

# Department of Biology Newsletter 2009-2010



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### Web Links to PSU News and PittState Stories Involving Biology Faculty, Students, and Alumni

If you haven't checked out our web page recently you probably are unaware that I became the Interim Chair in June of 2008. It has been quite a ride so far!! We welcomed Dr Wu, our newest Microbiologist in September of 2008 and two new faculty members just this fall. Dr. Mandy Peak, one of our own who graduated in 2000, replacing Dr. Brooker, and a new position that was filled by Dr. Phil Harris, in the cell/molecular area. It is really great to have a full faculty for a change!!

This past year has also brought us 5.5 graduate assistants including Martha Baskett, Nick Crownover, Jenny Schnedler, Cory Clark, Julie Ward, and Matthew Jacquinet. They are an excellent group with very diverse interests. I am sure they will keep the faculty 'hopping'.

This spring, 8 of our graduates graduated from KCUMB, formerly UHS, including my son David Dawson, from the class of 2004.

Former graduates continue to remember us. Just recently I had a very nice e-mail from Mike Robbinson, BS 78, MS 83, reporting that he had retired, as Vice President for Health, Safety & Environment, from Honeywell Aerospace Div. He has founded his own company, Environmental Health& Safety Consulting in Lenexa KS. Earlier this year we were visited by Tom Zornes, BS 92, MS 95, still working in Human Resources for the railroad.

Enrollment continues to grow, with 5 sections of Principles of Biology I this fall. The building is becoming very cramped with some lab spaces used from 8:00 am to 8:00 pm. We hope to move some areas, such as the herbarium, into an adjacent building in the near future. - Dr. James Dawson (jdawson@pittstate.edu)

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## From Faculty and Staff

### From Dr. Joe Arruda



Environmental quality – water, of course, continues to be the main theme in my lab. I’ve recently offered a focused spring course in water

quality monitoring and assessment that has been very successful. The course begins with an overview of testing, sampling design, and habitats and then moves onto 3-4 separate overlapping studies in streams, strip pits, and wetlands. The outcome is a set of reports summarizing water quality in the habitats sampled. While the students generally do not like reports ... feedback after a year or two on the job always is ... “thanks for the pain, it was helpful on the job”.

In the Spring 2009, we received a grant from WaterLink – a Kansas-based group that shuffles state and federal dollars to groups doing what are called “service-learning” project. I’m sure Jim Triplett, who spearheaded the effort, will be telling you about the overall project, but I’ll just emphasize that my part was to train and lead 5 very dedicated students in a water quality survey of storm water runoff in Pittsburg. They were Tyler Soper, Nick Lucas, Ken Gouvian, Michelle Townsley, and Hunter Brandt.

Using GIS information from my lab, we identified three key urban watersheds and the students, after training, went out on their own to sample the rain-bloated stream flow. They worked hard collecting the data and came back and did a great job of lab analysis, then a data summary. They found some interesting differences in water quality among the watersheds.

And now for something completely different (sort of) ... two years ago I began a study of land snails. For many gardeners they can be an irritation, but they are an important part of our natural history. I started a survey here in southeast Kansas – mostly on the properties of the Field Station, but also Wilderness Park, Schermerhorn Park, and a few other locations. You can find out more and see images by linking from my web page (<http://mail.pittstate.edu/~jarruda/>).



I also have 6 species in culture, including two species of particularly prolific snails: the Western Whitelip and the Flat Bladetooth. Hopefully, I can recruit a student to help – particularly of interest would be using DNA information to answer at least one “species” question and looking at the developmental genetics of those species that undergo a change in shell morphology at the onset of sexual maturity.

Dr. Joe Arruda (jarruda@pittstate.edu)



## From Dr. Peter Chung



Hello again from the PSU Biology Department! Hard to imagine that another year has flown by! It is exciting to be part of a newsletter again; kudos to Dr. Arruda for facilitating this endeavor.

It has been a busy year for me with full classes and the re-introduction of some classes that have been absent for a few years, following the retirement of Dr. Hugh Campbell, after 33 years of tremendous dedication and service to the PSU Biology Department! We miss you Dr. Campbell! Both Pathogenic Bacteriology and Immunology have made their re-entry into the curriculum; Bacteriology for 2 years now and this semester, Dr. Neal Schmidt and I are co-teaching Immunology. Student enrollment is high, and although busy, we are excited and happy to be of service to our majors. Student enrollment in Microbiology has been bursting at the seams the last few years and I am excited to be part of the growing Microbiology student population.

My research lab has also been busy the last few years. I am happy to have two first-year graduate students, Jenny Schnedler and Matthew Jacquinet, both of whom are currently busy with teaching assistant responsibilities, course work and research. Jenny is currently conducting a research project looking into differential gene expression of membrane proteins between two tumorigenic cell lines. Matthew will be conducting a research project attempting to characterize molecularly and biochemically, the various species of oral flora, looking particularly at differences between immunocompetent and immunocompromised individuals.

There are also two undergraduate students working in my lab this semester, Alissa Becknell, a K-INBRE scholar and a pre-dental Biology major, and Grant Depoy, a pre-med Biology

major. Needless to say, the lab has been and will be very hectic (and crowded) this year.



The Lab: Alissa Becknell, Jenny Schnedler, Dr. Chung, Grant Depoy, Matthew Jacquinet

In the service and advising arena, it has also been a busy, fruitful and satisfying year. The number of students interested in Biology is at an all-time high and I am excited to have met and continue meeting bright young minds! Our recruitment efforts at Rumble in the Jungle the last few years, including this year, are paying off, thanks to the contributions of many faculty members: Dr. Jim Dawson, Dr. Neal Schmidt, Ms. Delia Lister, and our newest faculty members, Dr. Mandy Peak and Dr. Phil Harries. Congratulations folks! Not only have we met outstanding young men and women; we also won cookies!

In advising, the number of Pre-Physical Therapy Biology majors is growing and so is the number of faculty actively involved in Pre-PT advising! Aside from myself, Dr. Cindy Ford, Dr. Neal Schmidt, and Dr. Mandy Peak, are all involved in filling the void left by the departure of long time Pre-PT coordinator, Dr. Nancy Brooker (we miss you Nancy!). We are currently gearing up for the 2009 Pre-Physical Therapy Student Orientation and Open House taking place on Tuesday, October 27, 2009 at PSU; I am excited for this annual public event involving the students, the community and regional Physical Therapy Schools.

I am sure I am leaving out plenty of great news but alas, I believe there is a word limit. I will

wrap up with some shout-outs: KU Med kids, John-Michael and Kylie; OU Med gal, Elise; MU Med track superstar, Venessa; UMSLU optometrist, Carrie; Rocky Mountain Vista COM, Erica; UMKC Dentistry, Nathan and Scott; and finally, Clint at Virginia Tech COM. We all greatly miss you and I wish the best in your professional studies! Also some shout-outs to: Dr. Hugh Campbell (you're still the best!), Dr. Nancy

Brooker (I miss you and your Belgian chocolate, of course), Dr. Hermann Nonnenmacher (breakfast at Bob's?). Don't be strangers; stay in contact, keep in touch and stop by and visit if you are in town. Here is to a fantastic year! Cheers!

Dr. Peter Chung (pchung@pittstate.edu)

### From Dr. Steve Ford



Greetings! I'm still enjoying teaching my anatomy courses and wildlife courses and being active in the local Sperry-Galligar Audubon chapter and in the Hunter Education group. Last summer was the first summer for many years that I didn't teach - gave me time to do some much-needed projects at home. I'd like to say I'm finished, but it seems as if there is a "project monster" on our place that grows the more you poke it!

We are trying to massage the Field Biology curriculum a bit to be able to shoe-horn in some time for field students to take a few more field-oriented courses. If you have any suggestions along those lines please let us know. I hope this troubling economy is not squeezing you too badly - we've had to tighten our belts around here, but still managing to hang on. Let us hear from you!

Dr. Steve Ford (sford@pittstate.edu)



A new constructed wetland at the Monahan Outdoor Education Center

## From Dr. Phil Harries



As a new faculty member in the Department of Biology, I would like to say hello to all the department friends and alumni! It is a thrill to be here at PSU and a pleasure to be able to contribute to my first

newsletter. This fall is my first semester teaching and it has been a big adjustment. However, the other faculty members in the department have been very supportive and this makes things A LOT easier! I am currently teaching Principals of Biology and I am also developing a new course on the Biology of Cancer for the spring term. This has kept me busy but I have really been enjoying the interactions with students and faculty.

A little background on me: I received my PhD in Plant Biology from Washington University in St. Louis in 2005. My thesis involved studying the cell biology and growth of moss (as in a rolling stone gathers no. . .). I then spent the last four years at an agricultural research institute in Ardmore, OK called the Noble Foundation. There I studied the movement of viruses in plants. In particular I was interested in the way viruses move

within and between cells. This is a subject of much interest both in agriculture and in medicine because if a virus can't spread within a host it can't do as much harm! In my position here at Pitt State, I would like to continue working on virus movement and also search for viruses in moss (this is an unstudied area). I will definitely be looking for some enthusiastic students interested in learning more about viruses.

Overall, I have really enjoyed being back in an academic environment. There is always something going on at a college campus and Pitt State is no exception. I have two young children and it has been a lot of fun taking them to different activities on campus including the football games. As the dust continues to settle, I look forward to what the future holds for me here in the Biology Department at PSU.

Dr. Phil Harries (pharries@pittstate.edu)

## From Delia Lister and Nature Reach



Wow! I can't believe how fast the last three years have flown by. We have seen many fantastic changes in the Nature Reach program. In September 2007 Westar Energy's Green

Team and HCC Contracting Company built much needed raptor enclosures. The raptors are now free-flighted in their enclosures, and are much more protected from the elements. Also, after several years of working with PSU Engineering

Technology students we dedicated the new Natural History Reserve Laboratory and Raptor Care Facility. With the completion of our new enclosures and care facility we were able to take on additional birds for the program including a turkey vulture and great horned owl. They are great birds and I am looking forward to doing many more programs with these birds. One of the biggest accomplishments for the program was the creation of the Nature Reach Endowment. This endowment has created a little more stability for the program for which we are very grateful. We are still not fully stable so please consider

restricting your donations to the Nature Reach endowment when the phonation rolls around again.

This summer I gave the first Nature Reach summer day camp held at the Natural History Reserve. We have five 5<sup>th</sup> graders who exceeded my expectations in every way. We all had a fabulous time and I am already looking forward to next summer. Thanks again to the Sperry-Galligar Audubon Society for their contribution to the summer day camp. I am also looking forward to the summer of 2010 as Dr. Cindy Ford and I will again be leading a group to Sapelo Island, GA. This is a fantastic and very reasonably priced trip. If you are interested in learning more about Barrier Island Ecology we still have a few spots open. Call or email for more information.

I am continuing to teach two lecture classes of Environmental Life Science to the non-majors each semester, as well as a Freshmen Experience course in the fall. Teaching in a formal classroom at PSU as well as in non-formal programs all over Southeast Kansas keeps me on my toes, but keeps also keeps life quite interesting. I have a good crop of animal caretakers this year who are showing some excellent potential in the field of natural history interpretation. I appreciate their help very much as it allows me to continue to expand the program.



If you are in the area and would like to see the many changes to the Nature Reach Program please feel free to drop by or give me a call. Check out our website for a list of our programs, our brochures, and photos of programs.

Delia Lister (naturereach@pittstate.edu)



## From Dr. Mandy Peak



Hello, Gorilla alumni and friends! I am a new assistant professor in the Biology department and I am delighted to return to PSU. I graduated from Pitt with a Bachelor's degree in Biology, and then attended graduate school at the University of Oklahoma. I worked with a wonderful mentor and studied the molecular interactions involved in V(D)J recombination. After I finished my PhD dissertation in biochemistry, I traveled to the University of California San Diego for my post-doctoral training. At UCSD, I continued my research and publications by working on B-cell development (white blood cells).

Currently, I am teaching Genetics and the Genetics Labs during the fall and spring semesters. In addition, I will teach Principles of Biology I this spring. I am eager to begin research with undergraduate students. Several enthusiastic pre-med students are interested and will start research projects next year. I intend to utilize microscopy and biochemical techniques to visualize and investigate protein and DNA interactions during the development of the immune system.

Dr. Mandy Peak (mpeak@pittstate.edu)

## From Dr. Virginia Rider



Greetings to former students and other friends of the Biology Department. Once again this year, the Biology Department has been filled with hard working, successful students. The students who

have entered professional schools in 2009 include: Ashley Davis, University of Oklahoma, Master's program, genetic counseling; JayeBea Downs, OSU, Master's Program; Clint Dunkle, Virginia Tech School of Osteopathic Medicine; Erin Floyd, KCUMB, Master's Program, Medical Ethics; Stephanie Graham, UMKC School of Dental Medicine; Elise Johannesen, University of Oklahoma School of Medicine; Vanessa Lee, University of Missouri School of Medicine; Michelle McCoullough, University of Kansas School of Pharmacy; Carrie McDowell, University of Missouri School of Optometry; Erica Ogle, Rocky Mountain Vista College of Osteopathic Medicine; Kylie Quick, Kansas University School of Medicine; Heidi Smith, University of Kansas School of Medicine; Scott Stringer, UMKC

School of Dentistry; Emily Walters, University of Rochester, School of Medicine; Titus Weller, University of Kansas School of Medicine, John-Michael Watson, University of Kansas School of Medicine; Jered Windorski, University of Kansas, School of Medicine; Nathan Woodward, UMKC School of Dentistry. Congratulations to all of you! If I have inadvertently left someone out please let me know as we always enjoy hearing about your successes.

Julie Ward and Guannan Xiao have joined my laboratory as graduate students this fall semester. Although it is too soon to know the exact nature of their projects, both Julie and Guannan want to work on lupus. The National Institutes of Health renewed my lupus grant for another three years and we hope to continue contribute new information about the role of estrogen in lupus. We have enjoyed interacting with other scientists in Kansas through the Kansas Idea Network of Biomedical Research Excellence (K-INBRE). The K-INBRE is an award from the National Institutes of Health to improve biomedical research at all of the universities in Kansas. Emily Walters, an

undergraduate student in the laboratory, participated in a research project that utilized the K-INBRE bioinformatics core at KU School of Medicine. That research identified signaling pathways in lupus T cells that are altered by estrogen and resulted in an excellent publication (Walters et al. *Clinical Immunology*, 133: 428-436, 2009).

Two students, Melissa Rousch and Cassie Shaw, have been accepted early decision to KU. Congratulations to these two, we are very proud of them. Many other students, who have applied regular decision to a variety of medical schools, including KU, are just beginning the interview process. I am very grateful to Dr. Odgers who always comes and puts the students through their

## About K-INBRE

This has been a great year for K-INBRE on the PSU campus. First, we were given the news that the grant has renewed for another five years! K-INBRE provides research support for faculty and students on our campus that would not otherwise be available. Second, the Biology Department has been successful in hiring two new faculty, Phil Harries and Mandy Peak. Both Drs. Harries and Peak obtained start up packages from K-INBRE that will be essential for establishing their independent research programs. Irene Zegar, whose appointment is in Chemistry, also obtained a start up package from K-INBRE to help her develop an independent research program.

The participation of these professors in K-INBRE will greatly enhance the number and the diversity of projects for undergraduate student research. The major focus on our campus continues to be support of undergraduate research. The K-INBRE website lists all of the scholars supported by K-INBRE and where they are now. We have supported 27 undergraduate scholars, three graduate students through the teleconferencing

paces in preparation for their interviews. Dr. Sandness and her colleagues remain strong supporters of our students at the Free Clinic. Dr. Garner's program called Premeds with Promise is in full swing and provides our students with additional opportunities to gain experience in a medical setting. The number of speakers in the Premedical Orientation classes remains high and we continue to enroll between 80 and 100 students every fall semester. Please stop in and see me if you find yourself in the Pittsburg Area. It is always a pleasure to see former students and catch up on your news. I send you the best wishes for continued success and happiness.

Dr. Virginia Rider (vrider@pittstate.edu)

network and three graduate students have participated in K-INBRE student conferences. In addition, we have supported two Star Trainees. We are currently supporting six undergraduate scholars: Alissa Becknell (Chung), Caleb Burrows (Rider), Afrita Davis (Rider), Dustin Graham (Rider), Emma Hayes (Zurek), and Haley Ruther (Wu).

Last January a group of undergraduate students presented their research at the seventh annual K-INBRE Symposium. The meeting was held at the Clarion Hotel in Manhattan, Kansas from January 17-18, 2009. Attendees to the research symposium included Drs. Chung, Rider and Wu along with ten undergraduate students: Becca Bryon, Caleb Burrows, Rhonda Egidy, Dustin Graham, Emma Hayes, Elise Johannesen, Haley Lawrence, Carrie McDowell, Kylie Quick and Nathan Woodward. We look forward to attending the eighth annual research symposium at the Intercontinental Hotel in Kansas City, January 16-17, 2010. - Dr. Virginia Rider



## From Dr. Neil Schmidt



I am very pleased to have been a member of the Biology Department at Pittsburg State University for going on five years. I have been keeping myself busy (and my students busy) with the Anatomy and Physiology lecture and lab courses this semester. Dr Chung and I are also teaching an upper division Immunology course. Our hope is that our combined knowledge, education, and experience will serve to enrich the educational experiences of the students

My connection to clinical work has been re-established as I assumed the role of Pharmacist-in-Charge at the free clinic over a year ago. Many pre-med students rotate through this clinic as part of their educational experience.

My wife, Tammy, and I now live in the country near Columbus, Kansas with our two children. Ben is now 3 years old and attends the Little Gorillas Preschool at the University. Olivia is now a little over 1 year old and both keep us very busy. I am excited and am enjoying working with the students and faculty of PSU and appreciate all the support that I have received so far.

Dr. Neil Schmidt (nschmidt@pittstate.edu)

## From Dr. Dixie L. Smith



Greetings – It is great to think of this letter reaching some old friends and contacts not seen for a while.

I'm not sure when our last newsletter came out,

but in the past three years we have graduated twenty new high school science teachers with BSED degrees, and more than thirty have completed secondary or alternative licensure programs through our department. More than 85% of them are teaching, and although it would be great to increase those numbers, I think we can be proud of our contribution. There have been a few changes in the BSED program since our last letter, but nothing too dramatic. The biggest change is that since fall semester 2005, all students preparing to teach high school biology have to pass a biology content exam. This exam is in addition to the PLT (pedagogy) exam that has always been in place. This isn't exactly news because we had known for some time that a

content exam was coming. Now that it is in place, we have three years of data and most of our biology majors can pass it the first time. While the chemistry and physics exams are extremely difficult and are major roadblocks for new teachers, the biology exam is manageable and has probably not prohibited our PSU majors from entering their teaching careers.

Another change that we've seen in recent years has to do with extended licensure. Kansas teachers licensed to teach in one content area can obtain licensure in any other content area if he/she can pass the content exam for that subject. This is actually quite a big change because before there was a list of coursework required before one could obtain a secondary licensure. The new rules potentially allow teachers to move more easily into other content areas that might be needed by their school /district. Practically though, it is difficult and unlikely that very many teachers will be able to pass the science and math content exams without coursework, so at least for those of

us in the sciences, the new rules may make little difference.

I continue to work with the Masters of Arts in Teaching (MAT) program for alternative licensure here at PSU. Each fall there is a group of new teachers, primarily in the Kansas City area, that have undergraduate and sometimes graduate degrees in Biology, but lack the BSED degree. These teachers enroll in the MAT program and obtain intensive on-the-job training at the PSU Metro Center for two years. If they complete the program, they graduate with the MAT degree and a promotion in their school systems. I have been proud of the teachers utilizing this program in the northeast part of our state, and I think that the students are fortunate to have these experienced, motivated, and well-rounded science teachers in their schools. The program is available in other parts of the state, but has not been used as much as in Kansas City.

During the past academic year our department, in collaboration with the College of Education, obtained a grant funded by the No Child Left Behind and the Kansas Board of Regents. No Child Left Behind funding has so far been targeted (at least in the science area) at moving Middle School Science Teachers into the “highly qualified” bracket. To do this, they need coursework and now, they also have to pass the science content exam. We had a successful first year, with 14 teachers completing the four courses we proposed in the grant. At this time, the second cohort of 15 teachers is completing their second course. They will be in our department again next summer for the final two courses. This grant is a great opportunity for the teachers, with nearly all expenses paid by the grant. And those of us collaborating on the grant are enjoying the teachers, as well as the additional summer employment.

General Biology is also a big part of my day! This course is still targeted for Nursing and Physical Education Majors, and in the past several years for

entering Biology Majors, as well. We have three lecture sections this fall, along with six laboratory sections. Yes, it keeps several of us very busy. I will be taking General Biology to Paraguay next summer, 2010. ELS has been taken there in recent years, but I think this is the first time for General Biology. Students in this international program have the opportunity to take a number of general education courses taught by our PSU faculty without leaving their country. The program enables them to transfer their courses easily to Kansas universities when they are ready to take upper level coursework.

I am also offering a new topics course this fall in which students developing their ecology projects can map their sites and create a Geographic Information System (GIS) of their data and project. We are using a Trimble mapping computer and ArcView software for the GIS projects. Planning and executing this project prepares our field students for an important facet of modern ecological and environmental work. It is really a pleasure to be able to interact with both graduate and undergraduate ecology students and discuss their projects – I hope they enjoy it as much as I do.

It’s always good to hear from friends and colleagues so drop me an email if you have the chance. In fact, I just this week started a new “social networking site” for our science teacher’s group. It’s like a Facebook page, but it is “Ning.com” instead. This site is recommended as more exclusive and protected than Facebook. It will be “by invitation only”, but anyone that has passed through our program will be invited to join this brand new site. I will be sending out invitations to our newest teachers first, but intend to send invitations to a few new people each week until I get through my list of viable email addresses. So, if you see this letter and want to be invited, send me a note and I’ll get you on my list ASAP.

Dr. Dixie Smith (dsmith@pittstate.edu)

## From Dr. Jim Triplett



In June of 2008, I retired after 23 years as Department Chair and went back as a full-time faculty member. I wanted to have my summers off to travel and do

research. Dr. Jim Dawson took over the reins and has done a great job since.

At the time I moved back into the faculty, Dr. Drew and I were in Paraguay teaching in the Paraguay Partners program. She taught Speech Communication on Tuesday and Thursday, while I taught Environmental Life Science on Monday, Wednesday and Friday. We were there for seven weeks and got to know the country and people fairly well. It was a great experience, and we are going back this coming spring semester. She will teach again, and I will be working on a project related to their recycling program.

Water programs are still a very important part of my service work. In addition to serving as the Chair of the Neosho Basin Advisory Committee and Vice-chair of the Council of Basin Chairs, I am on the Board of Directors of the Grand Lake O'Cherokees Watershed Alliance Foundation, the Four State Collaborative, the Lower Shoal Creek Watershed Partnership and the Spring River Watershed Restoration and Protection project. The majority of this work is in the Grand River drainage basin, which covers over 10,000 square miles in four states and 2 EPA regions. The jurisdictional issues totally confound the already complicated and demanding challenges in this watershed.

My other service activity still involves sustainable activities and resource conservation, especially recycling and composting. I serve on the University Committee for Energy and Resource Conservation, the Governor's Solid Waste Grants Advisory Committee, and I chair the Crawford County Solid Waste Advisory Committee and the Board of Directors of Southeast Kansas Recycling, Incorporated. SEKRI has received grants from the State to develop a regional pilot E-Waste collection program and Household Hazardous Waste Program. In addition we had to remediate the property we acquired for these projects as they were part of a fertilizer plant.

Although I have been very active in recent years in the area of environmental communication and stakeholder processes, part of me will always be drawn to working with fish. Dr. Smith and I are in our 5<sup>th</sup> sampling year on the "Impact of Bendway Weirs on Neosho Madtom Populations in the Neosho River"; the last two of which were very challenging due to high water. This semester I am teaching the aquaculture course. Thanks to Randy Nelson and Dan Mosier at Farlington Hatchery, we have about 700 hybrid sunfish to torment. Due to the difficulty of setting a fixed time for the course, we are using a mixed mode of internet and hands on activity. We got the fish, and I told the four students to split them up between two round cages in the pit at the Research Reserve and the two tanks in the recirculating system in the basement of Heckert-Wells. So I said; "Here are the manuals for fish culture and the recirculating system. Figure out what you need to know in order to keep them alive and growing." It gives a whole new meaning to reading. Regards.

Dr. Jim Triplett (jtriplett@pittstate.edu)

## From Dr. Dan Zurek



Hello again after a long hiatus! Last year was incredibly busy but incredibly productive. I had the pleasure to lead search committees for two positions:

one for a Molecular Biologist and one for a Geneticist. The Genetics spot was to fill the position Nancy Brooker left to go to Belgium to work for Bayer, incidentally tripling her salary. We were lucky to hire two excellent folks: Phil Harries came to us from the Noble Research Foundation at Ardmore, and Mandy Peak from the University of California-San Diego. Welcome to both! Some of you who graduated in a certain time frame know Mandy from a long time ago when she was an undergraduate at PSU. I am thrilled to have her back here, relieving me from covering the 8 AM Genetics class: those of you who know me are well aware of what a morning person I am.

I also had the excellent experience of leading a second group of PSU students to Peru for medical volunteering: there is an article with photos elsewhere in this newsletter with details. This was a fabulous trip: our students got to go places and experience things that they would never have seen any other way, and help a group of people who might not otherwise ever obtain medical help. We had considerable assistance in the form of donations from much of the Pittsburg health care community, which enabled us to be much more effective in providing real help: thank you, thank you, thank you! The group is in the midst of planning another trip, this time to Belize, for two weeks in the summer.

We have also had some changes at the personal level in the department: Dr. Wu and her husband very recently welcomed a new addition to their family, a beautiful baby girl named Olivia—congratulations! And much to everybody's

surprise, I also have recently become a father: my wife Emily and I welcomed Hadrian David Zurek into our world last January. I am told that I look a lot more tired than I used to, but a lot happier as well. I think that is right on both counts.

Our students, as always, continue to succeed in all they do. Grant DePoy was accepted by Des Moines University for medical school, and Katie Merando to Kirksville. Ashley Davis is off to Oklahoma to obtain a degree in genetic counseling, and reports being happy with their program. Chad Stewart is at KU Med in his first year in the Scholars in Rural Care program. Clint Dunkle is in Virginia obtaining his medical degree as well after many, many years at PSU: I personally am very grateful for the excellent job he did covering the Genetics labs last year, because I don't think I could have done it without him. Rhonda Egidy finally escaped my lab and is working at Oak Ridge National Laboratories in Tennessee. Rhonda and Emma Hayes both were sponsored by the National Science Foundation to present their research with me at the IPG meeting in Columbia, Missouri last spring. Nathan Woodward also succeeded in escaping, and is off in Kansas City pursuing a dental degree.

Tammy McEwen, my former MS student, is making great progress in her Ph.D. at Mizzou as well, and I am hoping one day to lure her back as a colleague at Pitt. Sunny Yahng is pursuing her PhD there as well. Tingwei Guo came back to PSU to obtain her MS in my lab: welcome back! Mark Birmingham and his growing family have traded the rush hour traffic of Denver for the rush hour traffic of Chicago, where he is practicing podiatry. Caleb White is now the proud owner of a chiropractic business in Colorado as well as being a proud father. Charlene Lava and Beth (Porter) Pitts are practicing medicine up in KC, while Danielle Leivian is practicing in Columbia. I have shamelessly exploited the knowledge of all three with pediatric questions: good to know who the smart doctors are, a perk of my job!

Brittany Streiff is a proud cat parent who is doing an excellent job of handling the very rough second year of veterinary school in Manhattan, Kansas' Little Apple, and Greg Peterson has decided to go for his PhD out there in veterinary pathology, in which I wish him the greatest of good luck. Craig Cassidy is making progress in his plan of ruling the world as the Executive Director of H-LSAMP minority access program at the University of Houston. Alia Kassimova is finishing up her undergraduate work at the University of

Minnesota: I am grateful for the chance to get to know her for the year that she was here. There are many more folks I have omitted here, sorry, but as usual I am working here somewhat past a final deadline and need to get this submitted before Dr. Arruda comes looking for me. To all, please keep in touch and let me know how you are doing, and don't be strangers if you find yourselves back in the Burg!

Dr. Dan Zurek (dzyrek@pittstate.edu)

## Peruvian Journeys

The Pre-med Club made a health-care trip to Peru in 2008, with 20 students, 2 faculty, and 3 documentarians from KU seeing approximately 800 patients in two weeks. In summer 2009, the group was off to Peru again, for volunteer medical work in the Valle Sagrado region and in communities along the Camino Inca (Incan Trail). The group included Megan Carlson, Zach Krumsick, Brian Holt, Matt Jacquinet, Emily Walters, and Daniel Zurek, along with Vicki Webber, Physician Assistant at the PSU Student Health Center. They visited the critically medically underserved communities of Meskey, Chamana, Ollantetambo, and Pancarhuallia, and with the help of Peruvian health care professionals, rendered medical treatment to some 500 people over the course of two weeks. Utilizing supplies generously donated by many local Pittsburg health care providers they performed and assisted with regular and well-woman exams, dental exams and treatments, laboratory analysis for anemia and parasites, and general medical care. - Dr. Dan Zurek



Toothbrushes and toothpaste were a hit with the kids and their parents wherever we went. Thank you Pittsburg donors!



Health campaign explaining the importance of hygiene and well-woman checkups to the entire community of Pancarhuallya. They asked great questions about cancer, vaccinations for their kids, the new flu circulating around the world, and many other issues. We were happy to be able to provide some answers.



Brian Holt manning the pharmacy in Meskey with donated medicine from the Pittsburg community. [source: Dr. Dan Zurek]

## Web Links to PSU News and PittState Stories Involving Biology Faculty, Students, and Alumni

Go to the PSU website to find these archived stories involving Biology Faculty, Staff, and Students

Dr. Chris Jacquinot: <http://www.pittstate.edu/stories/detail.dot?id=61061>

Dr. Roy A. Jensen: <http://www.pittstate.edu/stories/detail.dot?id=2402>

Venessa Lee: <http://www.pittstate.edu/stories/detail.dot?id=12401>

NatureReach: <http://www.pittstate.edu/press-media/detail.dot?id=10859>

Dr. Virginia Rider: <http://www.pittstate.edu/stories/detail.dot?id=25657>

Melissa Roush: <http://www.pittstate.edu/press-media/detail.dot?id=192278>

Laura Sullivan: <http://www.pittstate.edu/stories/detail.dot?id=71768>

John-Michael Watson: <http://www.pittstate.edu/stories/detail.dot?id=71817>

### *Let us hear from you!*

The Department of Biology at PSU is always interested in what our alumni are doing. Please take a few minutes and e-mail Kelly Borden at [biology@pittstate.edu](mailto:biology@pittstate.edu). Include your graduation date, current employment and any special memories you have about the Biology program while you were a student. Or complete the form below and return to Kelly Borden, Department of Biology, Pittsburg State University, 1705 S. Broadway, Pittsburg, KS 66762-7552.

*Please print:*

name \_\_\_\_\_

year graduated \_\_\_\_\_

current job title \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_

e-mail \_\_\_\_\_

News: (What are you doing now?) *attach a separate sheet if necessary*

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## **PSU Faculty and Staff (2009-2010)**

Joseph A. Arruda, Professor of Biology. [Ph.D., Kansas State University]

Specialties: limnology, water quality and biological monitoring and assessment, land snails

Peter Chung, Assistant Professor of Microbiology. [Ph.D., Kansas State University]

Specialties: microbiology, microbiology, molecular biology (nucleic acid manipulation and protein expression systems in microbes and coccidia), tissue culture

James T. Dawson, Professor of Botany, Chairperson. [Ph.D., University of Kentucky]

Specialties: algology, plant physiology, medical mycology

Cynthia S. Ford, Professor of Biology. [Ph.D., Kansas State University]

Specialties: natural history, parasitology, environmental education, biological illustration

Steven D. Ford, Professor of Zoology. [Ph.D., Purdue University]

Specialties: vertebrate zoology, mammalogy, ornithology, ecology, wildlife management, anatomy

David Gordon, Associate Professor of Biology. [Ph.D., University of California at Davis]

Specialties: entomology, ecology

Phillip Harries, Assistant Professor of Biology. [Ph.D. Washington University]

Specialties: plant viruses, cellular and molecular biology of plants

Mandy Peak, Assistant Professor of Biology. [Ph.D., Oklahoma Health Sciences Center]

Specialties: molecular and cellular biology, biochemistry

Virginia Rider, Professor of Zoology. [Ph.D., Arizona State University]

Specialties: gene regulation, reproductive physiology, implantation, mammalian oocyte maturation

Neal Schmidt, Instructor. [D. Pharmacy, University of Colorado Health Sciences Center]

Specialties: anatomy and physiology

Dixie L. Smith, Associate Professor of Biology. [Ph.D., Kansas State University]

Specialties: soil ecology, grassland ecology, woodland expansion, science education

Stephen L. Timme, Professor of Botany, Director, T. M. Sperry Herbarium. [Ph.D., Mississippi State University]

Specialties: bryology, biosystematics, tropical biology

James R. Triplett, Professor of Zoology. [Ph.D., University of Kansas]

Specialties: ichthyology, limnology, fisheries management, aquaculture;

Xiaolu Wu, Assistant Professor of Biology. [Ph.D., University of Illinois at Chicago]

Specialties: cell and molecular biology, virology

Daniel Zurek, Associate Professor of Biology. [Ph.D., University of California - San Diego]

Specialties: cellular and molecular biology, biotechnology, and plant molecular physiology.

## **Staff**

Kelly Borden, Administrative Specialist

Donna Lair, Storekeeper

Delia Lister, Director, Nature Reach