

## Office of Student Research

### Undergraduate Student Grantee Scholarly Outcomes

#### Selected Publications by FIREbird student grantees (students' names in bold)

Vladimir Kotomin, **Wyatt Frere**, and **Ruby Morr**, (2024) "Forgive me not? Racial and Institutional Disparities in the Paycheck Protection Program Loan Forgiveness" *Small Business Economics* SSRN:  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4708101](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4708101).

Crompton ME, Gaessler LF, Tawiah PO, Polzer L, Camfield SK, **Jacobson GD**, Naudszus MK, Johnson C, Meurer K, Bennis M, Roseberry B, Sultana S, Dahl J-U. Expression of RcrB confers resistance to hypochlorous acid in uropathogenic *Escherichia coli*. *J Bacteriol*. (2023) Oct 26;205(10):e0006423.

**Zissman, A.**, Mujeye, S., Pareek, L., and Mungapatla, S. (2023) Knowledge and Skill Retention in Introduction to Programming Course. *ICSIM '23: Proceedings of the 2023 6th International Conference on Software Engineering and Information Management*,  
<https://doi.org/10.1145/3584871.3584879>

**Jacqueline Epperson, Danika Mayback**, John Malone, and David Malone. (2022) "Geologic Map of the Woodrock Quadrangle, Sheridan and Big Horn Counties, Wyoming" *The Mountain Geologist* Vol. 59, No. 1, p. 25-42. DOI: 10.31582/rmag.mg.59.1.25

Caplan, M. E., **Freeman, I. F.**, Horowitz, C. J., Cumming, A., & Bellinger, E. P. (2021). Cooling Delays from Iron Sedimentation and Iron Inner Cores in White Dwarfs. *The Astrophysical Journal Letters*, 919(1), L12.

#### FIREbird Student Grantees Selected Off-Campus Conference Presentations and Posters (students' names in bold)

2025

**Stiverson**, W.N., M.L. Kibler, J.M. Thompson, and J.L.Z. Ivey. "The Role of Key Characteristics in Sport Horses as Valued by Buyers". Selected Presentation at Equine Science Society Symposium, Fort Collins, CO. June 3-6, 2025

## 2024

William L Perry, **Kiana Ischner**, Galina Shinkareva, and Catherine O'Reilly. Use of Passive Acoustic Monitoring to detect diurnal and lunar fish community activity cycles in fish hatchery ponds and public reservoirs in Illinois. American Society of Limnology and Oceanography (ASLO). Madison, WI June 2-7, 2024

**Lillian Ridinger**. Mapping Roman Agriculture in Northwest Bolsena. January 2024. Annual Meeting for the Archaeological Institute of America

**Hodges, LT**, 2024, Parent and Guardian Perspectives on the IEP Process, Illinois Association for Education and Rehabilitation of the Blind and Visually Impaired, Naperville Illinois.

**Hodges, LT**, 2024, Parent and Guardian Perspectives on the IEP Process, Spring 2024 Central Affiliation for Special Education Professional Development, Urbana Illinois.

**Long, B.**, R. Meyer, B. Perry. (October 2024) Pennycress effects on soil fungal biomass in the field and laboratory. Illinois Innovation Network Sustainability Research Conference, Illinois State University, Normal, IL, USA. Poster.

**Bennis, M.** (Author & Presenter), Sultana, S. (Author), Dahl, J.-U. (Author), 2024 Midwest Microbial Pathogenesis Conference, "Expression of RcrB promotes hypochlorous acid detoxification and survival in uropathogenic Escherichia coli," Indiana University, Bloomington. (September 14, 2024).

**Mwilambwe, A.** (Author & Presenter), Sauers, L. (Author), Sadd, B. (Author), Midwest Ecology and Evolution Conference, "You are what you eat: diet and the gut microbial community and health," Edwardsville, IL. (April 2024).

Kotomin, V. (Author & Presenter), **Frere, W.** (Author), **Morr, R.** (Author), Finance for the Common Good, "Forgive me not? Racial and Institutional Disparities in the Paycheck Protection Program Loan Forgiveness," University of Dayton, Dayton, OH. (August 10, 2024).

Kotomin, V. (Author & Presenter), **Frere, W.** (Author), **Morr, R.** (Author), Academy of Finance, "Persistence of Racial and Institutional Disparities in Lending: Evidence from the Paycheck Protection Program Loan Forgiveness," Chicago, IL. (April 10, 2024).

## 2023

"Nanophotonic Phenomena in Mesoscale Dielectric Particles", Uttam Manna, Robert Sevik, **Dylan Qualls**, **Minani Alexis**, Brighton Coe, Diego Abujetas, Mahua Biswas, Jorge Olmos-Trigo, Oral Presentation, APS March Meeting, Las Vegas, Nevada, March 5–10, 2023

Sparks, Rachel A.; Lewis, Will; Waring, Ashley L.; and **High, Allie**, "Engaging Underrepresented Adolescents in Reimagined Learning of Integrated STEM" (2023). MWAIS 2023 Proceedings. 7. <https://aisel.aisnet.org/mwais2023/7>

Carter Herbert, **Lane Nichols**, Sudarshana Patra, Uttam Manna, Mahua Biswas, "Block Copolymer Nanostructures Fabrication for Technological Advancements", APS Prairie Chapter meeting 2023, University of Missouri, Poster Presentation, Nov 30th – Dec 2nd, 2023

Sudarshana Patra, Carter Herbert, **Lane Nichols**, Uttam Manna, Mahua Biswas, "Polycaprolactone Block Copolymer - guided Nanopatterning via Sequential Infiltration Synthesis", APS Prairie Chapter meeting 2023, University of Missouri, Poster Presentation, Nov 30th – Dec 2nd, 2023.

**Amelie N Mwilambwe**, Logan Sauers & Ben M Sadd (2023) Pollen Diet and the Gut Microbial Community and Health of Bumble Bees. 2023 Louis Stokes Midwest Regional Center of Excellence, Oak Brook, IL.

Hasan S, **Chowhan F**, Bernicky B, Edwards K. 2023. Inducible markers for junctions and organelles from a protein localization screen in embryos. Ann. Midwest Drosophila Conference, Oct. 2023.

Stein, W., **Lane, K.**, **Clark, K.**, Steiger, C., Harris, A.L. (2023) Are crayfish just big flies? A negative geotaxis assay for marbled crayfish. Seminar, Dynamic Neural Network Meeting, Washington, DC. (November 10, 2023).

**Fontes, C.**, Jeronimus, J., & Clemens, K. S. (2024, April) Understanding the Role of Response Expectancy in Pelvic Pain During Sex. Poster presentation at the Midwestern Psychological Association Annual Meeting, Chicago, IL.

**Peterson, K.** & Banks, B. M. (2023, April). Differences in exposure to microaggressions among Black HBCU and PWI students. Poster presented at the annual Black School Psych Summit, Atlanta, GA.

Sally Xie and **Isaac Galewsky**. Poster Presentation. The 59th Annual Associated Schools of Construction International Conference will take place in Liverpool, UK on 3-5 April 2023. <https://www.ljmu.ac.uk/conferences/asc>

**Gomes da Rocha, G.**, and Hayes, R.A. When Brands Communicate Online: Effects on Consumer Brand Engagement (CBE). Annual Meeting of the Central States Communication Association, Grand Rapids, MI.

**Uttam Manna**, Robert Sevik, **Dylan Qualls**, **Minani Alexis**, Brighton Coe, Diego Abujetas, Mahua Biswas, Jorge Olmos-Trigo "Nanophotonic Phenomena in Mesoscale Dielectric Particles", Oral Presentation, APS March Meeting, Las Vegas, Nevada, March 5-10, 2023.

**DeZur, E., Culbreth, C., Elsey, E., & Fonseca Pereira, G.** The Potential Use of Unity Game Engine for VR in Interior Design Human Factors Research. EDRA54, Mexico City.

Vepa Rozyyev, **Amelia Korveziroska**, **Marcos Perez**, **Chris Achammer**, Anil Mane, Jeffrey Elam, Uttam Manna, Mahua Biswas, "Sequential Infiltration Synthesis of Silicon Dioxide for Nanopatterning - In Situ FTIR study", Oral presentation, APS March Meeting, Las Vegas, NV, March 6-10th, 2023.

**Sawe, C.** (Author & Presenter), Fasawe, A. S. (Author), Adams, J. M. (Author), Engelke, M. F. (Author), Cellbio 2023, "Delineating KIF3A/KIF3B Autoinhibition and its Function for Ciliogenesis," ASCB and EMBO, Boston, MA. (December 2023).

**Gomez, Lylia.** (Author & Presenter), Follmann, R. (Author), Rosa, E. (Author), APS March Meeting, "Model Equations for C. Elegans' Thermotaxis," American Physical Society, Minneapolis, MN. (March 2024).

**Gomez, L.** (Author & Presenter), Retter, J. (Author & Presenter), Chambers, D. (Author), Follmann, R. (Author), Rosa, E. (Author), American Physical Society Prairie Section Fall 2023 Meeting, "Mathematical Modeling of C. Elegans' Thermotaxis Associated with Calcium Dynamics," University of Missouri, Columbia, MO. (November 30, 2023).

Briggs, J. A. (Author & Presenter), Quezada, A. (Presenter), **Quiroz, Harold.** (Presenter), Dean, E. (Presenter), Dede, H. (Presenter), Torres, J. (Presenter), Tomal, J. (Presenter), Fornal, C. (Presenter), Godek, A. (Presenter), Illinois Art Education Association Annual Conference, "Reflection on Our Experiences," Illinois Art Education Association, St. Charles, Illinois. (October 20, 2023).

Tawiah, P. (Author & Presenter), **Orellano, C. D.** (Author), Gaessler, L. (Author), Polzer, L. (Author), Hoffmann, K.-P. (Author), Dahl, J.-U. (Author), 2023 Midwest Microbial Pathogenesis Meeting, "Characterizing the stress responses elicited by uropathogenic E. coli in response to AGXX," Northwestern University, Chicago IL. (October 21, 2023).

Donkor, G. (Author & Presenter), **Orellano, C. D.** (Author), Anderson, G. (Author), Stadler, M. (Author), Hoffmann, K.-P. (Author), Dahl, J.-U. (Author), Molecular Genetics of Bacteria & Phages Conference, "Characterization of *Pseudomonas aeruginosa* defense systems towards the novel antimicrobial AGXX," University of Wisconsin, Madison WI. (August 5, 2023).

Donkor, G. (Author), **Orellano, C. D.** (Author), Anderson, G. (Author), Stadler, M. (Author), Hoffmann, K.-P. (Author), Dahl, J.-U. (Author & Presenter), GRC Microbial Adhesion and Signaltransduction 2023, "Characterization of *Pseudomonas aeruginosa* defense systems towards the novel antimicrobial AGXX," GRC, Newport RI. (July 19, 2023).

**Meister, Rachel.**, Baker, A., Dettmann, W., Finan, L., Ohannessian, C. M., Midwestern Psychological Association, "Longitudinal associations between family support and adolescents' self-perception," Chicago, IL. (April 2023).

## 2022

**Cox, R.S.**, Banik, T.J., and Dodd, J.P. 2022. Investigation of Oxygen Isotopes in Icelandic Rocks to Uncover Continent-Forming Processes. Poster. NE GSA, 20-22 March, Lancaster, PA

**Grant, M.**, Sakaluk, S., Foquet, B., Sadd, B. "Do proteins in nuptial food gifts influence female reproduction in crickets? A molecular dissection," Poster, Conference, SACNAS National Diversity in STEM Conference, San Juan, Puerto Rico (November 2022).

**Zissman, A.**, Mujeye, S., Pareek, L., and Mungapatla, S. (2022) Knowledge and Skill Retention in Introduction to Programming Course. The International Conference on Software Engineering and Information Management.

**Stevens, G.**, Malone, D.H., Lesmann, S.R., **Mayback, D.**, Braunagel, M.J., Griffith, W.A., Holliday, M.E., Rivera, T., Biek, R.F., And Hacker, D., 2022, Detrital Zircon Provenance Of The Eocene-Oligocene Brian Head Formation, Marysville Volcanic Province, Utah, Usa: Geological Society Of America Abstracts With Programs. Vol 54, No. 5. Doi: 10.1130/Abs/2022am-378301

Smith, C., Malone, D.H., Lesmann, S.R., **Stevens, G.C.**, **Mayback, D.F.**, Braunagel, M.J., Griffith, W.A., Holliday, M.E., Rivera, T., Biek, R.F., And Hacker, D., 2022, Detrital Zircon Geochronology of The Paleogene Minersville Conglomerate, Southern Mineral Mountains, Utah, USA: *Geological Society Of America Abstracts With Programs*. Vol 54, No. 5. Doi: 10.1130/Abs/2022am-378163

Lesmann, S.R, Malone, D.H., Hacker, **D. Stevens, G.**, **Mayback, D.F.**, Braunagel, M.J., Griffith, W.A., Holliday, M.E., Rivera, T., And Biek, R.F., 2022, Detrital Zircon U-Pb

Geochronology and Provenance of the Miocene Bear Valley Formation, South-Central Utah, USA: Geological Society Of America Abstracts With Programs. Vol 54, No. 5, Doi: 10.1130/Abs/2022am-378393

Bonilla F.V., Rivera, T., Malone, D.H., Holliday, M.E., Jicha, B., **Stevens, G.**, Lesmann, S.R., Braunagel, M., Hacker, D., Griffith, W.A., And Biek, R.F., 2022, Constraining the Age of the Sevier Gravity Slide (Utah) Through Zircon And Feldspar Geochronology: Geological Society Of America Abstracts With Programs. Vol 54, No. 5. Doi: 10.1130/Abs/2022am-380641.

*Uttam Manna*, **Robert Sevik**, **Dylan Qualls**, **Minani Alexis**, Brighton Coe, Diego Abujetas, Mahua Biswas, Jorge Olmos-Trigo "Nanophotonic Phenomena in Mesoscale Dielectric Particles", Oral Presentation, APS March Meeting, Las Vegas, Nevada, March 5-10, 2023.

Vepa Rozyyev, **Amelia Korveziroska**, **Marcos Perez**, **Chris Achammer**, Anil Mane, Jeffrey Elam, Uttam Manna, *Mahua Biswas*, "Sequential Infiltration Synthesis of Silicon Dioxide for Nanopatterning - In Situ FTIR study", Oral presentation, APS March Meeting, Las Vegas, NV, March 6-10th, 2023.

## 2021

**\*Blake, K.** (2021, November). "But you say you're not a reader?": Exploring the role of reader identity in high school classrooms [Online Future is Now conference session]. National Council of Teachers of English.

Calhoun, AC, **\*Harrod, AE**, Bassingthwaite, TA & Sadd, BM (2021) Testing the multiple stressor hypothesis: Chlorothalonil exposure alters transmission potential of a bumblebee pathogen but not individual host health. Proceedings of the Royal Society B: Biological Sciences, 288, 20202922.

**\*Canchola, J.**; Kukla, D. L.; Mills, J. J. Synthesis and Biological Evaluation of the Anaephene Natural Products. Poster presentation. 5th Annual East Central IL ACS Undergraduate Research Conference, Champaign, IL. 11/14/2020.

Carlson, K., Gill, L., Irannezhad, F., Sunkajun, A., **\*Jahraus, E.**, and **\*Bruner, S.** (2021) Uncharted Territories: Developing Digital Experiences for Anthropology and Archaeological Exploration. Conference on Electronic Visualization and the Arts (EVA), London. July 2021 DOI: [10.14236/ewic/EVA2021.9](https://doi.org/10.14236/ewic/EVA2021.9)

**\*Ervin, A.** Sewagescapes: Urban Growth and Topography of Sewage Districts In Central Illinois. Illinois Association of Wastewater Agencies, March 16-17, 2021.

**\*Hemming, P., Bove, R.,** Campbell, J., & Nelson, E. (2021, April). The effects of emotion-based art instruction on social- emotional development in preschoolers. Poster presented at the annual conference of the Society for Research in Child Development, virtually.

**\*Hoberg, J.,** Peterson, E.W., Schukow, E., Sahad, A, and Twait, R, 2021, Comparing the Utility of Rhodamine WT Dye as a Tracer in a Saturated Buffer Zone, in Geological Society of America Abstracts with Programs. Vol. 53, No. 6, 2021 doi: 10.1130/abs/2021AM-368146

Lillge, D., **Ladas, E., \*Blake, K.** (2022, April). Preparing pre-service English teachers to responsively enact socially just instruction within complex relationships and systems [Paper session]. American Education Research Association Annual Meeting, San Diego, CA, United States.

**McNamara, A., Ullrich, T., Klendworth, K.,** Nelson, E., & Campbell, J. (2021, April). An increase in peer interactions predicts child's art performance above and beyond teacher interactions. Poster to be presented at the biennial meeting of the Society for Research in Child Development, online, April 7-9, 2021.

Sahad, A, Peterson, E.W., O'Reilly, C., Seyoum, W., **\*Hoberg, J.,** Schukow, E, and Twait, R., 2021, Using a Tracer Test to Assess the Fate and Transport of Nitrate in a Saturated Buffer Zone, in Geological Society of America Abstracts with Programs. Vol. 53, No. 6, 2021 doi: 10.1130/abs/2021AM-368145

**\*Ullrich, T.,** Nelson, E.,**\* McNamara, A.,\* Klendworth, K.,** & Campbell, J. (2020, October). The relation between fine motor ability and social-emotional skills in preschools. Poster presented at the International Society for Developmental Psychobiology, Online.

## 2020

**\*Swanson, Elahson** "Small Molecule Ion Chelators for Parkinson's Disease Therapy". East Central *Illinois American Chemical Society Undergraduate Conference* on November 14, 2020