



DECEMBER 2015 NEWSLETTER

Homecoming 2015: Under the Big Top with Ogden

Ogden College celebrated Homecoming along with the 50th anniversary of the College in a big way this past November.

The festivities began with the Homecoming Parade Friday evening. Ogden College represented well with the "Grill and Drill" crew who possessed top notch accommodations atop a float built by Staff Engineer Ron Rizzo and Engineering Technician Jason Wilson. Engineering Department Chair Dr. Julie Ellis designed a beautiful "throne" for Ogden Dean Dr. Cheryl Stevens. Burgers were grilled by Dr. Bruce Kessler of the Math Department and Lisa Wood, Dean's Office Coordinator. At the end of the parade, the burgers were shared with the crowd downtown in Fountain Square.



On Saturday Ogden College alumni, students, faculty, and staff gathered on South Lawn to tailgate before the football game. Due to the

story continued on page 3

Above: Dr. Bruce Kessler, Lisa Wood, and Dr. Greg Arbuckle grill on the Ogden Homecoming float; photo by Clinton Lewis

At left: Ogden College Dean Cheryl Stevens rides on the float during the parade

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College News



Alumni Focus: Jane Chappell

Jane Chappell has devoted her entire 30+ year professional career to Raytheon Intelligence and Information Systems. She has served in a variety of positions at the company and currently holds the title of Vice President of Business Development and Strategy.



In 2008 she was presented the Raytheon CEO Award. This distinction honors employees who have exemplified the company's core values and delivered exceptional results. The candidates are nominated by members of the Raytheon Leadership Team.

Chappell earned a Bachelor of Science degree in Computer Science and Mathematics from WKU's Ogden College of Science and Engineering in 1983, summa cum laude.

At left, Jane Chappell talks with Krista Steenbergen of WKU at the Women In Science and Engineering Meeting.



A Campbellsville, KY native, Ms. Chappell now resides in Parker, Texas with her husband Henry who is also an Ogden College alumnus ('82). They have two daughters, Sarah and Jamie.



Physiology & Biochemistry

Research Highlight

The Kentucky Academy of Science Research Competition took place at the 101st annual meeting held November 13-14 at Northern Kentucky University. WKU undergraduate and graduate students represented the university well with several earning top honors in their categories.



Oral Presentations

Joe Hood 3rd place Agricultural Sciences 3rd place **Brett Maxwell** Agricultural Sciences 2nd place Christopher Fields Cellular & Molecular Biology 3rd place Cory Owens Chemistry 1st place Jason Payne Chemistry 3rd place Aubrey Penn Chemistry Thulitha Abeywickrama 3rd place Chemistry 1st place Ka Wai Kwong Chemistry 1st place Jacob Wilkins Geography **Andrew Davis** Mathematics 2nd place 2nd place William Hamilton Physiology & Biochemistry

Poster Presentations

1st place Haleh Jeddi Chemistry
1st place Thomas Gregory Microbiology

Anu Kini

1st place



College News

WKU's chapter of Alpha Epsilon Delta (AED) inducted 28 new members on Monday evening, November 9.

Alpha Epsilon Delta is the national Health Pre-professional Honor Society dedicated to the encouragement and recognition of excellence in pre-professional health scholarship, including medicine, dentistry, veterinary medicine, physical therapy and others.

The Kentucky Gamma Chapter at WKU was established in 1968 and has inducted over 1,000 members over its 47 years on the Hill. The fall semester inductees are at right.



Student

Shaumik Alam MacKenzie Armstrong Enes Atici Madelaine Blankenship Katlyn Clark Rose Damron Luke Gaskin **Emily Hamilton** Carley Jackson Lorenn King **Eliot Law** Christopher McDaniel Matthew Millay Hayley Moss Sanida Palavra Sarah Parks John Reynolds Millicent Ronkainen Katherine Settle Lindsey Shain Sally Smith Isaac Stevens Evelyn Suter Amy Teta Jessica Vaughan Mallory Vaughan **Brittany Ward** Aaron Zellers

Hometown

New York, NY Carmi, IL Bowling Green, KY Russell Springs, KY Auburn, KY Lexington, KY Russell Springs, KY Richmond, KY Corbin, KY Owensboro, KY Owensboro, KY Bowling Green, KY Bowling Green, KY Campbellsville, KY Bowling Green, KY Bowling Green, KY Murfreesboro, TN Hodgenville, KY Owensboro, KY Bardstown, KY Hopkinsville, KY Sturgis, KY O'Fallon, MO Louisville, KY Bowling Green, KY Bowling Green, KY Gallatin, TN Leitchfield, KY

Homecoming 2015 (continued from page 1)

early game time, attendees enjoyed a delicious breakfast.

Below: Ogden Ambassadors Connor Brooks, Brent Harney, and Jessica Anderson enjoy tailgating at the Ogden tent before the football game.





Above: Dr. Paul Woosley of Agriculture drives the tractor pulling the Ogden float during the homecoming parade.

Below: Robin Ayers of the Math Department leads the Ogden parade float as the ringmaster.





Outreach News

WKU Hosts FIRST LEGO League Tourney







WKU hosted the Regional FIRST LEGO League Qualifying Tournament on November 21st at WKU's Carroll Knicely Conference Center. Nine teams competed for the chance to advance to the state championship which will be held at Northern Kentucky University on 2/6/16.

The theme for this year was "Trash Trek Challenge." Each team identified a problem with the way we make or handle trash, created a solution to that problem, and shared their solution with others. Teams were judged on robot performance, the project, and the First Lego League Core Values consisting of enthusiasm, inspiration, partnership, and respect for others. Congratulations to all of the winners!

FIRST LEGO League Award Winners

Champions Award - Robocats
Project Award - Kick Your Bots
Robot Design Award - Cougar Bots
Robot Performance Award - HMMS1
Core Values Award - BGJHS Robotics
Advancing to the State Championship at NKU on 2/6/16:
Robocats and HMMS1

Check out the new
Ogden Outreach webpage!
Visit www.wku.edu/ogden and
click on Ogden Outreach.

Upcoming Events:

3/12/16
Regional Bridge Building
Competition

4/23/16 Science Olympiad

STEMShot!

Ogden College along with the Green River Regional Educational Cooperative hosted the 2nd annual STEMShot! rocketry competition for area students in grades 4-12. The event was held at WKU's Center for Research and Development.

STEMShot! is a compressed air rocketry competition giving the students the opportunity to engage in a challenging real-world problem based activity designed to enhance students' critical thinking skills and understanding of next generation science content.

The Green River Regional Educational Cooperative provides professional learning opportunities to teachers and administrators with the purpose of increasing student success.

photo below by Clinton Lewis





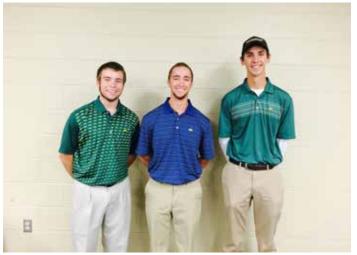
Agriculture

Students Assist at Augusta National

Students from WKU's Turfgrass Management Program were invited by Augusta National to assist in the course's annual overseeding project. Luke Headley, Brooks Bennett, and Landon South spent a week at the course this past September. Augusta National hosts the Masters, the most prestigious golf tournament in the world.

Each fall the entire course must be overseeded with perennial ryegrass in preparation for the tournament taking place in April. The students enjoyed being out on the course and say watching the Masters this spring will hold a different meaning. Additionally, they enjoyed the networking opportunities with the Augusta staff, volunteers from other courses, and fellow turfgrass management students.

Students were most surprised by the confidentiality agreement required by the course. No phones were allowed on the course; nor were the students allowed to take pictures of the course, facilities, or the club house. Also, they are not allowed to discuss many of the management practices they witnessed or in which they participated. They tried to get a group photo next to a small sign by the road in order to prove they did take part in the event, but were quickly escorted away from the sign by security. The mystery of Augusta National continues to live on.

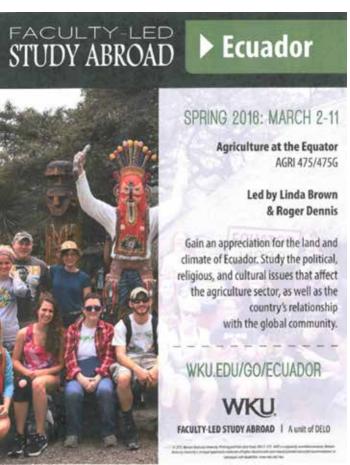


Pictured left to right are Brooks Bennett, a junior from Elizabethtown, KY; Luke Headley, a junior from Grand Rapids, MI; Landon South, a senior from Bowling Green, KY



At left and below: Ag students pick pumpkins from the pumpkin patch on WKU's farm this past October.







Architectural & Manufacturing Sciences

Distance Learning Model Offers Flexibility

by Tanja Bibbs

Adult learners in the region have an even more flexible option to expand their education in the advanced manufacturing area through a new model at WKU. The new model is a modularized competency-based distance learning approach, which measures learning rather than the amount of time students spend in a classroom.

The first competency-based program will be a bachelor of science degree in Advanced Manufacturing, which is a bachelor completion program for students with an associate degree in science from a Kentucky Community & Technical College System (KCTCS) school. The program will officially launch Dec. 1.

"Through this program, students gain the tools necessary to apply basic engineering principles and advanced manufacturing skills to support industrial operations," said Architectural & Manufacturing Sciences Department Chair Dr. Greg Arbuckle.

The program is offered through a partnership between the Division of Extended Learning & Outreach (DELO) and the Department of Architectural & Manufacturing Services (AMS). WKU is part of Kentucky Commonwealth College, a consortium of public institutions dedicated to expanding opportunities for adult learners.

"This competency-based program enhances WKU's distance learning opportunities," said Julie Uranis, Director of Distance Learning at WKU. "We are committed to making higher education more accessible to everyone throughout the region, and this new approach provides an additional option for adult students."

Students are able to complete coursework based on the timeline they choose. The program is offered through WKU On Demand, which means students can begin classes whenever they choose and com-

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plete assignments according to their own calendar.

"Through this approach, students progress through their program at their own pace, as they prove their knowledge and skills required for the course," Arbuckle said. "It's is not only flexible, but it's ideal for students who want to increase employment opportunities within the advanced manufacturing industry."

Students complete coursework online and gain practical experience through on-site labs at WKU.

"Degree completion combined with practical experience can open new job opportunities for students enrolled in this program," Arbuckle said. "And the flexibility this type of format offers makes it more attainable for students who are juggling personal and professional commitments."

To watch a video that explains competency-based learning or to learn more about this completion degree program, visit www.wku.edu/amsondemand.



The WKU chapter of Habitat for Humanity is participating in a Collegiate Challenge in Winston-Salem, North Carolina after the fall semester finals week. Drs. Bryan Reaka, Jack Rudolph, and six students will be participating in the house build.



Dr. Muhammad Jahan and Big Red pose for the camera at the Discover WKU event held September 9, 2015.



Biology

DID YOU KNOW? Ogden College
is offering THREE Faculty-Led
Science Study Abroad Courses to
South Africa Summer 2016

Courses Offered

Ecology and Management of
African Wildlife (the game
capture course)

Animal Behavior

Selected Topics on African
Wildlife Research
Courses led by Or. Bruce Schulle and Dr.
Mike Stokes in Biology and Dr. Fred
DeGraves in Agriculture.

Dr. Bruce Schulte, pictured below, presented the keynote address on "The Benefits of Understanding Elephant Behavior" at the 36th annual meeting of the Elephant Managers Association (EMA) held October 11-14 in Nashville, TN.

SOUTH AFRICA

WKU Biology graduate student Chase LaDue also gave a presentation on his thesis research titled "Using pheromones for conservation and enrichment: Chemosignaling and concentration effects in Asian elephants."

The EMA is an international or-



ganization dedicated to the care, comprehension, and conservation of Asian and African elephants. The EMA promotes sound management of and research on elephants.

biology@wku.edu

For more information,

mail the Biology office:

Prs. Rodney King and Claire Rinehart recently received a \$10,000 award from the Howard Hughes Medical Institute to support WKU students engaged in Genomics research. This is the second year that WKU has been granted this award.

Students in the Genome Discovery and Exploration class isolate and characterize unique viruses from the environment. These students then take the Bioinformatics course and learn how to annotate newly sequenced viral genomes. This unique hands-on, inquiry based program was initiated by the Howard Hughes Medical Institute's Science Education Alliance and is designed to engage new undergraduates in the process of doing scientific research.

Drs. Ajay Srivastava, Noah Ashley, and Cheryl Davis attended the Southeast Regional IDeA conference in Biloxi, MS on November 11-13. The meeting brings together the regional IN-BRE and COBRE programs.

Dr. Srivastava presented a poster on his research titled "Regulation of Air Sac Primordium Development by a Catheptsin-L in Drosophila malanogaster" in the Biomedical Science category. Dr. Noah Ashley and his students Audrey Brown and David Sams presented their research poster titled "Sleep Disturbance and Inflammation: A Role for Stress Hormones?" in the Neuroscience category.



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Pictured below

Top: Drs. Ajay Srivastava and Noah Ashley Bottom: Students David Sams and Audrey Brown by their research poster







Chemistry



Carah Linder is met with wide stares and raised eyebrows when she reveals to $oldsymbol{\cup}$ people that she is an Art History major who also happens to be minoring in chemistry. A career in Art Restoration lies in her future, and Sarah knows the important role science plays in acheiving her goal.

Sarah has always loved art but states, "I take more pleasure in enjoying others' creations than making my own." Math and science also stood out in her mind as possible career field choices, but she just didn't see herself in the medical or education fields.

Standing in many museum galleries throughout her lifetime inspired Sarah. "Objects are made to last, but there is only so much a piece of art can endure

through history." The field of Art Restoration slowly revealed itself, and Sarah saw the perfect opportunity to mesh her love of art with her interest in science.

Sarah plans on attending graduate school after her time at WKU. Then she will narrow her focus into what type of art she wants to restore. "Although most of my career path is still unclear to me, I am excited about the opportunities WKU and these two strong departments have presented to me."

ach year an outstanding Chem-Listry graduate student is honored with the McNally Fellowship, which honors those who have excelled during their first year of graduate work.

Above: Dr. Hemali Rathnayake, Dr. Stuart Burris, and honoree Paige Huzyak.

This year's recipient of the Mc-Nally Fellowship is Paige Huzyak. She is currently enrolled in the joint BS/MS program under the supervision of Dr. Hemali Rathnayake. Congratulations, Paige!

hemistry undergraduate student and Gatton Academy alumnus Dana Biechele-Speziale received an EPA Greater Research Fellowship award. This honor comes with a \$50,000 undergraduate scholarship which provides tuition, a paid internship, research funding, and a stipend. Congratulations, Dana, on receiving this award!

r. Moon-Soo Kim participated in the 2015 microTAS conference held October 25-29 in Gyeongju, Korea. She presented Kim lab research on developing a novel sensing system for detection of pathogens in collaboration with Dr. Anh's Microsystems and Cincinnati. Each year over 900+

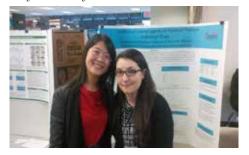
in research on and the use of integrated microsystems and nanotechnology for chemistry and life sciences attend the conference.

r. Jeremy Maddox recently received an NSF KY EPSCoR REG award to develop a new numerical methodology for modeling molecular potential energy surfaces. The project will support up to three students during January through June, 2016. Students with an interest in a research experience at the nexus of chemistry, mathematics, physics, and computer programming are encouraged to contact Dr. Maddox (jeremy.maddox@wku.edu).

BioMEMS Lab in the University of scientists and professionals engage

Pictured below: Chemistry students presenting at the 101st annual meeting of Kentucky Academy of Sciences held November 13-14 at Northern Kentucky University.







Computer Science

The ACM (Association for Computing Machinery) Mid-Southeast Conference was held in Gatlinburg, TN, November 12-13. Students attending the conference are pictured at right.

The Association for Computing Machinery is an international scientific and educational organization dedicated to advancing the arts, sciences, and applications of information technology. ACM functions as a locus for computing professionals and students working in the various fields of information technology.

Posters were presented at the conference by the following WKU students:

Christopher Goulet - *Infrastructure* as a Service Cloud for Education

Pezhman Sheinidashtegol - *Cloud Security*

Travis Brummett - Building a Middleware for a Vertical Cloud Architecture

Caleb Ogbonnaya and Brody Bruns - *Smart Home Simulator Development*

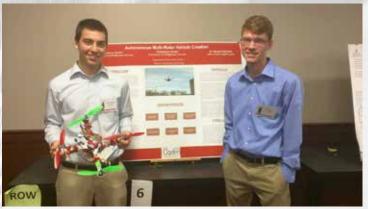
All posters were mentored by Michael Galloway.

First Place Winners

A presentation was given by students Christopher Goulet and Connor Brooks titled "Towards an Indoor Autonomous UAV Using a Subsumption Architecture." The students earned first place out of 36 submissions with their presentation. Dr. Michael Galloway supervised the students' efforts.



See what we're up to! Visit us on Facebook at www.facebook.com/pages/WKU-Computer-Science-Dept



Students Christopher Goulet and Connor Brooks with their first place poster presentation "Towards an Indoor Autonomous UAV Using a Subsumption Architecture."

Representatives from Eezy.com talk with ACM (Association for Computing Machinery) members about careers and internships available at the company.





Engineering

Engineering Hosts 16th Annual Robotics Contest

The Department of Engineering conducted the 16th annual Kentucky Bluegrass Robotics Competition on Saturday, November 7th.

This outreach event provides secondary school students with a challenging engineering design problem to solve. School faculty and mentors are able to use the team project as an example of engineering principles.



Thirteen teams from ten high schools across Kentucky were able to achieve the project goals with well over 100 students, coaches and supporters filling the WKU Engineering and Biological Sciences McConnell lab. The competition theme "Moving On" required teams to build a robot using nearly \$1,000 worth of motors, controls and construction materials provided by WKU. The teams built robots that were capable of navigating around obstacles in order to collect items from the playing field. Teams competed directly against each other for limited resources to capture and place in designated areas. Teams were also judged on the quality of their device documentation and the cost effectiveness of their devices.

The Spencer County High School team won the event. Teams from Nelson County and Johnson Home School finished second and third, respectively, in the competition.

- photo above by WKU photographer Clinton Lewis

Congratulations to senior Electrical Engineering major Aaron Hall (below) who was awarded a \$2,000 scholarship from IEEE Power and Energy Society.





The KY Transportation Cabinet is offering civil engineering scholarships! The Cabinet is accepting applications for its Civil Engineering Scholarship and Civil Engineering Technology Scholarship programs. Application deadline is February 1st. Visit http://transportation.ky.gov/Education/Pages/Scholarships.aspx for more information and links to applications.

Engineering's own Department Chair Dr. Julie Ellis was recently featured in the "Talk of the Town" section of the *Bowling Green Daily News*. To view the segment please visit:

http://www.bgdailynews.com/community/talk-of-the-town-q-a-with-julie-ellis/article_985360ff-c7e2-557a-8778-22fde7898cc4.html





Geography & Geology

Group Attends Annual Kentucky GIS Conference

Students, faculty and alumni attended the GIS Conference October 12-14 at the Owensboro Convention Center to share thoughts on new developments and best practices in geographic information systems. The conference is hosted each year by the Kentucky Association of Mapping Professionals (KAMP).

"Unmanned Aerial Vehicles, or UAV, was the topic of discussion at this year's conference," said Kevin Cary, Director of WKU's Center for GIS. "UAV's are used for collecting data for a GIS, whether it be elevation of the land or air photos. The future of UAV's includes flying through sewage pipes and hallways as well as relaying WiFi or cell phone signals among distant towers in a controlled airspace."

Student Ryan Uthoff (pictured above right) received the KAMP GIS scholarship from KAMP President Lance Morris and his advisor, Kevin Cary, at the conference.

Attendees, pictured below, were Scott Dobler, Eric Anderson, Beau Spencer, Ryan Uthoff, Kevin Cary and Keith Koerner.





photo by Christy Powell

Dr. Stuart Foster, Dr. Rezaul Mahmood, and Megan Schargorodski participated in the Midwest Mesonet Workshop hosted by the Midwestern Regional Climate Center in Champaign, Illinois on September 28-29. The workshop engaged mesonet operators, along with providers and users of weather and climate services from across the region to discuss challenges and opportunities associated with developing, operating and marketing mesonets.

Dr. Stuart Foster was an invited speaker at the Kentucky Association of Electric Cooperatives' Member Services Association meeting held in Lexington on October 23rd. His presentation highlighted Kentucky's climate, past and projected as well as provided an overview of the Kentucky Mesonet.

Geoscience graduate Ann Epperson, pictured below, was honored as an inaugural inductee to the WKU Libraries Open Access Hall of

Fame. Her thesis titled "Internet GIS as a Historic Place-Making Tool for Mammoth Cave National Park" has received 15,000 downloads from TopScholar, the WKU research and creativity database - more downloads than for any other WKU thesis. Ann's thesis was also the one millionth download from TopSCHOLAR.





Mathematics



35th Annual Math Symposium

The 35th Annual Mathematics Symposium was held November 13-14 in Snell Hall. The event featured keynote speaker Professor Henry Segerman from Oklahoma State University (pictured at left) who gave a talk titled "Design of 3D Printed Mathematical Art." The two day event was sponsored by Ogden College, the Carol Martin Gatton Academy of Mathematics & Science, and the Math Department.



Above: Professor Henry Segerman giving his presentation during the Mathematics Symposium.



Above: Math alumni on the "career" panel during the Mathematics Symposium.



Congratulations to Molly Dunkum (above) who was named a Faculty Collaborative Fellow by the Council on Postsecondary Education for this academic year and next. Only two faculty from across the state were named. The award carries an honorarium and travel money to participate in the 10-state Faculty Collaboratives project.



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Below and at right: Math senior Matthew Riggle presents "Returning to the Fold: Mathematical Applications and Demonstrations in Origami" for the WKU Math Club.



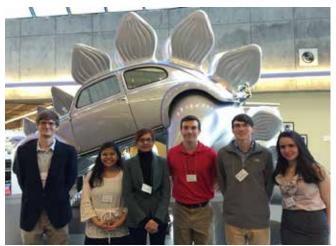


Like Free Food? Like Movies? Like Math? Like Fun? Then, like, come join us for MATH MOVIE NIGHTS!

See our Facebook page for days and times: facebook.com/wkumath Sponsored by WKU Math Club and Pi Mu Epsilon

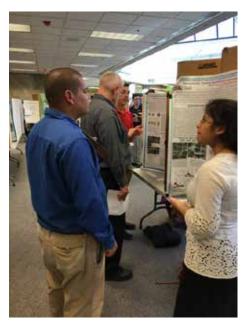


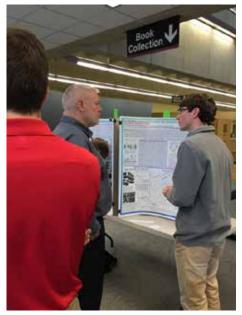
Physics & Astronomy



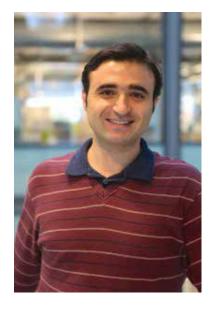
101st KAS Annual Meeting at Northern Kentucky University

The Annual meeting of the Kentucky Academy of Science was conducted November 13-14 at Northern Kentucky University. The group photo at left features (left to right) Benjamin McDonald, Sara Corrizosa, Professor Sanju Gupta, Jared Walden, and Rebecca Wood. These students all gave presentations at the meeting which were mentored by Dr. Sanju Gupta (see photos below).









Petroelum Research Fund New Investigator Grant. The title of Dr. Er's project is "Laser-Induced Hydrogen Generation from Coal Powder in Water and its Time-Resolved Pump Probe Investigation."





Psychological Sciences

Students of Dr. Amy Brausch attended the Association of Behavioral and Cognitive Therapies Annual Convention in Chicago, IL. This convention is a large conference for clinical psychologists in academia.

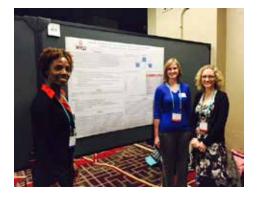
Students presenting posters at the convention included the following:

Kandice Perry Amanda Williams Natalie Perkins Emily Cox Paula Floyd Mandi Martin Jordan Bates

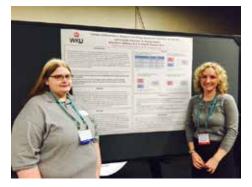
Mandi Martin, a senior Psychological Science major graduating this December, was one of three finalists for the Ogden Foundation Scholar Award.



Dr. Stephen O'Connor, pictured above, was recently featured in an episode of Kentucky Outlook which addressed suicide. The episode highlighted a survivor of suicide who lost her brother ten years ago. Dr. O'Connor discussed the toic of suicide and prevention efforts. The episode aired in September on WKU-PBS. To see the segment, visit the following link: https://youtu.be/W54rT55h0qA



Dr. Brausch presenting a poster with students Kanice Perry and Jordan Bates. Kandice is a second year graduate student in the Psychological Sciences MS program and Jordan graduates in May 2015 with a B.S. in Psych Sciences.



Second year graduate student Amanda Williams of the Psychological Sciences MS program presents a poster with Dr. Brausch.

The WKU
Children and
Families Lab
needs
your help!



We are recruiting families who are expecting or have infants less than four months of age to participate in a project examining social and emotional development during early infancy. Mothers, fathers, and infants will come to the Children and Families Lab (located on WKU's campus in Gary Ransdell Hall) three times to participate in a variety of different tasks. Parents will also complete questionnaires about themselves and their infants. Families will be compensated \$20 each time they participate.

Contact the Children and Families Lab by phone at 270-745-4275 or e-mail children and families lab@gmail.com for more information.

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Ogden Research Awards

First Time Grant Awardees

Fred Degraves, Agriculture
Josh Durkee, Geography & Geology
Chandra Emani, Biology (Owensboro)
Dominique Gumirakiza, Agriculture
Morteza Nurcheshmeh, Engineering
Amber Schroeder, Psychological Sciences

\$1 Million Club

in recognition of the faculty and staff members with \$1 million or greater in awards throughout their careers at WKU

Rodney King, Biology
Yan Cao, Chemistry
Cate Webb, Chemistry
Jason Polk, Geography & Geology
Michael Smith, Biology

\$5 Million Club

in recognition of the faculty and staff members with \$5 million or greater in awards throughout their careers at WKU

Nahid Gani, Geography & Geology

Most Prolific Proposers for 2015

Xingang Fan, Geography & Geology Muhammad Jahan, Architectural & Manufacturing Matthew Shake, Psychological Sciences Ajay Srivastava, Biology Cate Webb, Chemistry Bangbo Yan, Chemistry Michael Carini, Physics & Astronomy Vladimir Dobrokhotov, Physics & Astronomy Chandra Emani, Biology (Owensboro) Dominique Gumirakiza, Agriculture Eric Rappin, Geography & Geology Michael Smith, Biology **Kevin Williams, Chemistry** Ali Er, Physics & Astronomy Rezaul Mahmood, Geography & Geology **Bruce Schulte, Biology** Yan Cao, Chemistry Raja Dakshinamurthy, Chemistry **Matthew Nee, Chemistry** Sanju Gupta, Physics & Astronomy Hemali Rathnayake, Chemistry

Early Investigators Awards

Noah Ashley, Biology
Fred Degraves, Agriculture
Chandra Emani, Biology (Owensboro)
Nahid Gani, Geography & Geology
Muhammad Jahan, Architectural & Manufacturing Sciences
Moon-Soo Kim, Chemistry
Leslie North, Geography & Geology
Morteza Nurcheshmeh, Engineering
Stephen O'Connor, Psychological Sciences
Dominique Gumirakiza, Agriculture

Information provided by the Office of Sponsored Programs. For more information view their Annual Report at www.wku.edu/sponsoredprograms/documents/annual_report/2015_annual_report.pdf