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Concord University
The 17th CU Research Festival

April 24, 2026

Jean and Jerry L. Beasley Student Center
State Room and Ballroom

The 17th CU Research Festival

Schedule of Events

Friday, April 24

11:00 AM **Student Center - State Room**

Welcoming and Opening Remarks in State Room *(coffee and refreshments available)*

11:00 - 11:50 AM **Student Center - State Room**

Student Paper (Oral) Presentations

12:00 - 12:50 PM **Student Center - Ballroom**

Introduction of Keynote Speaker: Dr. Rodney Klein

Keynote Address: Dr. Michael P. Weisend

"Important Problems Need You: Science
in a World of Distractions"

1:00 - 2:45 PM **Student Center - Ballroom**

Introduction of CU President: Dr. Karen Griffiee

Presidential Remarks: Dr. Bethany Meighen

**Student Poster Session and
Graduate and Professional School Fair**



Dr. Michael P. Weisend

*Fellow and Senior Principal Neuroscientist
Intelligent Systems Laboratory - Teledyne Scientific Company*

Dr. Michael P. Weisend, Ph.D., is a Fellow and Senior Principal Neuroscientist at Teledyne Scientific, where he leads efforts in neuromodulation, neuroimaging, and human performance enhancement. His research integrates EEG, MEG, fMRI, and brain stimulation technologies to study memory, learning, and brain disorders. Dr. Weisend has held leadership roles across academia, federal research programs, and industry, and has secured over \$20 million in funding from NIH, DARPA, AFRL, and other agencies. He has authored more than 50 peer-reviewed publications and holds multiple patents in neural technology. His work emphasizes translating neuroscience into practical tools for clinical, operational, and real-world applications.

11:02 am

The Emotional Impact of Unsolvable Anagram Tasks: A Study in Learned Helplessness

Nasya Hoskins-Warner and Dr. Rodney Klein

This study takes an innovative approach to investigating whether unsolvable word-scramble tasks can create feelings of helplessness in college students, replicating and adapting Nixon's (2007) classroom demonstration of learned helplessness. The project builds on research beginning with Seligman and Maier's (1960s) animal studies, the human reformulations by Abramson et al. (1978), and later neuroscience perspectives (Maier & Seligman, 2016). A key idea from this work is that learned helplessness can generalize once people expect their efforts to be ineffective; that belief can carry over into new tasks, even ones in which they could succeed.

11:14 am

Constitutional Interpretation and the Overturning of Precedent: Originalism, Living Constitutionalism, and Stare Decisis

Emily Osborne and Dr. Sally Howard

This project examines the two dominant approaches to constitutional interpretation, originalism and living constitutionalism, and evaluates how each functions as both a legal methodology and a political ideology. By analyzing the theoretical foundations, strengths, and criticisms of these interpretive frameworks, the paper explores how they shape the recognition of constitutional rights and the allocation of governmental power. Through selected Supreme Court decisions involving privacy, equal protection, and criminal procedure, the project demonstrates how competing interpretive philosophies influence constitutional outcomes.



11:26 am

Using a Student-Made Horn Radio Telescope to Map the Milky Way Galaxy

Skyler Mounts and Dr. John Makous

This research project proposed a goal of constructing a horn radio telescope to map the structure of the Milky Way Galaxy. This project stemmed from the NSF-funded workshop "Science and Technology Applied to Radio Signals" held at Concord University. The student who participated in this workshop built a radio horn telescope, which was used in this experiment. These radio telescopes are used to detect radiation emitted from hydrogen atoms undergoing spin flip transitions at a frequency of 1420.41 MHz. Spectral data was gathered via conduction of galactic scans along the galactic equator. Measuring Doppler shifts in the spectral peak positions enabled the determination of the galactic velocities along the galactic equator. These velocities were used to construct a map of the spiral arms in the galaxy. This research has proven that student-built horn radio telescopes can contribute to the understanding of our galaxy's structure and dynamic behavior.

11:38 am

Physical Activity as a Determinant of Obesity in Rural Southern Young Adults: A Systemic Review

Demoy Daye and Dr. Jill Nolan

This systematic review examines the relationship between physical activity and obesity among young adults aged 18–35 in rural communities in the Southern United States. Obesity remains a significant public health concern in these regions, where limited access to recreational facilities, socioeconomic challenges, and environmental barriers contribute to lower physical activity levels. A comprehensive search of databases including PubMed, CINAHL, and Google Scholar identified studies published between 2015 and 2025 that met established inclusion criteria. Findings consistently indicate an inverse relationship between physical activity and obesity, with sedentary behavior and environmental constraints emerging as key contributing factors. Rural populations face unique challenges such as limited infrastructure, reduced access to health resources, and cultural influences on diet and activity. These results highlight the need for targeted, community-based interventions that promote active lifestyles and address structural barriers to reduce obesity risk and improve overall health outcomes.



Concord University

- **Masters of Business Administration**
- **Masters in Health Science Programs**
 - **Masters in Teaching**
 - **Masters in Social Work**
- **Physician's Assistant Program**

Visiting Institutions

East Tennessee State University

Marshall University

University of Charleston

**West Virginia School of Osteopathic
Medicine**

West Virginia State University



Poster Session • 1:00 - 2:45 PM

1	Exploring Geochemistry of Pseudotachylite in the Homestake Shear Zone to Test the Utility of Handheld XRF in the Field	Andrew Beohler, Gabriella Griffith, and Dr. Stephen Kuehn
2	Analyzing the Effects of Nematode Aggregation Behavior Based on Airborne and Substrate Vibration	Autumn Bane and Dr. Douglas Creer
3	Synthesis of Doped Hydroxyapatite Nanoparticles by Precipitation and Sonication	John Rose and Dr. Katherine Hatzis
4	Characterization of Sandstone Sample Obtained in Bluefield, WV using Microprobe Analysis	Katelyn Lauderback and Dr. Stephen Kuehn
5	Electron Microprobe Examination of a Granite from Glacial Till, Mt. Orab, Ohio	Gabriella Griffith and Dr. Stephen Kuehn
6	Concord Rush	David Broyles, Erik Lotysz, Adele Bosma, Emma Londeree, and Mr. and Lonnie Bowe
7	Hack Attack : A Cybersecurity Game	Dylan McDade, Emily Tharp, Philip Gonzales, Trey Akers, and Mr. Lonnie Bowe
8	Penetration Test on Internet of Things Devices	Hunter Runyon, Jacob Lambert, Sarah Lambert, Sly Shrewsbury, and Mr. Lonnie Bowe
9	Pantry Pilot	Griffin Irvin, Bryson Groves, Matt Peters, Christian Cook, and Mr. Lonnie Bowe
10	The Prevalence of ACL tears in female athletes compared to male athletes	Jordan Martinez and Dr. Jill Nolan
11	Running on Empty: The Effects of Sleep Deprivation on Academic Success and Mental Health	Brodee Rice and Dr. Jill Nolan
12	The Relationship Between Student-Athletes and Mental Health Status	Kennedy Scales and Dr. Jill Nolan
13	Lifelong fitness of former Collegiate Athletes	Brandon Smith and Dr. Jill Nolan
14	Humans vs. Machines: Do Students Trust AI in Medical Imaging?	Joshua Camarillo and Dr. Jill Nolan
15	Early diagnosis and treatment in spinal muscular atrophy (SMA)	Cierra Lucas and Dr. Jill Nolan
16	The Impact of Social Media on Adolescent Mental Health	Ted Roberts and Dr. Jill Nolan
17	Advances in Bile Duct Cancer Treatment	Sadie Spencer and Dr. Jill Nolan
18	The relationship between screen time and sleep in college students	Brooke Fuller and Dr. Jill Nolan

Poster Session • 1:00 - 2:45 PM

19	The Role of Faith in the Coping of Stress and Performance Satisfaction in Athletes	Oluwatobi Adebulu and Dr. Jill Nolan
20	Diagnosis from a distance: Teleradiology	Katelyn Kelly and Dr. Jill Nolan
21	College Students' Knowledge on Tanning and Skin Cancer	Ada Cunningham and Dr. Jill Nolan
22	The Clean Water Crisis in Southern West Virginia	Kaydence Crum and Dr. Jill Nolan
23	Autoimmune Disease Prevalence at Concord	Sammy Gill and Dr. Jill Nolan
24	Nutrition Habits	Sammy Gill, Cierra Christian, Lexi Gable, MJ Patton, and Dr. Mohyeedden Sweidan
25	Daily Coffee Consumption from Varied Age Groups in the U.S.	Lauren Curry, Ella Biggs, Haley Johnson, Teagan Sweeney, and Sophia Pham
26	Influence of Natural and Artificial Sweeteners on Lactobacillus Growth and Metabolism	Reagan Southers and Dr. Darla Wise
27	Hormonal Fluctuations and Q-Angle as Sex-Specific Risk Factors for Anterior Cruciate Ligament Tears in Female Contact Sport Athletes	Olivia Ziolkowski and Dr. Douglas Creer
28	Knowledge of Antibiotic Resistance in Undergraduate Students	Abigail Parker and Dr. Douglas Creer
29	Microscopic Analysis of Calcium in Wound Scrapings for Calciphylaxis Detection	Shannon Phipps, Joshua Cochran, Michael Grove, Marin Fiddler, and Benny Becker, and Dr. Michele Holt
30	The Role of cAMP in Light/Dark Adaptions of the Retina	Emme Morrison and Dr. Kimberly Chambers
31	Association of Breed Size and Age with Periodontal Dental Disease in Domestic Dogs	Tori Brewster and Dr. Douglas Creer
32	Effects of Local Water Sources on Germination and Early Growth of Fast Growing Plants	Hailey Peterson and Dr. Douglas Creer
33	Mitigating Hypertension Through Community-Based Screening and Education in Rural Appalachia	Alexandra Mascaro, Ashley Rumley, Allyssa Hanstedt, and Dr. Jill Nolan
34	The Burn of a Lifetime	Marissa Anderson, Jackson Patrick, Danielle Jonas, Katie Hughes, and Dr. Jill Nolan
35	Fast Food, Full Plates, and Failing Hearts	Louis Kudzma, Alyssa Dalton, Kara Poole, and Alexis Tackaberry, and Dr. Jill Nolan

Poster Session • 1:00 - 2:45 PM

36	Think before you Link	Sitara Kowlessar, Emily Stahli, Megan Connor, Bretty Pitzer, and Dr. Jill Nolan
37	Let's Touch Some Grass	Kelly Pruett, Sydney Gill, Bryce Legg, Liza Wamsley, and Dr. Jill Nolan
38	Mold Outreach	Dakota-Jack Spurgin, Kathryn Sauget, Avalon Milburn, and Dr. Jill Nolan
39	Statistical Analysis of College Student Stress Level	Hunter Goldizen, Anabelle Collins, Kevin Knight, and Chamber Eldridge, and Dr. Mohyeddin Sweiden
40	Vison vs Auditory	Hunter Goldizen and Dr. Rodney Klein
41	The Role of ACEs on Stress Response in Traditional College Students	Hazel Goodman, Dr. Karen Griffee, and Dr. Rodney Klein
42	The Effects of Short-Form Content on Attention and Memory	Emma Robinette, Lauren Conner, and Dr. Rodney Klein
43	Emotional Responses to Task Failure: A Learned Helplessness Perspective	Nasya Hoskins-Warner, Sara Tibbs, and Dr. Rodney Klein
44	The Effects of Music on Memory	Quin Trahan, Brooklyn Stutler, and Dr. Rodney Klein
45	Does Mood Affect Memory?	Taylor Sharpe, Kelsie Groseclose, and Dr. Rodney Klein
46	The Effect of Time Restraint on Student Test Scores	Isabelle Melton and Dr. Rodney Klein
47	Does Time have an Effect on stress?	Ja'Kayla Mathews, Jewell Dixon, and Dr. Rodney Klein
48	Familial Support for Women Composers of the Romantic Era	Roman Harvey, Avery Lawson, and Jacob Womack
49	Sleep Duration as a Predictor of Cardiovascular Recovery Following Acute Psychological Stress in Adults Aged 18-80	Abigail Humphrey and Dr. Douglas Creer
50	Immunology Literacy as a Predictor of Vaccine Hesitancy in College Populations: A Comparative Study of STEM majors and non-STEM majors	Madison Hollis and Dr. Douglas Creer
51	Mental Health and Environmental Impacts on Oral Health	Haley Steele, Emma Testerman, Cameron Yopp, and Dr. Thomas Ford
52	How Living Conditions Affect the Overall Health of Cats	Wesley Holcomb, Quentin Keplinger, Trinity Burns, and Dr. Thomas Ford

Poster Session • 1:00 - 2:45 PM

53	Inheritance Patterns in College Students	Elijah Ellis, Madz Loughborough, and Dr. Thomas Ford
54	Relationships between Human Emotional Health and Pet Behavior	Katie Curry, Allyson Canaday, Sara Hendricks, and Dr. Thomas Ford
55	The Effect of Breed and Diet on Dog Dental Health	Reece Rhodes, Jared Vestal, Isaac Sharp, Megan Cline, and Dr. Thomas Ford
56	Where'd My Person Go?: A Study in Pet Object Permanence	Mia Flaim, Elizabeth Allen, Logan Hunt, Jordan Weikle, and Dr. Thomas Ford
57	Health variables impacted by physical activity?	Jonah Wilson, Sammy Gill, Braylen Baker, and Dr. Thomas Ford
58	Comparison in Behaviors of Single Dog vs. Multi Dog Households	Shamad Wynne-Thompson and Dr. Thomas Ford
59	Impact of Drinking Water Quality on Cardiovascular Health	Brian Strickler, Sara Matos Tamargo, and Dr. Thomas Ford
60	COVID-19 Effects of Appalachian Students	Ayanna Sawyer and Dr. Jill Nolan
61	Detection of Specific Alleles Via minION Sequencing	Amelia Muscari and Dr. David Chambers
62	Impact of Energy Drinks on Physical and Mental Health in Young Adults	Amelia Muscari and Dr. Kelli Mann
63	The Effects of Environmental Radiofrequency Exposure (1 MHz) on the Germination Rate and Growth of Wisconsin Fast Plants	Skyler Mounts and Dr. Rafael Castaneda-Saldana
64	Microplastic Presence Across an Urban, Rural-Human, and Rural-Heavily forested areas	Mason Taylor, Dr. Thomas Ford, and Dr. Douglas Creer
65	The Effect of Different Sugars the Growth Rate of Saccharomyces cerevisiae	Sarah Angell, Dr. Heather Shepherd, and Dr. Douglas Creer
66	The Role of House Flies (Musca Domestica) in the Transmission of Intestinal Parasites to Pets and Livestock	Trinity Keith and Dr. Darla Wise
67	Factors Influencing Allergies	Trinity Keith, Reagan Bennett, and Brandon Isaac, and Dr. Thomas Ford
68	Anti-Smoking Campaign	William Jackson, Violet Wall, Andrea Guerra, Marc Bonner, and Dr. Manjunath Burdekar

Poster Session • 1:00 - 2:45 PM

69	Healthy Eating Campaign	Madison Stull, Marquise Walker, Colby Bailey, and Dr. Manjunath Burdekar
70	Anti-Bullying Campaign	Patience Lunsford, Ayanna Sawyer, Myles Walker, Trystann Traynor, Brenden Hoffman, Ronnie Worth, and Dr. Manjunath Burdekar
71	Anti Drug Campaign	Kasey Reynolds, Morgan Lester, Trinity Henderson, Jackson Horton, Casey Thomas, Dawson Maynard, and Dr. Manjunath Burdekar
72	Suicide Prevention Campaign	Hannah Rhodes, Braylen Ross, Emma Sands, Brodee Rice, and Dr. Manjunath Burdekar
73	Improving College Students' Awareness of Postural Orthostatic Tachycardia Syndrome	Jayden Doty and Dr. Jill Nolan
74	The effects of carbohydrate loading vs ketogenic diet on endurance performance	Jenna Webb and Dr. Jill Nolan
75	The Effects American Football has on the Brain	Nick DiSanti and Dr. Jill Nolan
76	The Relationship Between Hip Strength and Patellofemoral Pain	Sydney Frias and Dr. Jill Nolan
77	Effects of physical activity on academic achievement in middle schoolers	Joshua Uhrig and Dr. Jill Nolan
78	The Effects of Dry Needling on Muscle Function	Madison Stull and Dr. Jill Nolan
79	Is Screen Time a Causal Contributor to Depression	Allie Davis and Dr. Jill Nolan
80	Effects of Hot, Cold, and No Therapy on Post-Exercise Recovery in College Athletes	Korbin Bostic and Dr. Jill Nolan
81	Energy Drinks and their Effect on Quality of Sleep	Ben Hailes and Dr. Jill Nolan
82	The effects of cupping and scraping on student athletes	Matthew DiSanti and Dr. Jill Nolan

Poster Session • 1:00 - 2:45 PM

83	College Athletes Mental Health After Injury	De'Janae Hicks and Dr. Jill Nolan
84	Relationship Between Long-Term Omega-3 Fatty Acid Consumption and Development of Depression Symptoms – A Randomized Controlled Trial	Eli Patterson and Dr. Jill Nolan
85	The Effects of Weightlifting/Resistance Training on Perceived Stress	Ashton Spangler and Dr. Jill Nolan
86	The Effect if Balance and Strength Exercise Interventions on Fall Risk in Older Adults	Zakiya Jackson and Dr. Jill Nolan
87	Does stress effect Immune Function	Josi Ervin and Dr. Jill Nolan
88	Do you recovery better from a Tens unit	Austin Hear and Dr. Jill Nolan
89	The Role of the Gut Microbiota in the Anxiety Response of Sprague-Dawley Rats	Kindall Hamilton, Dr. Darla Wise, and Dr. Adriana Falco
90	Average Weather Temperature in Bluefield WV from October 2025 to January 2026	Ava Arbogast, Rylee Harbour, Kaitlyn Lauderback, Emily Carothers, and Dr. Mohyeedden Sweidan
91	Average Temperature (°F) in Bluefield, WV from October 25, 2025 to January 26, 2026	Katelyn Lauderback, Rylee Harbour, AJ Leftwich, Ava Arbogast, Emily Carothers, and Dr. Mohyeedden Sweidan
92	Cold/Hot baths affects for you're age	Andrew LaPerle and Dr. Jill Nolan
93	Response to Chemical Stimuli in Soil Nematodes	Nathan Kessler and Dr. Douglas Creer
94		
95		

Ideas, Thoughts, and Wishes

More Ideas, Thoughts, and Wishes

