

Session Winners

**47th Annual
Student Research Conference**

WKU REACH 2017
Research Experiences And Creative Heights



Saturday, March 25, 2017
Downing Student Union
Western Kentucky University
Bowling Green, Kentucky

Thanks to the WKU Fund for inaugural sponsoring of conference winners. Each of the conference's 59 sessions have been generously sponsored with a \$50 gift card to the WKU Store by the WKU Fund. The WKU Fund is privately-supported and is part of the WKU Foundation, made possible by the generous gifts of those who care about WKU and the excellent pursuits of its students, faculty, and staff.

The winner/s of each session listed below will receive a signed certificate (delivered to the mentor) and a \$50 gift card to the WKU Store. Information will follow in the coming weeks to session winners about receiving their gift card. Session winners with multiple co-presenters will split the \$50 gift card for their session.

CONCURRENT MORNING SESSIONS I

8:10 – 9:40 am

Session 1 Room 2084 Graduate Papers, Health and Human Services

Willenbrink, Elizabeth; Mallinger, Gayle; Kerby, Molly; Musalia, Martha; "Cultivating Community: Food Insecurity and Community Gardening Among African Refugees in Bowling Green, Kentucky" (Gayle Mallinger)

Session 2 Room 2085 Graduate Papers, Humanities

Rodriguez, Emily "Born With a Veil: A Supernatural Family History through Oral Tradition" (Ann Ferrell)

Session 3 Room 2086 Graduate Papers, Natural Sciences

Jackson, Leah; Polk, Jason; "Epikarst Hydrogeochemical Processes in Telogenetic Karst Systems in South-Central Kentucky" (Jason Polk)

Session 4 Room 2122 Graduate Papers, Interdisciplinary

Muller, Chloe "The Failing Fight For Universal Paid Family Leave" (Molly Kerby)

Session 5 Room 2123 Undergraduate Papers, Humanities

Nellans, Lillian "Patriarchy Weaponized: Sexual Violence amidst Armed Conflict" (Patricia Minter)

Session 6 Room 2124 Undergraduate Papers, Humanities

Gruber, Brittney "They: The Best Gender Neutral Pronoun" (Elizabeth Winkler)

Session 7 Room 3002 Undergraduate Papers, Natural Sciences

Wallace, Franklyn; Lamb, Ryan; "Modified Aqueous Substrates for Real-Time Reaction Monitoring Using Surface Enhanced Raman Spectroscopy" (Matthew Nee)

Session 8 Room 3004 Undergraduate Papers, Natural Sciences

Reece, Christopher "A Case Study of the Historic Kentucky Winter Storm of March 4th-5th, 2015" (Joshua Durkee)

Session 9 Room 3005 Undergraduate Papers, Natural Sciences

Cecil, Wendy "A Study of Mercury in Bald Eagle Feathers" (Cathleen Webb)

Session 10 Room 3006 Undergraduate Papers, Social Sciences and Education

Latham, Kate "Integrating Art into the Classroom: A Necessary Component of a Well-Rounded Education" (Janet Tassell)

Session 11 Room 3007 Undergraduate Papers, Interdisciplinary

Allen, Laura "Intergenerational Living between College Students and Nursing Home Residents in a Global Context" (Dana Bradley)

Session 12 Room 3024 Graduate Posters, Health and Human Services

Clayton, Morgen; Downing, Tate; Vanarsdall, Natalie; Young, Sonia; Norris, Elizabeth; Vanwye, Ray; Chumbley, Allison; Watson, Chelsea; "Effects of Foot Orthotics and Whole Body Vibration on Gait in Children with Down Syndrome" (Sonia Young)

Session 13 Room 3024 Graduate Posters, Interdisciplinary

Steinmann, Hali "A Geomorphological Investigation of Lithology, Structure, and Their Effects on Speleogenesis in the Pennington Formation, Savage Gulf State Natural Area, Tennessee" (Pat Kambesis)

Session 14 Room 3024 Undergraduate Posters, Health and Human Services,

McDaniel, Christopher; Nugent, Jesse; "ACE Gene Methylation and Hypertension in a Cohort of East Africans" (Nancy Rice)

Session 15 Room 3024 Undergraduate Posters, Humanities

Hoffman, Elizabeth "Art behind the Scenes" (Marilee Salvator)

Session 16 Room 3024 Undergraduate Posters, Natural Sciences,

Shelton, Dimond; King, Rodney; "Discovery and Analysis of Mycobacteriophage Wachhund" (Rodney King)

Session 17 Room 3024 Undergraduate Posters, Natural Sciences,

Urso, Olivia; Carroll, Amber; King, Rodney; "Identifying Essential Viral Genes through Genomic Engineering" (Rodney King)

Session 18 Room 3024 Undergraduate Posters, Natural Sciences,

Millay, Matthew; Patty, Blaine; Smith, Michael; Monroe, Jerry; "Investigating the Synergistic Effects of Two Curcuminoids and Cisplatin on Cancer Cell Migration and Auditory Tissue" (Michael Smith)

Session 19 Room 3024 Undergraduate Posters, Social Sciences and Education

Rinne, Allison "Age Differences in Top-Down Processing of Emotional Faces Reflected in Early Fronto-Central Neural Activity" (Andrew Mienaltowski)

Session 20 Room 3024 Undergraduate Posters, Interdisciplinary

Browning, Shelby "Russellville Youth & Development Center" (Neal Downing)

CONCURRENT MORNING SESSIONS II

11:00 am – 12:30 pm

Session 21 Room 2084 Graduate Papers, Humanities

Pyatt, Susanna "Living by Design, Not by Default': Blogging Modesty & Biblical Femininity in the 21st Century" (Ann Ferrell)

Session 22 Room 2085 Graduate Papers, Natural Sciences

Von Hagen, R; Schulte, Bruce; Mwangi, Githiru; Simon, Kasaine; Bernard, Amakobe; Urbanus, Mutwiwa; "An Exploration of Chili Pepper (*Capsicum Spp.*) Fences as a Crop Raiding Deterrent Method to Alleviate Human Elephant Conflict (HEC) in the Kasigau Wildlife Corridor, Kenya" (Bruce Schulte)

Session 23 Room 2086 Graduate Papers, Interdisciplinary

Karimli, Nigar; Prasad, Ayush; "Constructing an Optimal Design Method in a Mathematical Model for the Interactions of Matrix Metalloproteinases and their Inhibitors in a Wound" (Richard Schugart)

Session 24 Room 2122 Graduate Papers, Interdisciplinary

Carver, Krystal; Johnson, Samantha; Turner, Ben; "Assessing the Community Impacts of Project Breaking Ground (A Sustainable Jail Garden and Food Justice Service-Learning Project)" (Nicole Breazeale)

Session 25 Room 2123 Undergraduate Papers, Humanities

Henderson, Andrew "Journalism and Human Rights: From the Abolition of British Slavery to the AIDS Crisis and Injustices In-Between" (Patricia Minter)

Session 26 Room 2124 Undergraduate Papers, Humanities

Mills, Tori "Indie Darlings: The Significance of the Female Coming-of-Age Story in Independent Cinema" (Ted Hovet)

Session 27 Room 3002 Undergraduate Papers, Natural Sciences

Reilly, Mary Kirsten; Philips, Keith; Bowen, Jacob; Daniels, Makenzie; Daugherty, Zechariah; "Dung Beetle Diversity in the Costa Rican Cloud Forest" (Keith Philips)

Session 28 Room 3004 Undergraduate Papers, Natural Sciences

Baker, Alan; Wulff, Andrew; "Understanding the Geology of the San Jose Mine Collapse" (Andrew Wulff)

Session 29 Room 3005 Undergraduate Papers, Natural Sciences

Hodzic, Denis; Smith, Michael; Monroe, David; "Identifying Anti-Cancer and Otoprotective Synergisms between Cisplatin and Two Novel Curcuminoids" (Michael Smith)

Session 30 Room 3006 Undergraduate Papers, Social Sciences and Education
Price, Cassidy "Opportunity for Sex Education in Young Adult Literature" (Ted Hovet)

Session 31 Room 3007 Undergraduate Papers, Interdisciplinary
Renfro, Brooklyn; Rennegarbe, Grayson; Taylor, Logan; Martin, Lucas; "Why You Shouldn't Forgive" (Grayson Hunt)

Session 32 Room 3024 Graduate Posters, Health and Human Services
Shaker, Nuha; Maples, Jill; Lyons, Scott; Noel, Christina; "Pharmacogenetics Study Among Children with Autism Spectrum Disorder" (Jill Maples)

Session 33 Room 3024 Graduate Posters, Interdisciplinary
Gade, Keertana Reddy "Profile and Lessons Learned from Health Services in Zanzibar" (William Mkanta)

Session 34 Room 3024 Undergraduate Posters, Health and Human Services
Moore, Lindsey "Standing in the Way: Criminalizing Homelessness" (Whitney Harper)

Session 35 Room 3024 Undergraduate Posters, Natural Sciences
Plummer, Erica; Thayer, Dominique; Ashley, Noah; "Effects of Chemical Sympathectomy on Inflammatory Response to Sleep Loss in Mice" (Noah Ashley)

Session 36 Room 3024 Undergraduate Posters, Natural Sciences
Leibman, Noemi; Hahn, Lance; "Impact of Deception on Writing Style" (Lance Hahn)

Session 37 Room 3024 Undergraduate Posters, Natural Sciences
Perez, Meghan; Curry, Caleb; King, Rodney; "Exploring Viral Diversity through the Comparison of Mycobacteriophages Squiggle and Trufflatree" (Rodney King)

Session 38 Room 3024 Undergraduate Posters, Natural Sciences
Carver, Nicholas; Aroh, Joseph; Stewart, Patrick; Abuhulaigah, Ali; Li, Jianwei; "The Design of an Autonomous Robot for the Spring 2017 IEEE Competition" (Ron Rizzo)

Session 39 Room 3024 Undergraduate Posters, Social Sciences and Education
Denhard, Chelsea; Lickenbrock, Diane; "Associations between Parent Involvement, Infant Temperament, and Parent affect during Early Infancy" (Diane Lickenbrock)

Session 40 Room 3024 Undergraduate Posters, Interdisciplinary
Businnah, Shaima "Ibrahim Palace" (Neal Downing)

CONCURRENT AFTERNOON SESSIONS III

1:40 – 3:10 pm

Session 41 Room 2084 Graduate Papers, Social Sciences and Education

Bailes, Lauren; Lickenbrock, Diane; "Examining Longitudinal Predictors of Parental Sensitivity: The Role of Parental Personality and Infant Temperament across Early Infancy" (Diane Lickenbrock)

Session 42 Room 2085 Graduate Papers, Natural Sciences

Seyitliyev, Dovletgeldi; Kholikov, Khomidkhodzha; Ilhom, Saidjafarzoda; Grant, Byron; Er, Ali; "One-Step Laser-Induced Hydrogen Generation from Coal and Coke Powders in Water" (Ali Er)

Session 43 Room 2086 Undergraduate Papers, Interdisciplinary

Green, Steven "Perception towards Beef Industry and Willingness to Pay for Beef Products among Millennials in Kentucky" (Dominique Gumirakiza)

Session 44 Room 2122 Undergraduate Papers, Humanities

Burchett, Seth "Hard Times, Professional Wrestling, and a Look at Working Class Masculinity" (Jennifer Hanley)

Session 45 Room 2123 Undergraduate Papers, Humanities

Taylor, Erin "Queer Women in Television" (Jerod Hollyfield)

Session 46 Room 2124 Undergraduate Papers, Natural Sciences

Powers, Nathan; Srivastava, Ajay; "Involvement of JAK/STAT Pathway during Air Sac Primordia Development of *Drosophila melanogaster*" (Ajay Srivastava)

Session 47 Room 3002 Undergraduate Papers, Natural Sciences

Askins, Morgan; Palkovic, Alexandra; Leppoo, Kelsy; Jones, Grace; "Effect of Feeding Teff Hay on Dry Matter Intake, Digestible Energy Intake and Resting Insulin/Glucose Concentration in Horses" (Jennifer Gill)

Session 48 Room 3004 Undergraduate Papers, Natural Sciences

Aromiwura, Afolasayo; Fields, Christopher; Srivastava, Ajay; "Functional Characterization of a Basement Membrane Degrader and Its Role in the Development of *Drosophila melanogaster*" (Ajay Srivastava)

Session 49 Room 3005 Undergraduate Papers, Humanities

Jones, Andrew "The Geographic Perspective of Populist Attitudes in Eastern and Southern Germany" (Laura McGee)

Session 50 Fine Arts Center Room 319 Undergraduate Performances, Interdisciplinary
Rouse, Hadley; Kelly, Liza; "tears Breaking On Glass" (Liza Kelly)

Session 51 Room 3024 Graduate Posters, Health and Human Services
Bezawada, Nandini; Weisbrodt, David; Taylor, Ritchie; Hwang, Jooyeon; "Noise Exposure Levels among Bowling Green City Employees Operating Different Equipment" (Jooyeon Hwang)

Session 52 Room 3024 Undergraduate Posters, Health and Human Services
Driskill, Sarah McKenzie; Tinius, Rachel; Hoover, Don; "A Pregnancy-specific Equation for Predicting Cardiorespiratory Fitness" (Rachel Tinius)

Session 53 Room 3024 Undergraduate Posters, Health and Human Services
McRoberts, Jordan; Jent, Morgan; "Colors in the World of Healing" (Shelia Flener)

Session 54 Room 3024 Undergraduate Posters, Natural Sciences
Cruz, Linda "A Narrative of Kentucky's Top 10 Invasive Plants through Maps" (Amy Nemon)

Session 55 Room 3024 Undergraduate Posters, Natural Sciences
Lasley, Nathan "Comparing Building Modeling Software to the Energy Record of a Preexisting Structure" (Robert Choate)

Session 56 Room 3024 Undergraduate Posters, Natural Sciences
Taylor, Carly "Mechanochemical Synthesis of Platinum Compounds" (Kevin Williams)

Session 57 Room 3024 Undergraduate Posters, Natural Sciences
Fernando, Jeraan; Naidugari, Janki; King, Rodney; Rinehart, Claire; Staples, Amanda; "The Isolation and Characterization of Phages Ruvinda and Haiitspooja" (Naomi Rowland)

Session 58 Room 3024 Undergraduate Posters, Interdisciplinary
Powers, Jeffrey "The Association between Nonsuicidal Self-Injury, Suicide Attempts, and Binge-Drinking in College Students" (Amy Brausch)

Session 59 Room 3024 Undergraduate Posters, Natural Sciences and Interdisciplinary
Ryumae, Ken "Computing an Algorithm to Detect Three Dimensional Objects in Space" (Qi Li)