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David Ferguson, Ph.D.

Michelle Santiago, Ph.D.

Terry Derting, Ph.D.

Chris Mecklin, Ph.D.

Summer Cross, Ph.D.

Don Kim



Posters-at-the-Capitol

TOTAL # of PROPOSALS: 25

TOTAL # of SLOTS FILLED: 17

<u>College/School/Unit</u>	<u>Department/Program</u>	<u># of Proposals</u>	<u>Slots Filled Accepted</u>
Arthur J. Bauernfeind College of Business		7 / 28%	2 / 12%
	Economics	7	2
College of Education and Human Services		0	0
College of Humanities and Fine Arts		5 / 20%	5 / 29%
	History	2	2
	Psychology	3	3
Continuing Education and Academic Outreach		0	0
Hutson School of Agriculture		6 / 24%	4 / 24%
	Agricultural Science	4	2
	Animal and Equine Science	2	2
Jesse D. Jones College of Science, Engineering and Technology		5 / 20%	4 / 24%
	Biological Sciences	4	3
	Mathematics and Statistics	1	1
School of Nursing and Health Professions		2 / 8%	2 / 12%
	Applied Health Sciences	1	1
	Nursing	1	1

Murray State University again planned the statewide *Posters-at-the-Capitol* (P@C) program. All of Kentucky's public universities and the Kentucky Community and Technical College System were participating. A new partnership was formed this year with Project Lead the Way to allow a limited number of high school participants to display research projects the day prior to *Posters-at-the-Capitol*.

Unfortunately, due to inclement weather, the program had to be canceled the week it was scheduled to take place.



Scholars Week

Research and/or Scholarly Activity Posters:	106
Service Learning Posters:	0
Service Posters:	0
TOTAL POSTER PRESENTATIONS:	106
TOTAL ORAL PRESENTATIONS:	67
Undergraduate Student Participants (research or scholarly)	106
Undergraduate Student Participants (service learning)	0
Undergraduate Student Participants (service)	0
Graduate Student Participants	14
TOTAL STUDENT PARTICIPATION:	120

BREAKOUT OF RESEARCH/SCHOLARLY ACTIVITY POSTERS AND ORAL/PERFORMANCES:

<u>College/School/Unit</u>	<u>Poster</u>	<u>Oral</u>	<u>Faculty Mentors</u>
Arthur J. Bauernfeind College of Business	6	7	8
College of Education and Human Services	0	11	6
College of Humanities and Fine Arts	25	24	19
Continuing Education and Academic Outreach	0	0	0
Hutson School of Agriculture	16	0	8
Jesse D. Jones College of Science, Engineering and Technology	48	18	22
School of Nursing and Health Professions	11	2	4

** = Posters that participated in the Sigma Xi competition and the Posters-at-the-Capitol are listed twice as actually being presented twice (Monday and Wednesday). The student headcount, however, does not double count.*



Research Scholar Fellowships

TOTAL # of PROPOSALS: 11
TOTAL # of FELLOWSHIPS AWARDED: 3

<u>College/School/Unit</u>	<u>Department/Program</u>	<u># of Proposals</u>	<u>Funded Fellowships</u>
Arthur J. Bauernfeind College of Business		0	0
College of Education and Human Services		0	0
College of Humanities and Fine Arts		5 / 45%	1 / 33%
	History	2	0
	Psychology	3	1
Continuing Education and Academic Outreach		0	0
Jesse D. Jones College of Science, Engineering and Technology		1 / 9%	1 / 33%
	Biological Sciences	1	1
Hutson School of Agriculture		5 / 45%	1 / 33%
	Agricultural Science	2	0
	Animal and Equine Science	3	1
School of Nursing and Health Professions		0	0

- David Crittendon, Psychology, “The Effects of Priming on Patriotism and Nationalism.” David was mentored by Dr. Jana Hackathorn.
- Lauren Hamm, Pre-Veterinary Medicine, “Effects of Ivermectine and Moxidectine on Equine Parasites in Horses in Western Kentucky.” Morgan Ernst, Animal/Equine Science, assisted as a co-investigator. Lauren and Morgan were mentored by Dr. Shea Porr.
- Bradley Hartman, Aquatic/Fisheries Biology, “Effects of Predator Size Variation on Future Generations of Predators.” Bradley was mentored by Dr. Howard Whiteman.



URSA Grants

TOTAL # of PROPOSALS:	16
TOTAL # of GRANTS AWARDED:	15

<u>College/School/Unit</u>	<u>Department/Program</u>	<u># of Proposals</u>	<u>Funded Grants</u>
Arthur J. Bauernfeind College of Business		1* / 6%	1* / 7%
	Accounting	1*	1
College of Education and Human Services		0	0
College of Humanities and Fine Arts		4 / 25%	4 / 27%
	History	2	2
	Psychology	2	2
Continuing Education and Academic Outreach		0	0
Hutson School of Agriculture		6 (1#) / 38%	6 (1#) / 40%
	Agricultural Sciences	3	3
	Animal and Equine Science	1	1
	Animal Health Technology	2 (1#)	2 (1#)
Jesse D. Jones College of Science, Engineering and Technology		3 / 19%	2 / 13%
	Biological Sciences	2	1
	Mathematics and Statistics	1	1
School of Nursing and Health Professions		2* / 13%	2* / 13%
	Nursing	1*	1*
	Applied Health Sciences	1*	1*

* = Proposal originated by student in department listed, but was mentored by Dr. Suguru Nakamura

= Proposal originated by student in department listed, but was mentored by Dr. Terry Derting

- Michael Banta, Accounting, "Morphology Change of Sprague Dawley Outbred Rats Undergoing BPH." Michael was mentored by Dr. Suguru Nakamura.
- Jalyn Cotton, Mathematics Education, Landon Fike, Chemistry, Alex McTeague, Mathematics and Physics, and Jesse Sautel, Applied Mathematics, "Hypokalemic Periodic Paralysis Variable Modification Mission." Jalyn, Landon, Alex, and Jesse were mentored by Dr. Maeve McCarthy, Dr. Donald Adongo, and Dr. Marcia Edson.



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- Danielle Eichelberger, Pre-Veterinary Medicine, “Prevalence of Canine Distemper in Western Kentucky and Western Tennessee.” Danielle was mentored by Dr. William DeWees. Note: Danielle’s grant was a continuation from 2012-2013.
- Morgan Ernst, Animal/Equine Science, “The Correlation Between Rider Weight and Equine Stress.” Lauren Hamm, Pre-Veterinary Medicine, assisted as a co-investigator. Morgan and Lauren were mentored by Dr. Shea Porr.
- Landon Gibbs, Horticulture, “Evaluating Soil Infiltration Rates, Organic Matter, and Compaction in Six Land Management Systems of Western Kentucky.” Landon was mentored by Dr. Ilin Handayani.
- Layne Grissom, Psychology, “Hegemonic Masculinity.” Layne was mentored by Dr. Jana Hackathorn.
- Chelsea Holleman, Agronomy, “The Importance of Soil Sampling Depth for Fertilizer Application Recommendations for Different Land Management Practices in Kentucky.” Chelsea was mentored by Dr. Ilin Handayani.
- Renn Lovett, Nursing, “The Role of Testosterone Propionate and Estradiol on the Development and Inhibition of Benign Prostatic Hyperplasia in Rats.” Renn was mentored by Dr. Suguru Nakamura.
- Katelynn Mollett, Agronomy, “The Impact of Tillage Systems on Soil Physical Properties in Bond County, Illinois.” Katelynn was mentored by Dr. Ilin Handayani
- Tracey Newport, History and Political Science, “Central African Republic: Peace-less Independence.” Tracey was mentored by Dr. David Pizzo.
- Morgan Owens, Psychology, “Specific Bilingual Background and Risk of Cognitive Impairment.” Morgan was mentored by Dr. Maria Vazquez Brown.
- Eryn Pritchett, History, “What is History? An Investigation into the Works of Herodotus, Thucydides, and Xenophon.” Eryn was mentored by Dr. Aaron Irvin.
- Abigail Steck, Pre-Physical Therapy, “Protein analysis by Western Blot on HK-ATPase in Prostatic Hyperplasia Rats.” Abigail was mentored by Dr. Suguru Nakamura. Note: Abigail’s grant was a continuation from 2013-2014.
- Christina Walker, Biological Sciences, “Effects of the fungus *Beauveria bassiana* on the Southeastern Cave Cricket *Hadenocercus subterraneus* from Mammoth Cave.” Christina was mentored by Dr. Claire Fuller.
- Sierra Wilson, Veterinary Medicine/Animal Health Technology, “The Relationship Between Canine Nasal Length, Secondhand Cigarette Smoke, and Cotinine Level.” Sierra was mentored by Dr. Terry Derting.

Derrick Jent, Biological Sciences, Winner of the Oral Presentation President’s Prize at the Entomological Society of America Conference in November. Derrick received two URSA grants during 2011-2012 and participated in *Posters-at-the-Capitol*. He was also a participant in the McNair Scholars Program. Derrick was mentored by Dr. Claire Fuller.



Travel Support Grants

TOTAL # of PROPOSALS:	17
TOTAL # of GRANTS AWARDED:	17

<u>College/School/Unit</u>	<u>Department/Program</u>	<u># of Proposals</u>	<u>Funded Grants</u>
Arthur J. Bauernfeind College of Business		0	0
College of Education and Human Services		3 / 18%	3 / 18%
	Adolescent, Career and Special Education	3	3
College of Humanities and Fine Arts		7 / 41%	7 / 41%
	English and Philosophy	1*	1*
	History	1	1
	Music	2	2
	Psychology	3	3
Continuing Education and Academic Outreach		0	0
Hutson School of Agriculture		2 / 12%	2 / 12%
	Agricultural Sciences	1	1
	Animal and Equine Science	1	1
Jesse D. Jones College of Science, Engineering and Technology		5 / 29%	5 / 29%
	Biological Sciences	4	4
	Chemistry	1	1
School of Nursing and Health Professions		0	0

* = Medieval Drama Group (Equivalent to ~5 Travel Support Grants)

- Alexis Ash, Elementary Education; Connor Jaschen, Public Relations; Amber Parker, Music Education; Andrew Shephard, Computer Science; Keri Mogan, Organizational Communication; Raquell Verri, Undeclared; Erin Froelich, Theatre; and Kris Cole, Television Production, "The Resurrection," "The Appearance to Mary Magdalene," and "The Appearance on the Road to Emmaeus." These students were mentored by Bernard Lewis. Performed at the LongWood University Undergraduate Medieval Conference.
- Latasha Blake, Psychology, "Perceptions of Relationships and Self-Esteem." Latasha was mentored by Dr. Paula Waddill. Presented at the Kentucky Psychological Association Conference.



- David Crittendon, Psychology, “Accentuate the Positive: Positivity Influences the Nation Greater than Negativity.” David was mentored by Dr. Jana Hackathorn. Presented at the Southeastern Psychological Association Conference.
- Chesika Crump, Pre-Medicine, “Experimental Analysis of the Effects of Animal-Assisted Therapy on the Physiological and Psychological Stress of First-Year Female Undergraduates.” Chesika was mentored by Dr. Terry Derting. Presented at the National Role Models Conference.
- Andrea De La Hoz, Chemistry, “Physiochemical and Long-Term Thermal Properties for a Series of 1-alkyl-4-methyl-1,2,4-triazolium bis (trifluoromethylsulfonyl)imide Ionic Liquids.” Andrea was mentored by Dr. Kevin Miller. Presented at the Southeast Regional Meeting of the American Chemical Society.
- Morgan Ernst, Animal/Equine Science, “The Correlation Between Rider Weight and Equine Stress.” Morgan was mentored by Dr. Shea Porr. Presented at the Equine Science Society/National Association of Equine Affiliated Academics Conference.
- Lauren Hamm, Pre-Veterinary Medicine, “Effects of Ivermectine and Moxidectine on Equine Parasites in Horses in Western Kentucky.” Lauren was mentored by Dr. Shea Porr. Presented at the Equine Science Society/National Association of Equine Affiliated Academics Conference.
- Lyndy Hill, Middle School Education, “#conceptmapping: Research Papers in 140 Characters or Less.” Lyndy was mentored by Dr. Kimberly Stormer. Presented at the Kentucky Council of Teachers of English Conference.
- Robert Lewis, Biological Sciences, “The Consumption of Metallic Lead and Its Effects on Tissue Lead Levels of Urban and Rural Eastern Gray Squirrels.” Robert was mentored by Dr. Joe Caudell. Presented at the National Wildlife Society Conference.
- Jason Matthews, Biological Sciences, “Distinguishing Between Eurasian Wild Boar Hybrids and Feral Swine Using Molecular Analyses.” Jason was mentored by Dr. Joe Caudell. Presented at the National Wildlife Society Conference.
- Tracey Newport, History and Political Science, “Central African Republic: Peace-less Independence.” Tracey was mentored by Dr. David Pizzo. Presented at Posters-at-the-Capitol.
- Stephanie Patterson, Psychology, “Becoming the Little Engine that Could: Anxiety, Self-Esteem, and Exam Performance.” Stephanie was mentored by Dr. Jana Hackathorn. Presented at the Society for Personality and Social Psychology Conference.
- Shea Pierce, Music Education, Jazz Trombone Institute. Shea was mentored by Dr. Raymond Conklin. Participated in the Jazz Trombone Institute at the Brevard Music Center.
- Garris Stroud and Zachary Lisanby, Middle School Education, “Write It and Fight It: Discussion-Based Learning in Science.” Garris and Zachary were mentored by Dr. Kimberly Stormer. Presented at the Kentucky Council of Teachers of English Conference.
- Ryan Thornton, Music, “Bad Pets.” Ryan was mentored by Dr. Mike D’Ambrosio, Dr. Christopher Mitchell, and Dr. Stephanie Rea. Performed at the College Music Society 2015 Great Lakes Regional Conference.



- Megan Wagner, Middle School Education, “Barbie Ain’t Real: Argumentative Writing and Positive Self-Image in the Math Classroom.” Megan was mentored by Dr. Kimberly Stormer. Presented at the Kentucky Council of Teachers of English Conference.
- Katelyn Welch, Biological Sciences, “Examining the Risk and Rewards for the Anthropogenic Spread of Wild Hogs.” Katelyn was mentored by Dr. Joe Caudell. Presented at the National Wildlife Society Conference.

Professional Development

- The Office of Undergraduate Research and Scholarly Activity continued Murray State’s institutional membership in the Council on Undergraduate Research (CUR). The Council on Postsecondary Education (CPE) continued to facilitate the membership process for all Kentucky public institutions to join as a “system” for better pricing. Institutional membership makes CUR resources available to all faculty, staff, and students.

Other Activities

- Staffing structure for the Office during 2014-2015 was the following: 1 – quarter-time Faculty Coordinator, 1 – half-time URSA Program Coordinator, and 1 – Graduate Assistant. Program activities were guided by input from the URSA Advisory Board throughout the year.
- During the 2014-15 academic year, over 25 classroom visits took place to discuss the opportunities available through the Office of Undergraduate Research and Scholarly Activity.
- The Office of Undergraduate Research and Scholarly Activity again participated in the Admitted Student Open House to promote undergraduate research to potential students and their parents/guardians.
- In October, the Office again partnered with the School of Nursing and the Development Department to host a day-long session entitled “Evidence-based Best Practices in Clinical Healthcare.” This gathering was to draw attention to and highlight undergraduate research activities of nursing students and raise awareness of future opportunities.
 - Over 90 students participated in this program and a dozen faculty and staff members.
 - Poster and oral presentations were offered before and after lunch.
- In April, the Office, in conjunction with the Office of the Provost, awarded the University Distinguished Mentor Award to Dr. Haluk Cetin, Department of Geosciences, for his meritorious efforts.



URSA Participants Highlighted During Honors Days*

Honors Program Medallion

Chesika Crump
Aida De La Fuente
Danielle Eichelberger
Lyndy Hill
Anne Jablinski
Tyler Kennebec
Ryan Knight
Robert Lewis
Victoria Ramlose

Honors Program Outstanding Honors Diploma Graduate

Robert Lewis

Outstanding Student Teacher Award

Ryan Knight

Outstanding Senior in Criminal Justice

Benjamin Linzy

Outstanding Research Award in History

Eryn Pritchett

Psi Chi Outstanding Psychology Student of the Year

Sara Wallace

Outstanding Senior in Biology

Nhan Thanh Huynh
Derrick Jent

Larry D. Pharris Outstanding Wildlife Student

Robert Lewis

Chemistry Student Affiliates Award

Andrea De La Hoz



Hutson School of Agriculture Outstanding Senior

Lauren Hamm

Outstanding Senior in Agronomy

Katelynn Mollett

Outstanding Senior in Horticulture

Landon Gibbs

Outstanding Senior in Pre-Veterinary Medicine

Danielle Eichelberger

Richmond College Academic Achievement Award

Chesika Crump

Springer-Franklin College Academic Achievement Award

Katelynn Mollett

Outstanding Graduates of Murray State University

Aida De La Fuente
Robert Lewis

Presidential Scholars

Chesika Crump
Aida De La Fuente
Danielle Eichelberger
Landon Gibbs
Ryan Knight
Robert Lewis
Renn Lovett
Victoria Ramlose

Excludes Scholars Week Participation given the extensive nature of that list of participants.



Operating Budget

<u>EXPENSE DESCRIPTION</u>	<u>AMOUNT</u>
Research Scholar Fellowships	\$4,500
URSA Grants	\$4,000
URSA Travel Support Grants	\$4,200
<i>Posters-at-the-Capitol</i>	\$5,000
<i>Scholars Week</i>	\$2,000
Evidence-Based Best Practices Program	\$750
University Distinguished Mentor Award	\$1,000
Graduate Assistant	\$6,000
Office Operation	\$2,115
	\$29,565
<u>INCOME DESCRIPTION</u>	<u>AMOUNT</u>
Starting Budget	\$25,065
Provost Supplemental (Fall)	\$3,000
Provost Supplemental (Spring)	\$3,500
	\$29,565