2013 Undergraduate Research Day Winners

Biology: Ecology, Conservation and Wildlife
1st Place: CLASSICAL CONDITIONING IN THE OZARK ZIGZAG SALAMANDER (PLETHODON ANGUSTICLAVIUS). Kendell Loyd. Faculty Advisor: Dr. Alicia Mathis

2nd Place: EMBRYONIC LEARNING IN FRESHWATER SNAILS? SUPPORT FOR THE NULL HYPOTHESIS. Courtney Heuring. Faculty Advisor: Dr. Alicia Mathis

Biology: Cellular, Microbiology and Genetics
1st Place: POTENTIAL FUNCTIONAL CONNECTION BETWEEN DYNAMIN AND THE COAT PROTEIN CLATHRIN. Michelle Williams, Hyoeun Ahn, Courtney Hofstetter, Jeff Sletto. Faculty Advisor: Dr. Kyoungtae Kim

2nd Place: AMYLASE, CALCITONIN GENE-RELATED PEPTIDE, CORTISOL, ESTRADIOL, AND VASOACTIVE INTESTINAL PEPTIDE LEVELS IN TREXIMET TREATED AND UNTREATED MENSTRUAL MIGRAINE PATIENTS. Evan Clark and Ryan Cady. Faculty Advisor: Dr. Paul Durham

Chemistry
1st Place: ANALYSIS OF CONFORMATION CHANGE IN DNA DOUBLE HELIX BY 8OXOG SINGLE BASE MODIFICATIONS. Juliano D.O. Silveira. Faculty Advisor: Dr. Gary Meints

2nd Place: EVALUATION OF HALOGEN BONDING FOR CRYSTAL ENGINEERING. Shalisa Oburn and Lisa Kirchner. Faculty Advisor: Dr. Eric Bosch

Engineering
1st Place: MECHANICAL DESIGN AND CONSTRUCTION OF A HIGH-POTENTIAL TESTING STATION FOR INDUSTRIAL BATTERIES. Jordan Keene, Elliott Hankison, Nathan Minor, Wayne Spencer. Faculty Advisors: Dr. Kelvin Erickson, Dr. Robert Egbert

2nd Place: HEATING OIL BY FOCUSING SOLAR ENERGY USING AN INWARD FACING COMPOUND PARABOLIC TROUGH. Daryl McConnell, Brad Mothersbaugh, Kennedy Kiptanui, Zach Yarger. Faculty Advisors: Dr. Robert Egbert, Dr. Steve E. Watkins

Geography, Geology and Planning
1st Place: CLASTIC DIKES WITHIN THE SWAN CREEK SANDSTONE, SOUTHWEST MISSOURI. Joshua D. Elson, Mark O. Larson, Joe M. Talarico, Brandon Ives. Faculty Advisor: Dr. Charles Rovey II

2nd Place: GRAVITY AND MAGNETIC ANALYSIS OF PLUTONS, RING PLUTONS AND MAFIC BODIES IN THE ST. FRANCOIS MOUNTAINS, SE MISSOURI. Mark O. Larson. Faculty Advisor: Dr. Kevin Mickus
Mathematics
1st Place: **SUBGROUP LATTICES OF GENUS ONE.** Jeremy Berry. Faculty Advisor: Dr. Les Reid

2nd Place: **KRYLOV SUBSPACES AND ADAPTIVE ARNOLDI METHODS FOR COMPUTING PAGERANK**
Alex Thomson. Faculty Advisor: Dr. Jorge Rebaza

Physics, Astronomy and Materials Science
1st Place: **INVESTIGATIONS OF FE-DOPED MESOPOROUS SILICA FDU-12 TREATED UNDER HYDROTHERMAL CONDITIONS.** Adam Brandt, Steven Harrellson, Scott Maasen. Faculty Advisor: Dr. Robert A. Mayanovic

2nd Place: **PHOTOMETRIC ANALYSIS OF NINE YELLOW SUPERGIANT STARS.** Philip E. Crouse. Faculty Advisor: Dr. Robert S. Patterson

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2013 I-CHRIE Central Federation Hospitality Research Symposium Winners
Deans Awards

Department of Hospitality and Restaurant Administration
**CHALLENGES, BENEFITS, AND STRATEGIES OF GREEN MARKETING.** Lauren Mattson, Stephanie McGirl, Lindsay McQueary, and Jake Medford. Faculty Advisor: Dan Crafts

**CRUISE SHIP WASTE MANAGEMENT.** Kaley Esbeck, Melissa Dedmon, Jeffry Driskill, and Tyler Bahr. Faculty Advisor: Dan Crafts