



Bioluminescence



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Bioluminescence



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Editors: Jenna Hellack and Gloria Caddell

<http://biology.ucok.edu/biodream/newsletter.htmf>

Faculty and Staff

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Dr. Tony Stancampiano
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Chairman's Corner



I get to say this as an opening statement at least one more year. "It has been another year of growth in the Biology Department." Thanks to Dr. William Beasley, the Inasmuch Foundation and others of our alumni, we are now teaching Plant Biology courses in a beautiful new laboratory. We are in the process of completing the Herbarium Prep. Room, the Museum and the Advanced Vertebrate Laboratory. Our alumni came through for us. It looks like the Biology part of the shelled first floor of the Science lab will be completed soon after the fall 2007 semester begins. We cannot thank our alumni and the Inasmuch Foundation enough. A list of this year's donors can be found at the end of this newsletter. This is an accomplishment that was 12 years in the making. The faculty and students of the present Biology Department thank you so much for your support not only with donations, but also letters and visits.

One of the strengths of the Biology Department at UCO in the past 15 to 20 years has been the involvement of our undergraduate students in research projects. While the number of students we have been able to engage has not been large, we have consistently given interested students the opportunity to participate in research. As can be documented in Bioluminescence, the number of interested students and the efforts of the faculty to give them research experience have greatly increased in the last few years. Students learn through research projects. The University of Central Oklahoma has always cited student learning as the main priority of the university. We feel that undergraduate learning through research should be a priority of the Biology Department. Last year the faculty in the Biology Department made the decision that a major goal of our department will be "excellence in undergraduate research". To this end we have invited the Council on Undergraduate Research (CUR) to visit our campus in the fall of 2007 and evaluate our programs. The CUR evaluation should help us prioritize space, faculty and money. This in turn will allow us to develop the most productive learning environment and support system for UCO biology students.

The Selman Living Laboratory is also a priority of the Biology Department. With the support of the Alumni, College, University, and Mrs. Betty Selman, Dr. Caire is developing an active field station for both education and research.

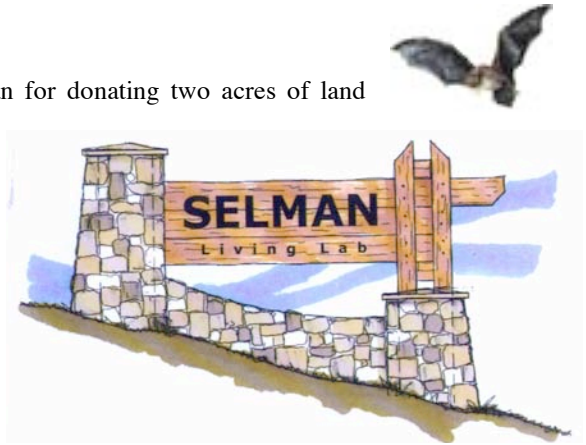
In the fall of 2007 we will have two new faculty members: Dr. Linda "Brooke" Stabler, a Plant Ecologist, and Dr. Michelle Haynie, a Population Geneticist. Dr. Stabler, along with Dr. Beth Allan who joined our department in the fall of 2006, are featured in "Meet the Faculty" in this issue.

What's happening?

Status of the Selman Living Laboratory

A SELMAN LIVING LAB UPDATE

We are excited about and very grateful to Mrs. Betty Selman for donating two acres of land adjacent to the SLL as a site for an identification sign. The university has also stepped up to support Mrs. Selman's generosity by providing the signage. Through the efforts of President Webb, the funds for construction of the sign have been secured. David Stapleton and his staff in UCO's Architectural and Engineering Office have designed a very attractive sign (see figure at right). We anticipate the sign will be ready for installation some time in the fall.



The month of July has been active for the SLL. The Oklahoma Department of Wildlife Conservation has its annual Bat Watch on Thursday, Friday and Saturday nights all during the month. After the public views the Mexican Freetail Bat exit flight, they are invited over to the SLL for astronomy activities. Steve Maier from Northwestern Oklahoma State University puts in extra hours serving as the host and emcee for these evening events. His efforts are appreciated and he presents a great program.

Also, during the summer several groups have had outings at the SLL. Santa Fe South, a charter school from Oklahoma City, brought 22 students up with teachers and principals for some educational activities. They had fun going into a wild cave and hiking across the area. While they were there, the students helped with several service projects – painting, and hanging signs on the fences. They came at the end of July for a plant walk and a trip through a wild cave. The Oklahoma Master Naturalists are also scheduled for later in the month.

You are all invited out to the SLL –contact Dr. Caire. E-mail: wcaire@ucok.edu.

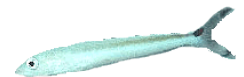
Status of the Unfinished First Floor Laboratories

Thanks to the Inasmuch Foundation, Beasley Family Trust, Love's Country Stores and all of the alumni support in the past few years (see donor list on pages 14-16 of this newsletter) we will complete the last shelled rooms of the annex this fall and will almost have enough to build a room needed for storage of chemicals and the alcohol collection. These last rooms include the Advanced Vertebrate Laboratory, the Herbarium and the Museum. This is a very exciting time. We will be in touch with all of you when the new rooms are dedicated. We hope all of you can attend the dedication.

Faculty News

Recent Publications

Baird, T.A. and Baird, T.D. 2006. Phenotypic plasticity in the reproductive behavior of female sand tilefish, *Malacanthus plumieri*. *Ethology* 112: 1-12.



Bass, D. 2006. A comparison of freshwater macroinvertebrates on St. Kitts and Nevis, West Indies. *Living World, Journal Trinidad and Tobago Field Naturalists' Club* 2006: 30-37.



Caire, W. and **G.M. Caddell.** 2006. Westward range extension of the eastern chipmunk, *Tamias striatus* (Rodentia: Sciuridae) in central Oklahoma. *Proceedings of the Oklahoma Academy of Science* 86: 91-92.

*Curtis, J.L. and **Baird, T.A.** 2007. *Crotaphytus collaris* (Eastern collared lizard): Communal hibernation and dispersal. *Herpetological Review* 38: 76-77.



* denotes current or former students, and bold a current UCO professor

- Butler, C.** 2006. *Review of* Corman, T. E. and C. Wise-Gervais (eds). Arizona breeding bird atlas. Ibis 148: 832.
- Chessman, K.L. and **A.L. Ewing.** 2007. Report of the 2007. Report of the 2006 NAAHP Membership Survey — Part 1: Similarities and differences between faculty and administrative/professional advisors. The Advisor 27 (1): 5-13
- Ewing, A.L.,** I.W. Chessman and K.L. Chessman. 2007. Report of the 2006 NAAHP Membership Survey—Part 2: Who we advise and how we facilitate letters of evaluation. The Advisor 27(2): 5-14.
- *Kittredge, V.C., P.W. Wilson and **W. Caire.** 2006. An updated checklist of the food items of the Great Horned Owl (*Bubo virginianus*: Strigiformes: Strigidae) in Oklahoma. Proceedings Oklahoma Academy of Sciences. 86:33-38.
- *Locey, K.J. and **P.A. Stone.** 2006. Factors affecting range expansion in the introduced Mediterranean Gecko, *Hemidactylus turcicus*. Journal of Herpetology 40:526-530.
- Lorenz, S., **C. Butler,** and J. Paz. 2006. First documented nesting record of the Gray-crowned Yellowthroat (*Geothlypis poliocephala*) in the United States in over a century. Wilson Journal of Ornithology 118: 574-576.
- Loucks, L.M.S.** and **W. Caire.** 2007. Sex ratio variation in *Myotis velifer* (Chiroptera: Vespertilionidae) in Oklahoma. Southwestern Naturalist 52: 67-74.
- McDonald, B.K., P. Wilson and **W. Caire.** 2006. New county records of Oklahoma mammals based on remains identified in owl pellets. Proceedings Oklahoma Academy of Science 86: 47-52.
- *Schwartz, A.M., **T.A. Baird,** and D.K. Timanus. 2007. Influence of age and prior experience on territorial behavior and the costs of defense in male collared lizards. Ethology 113: 9-17.
- Tomasek J.J., **M.B. Vaughan,** B.P. Kropp, G. Gabbiani, M.D. Martin, C.J. Haaksma, and B. Hinz. 2006. Contraction of myofibroblasts in granulation tissue is dependent on Rho/Rho kinase/myosin light chain phosphatase activity. Wound Repair and Regeneration 14:313-20.

Recent Presentations

- *Ayadpoor, D. and **M.B. Vaughan.** Poster. *In vitro* aging on myofibroblast phenotype. 2006 Summer Undergraduate Research Student Presentations, OUHSC, July 2006.
- Baird, T.A.** Does display advertise to mates or competitors? A comparative field test in collared lizards. American Society of Ichthyologists and Herpetologists, July 2007.
- Baird, T.A.** The colorful world of collared lizards. UCO Sigma Xi Chapter, March 2007.
- Butler, C.** 2006. Poster. The effects of habitat fragmentation on a rare bird in south Texas. Fourth Stated Meeting of the North American Ornithological Congress, Vera Cruz, Mexico, October 2006.
- Butler, C.** The population biology of the introduced Rose-ringed Parakeet in the UK. Tri-Beta Biology Club, Cameron University, Lawton, OK, Spring 2007.
- Caire, W.** Thirty years or so of mammalogy- having fun makes time fly. Central Plains Society of Mammalogists Annual Meeting (Keynote Speaker). Edmond, OK, October 2006.
- *Isiaho, A. and **M.B. Vaughan.** Poster. The effect of immortalizing Dupuytren's (DP) Nodule Fibroblast on phenotype. 1st Biennial National IDEa Symposium of Biomedical Research Excellence, Washington, DC, July 2006.
- *Johnson, T., R.S. Pfau, and **G.M. Wilson.** Poster. Population genetics of the Texas Mouse. Central Plains Society of Mammalogists, University of Central Oklahoma, Edmond, OK, October 2006.
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson.** Poster. Population genetic structure of the Texas Mouse (*Peromyscus attwateri*) based on cytochrome b sequence data. Central Plains Society of Mammalogists, University of Central Oklahoma, Edmond, OK, October 2006.
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson.** Population genetic structure of the Texas Mouse (*Peromyscus attwateri*) based on cytochrome b sequence data. American Society of Mammalogists, University of New Mexico, Albuquerque, NM, June 2007.
- McDonald, B., P. Wilson, and **W. Caire.** New county records of Oklahoma small mammals from owl pellet remains. Texas Society of Mammalogists Annual Meeting, Junction, TX, February 2007.

* denotes current or former students, and bold a current UCO professor

- *Mushegyan, W., R.S. Pfau, and **G.M. Wilson**. Poster. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America. Central Plains Society of Mammalogists, University of Central Oklahoma, Edmond, OK, October 2006.
- *Mushegyan, W., R.S. Pfau, and **G.M. Wilson**. Poster. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America. Posters at the Capitol, Oklahoma State Capitol, Oklahoma City, OK, Spring 2007.
- *Mushegyan, W., R.S. Pfau, and **G.M. Wilson**. Poster. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America. American Society of Mammalogists, University of New Mexico, Albuquerque, NM, June 2007.
- *Skaley, M. S., **M.B. Vaughan**, and **W. Caire**. Poster. Histological examination of the ear tubercles of the Mexican Free-tailed Bat (*Tadarida brasiliensis*). American Society of Mammalogists 87th Annual Meeting, Albuquerque, NM, May 2007.
- Vaughan, M.B.** and J.J. Tomasek. Poster. Keratinocytes attenuate force generation by fibroblasts. 1st Biennial National IDEa Symposium of Biomedical Research Excellence, Washington, DC, July 20-22, 2006.
- Vaughan M.B.** N-Acetyl Cysteine affects myofibroblast differentiation. Experimental Biology Annual Meeting, Washington, DC, April 2007.
- Ovrebø, C.L.** "Spring Mushrooms of Oklahoma," Crosstimbers Chapter of the Oklahoma Native Plant Society, March 2007.
- *Skaley, M.S., **W. Caire**, and **M.B. Vaughan**. Poster. Ear tubercles of *Tadarida brasiliensis*: sensory or thermoregulatory function? Experimental Biology Annual Meeting, Washington, DC, April 2007.
- Stone, P. A.** 2006. Terrestrial activity in Sonoran mud turtles, *Kinosternon sonoriense*. Invited presentation at the Powdermill 2006 meeting, September 2006.
- Stone, P. A.** 2006. Terrestrial activity in Sonoran mud turtles (*Kinosternon sonoriense*). Invited presentation, Sigma Xi, UCO Chapter, October 2006.
- Wilson, G.M.**, *A. Cunliffe, **W. Caire**, *J. Chodosh, and *R.A. Astley. Poster. Presence/absence of conjunctival lymphoid follicles in New World rodents. Central Plains Society of Mammalogists, University of Central Oklahoma, Edmond, OK, October 2006.
- Wilson, G.M.**, *P. Rajan, K. McBee, and R.A. Van Den Bussche. Population genetic structure of Yellow-bellied Marmots (*Marmota flaviventris*) in the central Rocky Mountain region. Central Plains Society of Mammalogists, University of Central Oklahoma, Edmond, OK, October 2006.



Biology Department Participation:
Oklahoma Academy of Science 95th Annual Fall Paper Meeting
 Rogers State University, Claremore, Oklahoma
 November 3, 2006

Oral Presentations

- *Skaley, M.S. and **M.B. Vaughan**. Keratinocyte senescence affects cell migration, morphology degradation, but not differentiation of *in vitro* skin equivalents.
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson**. Population genetic structure of the Texas Mouse, *Peromyscus attwateri*, as inferred by cytochrome b sequence data.
- *Mushegyan, V., *B. Hall, R.S. Pfau, and **G.M. Wilson**. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America.

* denotes current or former student, and bold a UCO professor



Biology Department Participation:
Seventh Annual Research Day for Regional Universities
 University of Central Oklahoma, Edmond, Oklahoma
 April 6, 2007

Poster Presentations

- *Kittredge, V.C., P. W. Wilson and **W. Caire**. An updated checklist of the food items of the Great Horned Owl (*Bubo virginianus*: Strigiformes: Strigidae) in Oklahoma.
- *Rice, K. and **G. Caddell**. Vascular plant communities on gypsum outcrops in the Cimarron Gypsum Hills, northwestern Oklahoma.
- *Chukwuma, S.N., *T.B. Stephenson, and **M.B. Vaughan**. Expression of alpha-smooth muscle actin: genetic or environmental?
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson**. Population genetic structure of the Texas Mouse, *Peromyscus attwateri*, as inferred by cytochrome b sequence data.
- *Palmer, T.R., *M.M. Mathis, and **M.B. Vaughan**. Development of a portable, tension-maintaining dermal equivalent.
- *Robinson, E.D. and **M.B. Vaughan**. Effect of N-acetyl cysteine on TGF- β stimulated α -smooth muscle actin expression in myofibroblasts
- *Skaley, M.S., and **M.B. Vaughan**. Replicative senescence morphology of *in vitro* skin equivalents.
- *Sparks, D.R., *M.S. Skaley, **M.B. Vaughan**, and **W. Caire**. Anatomical examination of the dermal-outgrowths on the margin of the ear of *Tadarida brasiliensis*.
- *Lou, J.R. and **C. Butler**. Birds use ultraviolet light cues for feeding.
- *Locey, K. and **C. Butler**. Effects of habitat fragmentation on avian communities of the Lower Rio Grande Valley of Texas.
- Meeks, S., L. Luna, G. Wilson**, *C. Baldwin. Fecal transmission of West Nile Virus in Oklahoma rodents.
- Luna, L., S. Meeks**, *R. Reichard, *M. Criffeild, and *C. Baldwin. Possible seroprevalence of West Nile Virus in an endangered predator, Swift Fox (*Vulpes velox*) in Oklahoma.
- Meeks, S., G.M. Wilson, L. Luna**, and *C. Baldwin. An alternative mode of transmission for West Nile Virus-rodent feces?
- *Mushegyan, W., R.S. Pfau, and **G.M. Wilson**. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America.
- Wilson, G.M.**, *A. Cunliffe, **W. Caire**, J. Chodosh, and *R.A. Astley. Presence/absence of conjunctival lymphoid follicles in New World rodents.
- Wilson, G.M.**, *A.L. Hueppelsheuer, *C.D. Young, *J.B. Lack, *K.L. Koppari, *M.J. Rivera, and *P.M. Walker. Population genetic structure of the Cave Myotis.
- Wilson, G.M.**, *P. Rajan, K. McBee, and R.A. Van Den Bussche. Population genetic structure of the Yellow-Bellied Marmot, *Marmota flaviventris*, in the central Rocky Mountain region of North America.




Biology Department Participation:
The Southwestern Association of Naturalists 54th Annual Meeting
 Tarleton State University, Stevensville, Texas
 April 19-21, 2007

Oral Presentations

- *Beshara, A.L., **P.A. Stone**, and **M.E. Babb**. 2007. Empirical determination of population boundaries and density in Oklahoman red-eared sliders (*Trachemys scripta*).
- Baird, T.A.** Does display advertise to mates or competitors? A comparative field test in collared lizards.



- *Curtis, J.L. and **T.A. Baird**. Influence of population density on intraspecific competition and growth in hatchling collared lizards.
- Butler, C.** Effects of habitat fragmentation on bird communities in the LRGV.
- *Locey, K.J. and **P.A. Stone**. Range expansion and diffusion dispersal in the introduced Mediterranean gecko, *Hemidactylus turcicus*.
- *Johnson, T., **G.M. Wilson**, and R. Pfau. Population genetics of the Texas Mouse, *Peromyscus attwateri*.
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson**. Population genetic structure of the Texas Mouse, *Peromyscus attwateri*, as inferred by cytochrome b sequence data.
- *Mushegyan, V., *B. Hall, **G.M. Wilson**, and R.S. Pfau. Intraspecific phylogeography of the Texas Mouse (*Peromyscus attwateri*) based on DNA sequence data for the control region of the mitochondrial genome.
- Ovrebo, C.L.** Collection and curation of fleshy fungi.
- Stone, P.A., M.E. Babb**, and *B.D. Stanila. 2007. Terrestrial flight response and interpopulational migration in Sonoran mud turtles, *Kinosternon sonoriense*.
-  *Telemeco, R.S. and **T.A. Baird**. An experimental field study of energy allocation trade offs in female collared lizards.
- Poster presentations**
- *Skaley, M.S., **W. Caire**, and **M.B. Vaughan**. Histological examination of the ear tubercles of the Mexican Free-tailed Bat (*Tadarida brasiliensis*).
- Lewis, D.P. and **C.L. Ovrebo**. Agaricalean fungi from east Texas: new species described from, and bibliography.

Other Faculty Activities

President-Elect of NAAS

Dr. David Bass has been involved with the Oklahoma Academy of Science (OAS) since 1985 and has served as its Executive Secretary-Treasurer since 2001. OAS is an affiliate of both the American Association for the Advancement of Science (AAAS) and the National Association of the Academies of Science (NAAS). David has been very involved in these professional organizations and because of his position in OAS, he serves as the Oklahoma delegate to both AAAS and NAAS, playing active roles on several committees in each organization. He has served on the NAAS Board of Directors for the past two years and currently holds the position of President-Elect for that organization. David will be inaugurated as NAAS President at the Annual Meeting of the AAAS in Boston next February.

Guest Scientist for 2006 Saba Sea & Learn Program

Dr. David Bass was invited to play a leading role in the 2006 Saba Sea & Learn Program. Saba is a very small volcanic (dormant) island in the eastern Caribbean Sea where David has visited and conducted research in the past. The purposes of this program were to educate Sabans and visitors about the natural history of their island and create greater environmental awareness. As a guest scientist for the program, he gave a public presentation titled *Macroinvertebrate Species Assemblages and Freshwater Habitats of Small Caribbean Islands*. In addition, David directed several workshops and led two field trips on aquatic invertebrates. David also supervised a research project conducted by his daughter, Courtney, investigating invertebrate populations inhabiting water-filled bracts of *Heliconia* inflorescences during the week in Saba.

Dr. Jim Bidlack has been re-appointed by the Oklahoma Board of Regents to be a member of the Biology Editorial Board of MERLOT (Multimedia Educational Resource for Learning and Online Teaching).

Dr. Gloria Caddell was elected Vice-President of the Oklahoma Native Plant Society.

Dr. Anne Ewing was the Session Moderator, Advising First Generation Applicants: The Bridge from Inexperience and a panelist on “What do Pre-Med Advisors Need to Know When Advising Minority Students? Joint meeting between AAMC SGSA and SAAHP, Little Rock, AR, April 2007.

Meetings attended

Dr. Mel Vaughan attended the NSF Step Grantee Meeting, Washington, DC, March 22-23, 2007, the Tri-Beta Regional Meeting, Lake Texoma, March 30 – April 1, 2007, and the Experimental Biology Annual Meeting, Washington, DC, April 28 – May 2, 2007.

Dr. Clark Ovrebo attended the Gulf States Mycological Society Summer Foray in Mississippi in July. He is now a scientific advisor to that organization. Clark attended and collected fungi at the New Mexico Mycological Society’s annual foray, Los Alamos, in August 2006 and collected for a week in the Great Smoky Mountain National Park in October 2006. He was accompanied by Biology undergraduate student Randy Parker and collected in southeast Texas over the Christmas break.

Dr. Anne Ewing attended the National NAAHP Meeting, in Portland, OR, at the OUC College of Medicine Soiree for students, The OSU College of Veterinary Medicine Counselors’ Workshop, and the OU Health Sciences Center Counselors’ Work shop. She went to the Oklahoma Consortium of Clinical Lab Science Affiliates (OCCLSA), in Lawton, OK, the Premedical Advisors’ Conference, at Scholl College of Podiatric Medicine, Chicago and the Med Extravaganza, OSU-College of Osteopathic Medicine, Tulsa, OK.

Oklahoma Academy of Science Field meetings

Dr. Gloria Caddell led Botany field trips for the Oklahoma Academy of Science Fall Field Meeting, Boiling Springs State Park and Selman Living Lab, September 22-23, 2006, and the Spring Field Meeting, Quartz Mountain Nature Park, April 13-14, 2007. **Dr. William Caire** attended both the fall and the spring meetings. **Dr. Clark Ovrebo** led a mycology field trip and Dr. Sheila Strawn led a lichen field trip at the OAS Spring Field Meeting, Quartz Mountain Nature Park. **Dr. Anne Ewing** Attended the OAS Scientific meeting at Rogers State University.

Grants and Awards Received

Dr. Gloria Caddell received the Vanderford Distinguished Teacher Award (\$1000.00), College of Mathematics and Science, 2006.

Dr. William Caire received a UCO Mini Grant of \$1,200.00, a US Fish & Wildlife Service–Outdoor Classroom Grant of \$5,000.00, and a UCO Mini Grant of \$1,200.00.

Dr. Mel Vaughan received a UCO Regular Grant, an INBRE Release-time Award, Fall 2006, an INBRE Summer 2007 Undergraduate Research Opportunity Award of \$1,500.00, UCO College of Graduate Studies and Research Faculty Grant of \$7500.00, and was the Sigma Xi Distinguished Research Scientist of the Year, UCO Chapter, 2007.

Dr. Clark Ovrebo and Dr. Karen Hughes (Univ. of Tennessee) received an NSF Research Opportunity Award to provide Clark with training in DNA extraction and sequencing during July 2006 at the University of Tennessee.

Dr. Troy Baird received a UCO College of Graduate Studies and Research Faculty Research Grant of \$7,500.00 to conduct empirical field tests of three ecological hypotheses using collared lizards as a model system.

Dr. Paul Stone received a UCO College of Graduate Studies and Research Grant of \$5,878.00.

Dr. Greg Wilson received three UCO College of Graduate Studies and Research Faculty Research Grant of \$7,500.00.

Ms. Linda Luna and Ms. Sherry Meeks received a UCO College of Graduate Studies Faculty Research Grant of \$2600.00 to study West Nile Virus in an Oklahoma predator, Swift Fox.

Ms. Sherry Meeks, Ms. L. Luna, Dr. G. Wilson and Dr. Charles Baldwin received a UCO College of Graduate Studies Faculty Research Grant of \$1500.00 to study fecal transmission of West Nile Virus in Oklahoma rodents.

Ms. Marie Babb received a UCO College of Graduate Studies Faculty Research Grant of \$5,878.00.



*Biology Department recipients of the
Dr. Joe C. Jackson College of Graduate Studies and Research
Fall 2006 Incentive Awards*

Publication/Presentation Incentive Awards—

Bass, David. Faculty Merit/Credit Award (\$1000.00) and a Publication Award of \$250.00.

Butler, Christopher. Faculty Enhancement Incentive award of \$1000.00

Caire, William. Incentive Award of \$1000.00

Meet the Faculty and Staff

In this section we spotlight full-time faculty and staff. This year we want you to meet Dr. Beth Allan and Dr. Brooke Stabler.

Dr. Elizabeth “Beth” Allan



I was born and raised in Norman, Oklahoma and graduated high school from Norman High School. After spending two years at OSU I transferred to OU and completed a Zoology degree there. I had always been interested in science. As a child my family camped out every weekend and spent each summer camping across the United States and Canada. I was always struck by how different states could be and still be beautiful in their own right. Along with the geography came an appreciation for the animals and plants in each area. Little did my family know that I was paying attention in all those Forest Ranger campsite talks.

In the last year of my undergraduate degree I took a series of education courses and that's when I knew what I wanted to do with my science degree. After graduation I completed a teaching certificate and began teaching 7th and 8th grade in Moore, OK. Two years later I moved to southern California and taught in a Los Angeles county school system for the next 7 years. I completed my Masters degree and PhD at the University of California, Riverside.

From southern California I moved to North Carolina and during that time I taught high school science, worked for the North Carolina Department of Public Instruction, and ran the Western Carolina Center for Mathematics and Science Education. Although I enjoyed my time in both California and North Carolina, Oklahoma has always been home. When the opportunity to work at the University of Central Oklahoma became available, I was delighted to move home. I've enjoyed the last two years here and look forward to the future.

Dr. Linda “Brooke” Stabler



I was born in 1959 in Mount Holly, New Jersey, the youngest of five baby-boom kids. In 1967 my dad was transferred to Florida by his employer, RCA, to work in support of the rapidly growing space program. I grew up on the narrow strip of land that lies between the Atlantic Ocean and the Indian River Lagoon during an era when wildlife was abundant there and the landscape was still relatively undisturbed. I spent my youth on the beach or tromping through the Florida oak/ palmetto scrub areas with my friends where we built elaborate forts out of palm fronds and pretended to be wilderness adventurers, way before “Survivor”.

At the same time I was one of those kids who loved school and went at learning just about any subject with gusto. I took my first ecology class in 7th grade. In the spring of 1977 I enrolled concurrently at the local community college while I finished high school and moved out into the world. I was one of those lucky kids who got to work her way through college, so it took me a couple of extra years to complete

my first associate's (AA) degree in a general program of study in 1981. During those years I worked as: a dishwasher in a Chinese Restaurant, an answering service operator, an apartment painter, a sod layer, a medical secretary/receptionist/bookkeeper, and an on and offshore commercial fisherperson. I settled into the last position for several years; it paid very well and let me work outside! After spending a few sun burned years covered with fish slime and pulling sting ray barbs out of friends' feet I decided that perhaps a way of life a little less physically demanding might be called for.

In 1982 I went back to school. This will be a recurring theme. That go round I had a more specific goal, which was to earn an applied degree that would provide a decent income and good employment opportunities. In 1984 I graduated with an AS degree in Medical Lab Technology and went to work at what turned out to be a nearly 15 year career in health care. In 1989 I earned a BS in Health Care Administration from Saint Joseph's College in Maine where I took courses as part of a summer leave program from the hospital in Florida where I worked. St. Joe's is a beautiful school (and nunnery) situated on the shores of Sebago Lake just west of Portland. That earned me a promotion to night shift (ugh) supervisor of the lab at the hospital where I worked. Eighteen months of life on the night shift and the drastic fiscal and organizational changes that were taking place in health care during that era prompted me to quit my job in middle management and move to the Phoenix area with a friend in 1990. One of my motivations for moving to Phoenix was the intent to (you guessed it) go back to school at Arizona State. I got a job at a local hospital and started a BS program in general biology at ASU.

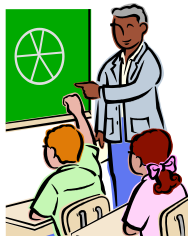
I got involved in undergraduate research in systems ecology working with a guy named Jim Elser. Jim is one of the smartest guys and best scientists I've ever known and I credit him with really getting me turned on to doing science. The project that I worked on involved the study of the movement of N and P through pelagic food webs of marine and freshwater systems. Part of that research, which was eventually published in *Nature*, was conducted from the same boat I'd fished from years before and on my mom's back patio in Florida! My individual research focused on the role of bacteria in the C, N, and P dynamics of pelagic food webs.

As I was finishing up my undergraduate work, a lot of things happened at the same time. Jim asked me to take a vow of poverty, quit my job at the hospital and go to work in his lab as a graduate student doing microbial research. Newt Gingrich became speaker of the house and many of us feared that federally funded ecological research would become a thing of the past. I met my then future now ex husband. My employer offered me a cushy job with a nice raise. My heart really wasn't in the work that Jim had in mind for me as a grad student, so I opted to take the cushy job, get married, and ignore the siren's call of a life in academia a little longer.

I didn't ignore it for long. In 1997 at the tender age of 38 I finally made the decision to go to grad school. I visited with Jim and told him I wanted to study plants and asked his advice about whom I should work with. He didn't have any specific recommendation, but suggested that I try to work with someone involved with the new LTER initiative that had been funded there. He said it would offer me the opportunity to do work in a brand new field of study. I took his advice and he was right. I got in on the ground floor of the first well funded and organized approach to the field of Urban Ecosystems and had a lot of unique educational and research experiences. Although my original intent was to earn a Master's degree, the questions that turned me on were long-term questions and after my first year of study my advisor suggested I re-enroll as a Ph.D. student. Most of my graduate education was funded through an NSF fellowship that focused on interdisciplinary research in human dominated systems. I did six years of field research, worked on a lot of diverse projects and both led and participated in some really unique and stimulating seminars. In 2003 I successfully defended my dissertation on the ecological roles of plants in the CAP LTER study area.

By that time I was ready to leave the desert and for a little break and since I didn't have a job waiting for me I decided to do one of my favorite things and took a few road trips. I wanted to look around a bit and think about where I wanted to spend Life, Part II. I always stopped in OKC to stay with a favorite aunt. Those stops helped me develop a real sense of the family history that I have here. My mom was born and raised in this area and my great-great grandparents were homesteaders. That history and the price of real estate compelled me to pick this as a place to settle for a while. In 2004 I started teaching as an adjunct at UCO and knew then that I had really found my calling. I didn't get a lot of teaching experience at ASU and so didn't realize how much I love it! UCO has always been attractive to me. Both my mother and grandmother (both Okie teachers) went to school here, and over the years I've learned that one could not ask for a better group with whom to work than the faculty and staff in Biology. When the Plant Ecologist position opened up I jumped at it! I'm really enjoying working at getting my research program rolling and toward becoming a permanent part of the Biology Department at UCO.

Science Education Program



So you want to be a teacher? Science Education at the University of Central Oklahoma is the place to make that happen. The undergraduate program is a four-year program in which a student takes both science courses and education courses. The program culminates in a semester long student teaching experience where the content the student has taken is put into practice in a classroom of students. The Science Education program prepares undergraduates to teach in the science field of their choice in both the middle and high school classrooms.

Teaching science can be a very rewarding field. Not only do you get to use content every day, you get to understand it in a way that few do. That understanding comes from being able to find a way to get it across to a classroom of children who not only don't know the concept; they probably have a misunderstanding of the content you have to address first. The challenges and rewards of making a difference in a student's life as well as imparting knowledge can be great. A great science teacher not only has to stay abreast of the latest discoveries in science, they also have to understand adolescents and their behavior to create a classroom where all can learn. The program at UCO can help prepare you for both these challenges.

The state of Oklahoma and the federal government have financial incentives for those interested in becoming a science teacher. Contact Dr. Allan at eallan@ucok.edu to learn more about becoming a science teacher at UCO.

Student Activities

Undergraduate Research

See recent publications, presentations and meetings of the Southwestern Association of Naturalists, Oklahoma Academy of Science, and Research Day for Regional Universities for other student research presentations. UCO students are asterisked (*)

INBRE and SURE-STEP



Two federal grant proposals have recently been funded that help to support undergraduate research at UCO. The first of these is the National Science Foundation grant entitled Supporting Undergraduate Research and Education for the Science, Technology, Engineering and Mathematics Talent Expansion Program ("SURE-STEP"). Dr. John Barthell is currently the PI on this consortium grant that includes participation by four institutions besides UCO: 1) East Central University in Ada, 2) Cameron University in Lawton, 3) Langston University in Langston and 4) Southwestern Oklahoma State University in Weatherford. The grant is for 2 million dollars and is divided among the respective campuses for five years.

The SURE-STEP grant has two major components: 1) a summer "bridge" program and 2) a supplemental instruction program. The summer bridge program recruits high school (and transfer) students from across the state that plan to take science courses at UCO in the fall semester. The students receive a stipend while serving in a one-month program (in July) that allows them to work with faculty on science-based issues in the classroom, laboratory and field. Students are also exposed to counselors and advisors about what to expect at UCO as a science major. Last year Dr. Gregory Wilson and Dr. Mel Vaughan participated in the program from the Biology Department. Three students, Tiffany Palmer, Sarah Chukwuma, and Tara Stephenson continued to work with Dr. Vaughan during the fall and spring semesters. They each have presented at Oklahoma Research Day and the Tri-Beta regional meeting. Dr. Wilson's Summer Bridge students who continued working were Kim Koppari, Amber Hueppelsheuer, Cortney Young, Miranda Rivera, and Paul Walker. The supplemental instruction program involves students that act as "supplemental instruction leaders" in historically difficult courses. This year two Biology courses were involved: Biology 1204 and Animal Biology. Ben Lynch worked with Dr. Countaway in Biology 1204, Capri Andrews worked with Dr. Ewing in Biology 1204, Kim McBride worked with Dr. Butler in Animal Biology, and Katie Rogers worked with Dr. Baird in Animal Biology. Capri also serves as a peer mentor in the program.

The second grant with a positive impact on UCO undergraduates is the National Institutes of Health (NIH) funded grant for biomedical research entitled "Oklahoma Idea Network of Biomedical Research Excellence" (INBRE). Dr. Frank Waxman (OUHSC) is the PI for the grant and it has a nearly 18 million-dollar budget for use by a consortium

of universities over the next five years. The grant funds various types of annual grants, including a student/faculty mentorship program, collaborative grants, mini-grants and research opportunity awards. Two Biology students, Lisa Pham and J.R. Lou, are participating in a mentorship program this summer at the OU Health Science Center. Dr. Mel Vaughan is an INBRE faculty mentor working at UCO with a UCO Forensic Science student, Edana Robinson. Dr. Beth Allan also received a "Research Opportunity Award" to work with Dr. Phil Silverman at Oklahoma Medical Research Foundation. The INBRE grant also supports equipment purchases that facilitate biomedically oriented research that involves undergraduates.

Both SURE-STEP and INBRE grants are providing several new opportunities for students interested in conducting undergraduate research. If you or others wish to know more about these programs, please contact Dr. John Barthell, Dean, College of Mathematics & Science or Dr. Gregory Wilson, Jackson College of Graduate Studies and Research.

Visit the SURE-STEP WebPage at UCO: <http://cms.ucok.edu/sure-step>

Visit the INBRE website: <http://okinbre.org/>

The follow students had poster presentations at the July 27, 2007 University of Oklahoma Health Sciences Center Summer Research Presentation program.

In the SURE Program:

*Mushegyan, Vagan, I. Huang, and F. Qi. Function of dexS and treR in mutacin I production in *S. mutans*.

In the INBRE Program:

*Lou, J.R., and W-Q Ding. Docosahexaenoic Acid Regulates SOD1 gene transcription in human ovarian carcinoma cells.

*Parker, Randy, U. Melcher, and V. Muthukumar. Virus-like particle extraction method for isolation of novel plant viruses.

*Pham, Lisa, S. Sezate, L. Wong, and J. McGinnis. Does the translocation of A-transducin depend on its amino acid sequence?

*Robinson, Edana, and Mel Vaughan. Replicative senescence affects fibroblast α -smooth muscle actin and contractility.

New Graduate Students

Rory S. Telemeco* received his B.S. degree in Biology in December 2007 from the University of Central Oklahoma. He joined the Biology Department as a graduate student in the spring of 2007. Rory's major professor at UCO is **Dr. Troy Baird**. Rory received a Fulbright Student Scholarship to conduct research in Australia and will be working in Dr. Richard Shine's lab at the University of Sydney for one year before returning to UCO to complete his M.S. degree. Joanne Peterson* joined the Biology Department as a graduate student in the fall of 2006. Joanne is a Putnam City Biology Teacher and will be working with **Dr. Mel Vaughan**.

Masters Thesis Defense

Lack, Justin "Population genetic structure of the Texas Mouse (*Peromyscus attwateri*) as inferred by cytochrome B sequence data.

Burke, Jeff Prevalence of antibodies to West Nile Virus in selected farm animals in central Oklahoma.

Student Clubs

Pre-Med Health Professions Club



With exciting volunteer projects, riveting speakers, and many other club events, the Pre-Med/Health Professions Club has had a stimulating and productive 2006/2007 season. Every first and third Tuesday of the month, the club met to introduce pre-health professional students to different areas of the health field. The past academic year brought speakers from around Oklahoma in the areas of dentistry, neurology, general surgery, ophthalmology, anesthesiology, physician's assistance, and public health. To acknowledge the most active member of the club in each semester, the tradition of

awarding a free Kaplan test preparation course was continued. This past year, the winners were Uduak Williams and Taylor Denny. Outside of general meetings, the club participated in a number of volunteer projects and club field trips. Our volunteer experiences included giving birthday parties for abused children at Citizens Caring for Children, building houses for low-income Oklahoma residents through Habitat for Humanity, helping out with D-Dent's National Day of Caring, and making dinner for residents at the Ronald McDonald House. Other activities we pursued were tours of both OU and OSU medical schools, a trip to the Body Worlds exhibit in Dallas, TX, and participation in the Scrub Run 5K and 10K sponsored by OSU College of Medicine in Tulsa, OK. The club's major event, the annual Health Career Fair, was held in January in the Howell Hall Atrium and showcased all the areas of health care by representatives from health colleges in Oklahoma and had several hundred UCO students in attendance, despite some weather conflicts. For the future, the club is arranging an extensive array of philanthropic activities and hopes to induct more newcomers into the network of future health-professionals. More information on the club and its activities can be read on its website: <http://biology.ucok.edu/Pre-medweb/medweb/PremedHealhome.html>

Tri-Beta Biology Club

Beta Beta Beta National Biological Honor Society (Tri-Beta)



UCO's Psi Mu Chapter of the Beta Beta Beta National Biological Honor Society has had a busy school year. The new officers met before the fall semester began to plan meetings, fieldtrips, T-shirt designs, and our plant sale at the UCO organization fair. We held our regular meetings (2 per month) and had speakers at all but two meetings (business meetings). In September we donated a dry erase marker board calendar to the College of Mathematics and Science so that all the clubs in the college could efficiently publicize their events. We also paid for many of our members to participate in

Bioblitz at Quartz Mountain Nature Park in September. The club paid for registration and meals for members at the Fall 2006 Boiling Springs and the Spring 2007 Quartz Mountain Nature Park OAS field meetings. We then had volunteers go to the Selman Living Laboratory on a service project where we assembled futons, hung blinds, and went spelunking. We had four presenters at the OAS technical Meetings: Justin Lack, Vagan Mushegyan, Matt Skaley, and Rory Telemeco. In January, the club paid for a van for our students to go hear E.O. Wilson speak in Stillwater. Our induction ceremony was held March 2nd and was followed by a night at the OKC Zoo with a program called a "Snooze." Fifteen of our members spent a weekend at Lake Texoma for the Tri-Beta Regional Meeting where nine presented and six won awards, including the Johnson Poster Award. Vagan Mushegyan, Rory Telemeco, Christina Highley, Matt Skaley, and Justin Lack received paper presentation awards. Sarah Chukwuma received the Johnson Poster award. Our 2007-2008 officers were elected on the 26th of April. Our new president is Vagan Mushegyan. April 27th we were rained out of our end-of-year picnic and had to move it indoors, but we had a great turnout and nearly everything was eaten.



Biology Department participation:

2007 Beta Beta Beta South-Central Regional Convention

University of Oklahoma Biological Research Station, Lake Texoma

South-Central Region includes Oklahoma, Texas, Arkansas and Louisiana.

March 30 – April 1, 2007

Paper Presentations

- *Robinson, E.D. and **M.B. Vaughan**. Effects of n-acetyl cysteine on myofibroblast phenotype.
- *Skaley, M.S., **M.B. Vaughan**, and **W. Caire**. 2007. Histological morphology of specialized epithelium in the Mexican Free-Tailed Bat (*Tadarida brasiliensis*).
- *Lack, J.B., R.S. Pfau, and **G.M. Wilson**. Population genetic structure of the Texas Mouse, *Peromyscus attwateri*, as inferred by cytochrome b sequence data.
- *Mushegyan, V., R.S. Pfau, and **G.M. Wilson**. Intraspecific phylogeography of the Texas Mouse, *Peromyscus attwateri*, in North America.
- *Highley, C.M., H. Fernando, D.R. Davydov, and J.R. Halpert. Reconstitution of cytochrome P450 3A4 activity in a lipid-free system.
- *Williams, U, H.R. Weng, J.H. Chen, and P. Dougherty. Chemotherapy induced peripheral neuropathy (CIPN):

Determining peak of cytokine elevation in taxol treated patients.

Poster Presentations

- *Rice, K. and **G. Caddell**. 2007. Vascular plant communities on gypsum outcrops in the Cimarron Gypsum Hills, northwestern Oklahoma.
- *Chukwuma, S.N., *T.B. Stephenson, and **M.B. Vaughan**. Expression of alpha-smooth muscle actin in clones.
- *Kim, W.H., *T.R. Palmer, and **M.B. Vaughan**. A skin equivalent model with tension and portability to study wound healing.



UCO at the Tri-Beta Regional meeting: Back row (l-r): Ken Locey, Adam Sermersheim, Matt Skaley, Justin Lack, Uduak Williams; Front row, Lisa Pham, Kristi Rice, Kim Koppari, Vagan Mushegyan, Rory Telemeco, Christina (Lindsey) Highley, Sarah Chukwuma, Won-Hee Kim, Edana Robinson, Armstrong Isiaho. Mel Vaughan, faculty mentor, is in front.

Student Awards and Grants

Rory Telemeco received a 2007 U.S. Fulbright Postgraduate Scholarship to undertake a graduate research project in Australia. This Scholarship awarded Rory with a travel entitlement, a monthly stipend, an establishment allowance, and health insurance for 12 months while he completes a research project as part of his masters program at the University of Central Oklahoma. Rory will be working in Dr. Richard Shine's lab at the University of Sydney. Rory's major professor at UCO is **Dr. Troy Baird**.

Sarah Chukwuma received 1st place for her poster presentation at the Tri-Beta Regional Meeting.

Justin Lack was awarded the "Best Graduate Student Presentation" award at the Tri-Beta Regional Meeting.

Vagan Mushegyan has received the following awards:

- Tri-Beta Research Foundation Grant of \$799.00 to conduct genetic research on the Texas Mouse (*Peromyscus attwateri*)
- Summer Undergraduate Research Experience University of Oklahoma Health Science Center
- Outstanding Undergraduate Presentation, Central Plains Society of Mammalogists
- Hauptman Fellowship Award
- Undergraduate Research Assistantship
- Undergraduate Student Research Award, American Society of Mammalogists
- Poster at the Capitol, Oklahoma City, OK

Matt Skaley received 2nd place for his oral presentation at the Tri-Beta Regional Meeting and received an American Association of Anatomists Travel Award. He was also a member of the UCO Business College's Governor's Cup team that were runners-up in both the Governor's Cup and a Regional competition.



*The 25th Annual College of Mathematics and Science Awards Banquet
April 21, 2006*

Lothar Hornuff Field Biology Award

Rory Telemeco

Rory Telemeco has been interested in biology and herpetology for as long as he can remember (at least as long as he has been walking). He tried to pet a giant snapping turtle when he was two years old. His first research project was at age eleven (on snapping turtles' growth). Rory graduated from Harrah High School in 2002. He enrolled at UCO in the fall of 2002, and began to distinguish himself. He received the Ethel Derrick award his freshman year and is a past President of the Tri-Beta Biology Club. As a Freshman he began working with Dr. Baird in Collared Lizard research. That research collaboration continues today.

Outstanding Biology Senior Student Award

Rory Telemeco

Rory Telemeco is also the outstanding Biology Senior student. Rory graduated in December 2006 and was the Class Marshall. He began his master's degree here at UCO this spring. He recently received a Fulbright Scholarship, which will pay for a year of research in Australia. So starting in July, he will be working out of the Shine Laboratory at the University of Sydney collecting data for his UCO MS degree. Dr. Baird is his major professor. After completing his MS degree at UCO he plans to do a Ph.D. He is not sure where, but he wants to teach, do research and travel.

Ethel Derrick Zoology Award

Kathryn Rogers

Kathryn Rogers graduated from Noble High School. She is a freshman at UCO this year and is a Biology Education Major. She has already shown an interest in teaching by becoming a supplemental instruction leader for Animal Biology. Kathryn is a UCO cheerleader and a member of Delta Zeta Sorority. She loves to read and spend time with friends and family. This summer she will be a field research assistant with Dr. Baird, on collared lizard behavior.

Biology Education Senior Award

Jocelyn Provo

Jocelyn Provo attended Edmond North High School where she graduated in the top 15% of her senior class. Jocelyn was born in Lawton, Oklahoma, but spent her youth in the Rocky Mountain Valley of Wyoming. She is currently student teaching at Memorial High School here in Edmond. Jocelyn is working on a research project to determine a way to improve learning in the science classroom. She plans to continue her education by entering the Master's of Biology Program here at UCO.

Academic Achievement Award

Richard Fair, Densy Matthew and Rory Telemeco

Richard Fair

Richard Fair graduated from Oklahoma Christian Schools in 1997. He joined the U.S. Army and served in 1st Ranger Battalion 75th Ranger Regiment as a special operations soldier. He was deployed to Afghanistan in September of 2001 and received the Army Commendation medal while serving as a team leader during Operation Enduring Freedom. Richard began attending UCO in 2003. He is a member of the Tri-Beta Biology Club, the Pre-Med/Health Professions Club, the Gamma Beta Phi National Honor Society, and the Golden Key International Honor Society. Richard is a Class Marshall. He plans to attend OU College of Medicine in the fall.

Densy Matthew

Densy Matthew graduated from Yukon High School in 2004 and came to UCO that fall. She has been a member of the Pre-Med/Health Professions Club and Tri-Beta Club. She received a Freshman Scholastic Award, the Rothbaum Student Achievement Award, and a Chesapeake Energy Corporation Scholarship. Her hobbies are reading and writing. Densy also likes to spend time with family and members of her church family. Her future plans are to attend medical school this fall.

Rory Telemeco

(See Lothar Hornuff Field Biology Award and Outstanding Biology Senior Award above)



Alumni

Davis, Angela (B.S. UCO 1989) A research geneticist at the South Central Agricultural Research Lab, Lane, OK, Angela recently had a four-month sabbatical in Montfavet, France. She visited UCO this spring and presented her research to the Tri Beta Club.

Groshans (Woodard) Toni (B.S. UCO 1986) After working for a pharmaceutical company for many years Toni has recently decided to go back to school and pursue a teaching degree at UNL. It was great to hear from her.

Hogan, James Cameron (B.S. UCO 2005) has finished three semesters of Physician Associate School and loves it.

Hubbs, Aaron (B.S. UCO 1998) graduated in 2006 with a doctorate in naturopathic medicine and a masters in Classical Chinese Medicine with an emphasis on acupuncture, herbs and qigong. Aaron has been married to his wife Megan for three years. They recently had a son (Rylan Jade). Aaron and his family live on a farm in Oregon.

Hubbard, John (B.S. UCO 1965) has established a trust that will provide scholarship funds to students majoring in field zoology. See challenge below.

Reap, Angela (M.S. UCO 2000) Angie has been teaching at Bishop McGuinness Catholic High School in Oklahoma City for six years. She teaches AP and pre-AP biology and is in her third year as chair of the department.

Vazquez, Vanessa (B.S. UCO 2003) is now at the Center for Extracellular Matrix Biology, Institute of Bioscience and Technology. She recently was the co-author of a publication on *Staphylococcus aureus*, published in Science, February 2007.

Alumnus establishes trust for scholarships, challenges other biology graduates

John Hubbard, BS 1965, has established a trust that will provide scholarship funds to biology students. The fund will provide \$1,000 per year for the next 10 years. The scholarships will honor Mr. Marvin Mays, a long-time biology faculty member and a favorite professor of John's. John is also allowing biology faculty and students access to his land in Logan County for use in research. The department wishes to thank John for his commitment to our students and professors.

John would like to challenge all UCO biology alumni who have not donated to the department this year to support biology students and faculty by making a gift. Checks should be made payable to UCO and mailed to the Department of Biology, University of Central Oklahoma, 100 N. University Dr., Box 177, Edmond, OK 73034. One hundred percent of your donation will go directly to the Biology Department.

Honor Roll of Donors

The UCO Department of Biology would like to thank the following donors to the Investing in Excellence Laboratory Campaign. With the support of these donors, the department has completed three laboratories, and began construction on three more areas in July.

As of June 5, 2007, the following donors have provided financial gifts to the biology laboratory campaign:

William Harvey - up to \$99

Lynda Westhof Adcock
 Anonymous donor
 Anonymous donor
 Anonymous donor
 Dr. Gloria Caddell
 Dr. William Caire
 Janet Donahoe Clemons - *in honor of Dr. Peggy Guthrie*
 Dr. Janice Countaway
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 Paige M. Hill - *in honor of Jan and Richard Hill*

Dr. W. Lynn Laws
 Ms. Sherry Meeks
 Angela Powers
 Dan Redditt
 Elizabeth Swift Shockley
 Keri D. Smith, DO - *in honor of Dr. Jenna Hellack*
 Billy D. Stallings
 Dr. Tony Stancampiano
 Dr. Lancer and Aietah Stephens
 Dr. Mel and Lynne Vaughan
 David Wyatt

James Watson & Francis Crick - \$100-\$499

Dr. Riaz Ahmad
Dr. Troy Baird
Dr. John F. Barthell
Stephanie Berg, MD
Dr. James Enderby Bidlack - *in honor of Dr. Peggy Guthrie*
Ahmed B. Buksh, DPM - *in honor of Dr. Riaz Ahmad & Dr. Peggy Guthrie*
Michael L. Chandler, DDS
Julie Chambers
Jeffrey Danner, DDS - *in honor of Jack and Joan Danner*
Alan M. DeArman - *in honor of Dr. David L. Elmendorf*
Mark and Rhonda Devaney - *in memory of Frances G. Hummel*
Thelma Livingston Dibble
Rola Eid, DO - *in honor of Dr. Peggy Guthrie*
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R. Mark Hardisty
Clint Heath - *in honor of Dr. Peggy Guthrie*

Dr. Jenna J. Hellack
Sheila Morris Keeney
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A. Wade McMillan, MD
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Dr. Thomas Mills & family - *in honor of Dr. Jenna J. Hellack*
Tuan Nguyen, MD
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T. Bruce Pistocco, MD
George Roso, MD
C. Lee Ruth - *in honor of Dr. Riaz Ahmad and Dr. Jenna Hellack*
Mary Shuman, MD
Laurie Duckett Simmons, DO
Chris and Dusti Sloan
Dr. L. Brooke Stabler - *in memory of Ed Joyce*
Sandra Stevens - *in honor of Dr. William Caire and Dr. Gloria Caddell*
Dr. Paul Stone
Sheila and Steven Strawn - *in honor of Dr. Warren Smith and Mr. Marvin Mays*
Jerry Turner, RN - *in honor of Dr. Peggy Guthrie*
Kristin Williams
Dr. Gregory M. Wilson
Mike Young

Rosalind Franklin - \$500-\$999

Drs. John and Semira Charboneau
Marsha Penn Parell, MD - *in honor of Dr. Beverley Cox*

William F. Slagle, DDS
Anonymous donor

Antony van Leeuwenhoek - \$1,000-\$2,499

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Jay Johnston, MD
Nita McNeill, DVM
Cdr. and Mrs. Craig Morin - *in honor of Dr. Beverley Cox*

Eric Reed, DO and Karen Hall Reed
Marc A. Wilson, MD - *in honor of Dr. Jenna Hellack and Dr. Peggy Guthrie*

Rachel Carson - \$2,500-\$4,999

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Aristotle - \$25,000-\$49,999

Anonymous donor
Love's Country Stores

Galen - \$50,000-\$74,999

Beasley Family Trust

Hippocrates - \$75,000 and above

Inasmuch Foundation

**If you wish to make a contribution, please make check payable to UCO and mail to UCO Biology Lab Campaign
100 N. University Dr., Box 177, Edmond, OK 73034**



CONGRATULATIONS

To the following UCO students, who have been accepted to these professional programs for the Fall Semester, 2007

<http://www.biology.ucok.edu/PersonalPages/AEwingWeb/whosgoingwhere.htm>



OU – College of Dentistry

Brown, Phoebe
Holland, Chelsea
Ly, Jessica
Merrell, David

OU – College of Medicine

Chadwick, Amy
Fair, Richard
Gibleyou, Richard
Johnston, Kristin
Kraft, Joel
Matthew, Densey
Mays, Israel
Motley, Cody
Highley, Christina
Cruson, Chance

OU – Physician's Assistant Program

Abaee, Elizabeth
Burke, Jeff
Debruin, Kristin
Lamb, Jeremy
Lowe, Paul
Norvell, Amanda
Pruitt, Meredith
Wells, Kristopher

OU – College of Pharmacy

Aloumanis, Bill
Alsup, Amanda
Hodge, Donnie
Kammerer, Rosanna Angela
Lam, Lena
Thompson, Karen

OU – College of Physical Therapy

Cunningham, Kendall
Do, John
Ervin, Jennifer
Garba, Heather
Warren, Jeremy

OU – Occupational Therapy Program

Fischer, Shannon
Novotny, Shelli
Sanders, Cheryl

OU – Radiologic Technology

Daneshfar, Samaneh
Ellis, Katie

OU – Radiologic Technology continues

Mansour, Tess
Simon, Scott

OSU – College of Osteopathic Medicine

Bost, Dekoda
Fair, Richard
Henderson, Randall
Hites, Beth
Newton, Tim
Sims, Gary
Stewart, Tara
Treat, Chris

Kansas City – College of Osteopathic Medicine

Fair, Richard

South University Physician Assistant Program

Driver, Lakeissa

Saint Louis University – School of Medicine

McCoy, David

Touro – College of Osteopathic Medicine

Newhard, Heather

Trevecca Nazarene University Physician Assistant Program

Lamb, Jeremy

Muskogee Regional Medical Center – Med Tech Program

Mushilli, Mumba

Saint Francis Hospital – Med Tech Program

Obisesan, Abisola

University of North Dakota – School of Medicine

Rumsey, Cameron

Ross University – School of Medicine

Fair, Richard

St. George's – School of Medicine

Fair, Richard

Uniformed Services University – School of Medicine

Fair, Richard

NSU – College of Optometry

Butcher, Christopher
Conklin, Trevor
Ezekwuaku, Chris