

# *The Alumnidae*

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## *Dr. Ron and Sharion Austin Scholarship in Rural Dentistry*



Dr. Ron and Sharion Austin have generously established a new scholarship in the Department of Integrative Biology. Recipients must have graduated from high school in a rural area of the country and be enrolled as a full-time student in the College of Arts and Sciences, majoring in Biological Sciences, Physiology, or Zoology. Dr. Austin received his B.S. in Biological Sciences in 1973 from OSU and his DDS at the University of Oklahoma in 1979. He then opened a private practice in Tishomingo, OK and has remained active there for 36 years. Although Dr. Austin is a general dentist, the emphasis of his practice is in the field of orthodontics. In 2005, he became the first general dentist in the State of Oklahoma to be certified in SoonerCare orthodontics. Dr. Austin is a senior instructor for the Academy of Gp Orthodontics. He has served on the local school board, chamber of commerce board, Murray State College board, and is very active in Tishomingo United Methodist church. Dr. Austin and his wife Sharion have two children (Ryan Austin, Tara Parks) and 6 grandchildren (Rylie, Lauren, Katy, Ella, Mary Grace, and Justin Ray).

## *Greetings from the Department Head*

We are already preparing for the Integrative Biology Spring Awards Banquet which will be on April 21, 2016. Many of our 620 undergraduate majors are now applying for the scholarships and awards that will be announced during the banquet. Thanks to the generosity of alumni and friends we will be presenting more departmental undergraduate scholarships than we have ever done in the past. In addition to the new Austin Family Scholarship detailed above, we will be awarding at least one Chappabitty Scholarship (up to five are available), the G. Michael Steelman M.D. Scholarship, The Bryan Glass Fellowship (undergraduate or graduate), two Dr. Ray Dixon scholarships (he added an additional scholarship this year), three outstanding senior awards (one each for a Biological Science major, a Physiology major, and a Zoology major), an outstanding junior award, and finally an outstanding sophomore award. The history and details surrounding these undergraduate as well as our graduate student awards can be found on our website [integrativebiology.okstate.edu/gifts-to-integrative-biology](http://integrativebiology.okstate.edu/gifts-to-integrative-biology) and will be read during the presentations at the banquet. The graduate student awards have been made available by emeritus department head Jerry Wilhm and his wife Nona (The Wilhm Teaching Assistant Award-- one Ph.D., one M.S. and the Wilhm Graduate Student Travel Award) as well as numerous donors, alumni, and friends (the Waters Grant in Aid [LuAnn Waters], the Glass Fellowship, the outstanding M.S. and Ph.D. student award, and the Bud Burks award). We certainly appreciate everyone's support and hope you can schedule the Integrative Biology Banquet on your calendar.

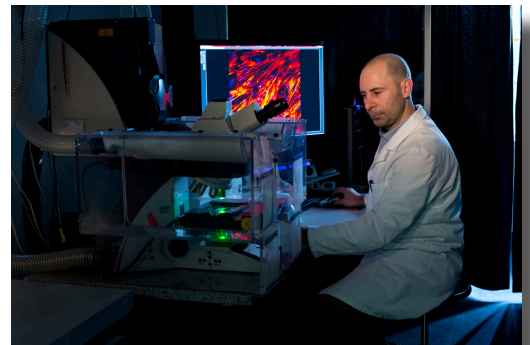
Loren Smith  
Department Head, Integrative Biology  
[loren.smith@okstate.edu](mailto:loren.smith@okstate.edu)

## *New faculty members join Integrative Biology*



Dr. Daniel Moen (left) joins the Department of Integrative Biology as an Assistant Professor. Daniel received his Ph.D. in 2012 from Stony Brook University and completed two postdoctoral appointments at the École Normale Supérieure in Paris and at the University of Massachusetts at Amherst before joining the faculty at OSU. Daniel studies the evolution of phenotypic diversity in amphibians and reptiles, with a primary emphasis on functional morphology and performance, phylogenetic comparative methods, biogeography, and anurans (frogs and toads). Projects usually combine fieldwork, data from museum specimens, laboratory experiments on functional performance (jumping, swimming, clinging), and analyzing data across many species.

Dr. Matteo Minghetti (below right) joins the Department of Integrative Biology as an Assistant Professor. Matteo received his M.S. in Biotechnology from the University of Bologna, Italy in 2003 and his Ph.D. in Ecotoxicology from the University of Stirling, UK in 2009. His diverse postdoctoral work includes projects on the transcriptional regulation of lipid metabolism in Atlantic Salmon (University of Stirling), the use of primary gill cultures for environmental biomonitoring (Kings College London), and the mechanisms of toxicity of metal nanoparticles in intestinal fish cells (Eawag - The Swiss Federal Institute of Aquatic Science and Technology). His research interests lie at the interface between disciplines integrating analytical chemistry, molecular biology and physiology. His research aims on one hand to understand physiological processes such as essential trace elements homeostasis and on the other hand, developing tools for environmental biomonitoring.

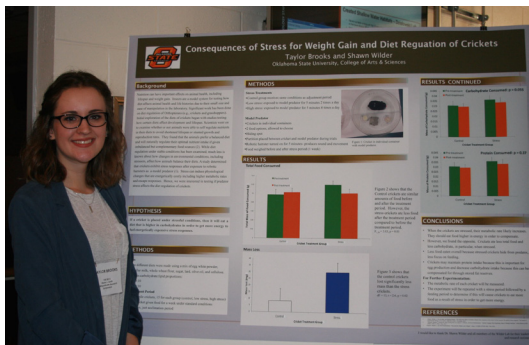
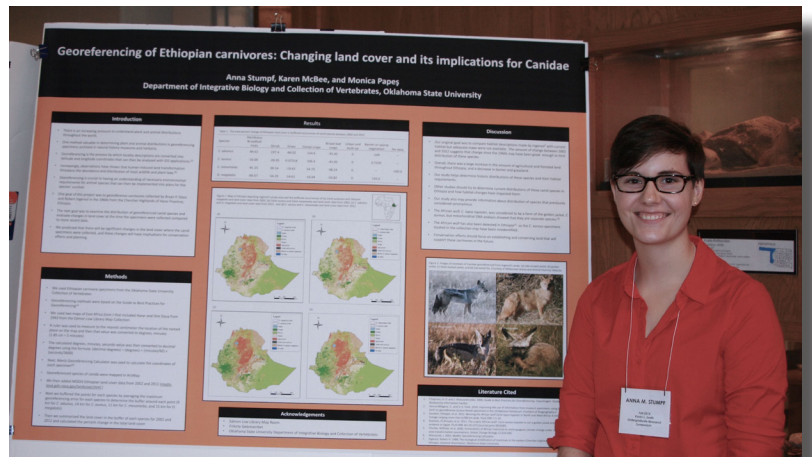


## *Collection of Vertebrates receives NSF funding*

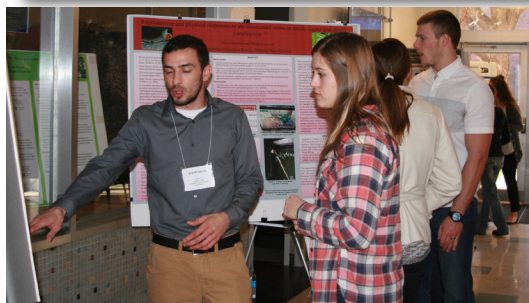
Drs. Karen McBee, Anthony Echelle, and Stanley Fox recently authored a grant to the National Science Foundation for renovation and improved digital networking for the Oklahoma State University Collection of Vertebrates (OSU COV). NSF awarded \$422,000 for the project and Karen will oversee the renovations that will take place over the next two years. The COV houses specimens that are representative of worldwide biodiversity and are a remarkable resource for students and researchers at OSU and other universities and agencies. In addition to providing funding for upgrades to specimen storage, funding from the grant will enhance educational use of the collections by K-12 groups.

## Karen L. Smith Undergraduate Research Symposium

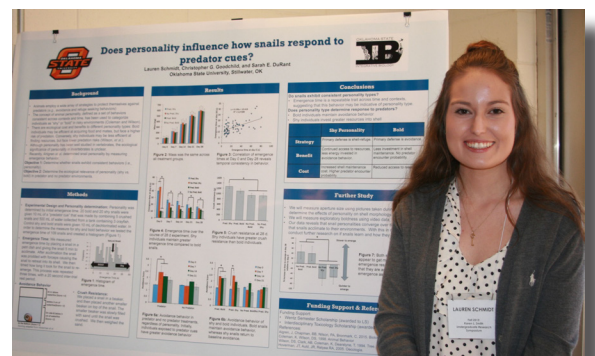
On December 4, 2015 the Integrative Biology Department held the 7th Karen L. Smith Undergraduate Research Symposium. Karen, who passed away on November 2, 2012 was the senior academic counselor in the Department of Integrative Biology. The symposium was established in November 2012 in recognition of Karen's tireless efforts to enhance the undergraduate experience - especially those in the Department of Integrative Biology. The symposium provides professional development opportunities for undergraduates in the department. For the Fall symposium there were 17 poster presentations by undergraduates working in the Integrative Biology Department. Anna Stumpf, senior Zoology major (right) is the recipient of the Karen L. Smith Undergraduate Research Excellence Award for her research with Drs. Karen McBee and Mona Papeş on "Georeferencing of Ethiopian Carnivores: Changing Land Cover and its Implications for Canidae." This award given for the best student presentation at the symposium includes \$250 and is made possible by the Karen L. Smith Undergraduate Research Symposium Fund.



Taylor Brooks (left) collaborated with Dr. Shawn Wilder on the "Consequences of Stress for Weight Gain and Diet Regulation of Crickets."



Albert Baum (above) presented results of his work with M.S. student Miranda Kersten and Dr. Kristen Baum on "Plant Characteristics of Two Milkweed-Specific Herbivores."



Lauren Schmidt (above) presented results of her work with Ph.D. student Chris Goodchild and Dr. Sarah DuRant on "Does Personality Influence how Snails Respond to Predator Cues."

### *Department Alum recognized by OSU*

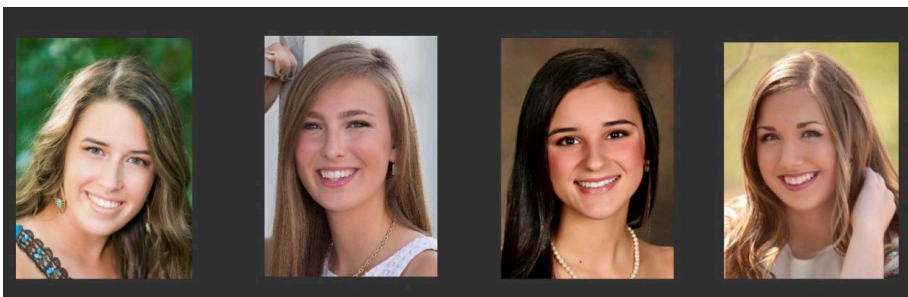
Dr. Edwin Chappabitty recently received two honors from Oklahoma State University. He was inducted into the Oklahoma State University's College of Arts and Sciences Hall of Fame and was named as the 2015 American Indian Alumni Society Distinguished Alumni Award recipient. The latter award is a joint effort of the OSU Alumni Association and the OSU American Indian Alumni Association. After graduating in 1967 from the Zoology department, Dr. Chappabitty served 5 years in the Army before pursuing medical school and then returning to Lawton, Oklahoma, his hometown. For the next 25 years he served as a family practice physician at hospitals in Anadarko and Lawton. He retired from the Indian Health Services in 2008. Throughout his career, Dr. Chappabitty has been a strong advocate for Native American students to pursue careers in health. In 2011 Dr. Chappabitty established scholarship efforts through OSU and the Department of Integrative Biology (formerly Zoology). These \$1,000 scholarships are given annually to students who are enrolled in one of the three majors in the Department of Integrative Biology, have a 3.0 GPA, are Native American (>1/4 CDIB), and have primary interests in the Health Professions.

### *OSU-HHMI Life Science Freshman Research Scholars*

The OSU-HHMI Team and the Department of Integrative Biology would like to formally recognize and congratulate the following Integrative Biology students who were selected to be a Life Science Freshman Research Scholar for the 2015-2016 academic year. Under the guidance of faculty mentors, they will work on a research project and present their findings in the spring semester. We wish them all the best of luck on their paths to success!

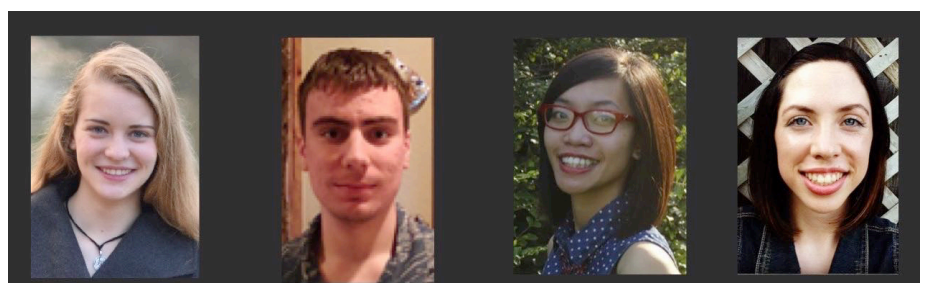
Left to right:

Dominique Davis, Physiology; Kathryn Biehl, Zoology; Avery Melton, Physiology; Annie Archer, Biology



Left to right:

Kaitlyn Dudley, Zoology; Gil Repa, Physiology; Tammy Nguyen, Biology; Kate Adams, Physiology



## OSU researchers receive NIH Funding

Drs. Jennifer Shaw (Department of Integrative Biology) and Erika Lutter (Department of Microbiology & Molecular Genetics) were recently awarded \$429,034 from the National Institutes of Health for a project entitled, "The Role of CT228 in *Chlamydia trachomatis* Pathogenesis." Jennifer specializes in vascular biology and has recently re-entered chlamydia research via this funding and another grant studying *Chlamydia pneumoniae*; Erika specializes in bacterial pathogenesis and has been working extensively on chlamydia research dating back to her doctoral research. Together they will investigate how a *C. trachomatis* protein (CT228) interacts with host cell myosin phosphatase protein. The CT228 protein has been shown by Dr. Lutter *in vitro* to directly interact with host myosin phosphatase to manipulate host-cell exit and dissemination of infection. Jennifer's role will be to test the effects of *C. trachomatis* expressing mutated CT228 on the course of infection *in vivo*. This will be the first time chlamydia mutants have been tested *in vivo* and will potentially identify a novel mechanism of pathogenesis. In addition, myosin proteins are well known to affect proliferation and migration of cancer cells and may provide insight into the mechanisms whereby chlamydia infections pre-dispose women to cervical cancer. The project has three years of funding with the possibility of renewal. The project will involve two graduate students and five undergraduates to work on various components of the project.

## Puni Jeyasingh receives College recognition

Dr. Puni Jeyasingh was recently recognized by the College of Arts and Sciences as one of the three faculty members to receive the Award of Excellence for Junior Faculty. This award is given to non-tenured faculty members who exhibit outstanding scholarly activity in the fields of Arts/Humanities, Social/Behavioral Sciences, or Natural Sciences.

## Students receive awards at national meeting

Three students from the Integrative Biology Department recently won awards at the 2015 National Association of Biology Teachers Professional Development Conference held in Providence, RI. The poster session competition is open to graduate and undergraduate students conducting research in biology education and to undergraduates conducting research in any area of biology. Ph.D. student Michael Moore, mentored by Dr. Donald French (Integrative Biology), won third place in the scholarship of teaching and learning competition for his poster "Is Active Student Participation in the flipped Biology classroom an Accurate Predictor of Performance?" Cassandra Dowds, a B.S. Science Education major who is mentored by Ph.D. student Lynne Beaty and Drs. Barney Luttbeg (Integrative Biology) and Julie Angle (College of Education), won first place in the mentored undergraduate research competition for her work "The Effect of Embryonic Exposure to Predation Risk on the Growth and Antipredator Behavior of *Physa acuta*." Cara Stephen, who has completed a B.S. in Zoology and is currently working on a B.S. in Science Education, won first place in the scholarship of teaching and learning competition for her poster "Relationships between Instructional Strategies and Student Focus in a Flipped, Introductory-Biology classroom." Cara is mentored by Michael Moore and Donald French.

Mark your calendars: *The 2016 Integrative Biology Awards Banquet will be held on April 21, 2016, 6 to 9 pm. The venue is once again Click Hall in the Conoco Phillips Alumni Center. We will send out additional information as the date approaches. Hope to see you there.*

# The Alumnidae

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