2017

2017 Program

University of Missouri-St. Louis

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**Mission Statement**

The members of the University of Missouri–St. Louis chapter of Golden Key International Honour Society are committed to the creation of educational opportunities and the development of leadership skills. As leaders, we are dedicated to formulating a paradigm for student activism that preserves and advances the interests and reputation of our campus and its faculty.

In 2002, Golden Key members designed the Undergraduate Research Symposium (URS) to furnish a venue for undergraduate students to present their research, scholarship, and creative works as they would at a professional conference. This multidisciplinary event is intended to help students achieve their educational and professional goals by presenting students an opportunity to refine their communication skills and network with scholars. The URS also provides an opportunity for faculty and the broader academic community to express support for the undergraduate scholars in furthering their research and graduate studies.

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**Chapter Officers 2016–2017**

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Awards
The UMSL chapter of Sigma Xi, The Scientific Research Society, will present three awards for posters. Faculty judges will assess the posters on content and style, the abstracts on content and clarity, and the presenters on their interaction with the audience. These awards are made possible by Dr. Patricia Parker through her Des Lee Endowed Professorship Grant.

Graduate School Application-Fee Waivers
The Graduate School is awarding application-fee waivers to URS Participants.

The URS Committee will be sending a list of URS participants to the graduate school. When you fill out the on-line graduate school application, use the statement of purpose box to indicate that you participated in the URS and are requesting a fee waiver.
Thanks to the URS Sponsors

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Acknowledgments

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Jay Frey
Printing Services

Jodi M. Heaps-Woodruff, PhD
Assistant Research Professor, Psychology

We would also like to thank all the mentors who supervised the research, reviewed abstracts countless times, edited posters, coached oral presenters, and were there when they were needed.
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Oral Presentations will be held in Century Room A and MSC Meeting Room 316.

The URS ends at 3:00 pm. Shortly thereafter, the awards will be presented at a brief ceremony in the Millennium Student Center, on the third floor, in Century Room A.
Anthropology

Shipping Habit Study for the West African Diaspora Communities: Feasibility Study for the Creation of a Shipping Company to Serve West African Immigrants Sending Items to their Homelands

Akpedje Aquereburu, Anthropology
Mentor: Susan Brownell, PhD

Hold the Applause:
An Action Plan to Lower Chlamydia and Gonorrhea Rates in St. Louis

Ben Hibbett, Anthropology
Kristy Gammill, Anthropology
Serena Blue Herman, Anthropology
Jamie Crabtree, Anthropology
Kerry Rayford, Anthropology
Mentor: Susan Brownell, PhD

Healing Waters: Recreating and Contextualizing the Turn of the Century Site of Regent Spring in Excelsior Springs, Missouri

Dana Channell, Anthropology
Mentor: Daniel Pierce, MA
Saint Louis Mounds:  
A Proposal for the Awareness of the Past and Preservation for the Future  
Stephanie Reinheimer, Anthropology  
Terra Williams, Anthropology  
Timothy Wayman, Anthropology  
Madeline Kodelja, Anthropology  
Thomas Unterreiner, Anthropology  
Mentor: Susan Brownell, PhD

Biochemistry & Biotechnology

Comparing Parasite Identity and Prevalence between Two Tamarin Species  
Shay Dudaie, Biochemistry & Biotechnology  
Mentor: Patricia G. Parker, PhD

Investigation of the Novel Cyanobacterium 2RC  
Sara Ricardez, Biochemistry & Biotechnology  
Abigail Eaker, Biochemistry & Biotechnology  
Mentor: Teresa Thiel, PhD
Temporal Patterns of Small Blue Grecian Butterfly Thoracic Temperatures at an Equatorial Site
Noreen Heyari, Biology
Mentor: Godfrey R. Bourne

Molecular Approaches to Screen for Avian Malaria in Galapagos Mosquitoes, *Aedes Taeniorhynchus* and *Culex Quinquefasciatus*
Nathaniel Jones, Biology
Mentor: Patricia G. Parker, PhD

Assessing Feeding Preferences among *Culex Quinquefasciatus* in Galapagos
Sawsan Salah, Biology
Mentor: Patricia G. Parker, PhD

Preliminary Investigation into Local Ecological Strategy Dimensions in a Coastal African Forest
Isaac Wilson, Biology
Mentor: Sebastian Tello, PhD
Civil Engineering

Overcoming Security Challenges in Smart Infrastructure
Nicole Gevers, Civil Engineering
Mentor: Ann Torrusio, MA

Criminology & Criminal Justice

Fatal Police Encounters in St. Louis from 2013-2014: A Qualitative Study
Heidi Wallner, Criminology & Criminal Justice
Heather Taylor, Social Work
Mentors: Michael Campbell, PhD; Nancy Gleason, MA

English

BioShock and Awe: The Mechanics of Fear in Video Gaming
Kaitlin Henning, Psychology
Mentor: Kim Baldus, PhD

Monsters in the Closet: Victor’s Homosexual Repression in Mary Shelley’s Frankenstein
Zachary J. Lee, English
Mentor: Kim Baldus, PhD
Physics

Synchronization of Hindmarsh-Rose Model Neurons
Sarah Myers, Psychology
Mentor: Sonya Bahar, PhD

Radial Velocities of Young Stellar Objects in the Rho Ophiuchi Infrared Cluster
Lindsey Rodgers, Physics
Mentor: Bruce Wilking, PhD

Psychology

Relationships between Childhood Reading Experiences and Current Reading Ability
Samantha Austin, Psychology
Stephanie Faulkingham, Psychology
Jaclyn Herbstreit, Psychology
Mentor: Suzanne Welcome, PhD

Individual Differences in Neural Rhyme Effects
Anne Birchem, Psychology
Rawan Almasalmeh, Psychology
Stephanie Gallagher, Psychology
Mentor: Suzanne Welcome, PhD
Maternal Support and Sexual Behavior Following Childhood Sexual Abuse

Claudia Campbell, Psychology
Mentor: Rachel Wamser-Nanney, PhD

Growth Mindset Buffers the Negative Relationship between Discrimination Anxiety and Science Outcomes for Women in STEM

Brian Flammang, Psychology
Michael A. Fague, Psychology
Drake A. Anderson, Psychology
Erika M. McClellan, Psychology
Andrew S. Cheli, Psychology
Mentor: Bettina J. Casad, PhD

Caring for Older Adults with Mental Health Concerns: Impact on Family Care Partners’ Perceived Stress

Adriana Givens, Psychology
Mentor: Ann Steffen, PhD

Perceived Control as a Function of Acute Social Stress

Miranda Jany, Psychology
Josie Stiens, Psychology
Mentor: Carissa Philippi, PhD
Was it Rape if it Feels Like I Consented?  
The Role of Perceived Consent in Labeling Nonconsensual Sexual Experiences  
Courtney Jones, Psychology  
Kristen Scheidter, Psychology  
Sara Kern, MA  
Mentor: Zoë D. Peterson, PhD

The Role of Women’s Gender and Identity Integration in Math Attitudes and Commitment to STEM  
Jennifer Kennedy, Psychology  
Danielle L. Oyler, Psychology  
Emily M. White, Psychology  
Erin T. Sullivan, Psychology  
Savannah M. Price, Psychology  
Destiny N. Tierney, Psychology  
Ren E. Bay, Psychology  
Paul A. Greenley, Psychology  
Mentor: Bettina Casad, PhD

Snakes, Angry Faces, and the Effect of Threat on Early Attention  
Kristen Scheidter, Psychology  
Mentor: Sandra Langeslag, PhD

The Effects of Childhood Trauma on Parenting Outcomes  
Kayla Shane, Psychology  
Mentor: Rachel Wamser-Nanney, PhD
Positive Scientific Social Climate Buffers the Negative Relationship between Lower Math Identity and Math Anxiety, Devaluing, and Disengagement

Destiny Tierney, Psychology
Drake A. Anderson, Psychology
Paul Greenley, Psychology
Mentor: Bettina J. Casad, PhD

Nursing

Breastfeeding and Childhood Obesity in America

Madison Bick, Nursing
Mentor: Jean Nelson, PhD, RN