

PROGRAM

# 100<sup>TH</sup> ANNUAL MEETING

WEST VIRGINIA  
ACADEMY OF SCIENCES

APRIL 18, 2026  
STONEWALL RESORT  
ROANOKE, WV



CELEBRATING A CENTURY OF SCIENTIFIC  
DISCOVERY IN WEST VIRGINIA

## Welcome Message

On behalf of the Executive Committee and Planning Committee of the West Virginia Academy of Sciences, it is our great pleasure to welcome faculty, students, and guests to the 100th Annual Meeting of the West Virginia Academy of Sciences, held at Stonewall Resort in Roanoke, West Virginia.

This historic centennial meeting marks a significant milestone for the Academy—one hundred years of advancing scientific discovery, education, and interdisciplinary collaboration across the state of West Virginia and beyond. We are delighted to gather a vibrant community of scholars, educators, and students whose work reflects the enduring mission of the WVAS: to promote excellence in research, teaching, and scientific engagement.

The 2026 program showcases a wide range of oral and poster presentations spanning the natural sciences, biomedical sciences, STEM education, ecology, data science, and more. We are especially pleased to highlight the contributions of student researchers, whose energy and innovation represent the future of science in our region. In addition, this meeting provides opportunities to recognize distinguished service, outstanding teaching, and student achievement—hallmarks of the Academy's commitment to academic excellence.

We especially want to thank the WV-NASA Space Grant Consortium for helping to sponsor this event and give a special welcome to recruiters from West Liberty University's MAMS in Biology Graduate Program and the West Virginia School of Osteopathic Medicine.

We hope this meeting fosters meaningful dialogue, new collaborations, and renewed inspiration as we celebrate a century of scientific inquiry while looking ahead to the next hundred years. Thank you for being part of this special occasion, and we wish you a rewarding and enjoyable meeting.

**Welcome to the 100th Annual Meeting of the West Virginia Academy of Sciences!**



## Schedule of Events: 100<sup>th</sup> Annual WVAS Meeting

### Saturday, April 18, 2026

8:00 – 10:30 AM	Registration & Continental Breakfast Poster Session 1 Set-Up	Ballroom Foyer
9:00 – 9:05 AM	Welcoming Remarks <i>Dr. Deanna Schmitt, Past President, West Virginia Academy of Sciences</i>	Ballroom
9:05 – 10:00 AM	Keynote Address – “ <b>The Brightest Pulses In The Universe</b> ” <i>Dr. Duncan Lorimer, Department of Physics and Astronomy, West Virginia University</i>	Ballroom
10:00 – 10:30 AM	Distinguished Service and Outstanding Teacher Awards Presentation	Ballroom
10:30 – 11:10 PM	Poster Session 1 (Posters 1 – 40)	Ballroom Foyer
11:10 – 11:20 AM	Poster Session 2 Set-Up	Ballroom Foyer
11:20 – 12:00 PM	Poster Session 2 (Posters 41 – 79)	Ballroom Foyer
12:00 – 1:00 PM	Lunch	Ballroom
12:10 – 1:00 PM	WVAS Annual Business Meeting	Summersville Room
1:00 – 3:15 PM	Oral Presentations Session 1 <b>Reptilian Biology and Ecology</b> Oral Presentations Session 2 <b>Appalachian Ecology</b> Oral Presentations Session 3 <b>STEM</b>  Oral Presentations Session 4 <b>Biomedical Science, Microbiology, Anthropology, and Physiology</b>  Oral Presentations Session 5 <b>Amphibians and Data Science</b>	Bluestone Room  Gauley Room  Summersville Room  Tygart Room  Sutton Room
2:00 – 2:15 PM	Afternoon Coffee Break	Ballroom Foyer
3:30 – 4:00 PM	Student Awards Presentation	Stonewall Ballroom

## **Keynote Address**

### **Title: The Brightest Pulses In The Universe**

Almost two decades ago a group at West Virginia University discovered the first example of a new cosmic phenomenon now known as fast radio bursts (FRBs). While the precise origins of FRBs are still unknown, they are likely to be linked to powerful events on or in the vicinity of neutron stars. FRBs are now being used as insightful probes of the large-scale structure of the Universe. In this talk, Dr. Duncan Lorimer recounts the story of the discovery and highlight the role of serendipity in science while looking ahead to the future of this field.

### **Dr. Duncan Lorimer, Eberly Distinguished Chair for Academic Excellence, Department of Physics and Astronomy, West Virginia University**

**Duncan Lorimer** is a Professor of Physics and Astronomy at West Virginia University (WVU) and currently holds the title of **Eberly Distinguished Chair for Academic Excellence**. He received his BSc in Astrophysics from the University of Wales, Cardiff, in 1990, where he was mentored by Bernard Schutz. He earned his PhD in 1994 from the University of Manchester for his contributions to pulsar astronomy, working under the supervision of Andrew Lyne, Dick Manchester, and Matthew Bailes.



Following his doctorate, Dr. Lorimer held academic and research positions at the University of Manchester, the Max Planck Institute for Radio Astronomy, and Cornell University before joining the faculty at WVU in 2006. At WVU, he has been recognized for excellence in both teaching and research, including receiving the Cottrell Scholar Award from the Research Corporation for Scientific Advancement, multiple college- and university-level teaching awards, and designation as a Benedum Scholar. From 2019 to 2024, he served as Associate Dean for Research in the WVU Eberly College of Arts and Sciences.

Dr. Lorimer is internationally recognized for his contributions to astrophysics, particularly in the study of pulsars and the discovery of fast radio bursts. He has been a Fellow of the Royal Astronomical Society since 1994 and was named a Fellow of the American Physical Society in 2018. In 2023, he shared the Shaw Prize in Astronomy with Maura McLaughlin and Matthew Bailes for the discovery of fast radio bursts, and in 2024 he was elected a Fellow of the Royal Society (FRS).

## **WVAS Distinguished Service Award Recipients**

### **Dr. Jason Best, Professor of Astronomy and Astrophysics & Associate Vice President for Institutional Effectiveness, Shepherd University**

Dr. Jason Best served an extended term as West Virginia Academy of Science President from 2012-2015, over which time the Academy hosted Annual Meetings at the Canaan Valley Institute, Shepherd University, and West Liberty University. During his time as President, the Academy established the positions of Associate Editor for Electronic Publishing (who led the successful transition to electronic publication of the Proceedings of the WVAS) and Director of the West Virginia Junior Academy of Science; made numerous nominations of professional experts to the WV Outdoor Heritage Conservation Fund Board of Trustees (which were approved by the Governor of West Virginia); formally enhanced the communication between the WVAS Executive Committee and the WVAS Institutional Representatives; and worked collaboratively with external financial experts to strengthen the long-term fiscal health of the Academy. Dr. Best also served as WVAS President-Elect, WVAS Past-President, and as a WVAS Institutional Representative for over a decade. He served as Chair of the Local Organizing Committee for the 2014 WVAS Annual Meeting held at Shepherd University and as a member of the Local Organizing Committee for the 1999 WVAS Annual Meeting held at the U.S. Fish & Wildlife Service's National Conservation Training Center. His undergraduate research students have attended and presented at numerous WVAS Annual Meetings, with multiple students being formally recognized for their efforts.

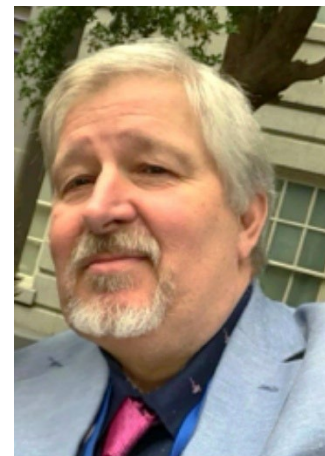


Dr. Best is a Professor of Astronomy and Astrophysics and the Associate Vice President for Institutional Effectiveness at Shepherd University, where he has also served as Research Integrity Officer and Institutional Review Board Chair. A member of the Shepherd University faculty since 1997, he earned degrees in astronomy and astrophysics from Indiana University and The Pennsylvania State University. Dr. Best's numerous peer-reviewed research publications and conference presentations (many including undergraduate students) are in fields as diverse as galactic evolution, the large-scale structure of the universe, virtual reality, and the evolution of Renaissance cosmology. In addition, he has been awarded many research grants from federal and state agencies; has been featured in the Chronicle of Higher Education's Research section and in West Virginia Science & Research's Scientist Spotlight Video Series and Neuron journal; has served as a grant reviewer and research referee for numerous national and international journals and agencies; and has been an invited speaker at numerous international, national, and state science conferences and events. As part of a multiyear, multimillion-dollar National Science Foundation (NSF) grant from 2015-2020, Dr. Best worked with scientists across the state as part of the Pulsar Search Collaboratory, an initiative designed to teach high-school students across the nation to conduct research on data obtained by the Green Bank Telescope. Nationally, Dr. Best has served by invitation on an NSF quadrennial Committee of Visitors, a group of external experts charged with assessing the quality and integrity of divisional program operations. He has also served on the Council on Undergraduate Research's Task Force on Integrating Research into the Curriculum and on the National Advisory Committee for the PRAXIS Earth and Space Sciences Examination. Recently, Dr. Best served on the statewide executive committee overseeing the development of West Virginia's new science and technology strategic plan (Vision 2030) and currently serves as a gubernatorial appointee to the West Virginia Science and Research Council.

## **Dr. Mark Flood, Professor of Biology and Forensic Science, Fairmont State University**

Dr. Mark Flood earned his academic training in embryology, receiving a Bachelor of Science from Purdue University, a Master of Science from Washington State University, and a Ph.D. from Utah State University, where he also completed advanced training in molecular biology. He pursued postdoctoral studies in toxicology at the University of Utah before joining the faculty at Fairmont State University as an Assistant Professor.

Dr. Flood has demonstrated exceptional commitment and leadership to the West Virginia Academy of Sciences (WVAS) for over three decades. A long-standing member for over 30 years, he has contributed extensively to the WVAS scholarly mission as the author or co-author of more than 70 abstracts. His leadership within WVAS is especially notable: he served on the Executive Board for over ten years and held the office of President for two separate terms. In addition, he played a key role in advancing the organization's outreach and scholarly exchange by organizing and hosting four WVAS annual meetings hosted at Fairmont State University and the Canaan Valley Institute.



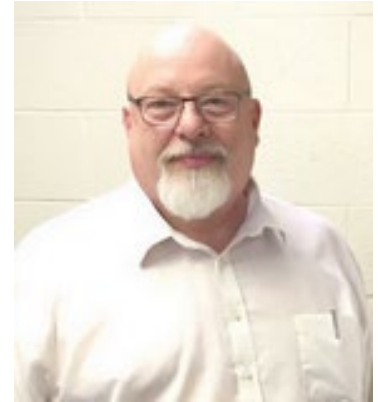
Dr. Flood's first presentation with students at WVAS was in 1995 at Marshall University where he and his students presented research conducted on their trip to Costa Rica. With more than 32 years of service at Fairmont State University, Dr. Flood has taught a wide range of courses in biology and forensic science while mentoring numerous undergraduate research projects. His dedication to student learning and scientific inquiry has made a lasting impact on generations of students.

Dr. Flood's impact on science has earned him interviews with Time magazine for his forensic opinions on the NFL's "Deflate Gate." He has been a featured scientist in WV Science and Research's Neuron magazine. He started and coordinated the Forensic Science program at Fairmont State University. His dedication to science spans decades.

Through his sustained leadership, scholarship, and service, Dr. Flood has made significant contributions to the scientific community in West Virginia and beyond.

## **Dr. Roger Seeber, Professor of Biology, West Liberty University**

Roger Seeber is a Professor of Biology at West Liberty University, where he has served on the faculty since 1991 and currently holds the role of Biology Department Program Coordinator. He earned his Ph.D. in Biology from West Virginia University in 1989, following completion of a Master of Arts in Biology from the State University of New York at Oneonta in 1982 and a Bachelor of Science in Biology from the State University of New York at Cortland in 1978.



Dr. Seeber's academic career encompasses a broad range of teaching, research, and administrative experience. He completed postdoctoral research fellowships at West Virginia University and the University of Delaware, where his research focused on plant–insect interactions, including plant wounding responses to treehopper oviposition. Prior to and concurrent with his appointment at West Liberty University, he held teaching positions at West Virginia University, Ohio University Eastern, Bethany College, and The Pennsylvania State University (Fayette Campus), and served as an adjunct professor of basic pharmaceutical sciences at West Virginia University. From 2010 to 2012, he served as Interim Chair of the Department of Natural Sciences and Mathematics at West Liberty University.

Dr. Seeber has demonstrated exceptional and sustained service to the West Virginia Academy of Sciences over more than four decades. A member of WVAS since 1982, he has served as Director of the West Virginia Junior Academy of Science (1991–1998), President-Elect (1999–2001), President (2001–2003), Past President (2004–2006), and Treasurer (2006–2016). His long-standing leadership and commitment have played a significant role in advancing the Academy's mission of promoting scientific research, education, and student engagement throughout West Virginia.

## **The John Warner Outstanding Teacher Award Recipient**

### **Melissa Garrett, Science Teacher, Brooke High School**

Melissa Garrett is completing her 11th year as a teacher for Brooke County Schools. She started her career as an 8th grade Science teacher at Wellsburg Middle School and transferred to Brooke High School and taught Biology and Honors Biology for a year. Melissa has been teaching the Project Lead the Way Biomedical Science program at Brooke High School for the past 8 years. She holds a bachelor's degree in medical technology from West Liberty University and a master's degree in Clinical Microbiology from Emory University in Atlanta, Georgia. She also received her teaching certification from Wheeling Jesuit University. Before becoming a teacher, Melissa worked for Ohio Valley Medical Center and Emory University Hospital in their clinical microbiology labs as well as Children's Hospital of Pittsburgh for the Pediatric Surgery Department in their necrotizing enterocolitis research lab.



Throughout her career, Melissa has demonstrated a deep commitment to her students' success by using innovative teaching strategies, hands-on learning experiences and fostering critical thinking skills. Having worked in many different medical facilities, Melissa brings her experiences to the classroom to give students real-world applications to the learning environment. She believes every student has the ability to learn and she strives to build meaningful relationships with each and every student. Melissa encourages her students to think critically and develop problem solving skills essential for future success. Most of her students have gone on to thrive in college and various medical careers due to the instruction they received and the experiences they had in her classroom. In addition to classroom instruction, Melissa is the HOSA co-sponsor. HOSA partners with the Salvation Army to provide assistance during the Christmas season and provide financial support for their food pantry. Melissa is married to her husband, Wayne and they have two sons, Drew and Alex. They reside in Colliers, WV. Drew is married to Oyuka and is currently living in Mongolia and Alex lives at home.

## Poster Session 1

Ballroom Foyer 10:30 – 11:10 AM

1. **ABIGALE RIGGLE (Undergrad)** AND STUART CANTLAY. Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Localization of the divisome protein FtsL in Francisella tularensis LVS.*
2. **ADDISON TENNEY (Undergrad)** & MARK FLOOD. Forensic Science program, Fairmont State University, Fairmont, WV 26554. *The effect of ultraviolet radiation on latent fingerprint.*
3. **ELIJAH STRICKLAND (Undergrad)** and AIDA JIMENEZ ESQUILIN, Department of Biology, West Virginia University Institute of Technology, Beckley, WV, 25801. *Molecular Detection of Human Fecal Indicators in Piney Creek, West Virginia.*
4. **AISHLYNN EGAN (Undergrad)**, Department of Biology, Shepherd University, Shepherdstown, WV, 25414. *Screening food plants for antibacterial activity to guide future testing of antibiotic synergy.*
5. **ALEX BORDENET (Undergrad)**, College of Science and Technology, Fairmont State University, Fairmont, WV, 26554 & KRISTY HENSON, College of Science and Technology, Fairmont State University, Fairmont, WV, 26554, Biomedical Sciences, West Virginia School of Osteopathic Medicine, Lewisburg, WV. *Applying morphometrics to a semi-quantitative measurement approach to identify spinal pathologies in human skeletal remains*
6. **ALEXIS SCOTT (Undergrad)**, MACKENZIE HALL, EMILY YOUNG, & DEANNA M. SCHMITT. The Hilltop Center for Biomedical Research, West Liberty University, West Liberty, WV 26074. *Characterization of Putative Oxidoreductase Involved in Resazomycin Resistance in Francisella tularensis.*
7. **ALISON K. WYER (Undergrad)**, SAM J. TRUSTY, & JEREMIAH DANN, Department of Biological Sciences, West Liberty University, West Liberty, WV. *Effects of a Drought on an Invasive Earthworm Population.*
8. **ALYSSA IHLENFELD (Undergrad)**, Department of Biomedical Research, Joan C. Edwards School of Medicine, Marshall University, Huntington, WV, USA, and Neurobiology Research Laboratory, Hershel 'Woody' Williams Veterans Affairs Medical Center, Huntington, WV, USA. *NL-1 Can Reverse Cognitive Deficits and Restore Astrocyte Function Following Adolescent Intermittent Ethanol Exposure.*
9. **ANA CHAGURI (Undergrad)**, LINH TRAN, & MARK WATSON, Dept of Natural Sciences, University of Charleston, Charleston, WV, 25304. *Sex determination of shrews through genetic analysis of SRY gene.*
10. **ANNA HOU (Undergrad)**, SKYLAR MYERS, RACHAEL POFFENBERGER, & WEIDONG LIAO, Dept of Computer and Information Sciences, Shepherd University, Shepherdstown, WV, 25443. *Refactoring a Codebase with and without Generative AI: A Comparative Study.*
11. **ANNALYSE WHITE (Undergrad)** & KELLY FLAHERTY, Dept of Natural Sciences, Fairmont State University, WV, Fairmont, WV, 26554. *Sampling eDNA of brook trout within Tygart Valley River Watershed West Virginia.*
12. **ASHER RUDOLPH (Undergrad)** & ROBERT MONAHAN, Dept of Computer Science, Mathematics, and Engineering, Shepherd University, Shepherdstown, WV 25443. *Cooperation, temptation, and escalation in iterated prisoner's dilemma tournaments.*
13. **TANNER HOFFMAN (Grad)** & EMBER MORRISSEY, Department of Biology, West Virginia University, Morgantown, WV, 26506. *Extremophiles on the Red Planet: Investigating Biocrust Viability in Simulated Martian Soil.*
14. **AUTUMN E. RUSSELL (Undergrad)**, Dept. of Biology and Environmental Science, West Virginia Wesleyan College, Buckhannon, WV, 26201, WERNER J. GELDENHUYS & JASON D. HUBER, Dept. of Neuroscience & Dept. of Basic Pharmaceutical Sciences & WVU Rockefeller Neuroscience Institute, West Virginia University, Morgantown, WV, 26505, DOMINICK CICALA, MARYAM MAGHAREH, A.S.M. ROKUNZZAMAN, RAPT Y SARKER, Dept. of Neuroscience & Dept. of Basic Pharmaceutical Sciences, West Virginia University, Morgantown, WV, 26505, & DAYTON P.L. MILLER, West Virginia School of Osteopathic Medicine, Lewisburg, WV, 24901. *Neurodegeneration in traumatic brain injury is attenuated by the MitoNEET ligand TT01001.*
15. **AVA BIAFORE (Undergrad)**, Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25443 and SARA REYNOLDS Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25443. *Characterization of Enterococci species in Town Run*

16. **BAILEY SEBROSKI (Undergrad)**, MACKENZIE HALL, RORI SCHREIBER, and DEANNA M. SCHMITT. The Hilltop Center for Biomedical Research, West Liberty University, West Liberty, WV, 26074. *Contribution of perR to the rezazomycin susceptibility of Neisseria gonorrhoeae.*
17. **BAYLEY ROSEMAN (Grad)**, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Studying Temporal Shifts Related to Land Usage in Invasive versus Native Crayfish of the Potomac*
18. **CODY BARNES (Undergrad)** & L. BETH THOMPSON, Dept of Chemistry, Fairmont State University, Fairmont, WV 26554. *Development and Optimization of Steam Distillation for Extraction of d-Limonene from Navel Orange (Citrus sinensis) Peels.*
19. **CHELSIE BLAKE (Undergrad)** & ANDREAS BAUR, Department of Natural Sciences, Fairmont State University, Fairmont, WV. *GC-MS method development for the photochemical copper-mediated decarboxylation of 4-fluorobenzoic acid*
20. **CLAIRE MELVIN (Grad)** & MORGAN BRIDI, Dept of Neuroscience, West Virginia University, Morgantown, WV, 26506, *Effects of Stress on Cortical and Subcortical Circuitry in Two Mouse Models of Autism Spectrum Disorder (ASD).*
21. **COLTON THOMAS (Undergrad)** & JOSEPH HORZEMPA. Department of Biological Sciences, West Liberty University, West Liberty, WV USA. *Characterization and isolation of a fungal secondary metabolite that inhibits the growth of Methicillin-resistant Staphylococcus aureus.*
22. **CURTIS LITTON (Undergrad)**, STANLEY MARTIN, MELANIE SAL, & KIM BJORGO. Department of Biology and Environmental Sciences, West Virginia Wesleyan College, 59 College Avenue, Buckhannon, WV. *An Overview of Tick and Tick-Borne Disease Research at West Virginia Wesleyan College: 2018-2025*
23. **ANIKA E. WIRT (Undergrad)** & ZACHARY A. MUSSELMAN, Department of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25443. *Ground Penetrating Radar Survey of Old Roman Catholic Burying Ground, Shepherdstown, WV.*
24. **DANIEL L. PITTS (Undergrad)**, ZACHARY J. LOUGHMAN, & NICOLE L. GARRISON, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *How much information is phylogenetically informative: investigations with single and multilocus analyses of garter snake (Thamnophis) taxonomy.*
25. **DARON WEEKLEY**, Dept of Biological Sciences, West Liberty University, WV, 26074, TESFAYE BELAY, Bluefield State University, Bluefield, W.V. 24701, & STUART CANTLAY, Dept of Biological Sciences, West Liberty University, WV, 26074. *Genetic Differentiation of Nutritionally Deprived Pseudomonas aeruginosa.*
26. **DONAVEN KINZER (Undergrad)** & RACHEL COOK, Dept of Biology, Fairmont State University, Fairmont, WV, 26554. *The Effects of Irrigation Methods and Volume on the Growth and Production of Pea Plants. (Pisum sativum)*
27. **E. CADIE KITTLE (Undergrad)**, ASHLYN SMITH, KAYLIE (KAI) TOLER, TARYN VELTRI, & HADEN FINCHAM, Dept of Biology and Environmental Science, West Virginia Wesleyan College, Buckhannon, West Virginia 26201. *Haemaphysalis longicornis as an invasive tick species in West Virginia.*
28. **EMILEE HENDERSON (Undergrad)**, KRISTY HENSON, & JOSH GEORGE, College of Science and Technology, Fairmont State University, Fairmont, WV, 26554. *Automating Postmortem Interval Estimation with Computational Forensic Tools*
29. **EMMA CASTO (Undergrad)**, Elementary (K-6)/Science (5-9) Pre-Service Teacher, Glenville State University, Glenville, WV, 26351 & ASHLEY N. KOOKEN, Department of Science & Mathematics, Glenville State University, Glenville, WV, 26351. *Focusing on Student Thinking to Support Student Learning of the Movement of Matter and Energy Through Photosynthesis using the 5-E Model of Science Instruction*
30. **EMMA G. KNAPP (Undergrad)**, CLEO MCMAHAN, LORELEI EAGLE, & MATTHEW I. MCKINNEY, Dept of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Impact of Weather Conditions on Eastern Screech-Owl (Megascops asio) Audio Responses in West Virginia.*
31. **MARY ELLEN SULLIVAN**, MARGARET FALLETTA, SAMANTHA MITCHELL, ERICA HARVEY, & SUE ANN HEATHERLY, First2 Network and High Rocks Educational Corporation, Hillsboro, WV 24946,

and JENNA WILCOXEN, Dept of Science and Mathematics, Glenville State University, Glenville, WV 26351. *Leadership and self-efficacy impacts of student participation in the First2 Network.*

32. **SARA SAWYER**, Dept of Health Sciences, ETHAN BACKUS and SHALIKA SILVA, Dept of Science and Mathematics, LOGAN HARRISON, Career Counselor, MAGGIE SORENSEN, Industry Partnership Manager, Glenville State University, Glenville, WV 26351, LLOYD FORD, Work-based Learning Coordinator, and ERICA HARVEY, College of Science and Technology, Fairmont State University, Fairmont, WV 26554. *Power Up Internships with the WV Career Collaborative.*
33. **GILLIAN HARTZ (Grad)** & JOSEPH HORZEMPA, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26047. *An investigation of in vitro tick feeding methods to evaluate the role of erythrocyte invasion by Francisella tularensis*
34. **GRACE ANGELONA (Undergrad)**, DARSHAN SANGANI, ALYSSA IHLENFELD, MIKA JONES, TRISTAN MUCK, HANNAH SEXTON, OLIVIA COULTER, and MARY-LOUISE RISHER. Department of Biomedical Research, Joan C. Edwards School of Medicine, Marshall University, Huntington, WV and Neurobiology Research Laboratory, Hershey 'Woody' Williams Veterans Affairs Medical Center, Huntington, WV. *Sex Dependent Rescue of Astrocyte-Synaptic Remodeling by Rosiglitazone Following Adolescent Binge Ethanol Exposure.*
35. **HADEN FINCHAM (Undergrad)**, MELANIE SAL, & KIM BJORGO. Department of Biology and Environmental Sciences, West Virginia Wesleyan College, 59 College Avenue, Buckhannon, WV. *Surveilling hard tick diversity and Spotted Fever Rickettsia Group prevalence in North-Central WV throughout 2023*
36. **HALEY M. HOLBERT (Grad)**, ZACKARY A. GRAHAM, & ZACHARY J. LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Utilizing Morphometrics to Determine Burrowing Type in Fossil Crayfish*
37. **HOLLY WHITE (Undergrad)**, REAGAN ACKERMAN, STEPHANIE CASTILLO, MALLORY DEAN, MICHAEL GURSON, & CONOR W. SIPE. Dept. of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV 25443. *Effects of Nutrient-Induced Developmental Delay on Adult Drosophila Brain Structure.*
38. **IAN COOK (Grad)** & KRISTY HENSON, Dept of Biomedical Sciences, West Virginia School of Osteopathic Medicine, Lewisburg, WV, 24901. *Variation in renal cortical thickness and its association with chronic disease in anatomical donors*
39. **JAMES STANDISH (Undergrad)** & JOSEPH HORZEMPA. Department of Biological Sciences, West Liberty University, West Liberty, WV USA. *Ethanol extract from Rosinweed (Silphium integrifolium) diminishes the viability of leukemia cells.*
40. **JAMIE KEMMAN (Undergrad)**, ALANI WHITE, HOLLY WHITE, WEIDONG LIAO, & OSMAN GUZIDE, Dept of Computer and Information Sciences, Shepherd University, Shepherdstown, WV, 25443. *Safe AI Initiative: A Call for Transparency of the Impact of Generative AI and Big Data.*

## **Poster Session 2**

Ballroom Foyer 11:20 – 12:00 PM

41. **KALIE N. BURDETTE (Undergrad)**, KATHERINE M. TORRANCE, ZACKARY A. GRAHAM, & ZACHARY J. LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, West Virginia, USA. *Color Vision Conditioning in Cambarus monongalensis*
42. **KATHLEEN LOUGHMAN**, John Marshall High School, Glen Dale, WV 26003, CLAUDIA OSPINA, Dept of Natural Sciences and Mathematics, Inter American University of Puerto Rico, Bayamón, Puerto Rico, & JOSEPH HORZEMPA, Dept of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Typhinamycin – A Novel Phytochemical from Rhus typhina Extract Exhibits Antimicrobial Activity Toward ESKAPE Pathogens.*
43. **KAYLA AUNGST (Grad)** & ZACHARY LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Behavior biology of Cambarus callainus in response to dam*

removal.

44. **KAYLEE HAUGHT (Undergrad)** & RACHEL COOK, Dept of Biology, Fairmont State University, Fairmont, WV, 26554. *The effect of latex sap from the Poinsettia plant (Euphorbia pulcherrima) on the production of roots in propagated Tradescantia zebrina cuttings*
45. **KELSI FOSTER (Undergrad)** & SAMIA HAMATI, Dept of Biology, West Virginia University Institute of Technology, Beckley, WV, 25801. *Assessment of the Antibacterial Potential of Mountain Laurel (Kalmia latifolia) Extracts.*
46. **KIERA SAKSA (Undergrad)**, THOMAS MITUZAS, MACKENZIE HALL, RORI SCHREIBER, and DEANNA M. SCHMITT. The Hilltop Center for Biomedical Research, West Liberty University, West Liberty, WV, 26074. *Role of oxyR in the Resazomycin Susceptibility of Neisseria gonorrhoeae.*
47. **KIERSTEN DAVIS (Undergrad)** & MARK FLOOD. Forensic Science program, Fairmont State University, Fairmont, WV 26554. *The effect of ultraviolet radiation on DNA degradation in blood samples.*
48. **LAUREL STONE (Grad)** & MORGAN BRIDI. Department of Neuroscience, West Virginia University School of Medicine, Morgantown, WV. *Circuit-Level Interventions in Stress-Responsive Hypothalamic Nuclei to Enhance Post-Stroke Outcomes.*
49. **LORELEI EAGLE (Undergrad)** & NICOLE GARRISON, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Utility of the Mitochondrial D-loop to Understand Variation in Prairie Chickens (Tympnanuchus).*
50. **LYDIA DIBIAGIO (Undergrad)**, ZACKARY GRAHAM, & ZACHARY LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Seasonal and sex-based movements of the blue crayfish (Cambarus monongalensis).*
51. **MADELINE P. CECIL (Undergrad)**, ALISON K. WYER, JASON E. AKE II, & JEREMIAH DANN, Department of Biological Sciences, West Liberty University, West Liberty WV 26074. *Influence of Environmental Factors on Population Density and Growth of an Invasive Earthworm.*
52. **MADISON STRATTON (Undergrad)** & HOLLY VOPAL Dept. of Biomedical Sciences, West Liberty University, WV, 26074. *Morphological Differences of the Thyroid Gland in Avian Model of Induced Thyrotoxicosis.*
53. **MAKAYLA ZOELLERS (Undergrad)**, ELISA THOMPSON, BRANDON MAWHINNEY, Department of Biological Sciences, West Liberty University, WV 26074, HEIDI ROSS, El Valle De Anton, Cocle, Panama, & ZACHARY J. LOUGHMAN, Department of Biological Sciences, West Liberty University, WV 26074. *Impacts of land cover usage on anuran biodiversity in central Panama.*
54. **MATTHEW MAWHINNEY (Undergrad)** & JOEL T. DUGAN, Dept of Architecture Art + Design, Fairmont State University, Fairmont, WV 26554. *Regolith-Integrated Geodesic Kinetic Habitat with Adaptive Membrane for Radiation-Resilient Permanent Settlement in Lunar Lava Tubes.*
55. **MEG WARNER (Undergrad)**, MACKENZIE HALL, Department of Biological Sciences, West Liberty University, WV, KH. TANVIR AHMED, RANDALL A. KOZIEL, VAHID LOTFIKALAJAHI, GREGORY B. DUDLEY, BRIAN V. POPP, KARATAS BRISTOW HACER, Eugene Bennett Department of Chemistry, West Virginia University, Morgantown, WV, AND DEANNA M. SCHMITT, Department of Biological Sciences, West Liberty University, WV. *Derivatives of resorufin morpholinoethyl ether exhibit antimicrobial activity against Neisseria gonorrhoeae.*
56. **MORGAN MULLER (Undergrad)**, Dept of Zoo Science and Applied Conservation, West Liberty University, West Liberty, WV, 26074. *A Behavioral Study on Kin Selection In False Water Cobras, or Hydrodynastes gigas.*
57. **E. LEAH PRIME (Undergrad)** & MOSHE MACHLEV, Department of Psychology, Fairmont State University, 26554. *The Impact of Healthcare Disparities on the Health Outcomes of Black Communities.*
58. **NARESH RAMESH** & VELSI PATEL, Department of Biology, West Virginia University Institute of Technology, Beckley, WV, 25801. *Leveraging Longitudinal Gamified Assessment Data to Identify and Resolve Conceptual Thresholds in Undergraduate Anatomy and Physiology.*
59. **NEVAEH WOODING (Undergrad)**, CHARLEIGH PRICE, & SAMIA HAMATI, School of Arts and Sciences, West Virginia University Institute of Technology, Beckley, WV 25801. *Antibiotic Resistance Genes in Landfill Soil Microbiomes in Beckley, WV.*

60. **NICOLE POWELL (Undergrad)**, SARA REYNOLDS Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25443, and, Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25755. *Isolation and Characterization of Bacterial Contamination in Echinacea Supplements.*
61. **QING WANG**, ROBERT MONAHAN, Department of Computer Sciences, Mathematics, and Engineering, Shepherd University, Shepherdstown, WV 25443, AMY DEWITT, Department of Sociology, Criminology, and Criminal Justice, Shepherd University, Shepherdstown, WV 25443, HANNAH WILLIAMS-MCNAMEE, Academic Support Center, Shepherd University, Shepherdstown, WV 25443, WEIDONG LIAO, & OSMAN GUZIDE, Department of Computer Sciences, Mathematics, and Engineering, Shepherd University, Shepherdstown, WV 25443. *A Discussion of Activities and Outcomes of the Shepherd S-STEM Scholarship Program.*
62. **RACHAEL POFFENBERGER (Undergrad)**, SKYLAR GUESSFORD, ANNA HOU, & WEIDONG LIAO, Dept of Computer and Information Sciences, Shepherd University, Shepherdstown, WV, 25443. *An enhanced multi-agent system for stock prediction utilizing machine learning and generative AI.*
63. **RACHEL LEE (Grad)**, ALYSSA WOLFE, & MICHELLE BRIDI, Dept of Neuroscience, West Virginia University, Morgantown, WV, 26505. *Exploring the mechanisms underlying sleep/wake-dependent control of excitatory and inhibitory synaptic transmission.*
64. **ROXANA V. VAZQUEZ VEGA (Undergrad)**, MASON BUTLER & TAMARA SMITH, Dept of Chemical Engineering, West Virginia University Institute of Technology, Beckley, WV, 25801, and Vitalii Ishchenko, Vinnytsia National Technical University, Ukraine. *Use of Trade Data to Estimate Environmental Implications of Household Refrigeration Equipment Disposal.*
65. **SAMANTHA CASTO (Undergrad)**, Science Education Undergraduate, Glenville State University, Glenville, WV, 26351, & ASHLEY KOOKEN, Dept of Science and Mathematics, Glenville State University, Glenville, WV 26351. *5E Science Learning Cycle Unit Plan – Energized Ecosystems*
66. MACY HILVERS, KAMRYN ARMSTRONG, & **SARA SAWYER**, Dept of Science and Mathematics and Department of Health Sciences, Glenville State University, Glenville, WV, 26351. *The Effects of Microplastics and Acetaminophen on Regeneration in the Planarian Dugesia.*
67. **SHANIA DAVIS (Undergrad)** & JOSEPH HORZEMPA, Department of Biological Sciences, West Liberty University, West Liberty, WV USA. *The Pseudomonas aeruginosa 1244 pilin glycan enhances twitching motility and renders bacteria more susceptible to human beta defensin 2.*
68. **COLIN HOTT (Undergrad)** & SHAWN M. REESE, Dept of Health and Human Performance, Fairmont State University, Fairmont, WV 26554. *Assessing Muscle Cell Excitability Following Fatiguing Vertical Jump Performance: A Preliminary Analysis.*
69. **SHELBY HENSON (Undergrad)**, SARAH FISCHER, & LAURA S. ROBERTSON, Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV, 25443. *Fungi captured from indoor air exhibit poor growth at human body temperature.*
70. **SKYLAR MYERS (Undergrad)**, JAYDEN KISNER, MIRANDA EGAN, & WEIDONG LIAO, Dept of Computer and Information Sciences, Shepherd University, Shepherdstown, WV 25443. *Exploratory Data Analysis for the Local Housing Market in the Surrounding Area.*
71. **SOPHIE WHITE (Undergrad)** & SARA REYNOLDS, Dept of Natural and Physical Sciences, Shepherd University, Shepherdstown, WV 25443. *Examining the impact of road salt use on salinity levels in Town Run Tributary of the Potomac River.*
72. **STANLEY R. BIELINSKI JR. (Undergrad)** & ZACHARY LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV. *The Effects of Seasonality and Environmental Covariates on Two Heterodon Species.*
73. **TRENT TAYLOR, STEVIE STARSICK (Undergrad)**, & SHALIKA SILVA, Dept of Science and Mathematics, Glenville State University, Glenville, WV, 26351. *American Burnweed: a natural remedy for ESKAPE pathogens.*
74. **ASHER RUDOLPH (Undergrad)** and QING WANG, Dept of Computer Science, Mathematics, and Engineering, Shepherd University, Shepherdstown, WV 25443. *Economies of Distance in Commercial Aviation: Emissions Intensity and Marginal Abatement Costs.*
75. **TARUNA SURYAWANSHI (Undergrad)**, WEIDONG LIAO, & OSMAN GUZIDE, Dept of Computer

Sciences, Mathematics, and Engineering, Shepherd University, Shepherdstown, WV, 25414. *Revamping existing websites through AI-assisted workflow and Vibe Coding.*

76. **TAYLAR MILBURN (Undergrad)** & MARK FLOOD. Forensic Science program, Fairmont State University, Fairmont, WV 26554. *The effect of cleaning agents on Bluestar and luminol blood detection.*
77. **TREVOR MILLER (Grad)** & KRISTY HENSON, Biomedical Sciences, West Virginia School of Osteopathic Medicine, Lewisburg, WV; College of Science and Technology, Fairmont State University, Fairmont, WV, 26554. *Skeletal Lesions in Covid-19 patients compared to Tuberculosis patients.*
78. **VICTORIA SHIFFLETT (Grad)**, West Virginia University, Morgantown, WV 26505. *Characterization of sleep regulation and cognitive processing in schizophrenia mouse model.*
79. **GABRIEL CALDWELL (Undergrad)**, OWEN KELLER, WEIDONG LIAO, & OSMAN GUZIDE, Department of Computer Science, Mathematics and Engineering, College of STEM, Shepherd University, Shepherdstown, WV 25443. *Project-Based STEM Learning: A Case Study on the Educational Applications of Pololu Zumo Robots.*

## **Oral Presentation Session 1 - Reptilian Biology and Ecology**

Bluestone Room 1:00 – 3:15 PM

- 1:00 – 1:15 PM **BRADEN MITCHELL (Undergrad)**, Department of Biological Sciences, West Liberty University, West Liberty, WV. *Survey for the Eastern Musk Turtle (*Sternotherus odoratus*) in the Northern Panhandle of West Virginia*
- 1:15 – 1:30 PM **MORIAH MORRIS (Grad)** and ZACHARY LOUGHMAN, Department of Organismal, Ecology, and Zoo Science Biology, West Liberty University, West Liberty, WV, 26074. *Microhabitat Determinants of Nesting-Site Selection in Ornate Box Turtles (*Terrapene ornata ornata*): Implications for Conservation Management.*
- 1:30 – 1:45 PM **BRANDON T. MAWHINNEY (Undergrad)**, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074, ZACHARY J. LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074, and JOSHUA G. OTTEN, Dept of Biochemistry & Molecular Biology, Cornell College, Mount Vernon, Iowa 52314. *An eight-year evaluation of a *Terrapene ornata ornata* Iowa population.*
- 1:45 – 2:00 PM **BEORN OGRODNIK (Grad)**, HOLLY RACINE, ZACHARY LOUGHMAN Department of Biology, West Liberty University, West Liberty, WV, 26074, and JAMES BOGAN, Orianne Center for Indigo Conservation, Eustis, FL, 32736, *Determining the Standard Metabolic Rates of Eastern Indigo Snakes (*Drymarchon couperi*)*
- 2:00 – 2:15 PM \*\*\*\*\***AFTERNOON COFFEE BREAK**\*\*\*\*\*
- 2:15 – 2:30 PM **NATALIE GILLIS (Undergrad)**, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *General ecology analysis of a *Regina septemvittata* population in North Fork Short Creek, West Virginia.*
- 2:30 – 2:45 PM **DANIEL L. PITTS (Undergrad)** & ZACHARY J. LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Ecology of the Western Ribbon Snake (*Thamnophis proximus proximus*) at an eastern Iowa sand prairie.*
- 2:45 – 3:00 PM **ALYSSA J. LUTZ (Grad)**, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074, JOSHUA G. OTTEN, Dept of Biology, Cornell College, Mount Vernon, IA 52314, & ZACHARY J. LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Growth, age, and maturation estimates of Plains Hog-nosed Snakes (*Heterodon nasicus*) in Iowa.*
- 3:00 – 3:15 PM **PAIGE A. ROSWELL (Grad)**, Dept of Biology, West Liberty University, West Liberty, WV, 26074; JOSH G. OTTEN, Dept of Biology, Cornell College, Mount Vernon, IA, 52314; and ZACHARY J. LOUGHMAN, Dept of Biology, West Liberty University, West Liberty, WV, 26074. *Movement Ecology and Space Use of Western Hog-nosed Snakes (*Heterodon nasicus*) in a Heterogeneous Sand Prairie.*

## Oral Presentation Session 2 - Appalachian Ecology

Gauley Room 1:00 – 3:15 PM

- 1:00 – 1:15 PM **KALEB NORRIS (Grad)**, ZACHARY LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074, & KATHRYN SCHULZ, Office of Kentucky Nature Preserves, Kentucky Energy and Environment Cabinet, Frankfort, KY 40601. *Updated Occurrence and Species Accounts of Crayfish in Southeastern Kentucky's Upper Cumberland River Subbasin.*
- 1:15 – 1:30 PM **JADEN RUSNAK (Grad)**, ZACKARY GRAHAM, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074, DAVID LIEB, Environmental Services Division, Pennsylvania Fish and Boat Commission, Bellefonte, PA 16823, & ZACHARY LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Updated Range Extents of *Cambarus monongalensis* and *Lacunicambarus thomai* in Western Pennsylvania.*
- 1:30 – 1:45 PM **HANNAH HOLBERT (Grad)**, ZACKARY GRAHAM, & ZACHARY LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Life History and Corresponding Maternal Behavior of the Little Brown Mudbug (*Lacunicambarus thomai*).*
- 1:45 – 2:00 PM **LOYD BUTCHER (Grad)**, ZACHARY LOUGHMAN, GRACE AKE, ALISON WYER, MADELINE CECIL, and JEREMIAH DANN. West Liberty University, West Liberty, WV, 26074. *A Study of *Amyntas* sp. Reactions to Climatic Variables.*
- 2:00 – 2:15 PM \*\*\*\*\***AFTERNOON COFFEE BREAK**\*\*\*\*\*
- 2:15 – 2:30 PM **BAILEY O'BRIAN (Grad)** & ZACHARY LOUGHMAN, Dept of Biology, West Liberty University, West Liberty, WV 26074. *Occupancy modeling of the Tumbling Creek Cavesnail and water quality analyses of Tumbling Creek Cave.*
- 2:30 – 2:45 PM **CLEO MCMAHAN (Grad)** & MATTHEW I. MCKINNEY, Dept of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Eastern Screech-owl surveys in the major physiographic provinces of West Virginia.*
- 2:45 – 3:00 PM **STUART A. WELSH**, U.S. Geological Survey, WV Cooperative Fish and Wildlife Research Unit, West Virginia University, Morgantown, WV 26506, NATHANIEL V. OWENS, West Virginia Division of Natural Resources, Elkins, WV 26241, & DANIEL A. CINCOTTA, 113 Beauregard Drive, Staunton, VA 24401. *Diversity and distribution of the fishes of Elk River, West Virginia.*

## Oral Presentation Session 3 - STEM

Summersville Room 1:00 – 3:15 PM

- 1:00 – 1:15 PM **MICHELLE RICHARDS-BABB**, C. Eugene Bennett Department of Chemistry, West Virginia University, Morgantown, WV 26506, and MARJORIE DARRAH, School of Mathematical and Data Sciences, West Virginia University, Morgantown, WV 26506. *Refining STEM Student Support Through Systematic PDSA Cycles.*
- 1:15 – 1:30 PM **TOBI ODELEYE** & OLUWASEUN AGUNBIADE. Department of Chemistry, West Virginia University, Morgantown, WV. *Science Through Students' Eyes: Connecting Definitions, Attitudes, and Chemistry Performance.*
- 1:30 – 1:45 PM **YOGENDRA PANTA**, LEONARD C. NELSON School of Engineering, West Virginia University Institute of Technology (WVU Tech), Beckley, WV, 25801, WILLIAM CHURCH, Leonard C Nelson School of Engineering, West Virginia University Institute of Technology (WVU Tech), Beckley, WV, 25801 and MAYA PANTA, Woodrow Wilson High School, Beckley, WV, 25801. *Integrating Energy Conservation Across the Mechanical Engineering Curriculum: A Five-Year Teaching Initiative.*
- 1:45 – 2:00 PM **LATIFAT AFOLABI (Grad)** & OLUWATOBI ODELEYE, Dept of Chemistry, West Virginia University, WV 26506. *Exploring the relationship between religious identity and Sense of belonging in STEM.*

- 2:00 – 2:15 PM \*\*\*\*\***AFTERNOON COFFEE BREAK**\*\*\*\*\*
- 2:15 – 2:30 PM **OLUWASEUN AGUNBIADE (Grad)** & **OLUWATOBI ODELEYE**, Department of Chemistry, West Virginia University, Morgantown, WV 26506. *Mixed-Methods Study of Students' Definitions of Science Based on Their Experiences with A General Chemistry Course.*
- 2:30 – 2:45 PM **KEYZAR DOMINGUEZ (Grad)** & **MICHELLE RICHARDS-BABB**, Dept of Chemistry, West Virginia University, Morgantown, WV, 26505. *Student and Instructor Perspectives on Implicit Metacognitive Reporting in Organic Chemistry.*
- 2:45 – 3:00 PM **YOGENDRA PANTA**, Leonard C Nelson School of Engineering, West Virginia University Institute of Technology (WVU Tech), Beckley, WV, 25801 and **MAYA PANTA**, Woodrow Wilson High School, Beckley, WV, 25801. *Integrating Experiential Engineering Design into Middle and High School STEM Summer Camps.*
- 3:00 – 3:15 PM **YOGENDRA PANTA**, **KENAN HATIPOGLU**, Leonard C Nelson School of Engineering, West Virginia University Institute of Technology (WVU Tech), Beckley, WV, 25801 and **TAMARA SMITH**, Office of Academic Affairs, West Virginia University Institute of Technology (WVU Tech), Beckley, WV, 25801. *Sustaining and Scaling STEM Student Success: Lessons and Future Directions from the WVU Tech SUCCESS Project.*

## Oral Presentation Session 4 - Biomedical Science, Microbiology, Anthropology, and Physiology

Tygart Room 1:00 – 3:15 PM

- 1:00 – 1:15 PM **LINDSEY MORAIS (Grad)** and **MORGAN BRIDI**, Department of Neuroscience, West Virginia University, WV, 26505. *Stress-evoked activation of corticotropin-releasing factor neurons in primary sensory cortex.*
- 1:15 – 1:30 PM **DANIELLE BOND (Undergrad)** & **KRISTEN WINTER**, Dept of Biology, Fairmont State University, Fairmont, WV 26554. *Influence of Lights Wavelength and Exposure Timing on Cognitive Function in Zebrafish.*
- 1:30 – 1:45 PM **TADASHI KATO**, Department of Behavioral Science, **JORDAN TYLER BROWN**, **MAHMOOD HOSSAIN**, Department of Computer Science & Mathematics, **EMMA R. URBANIC**, **AGNES MAERTA BJOERK**, **SARA LAEL CAMPBELL**, & **JANNA B. HUGGINS**, Department of Behavioral Science, Fairmont State University. *Positive emotion produces higher EEG hemispheric synchronicity of the brain.*
- 1:45 – 2:00 PM **ETHAN VARGO-THOMAS (Undergrad)**, **SHAWN REESE**, & **DEREK DEWIG**, Health and Human Performance Dept, Fairmont State University, Fairmont, WV, 26554. *The effects of fatigue on reaction time and landing force during a jumping task.*
- 2:00 – 2:15 PM \*\*\*\*\***AFTERNOON COFFEE BREAK**\*\*\*\*\*
- 2:15 – 2:30 PM **KELLY BUZZARD**, Independent Researcher, Marlinton, WV, 24954. *When Measurement and Meaning Diverge: Revisiting Platymeria and Platycnemia.*
- 2:30 – 2:45 PM **AUDREY BLUST (Undergrad)** & **JOSEPH HORZEMPA**, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. *Targeted deletion of FTL\_1711 to evaluate its role in erythrocyte invasion by Francisella tularensis.*
- 2:45 – 3:00 PM **TYLER SCHWISOW (Grad)**, **STUART CANTLAY**, **NICOLE GARRISON**, & **ZACHARY LOUGHMAN**. Dept of Biomedical Sciences, West Liberty University, West Liberty, WV, 26074. *Microbiome Variation in the Genus Heterodon.*

## Oral Presentation Session 5 – Amphibians and Data Science

Sutton Room 1:00 – 3:15 PM

- 1:00 – 1:15 PM **ANABETH SHARPE (Grad)**, ZACHARY LOUGHMAN, & KINSEY GUTHRIE, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26074. *Ontogeny of secondary sexual characteristics using morphometrics and urinalysis in premature Cranwell's horned frogs (Ceratophrys cranwelli).*
- 1:15 – 1:30 PM **ELISA THOMPSON (Undergrad)**, MAKAYLA ZOELLERS, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074, HEIDI ROSS, El Valle De Anton, Cocle, Panama, & ZACHARY LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074. *Developing a new technique for tadpole measurements using a surrogate species.*
- 1:30 – 1:45 PM **JORDAN BROWN (Undergrad)**, MAHMOOD HOSSAIN, & TADASHI KATO, Fairmont State University, Fairmont, WV. *A computational framework for analyzing the impact of psychological distress on EEG hemispheric synchrony.*
- 1:45 – 2:00 PM **WILLIAM BLACKWOOD (Undergrad)**, Department of Computer Science and Mathematics, Fairmont State University, 1201 Locust Ave, Fairmont, WV 26554. *An empirical study of nonconvex optimization in deep learning.*
- 2:00 – 2:15 PM \*\*\*\*\***AFTERNOON COFFEE BREAK**\*\*\*\*\*
- 2:15 – 2:30 PM **HUNTER WETZEL (Undergrad)**, Department of Computer Science, Shepherd University, Shepherdstown, WV. *Machine Learning Identification of Exoplanet Transit Signals in Kepler Light Curve Data.*
- 2:30 – 2:45 PM **SHANE REALL (Undergrad)**, Dept of Science and Technology, Fairmont State University, Fairmont, WV 26554. *Evaluating the Security Awareness and Code Reliability of AI Models Against Common Software Vulnerabilities.*
- 2:45 – 3:00 PM **ZACH PFALTZGRAFF (Undergrad)**, Dept of Science and Technology, Fairmont State University, Fairmont, WV 26554. *Evaluating the Security Awareness and Code Reliability of AI Models Against Common Software Vulnerabilities.*

**ACCESS ABSTRACTS HERE:**

