*Complex Rule Learning in Pigeons and People*  
Major: Psychology  
Graduation: Spring 2023  
Mentor: Dr. Leyre Castro (Psychology)

34. Olivia Fortman  
*Significance of UL51 protein-dynactin interaction*  
Major: Microbiology  
Graduation: Spring 2024  
Mentor: Dr. Richard Roller (Microbiology and immunology)

36. Grace Foster  
*Association of resting central pulse-wave analysis hemodynamic parameters with the blood pressure response to exercise*  
Major: Human Physiology  
Graduation: Spring 2023  
Mentor: Dr. Gary Pierce (Health and Human Physiology)

38. Nathan Freesmeier  
*Targeting cell adhesion to overcome drug resistant melanoma*  
Major: Biology  
Graduation: Spring 2024  
Mentor: Dr. Christopher Stipp (Biology)

40. Maunika Gandhamaneni  
*Features of Proteins That Allow Them to Form Nucleolar Compartments.*  
Major: Chemical Engineering  
Graduation: Spring 2023  
Mentor: Dr. Daniel Weeks (Biochemistry and Molecular Biology)
42. Brandon Gerhardt  
*Profit Status and Quality Assurance Assessment Fees in Iowa Nursing Facilities*  
Major: Public Health  
Graduation: Fall 2022  
Mentor: Dr. Hari Sharma (Health Management and Policy)

44. Nicole Gilbert  
*Fame and Femininity: First Lady Jacqueline Kennedy’s Public Diplomacy during the Cold War*  
Majors: History, Psychology  
Graduation: May 2023  
Mentor: Drs. Alyssa Park and Tyler Priest (History)

48. Allison Groux  
*Motor Assessment Procedures in the Efficacy of Diet on Quality of Life in Multiple Sclerosis Study*  
Major: Health and Human Physiology  
Graduation: Fall 2022  
Mentor: Dr. Terry Wahls (Internal Medicine, Epidemiology)

50. Bryan Guevara  
*Assessing the Effects of Plastics on Sperm Morphology*  
Major: Biology  
Graduation: Spring 2023  
Mentor: Dr. Maurine Neiman (Biology)

52. Mary Haag  
*Cooling System for CMS Barrel Timing Layer Upgrade*  
Majors: Astronomy, Physics  
Graduation: Spring 2025  
Mentors: Drs. Jane Nachtman and Yasar Onel (Physics and Astronomy)

54. Audrey Hake  
*Generating a △lmo2839 Mutant in Listeria monocytogenes Using the pMAD and pHoss Plasmids for Allelic Exchange*  
Major: Microbiology  
Graduation: Spring 2025  
Mentor: Dr. Liliana Radoschevich (Microbiology and Immunology)

56. Izabella Halinowski  
*Investigating the role of Checkpoint kinase 2 in gamete quality control*  
Major: Biochemistry  
Graduation: Spring 2024  
Mentor: Dr. Pamela Geyer (Biochemistry & Molecular Biology)
58. Daniel Hettrick
Forced Acculturation and Resistance in Post-Purchase Alaska
Majors: History, Anthropology
Graduation: Fall 2022
Mentors: Drs. Alyssa Park and Stephen Warren (History)

60. Talia Hill
A Regional History of Alabama’s Black Belt
Majors: Geoscience, History
Graduation: Spring 2023
Mentor: Dr. Ashley Howard (History)

62. Ashley Hoffa
Adult Eustachian Tube Dysfunction: A case study
Major: Speech and Hearing Sciences
Graduation: Spring 2025
Mentor: Dr. Eun Kyung Jeon (Communication Sciences and Disorders)

64. Payton Jaeger
Lewy body Dementia, Parkinson’s Disease and Attention Deficit Hyperactivity Disorder: A Genetic Correlate Experiment
Major: Multidisciplinary Sciences
Graduation: Fall 2023
Mentor: Dr. Queena Lin (Iowa Neurobank Core)

66. Liv Jewell; Bree Rubel
Majors: Gender, Women’s, and Sexuality Studies; Gender, Women’s, and Sexuality Studies
Graduation: Winter 2023; Spring 2024
Mentor: Dr. Teresa Mangum (Obermann Center for Advanced Studies)

68. Joseph Kesteloot
Using Allelic Exchange to Generate a Nutrient Acquisition Deficient Mutant (lmo2839) in Listeria Monocytogenes
Major: Microbiology
Graduation: Spring 2023
Mentors: Drs. Lilliana Radoshevich and Aaron Gillman (Microbiology and Immunology)

70. Karah Kluck
Experience-based Chunking Shapes Real-time Reading Ability
Major: Speech and Hearing Sciences
Graduation: Fall 2022
Mentor: Dr. Stewart McCauley (Communication Sciences and Disorders)
72. Ben Koester
*Why Individual Investors Do Not Use Robo-Advisors*
Majors: Finance, Economics
Graduation: Fall 2022
Mentor: Dr. John Lewis Jr. (Finance)

74. Emmeline Kraus
*Seasonal effects of the fungal pathogen Tubakia iowensis (bur oak blight) on the photosynthetic capacity of infected Quercus macrocarpa (bur oak)*
Majors: Environmental Science, Geography
Graduation: Spring 2023
Mentor: Drs. Matthew Dannenberg and Susan Meerdink (Geographical and Sustainability Sciences)

76. Connor Linzer
*Sorbs2 regulates smooth muscle phenotype plasticity*
Major: Human Physiology
Graduation: Spring 2024
Mentors: Dr. Jared McLendon and Ryan Boudreau (Internal Medicine)

78. Kobie Long
*Identifying Areas of Groundwater-Surface Water Exchange along Camp Cardinal Creek at Ashton Prairie Living Laboratory*
Major: Environmental Science
Graduation: Spring 2024
Mentor: Dr. Benjamin Swanson (Earth and Environmental Sciences)

80. Madalyn Lovejoy
*Rape-Supportive and Sociosexual Attitudes among Heterosexual, Bisexual, Asexual and Gay College Men*
Majors: Psychology, Gender, Women’s, and Sexuality Studies
Graduation: Spring 2024
Mentor: Dr. Teresa Treat (Psychological and Brain Sciences)

82. Hailey McCoy-Munger
*Identification of potential treatments for the vision disease Retinitis Pigmentosa*
Major: Biomedical Engineering
Graduation: Spring 2024
Mentor: Dr. Lori Wallrath (Biochemistry and Molecular Biology)
84. Bob Penuic
*Camp Cardinal Creek Creek Water Quality*
Major: Environmental Policy
Graduation: Spring 2023
Mentor: Dr. Ben Swanson (Earth and Environmental Sciences)

86. Ana Sofia Peraza Muñuzuri
*Nucleus of the solitary tract: molecular ontology and efferent projections*
Major: Biomedical Engineering
Graduation: Spring 2023
Mentors: Drs. Joel Geerling and Silvia Gasparini (Neuroscience)

88. Melissa Peters; Emerson Peters
*Balloons Learning the Accuracy of Magnetic Field Models (BLAMM)*
Majors: Physics, Mathematics; Physics
Graduation: Spring 2023; Spring 2025
Mentor: Dr. David Miles (Physics and Astronomy)

90. Ashley Rhodes
*A novel, non-invasive drug delivery device to target bladder cancer*
Major: Biomedical Engineering
Graduation: May 2024
Mentors: Emily Witt (Radiation Oncology) and Dr. James Byrne (Radiation Oncology, Biomedical Engineering)

92. Katie Rosol
*Discussing Disappointments between Parents and Child Relationships*
Major: Psychology
Graduation: Spring 2023
Mentor: Dr. Rachel McLaren (Communication Studies)

94. Karsyn Rush
*Neurofeedback Training*
Major: Speech and Hearing Sciences
Graduation: Spring 2023
Mentor: Dr. Inyong Choi (Communication Sciences and Disorders)

96. Yasmina Sahir
*Middle Eastern, North African, and Arab Representation at University of Iowa*
Majors: Criminology, Law, and Justice, Social Justice
Graduation: Spring 2023
Mentor: Dr. Yasmine Ramadan (Arab Studies, French and Italian)
98. Noah Sinclair  
*Fibroblast to Myofibroblast Conversion in Adipocyte Conditioned Medium*  
Major: Biomedical Engineering  
Graduation: Spring 2023  
Mentor: Dr. Edward Sander (Biomedical Engineering)

102. Alexander Slack  
*Non-Target Analysis of PCB Metabolites in Serum of Mice Exposed to PCBs Via the Diet During Gestation and Lactation*  
Major: Chemistry  
Graduation: Fall 2022  
Mentor: Dr. Xueshu Li (Public Health)

104. Matthew Speranza  
*pH-Based Replica Exchange for Amino Acid Model Bias Parameterization*  
Major: Biomedical Engineering  
Graduation: Spring 2024  
Mentor: Dr. Michael Schnieders (Biomedical Engineering)

106. Jenna Springer  
*Physical activity matters: Investigating the relationship between white matter hyperintensities, vascular health, and executive function*  
Major: Psychology, Health Promotion  
Graduation: Fall 2022  
Mentor: Dr. Michelle Voss (Psychological and Brain Sciences)

108. Yabsira Tekle  
*Using the Zebrafish Model to Investigate the Role of Cryptococcal PLB1 in Infection and Dissemination Across the Blood Brain Barrier*  
Major: Human Health and Physiology  
Graduation: 2023  
Mentor: Dr. James Davis (Pediatric-Infectious Diseases)

110. Sanmati Thangavel; Cally Tucker  
*ER-stress inhibition protects C57 mice from high fat diet-induced weight gain*  
Majors: Human Physiology; Biochemistry  
Graduation: Spring 2024; Spring 2024  
Mentors: Drs. Marcelo Correia and Renata Alambert (Internal Medicine)
112. Jacob Venenga
Acute, Dose-Dependent Supplementation of AmaTea MAX Improves Psychomotor and Motor Speed: A Randomized, Double-Blind, Placebo-Controlled, Crossover Trial
Major: Human Physiology
Graduation: Spring 2024
Mentor: Dr. Nathaniel Jenkins (Health and Human Physiology)

114. Zach Vig; Mehdi Assem; Rebekah Brown; Kevin Hall
Detecting Iowa's CO2 in the Stratosphere using the High Altitude Near Infrared Spectroscopy Experiment (HA-NICSE)
Majors: Geoscience, Physics; Physics, Mathematics; Physics; Physics
Graduation: Spring 2023; Spring 2023; Spring 2024; Spring 2026 (Grad);
Mentor: Dr. David Miles (Physics and Astronomy)

116. Amelia Watson
Measuring discrete and global indicators of shyness: A coding system creation
Major: Psychology, Criminology, Law, and Justice
Graduation: Fall 2023
Mentor: Lilly Bendel-Stenzel and Dr. Danming An (Psychological and Brain Sciences)

118. Elizabeth Wetzel
E-cigarette flavoring does not differentially reduce microvascular endothelial function in healthy young adults
Major: Human Physiology, Pre-Medicine
Graduation: Spring 2024
Mentor: Dr. Anna Stanhewicz (Health and Human Physiology)

120. Micah Williams
Child Externalizing Problems Predicting Later Depressive Symptoms: Comparing Multiple Stressors as Mediators
Major: Psychology
Graduation: Spring 2024
Mentor: Dr. Isaac Petersen (Psychological and Brain Sciences)

122. Meghana Yellepeddi
Cervical Cancer Screening Utilization in Rural FQHCs Across Clinic Characteristics
Major: Ethics and Public Policy, Interdepartmental Studies
Graduation: Spring 2023
Mentor: Dr. Whitney Zahnd (Health Management and Policy)
124. James McMillan
Impact of Violence over the Life Course
Majors: Public Health, Ethics and Public Policy
Graduation: Fall 2022
Mentor: Stephanie DiPietro (Sociology and Criminology)

126. Pedro Marra
Metformin use history and genome-wide DNA methylation profile: potential molecular mechanism for aging and longevity
Major: Biomedical Sciences
Graduation: Spring 2023
Mentor: Dr. Gen Shinozaki (Psychiatry)