



# **2012** The Graduate School **ANNUAL REPORT**

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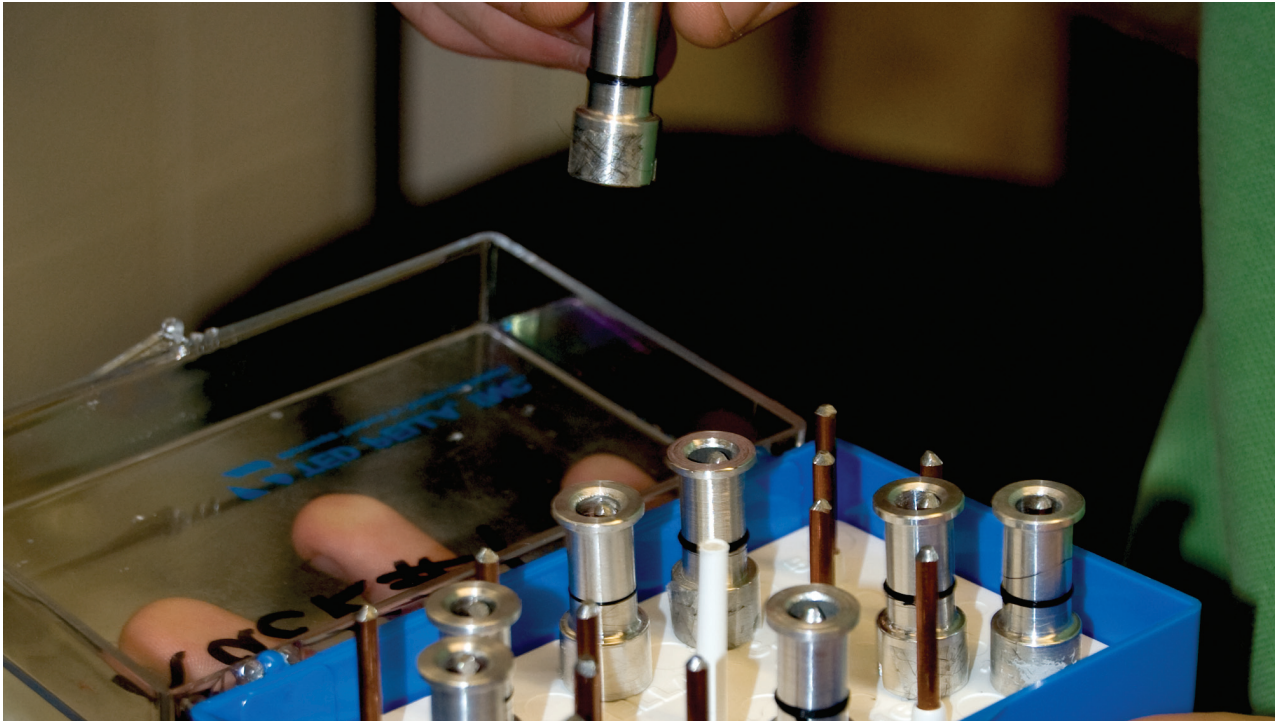
Ruth Williams, Fulbright Scholar  
English & Comparative Literature, PhD

*Story on page 16*



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## Nanotechnology Takes Flight

Materials science engineering student Adam Hehr explores ways to monitor structural integrity from the inside — with carbon nanotube sensors.

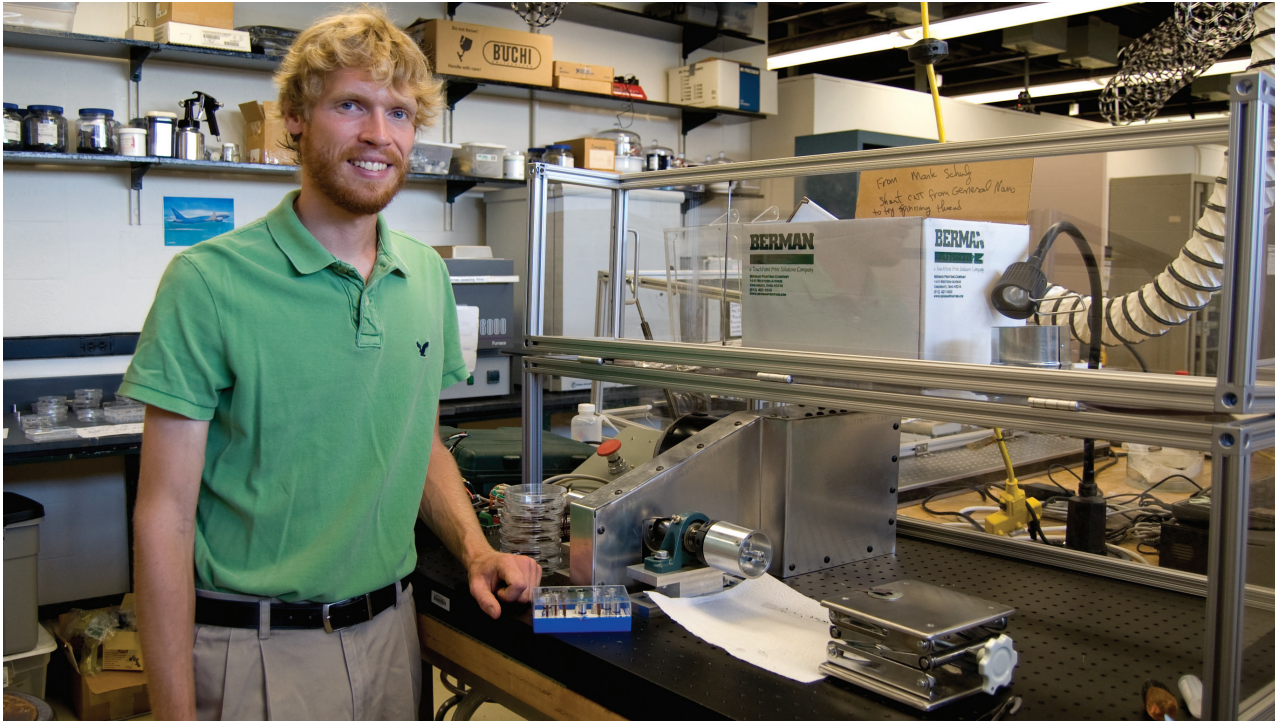
Master's student Adam Hehr studies structural health. A "healthy" structure is one without damage or change to its original strength and form. For his current research project, Adam has set his sights high: monitoring an airplane's composite materials while it flies above the clouds.

Composite materials — in this case, plastics reinforced with carbon fibers — offer a lighter alternative to the heavy materials traditionally used to build airplanes. "Composite materials are really great because they're lightweight, strong and stiff," says Adam. Airlines, private plane owners and the military all want lighter aircraft, as they use less fuel. However, composite materials have their downside: "A lot of commercial aircraft haven't utilized them because it's really hard to detect when a composite material's going to fail."

With aircraft made from traditional materials, such as aluminum, mechanics can easily spot structural damage.

"If something hits the plane, like a bird (which happens frequently), it's very easy to identify that, because you'll have dents in the plane," Adam explains. "Whereas if a composite material gets struck by something, the material will rebound, and the impact will not be very noticeable." Even when composite materials rebound to the point where there is no visible *surface* damage, there may still be serious damage *under* the surface. The composite materials used in aircraft are composed of many layers glued together. When this material rebounds after an impact or some other stress, some of these layers will separate. "That's called delamination," Adam explains. "And that's one of the biggest unseen failure modes in composite materials."

Currently, airline mechanics use ultrasound to test the structural integrity of the composite. However, this is a lengthy process that requires the plane to be taken out of service, and it yields imprecise data regarding any damage



found. “It’s very difficult for them to say how bad the crack is and how it is influencing the structural integrity.” Adam’s solution: imbed carbon nanotube sensors *within* the material.

“What I’m doing is using the carbon nanotube thread as a sensor. The thread is very small, smaller than a human hair,” he explains. “Since it’s so small, you can integrate it into the composite material in the aircraft. And then you can see if there’s damage in the aircraft without taking it out of service. The sensors will measure the stress-strain levels on the plane, and they’ll let the pilot know if there’s a problem. If a certain strain level is exceeded on the plane, it would indicate an impact or unusual fatigue or wear. And it could tell the pilot: There’s a problem, you should land. Or it could tell the pilot: There’s a problem, but the plane is still structurally stable, so we can continue with the flight.”

Adam is currently designing a sensor that is sensitive, stable and consistent enough for the aerospace industry’s needs. He conducts his research in the College of Engineering and Applied Science’s Nanoworld Laboratory under Dr. Mark Schulz. A three-year fellowship from the National Science Foundation’s Graduate Research Fellows Program allows him to focus on his research, which has potential to revolutionize the automotive, as well as the aerospace, industry.

“Eventually we’ll start to see more composites in cars and trucks,” Adam says. “It’s already started to happen somewhat with replacing a lot of metal with plastics and polymers. But some of the main critical components are still steel, which are very heavy. Eventually, some of these critical components will be replaced by composite materials. This nanotechnology would be applicable to that usage as well, because the sensors could that feed into vehicle’s main computer. When you get your annual tune-up, maintenance personnel could see the structural integrity of your chassis or your tire rods.” In short, mechanics could find a problem before the component breaks.

Two commercial planes already use composite materials: the Boeing 787 and the Airbus A350. If Adam’s sensors are adopted by the aerospace industry, we’ll see many more planes with composite materials. Yet don’t expect to see this tech in cars anytime soon. “Automotive manufacturers want something that’s extremely reliable,” says Adam. “If the material gets proven in some of these new planes that they’re kicking out, I think automotive manufacturers will adopt it.” Nonetheless, once this nanotechnology is integrated into car manufacturing, you’ll have Adam Hehr to thank for higher gas mileage and fewer breakdowns.

# Excellence in Teaching Award

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Julie Weast-Knapp

Psychology, PhD

Julie Weast-Knapp helps her fellow TAs become better teachers. During the 2011-12 academic year, Julie collaborated with her friends on a student-led workshop series for UC teaching assistants: “Lori Gresham and I had for years been talking about the problems we had with preparing to teach, and we got to the point where we said, there’s probably other people that have these exact same feelings.”

As Julie explained, teaching assistants (TAs) often have a lot of questions. Some are technical, such as how to set up a Blackboard course or place a textbook order with the bookstore. Others are more difficult, such as how to proceed when they suspect a student has committed plagiarism or how to recover from making a mistake in front of a class. However, TAs are not always sure who to turn to with these questions. While a department head or other faculty member may seem like the logical choice, graduate students may not feel comfortable exposing their lack of knowledge or their perceived “failings” to their professors.

“We thought that since nobody was meeting this need, we could at least create this safe zone,” says Julie. “We made this place where graduate students could talk about issues and ask questions.”

These student-led workshops were so popular that each session filled up within a day or two. By summer 2012, the workshop series had evolved into the student-



## 2012 Honorable Mentions for the Excellence in Teaching Award

Aniruddha Despandi  
Communication Sciences and Disorders, PhD

Zipporah Inniss-Richter  
Health Promotion and Education, PhD

Matteo Magarotto  
Composition, Musicology, and Theory, PhD

Balaji Sharma  
Mechanical Engineering, PhD

Katherine Swinford  
Classics, PhD

Diana Taft  
Epidemiology (Department of Environmental Health), PhD

Michael Urick  
Business Management, PhD

run Graduate Association for Teaching Enhancement, which aims to improve the skills, preparedness and professional development (as it relates to teaching) of all UC graduate students.

Julie has five rich years of experience to offer her fellow TAs and undergraduate students. She now teaches a two-course series as an independent instructor — an unusual feat for a TA. “I taught the laboratory portion of Psych 201 and 202 for a while,” Julie explains, “so my department head Steve Howe asked me to teach the lecture portion, which is normally only taught by faculty. I’m very lucky that he asked me to do that. I’ve taught the 201/202 series twice now.”

While relatively new to teaching independently, Julie consistently receives high ratings on her end-of-the-term student evaluations. This is due, in a large part, to her enthusiasm in the classroom and her rapport with students. As one of her students noted, “[Julie] is so enthusiastic about teaching the students. She is helpful and understanding when students, like myself, ask lots of questions. She provides useful information and helps any student whenever he/she need it.” Another student remarked, “Julie has an amazing knack for teaching, especially at the college level. [She] remembers what it’s like to be ‘busy’ in college and plans her class

accordingly. She has a really flexible schedule and is willing to meet with students who are struggling, or just to say hey!”

Julie’s passion for teaching is clear to anyone who talks with her, so it is no surprise that she plans to make teaching her career. “I’d love to work at a teaching school,” she says. “There are a few universities trying to spin psychology as being a STEM [science, technology, engineering and mathematics] science, and Miami University’s one of them. In early 2011, I did a mentorship there. The psychology department was redesigning their 201/202 series equivalent and making it more like a science class, with a lecture portion and a hands-on laboratory portion. They’re one of the best teaching universities in the United States. It would be cool to get a job where there’s that kind of momentum to improve what psychology students graduate with.”

For Julie, the impetus to teach stems not from a need for awards and accolades, but from a sincere desire to see students succeed academically and professionally. “I have had a few students that I started teaching when they were sophomores who stayed in touch,” Julie says. “I’ve seen them all the way through until they graduated. And that’s really neat to see, this evolving that these people do. It’s cool to see them grow.”



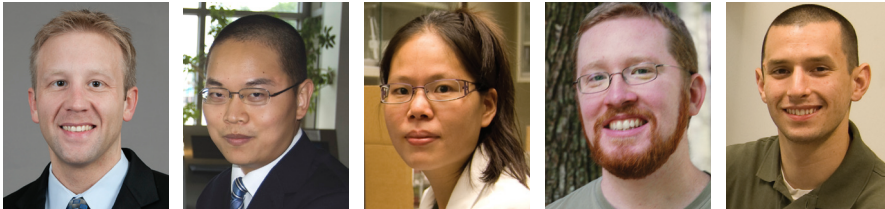
## Distinguished Dissertation Completion Fellows

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Dissertation completion fellowships support outstanding students during the last stage of their research. Finding a means of support can be difficult for doctoral students who are close to finishing their dissertations, especially during tough economic times.

The Graduate School recently established the Distinguished Dissertation Completion Fellowship to make their search for funding a little easier. The fellowship provides students with \$20,000 and a full tuition scholarship to help them complete their dissertations by the end of the 2012-2013 academic year.





# Adam Knowlden

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Health Promotion and Education, PhD

College of Education, Criminal Justice, and Human Services



It's said that mother knows best. When it comes to healthy eating, Adam Knowlden is doing his best to make sure mom has good information. As a doctoral student in the Program of Health Promotion and Education, Adam decided that in order to do something about childhood obesity, he had to go straight to its source. "I firmly believe that if we really want to get a grip on the obesity epidemic, we have to start at the beginning: the family and home environment in early childhood," Adam explained.

Childhood obesity is a rapidly growing problem. In the past 30 years, obesity in children ages two to five has doubled, and in the same time period, the prevalence has tripled in children ages six to eleven. These figures alone are cause enough for alarm for Adam and anyone who works with children.

Yet, as Adam points out, *everyone* has a stake in reversing this trend. If childhood obesity prevalence continues to grow at an exponential rate, the U.S. will soon see the adult obesity rate skyrocket. This would mean higher health-care costs for individuals, employers and the government.

To combat childhood obesity at its source, Adam is developing a web-based program for mothers of young children. "Parents are busy. They need a health education program that is convenient and doesn't take a lot of time."

Adam's program will educate mothers on how to feed their children healthier food. "My main goal is to empower mothers to improve the health of their children. My program will be designed to give them the tools they need to succeed."

# Tao Ma

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Physics, PhD

McMicken College of Arts and Sciences



In the university system, physics, economics and psychology are treated as unrelated fields. But Tao Ma has found networks in each field with similarly operating structures.

Tao, a doctoral student in physics, conducts interdisciplinary research with economics and psychology in addition to his research focusing purely on physics. "I am very excited about the scientific impact of my ongoing and upcoming doctoral work on these three projects," he says. "I believe my work will contribute to new paradigms in all three areas."

Tao's purely physics research deals with quantum chaos. General Relativity describes physics on a large scale, and Quantum Mechanics describes physics on a microscopic scale, but these two bedrocks of physics don't agree about what happens at the scale of  $10^{-7}$  of a meter. The size seems small — it's the largest particle able to pass through a surgical mask — but the impact of research on how to bridge this gap is not.

Tao's interdisciplinary research involves analyzing systems. His research in "econophysics" focuses on personal wealth distribution, while his work in psychology deals with predicting the distribution of response times to a stimulus. Although these two projects sound as though they have nothing in common, Tao is able to see connections: "We think of the brain like a network," he explained. "We hypothesize that the 'brain network' and the network of economic systems may be similar."

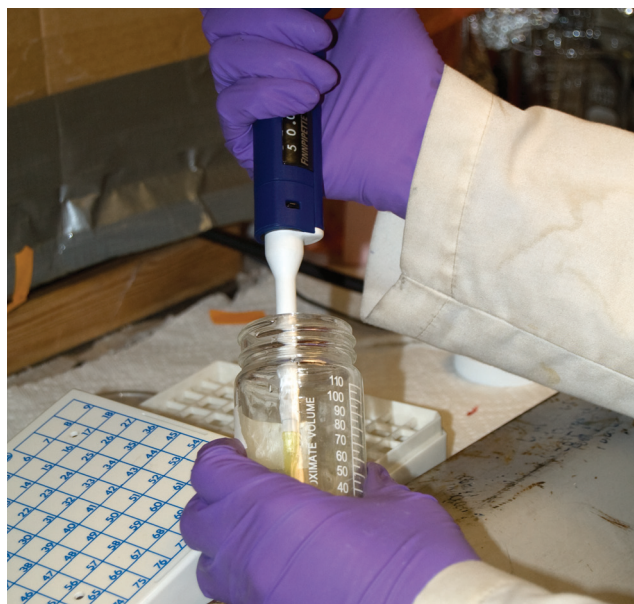
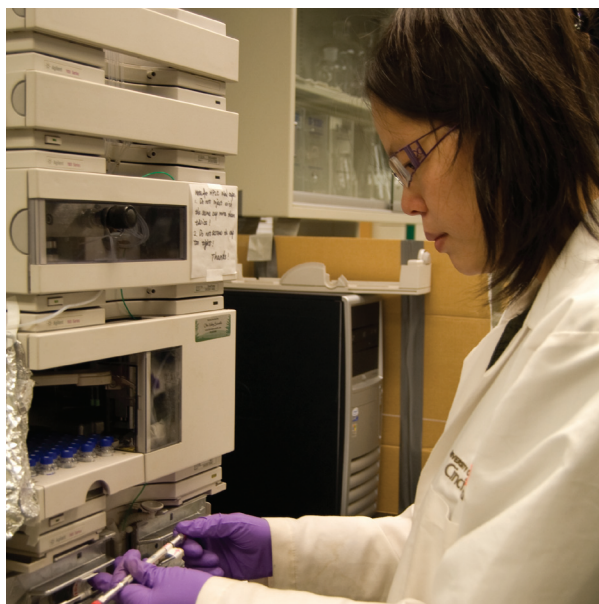
As a physics student, Tao brings a radical viewpoint to the network problems of economics and psychology. And, in time, Tao might find that his venture into economics and psychology has given him insight into the problems of quantum chaos.

# Xuexiang He

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Environmental Engineering and Science, PhD

College of Engineering and Applied Science



To survive, people must have access to clean drinking water. Yet more and more people across the world have to deal with contaminated water. Xuexiang He, a doctoral student in environmental engineering, wants to change this.

“My dissertation project involves the removal of emerging contaminants from drinking water,” she writes, explaining that she particularly hopes to target substances including antibiotics, pharmaceutical drugs and cyanobacterial toxins. To do this, she is investigating the use of advanced oxidation processes, or chemical treatments designed to break down these harmful contaminants.

An international student from China, Xuexiang was drawn to this issue in part by the increasing presence of antibiotics in the environment. “Their existence even at the trace amount,” she writes, “has a huge influence on the environment and ecosystem.” She was also concerned about recent cyanobacterial blooms, or large concentrations of blue-green

bacteria, which can release toxins dangerous to animals and humans into the water supply.

Not surprisingly, Xuexiang’s research has been met with great enthusiasm. Along with presenting at national and international conferences, she was awarded one of the American Chemical Society’s highest student honors, the Graduate Student Research Paper Award for the Division of Environmental Chemistry. But Xuexiang has even larger goals for her work: She hopes to find a purification technique that’s both sustainable and that gives us “safe drinking water quality for our generation and future generations.”

# Andrew Grace

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English & Comparative Literature, PhD

McMicken College of Arts and Sciences



Andrew Grace, a student in the Department of English & Comparative Literature, is taking a new angle on an established tradition. A poet, Andrew considers the pastoral — a kind of poetry that centers on rural life — among his major influences. Yet while pastorals have a long history of idealizing the countryside, Andrew is writing an “anti-pastoral”: a book-length poem called *Pin It on a Drifter* that looks at rural life in a more realistic way.

Also unusual is that one of the poem’s main speakers is a woman. Andrew writes, “It is mostly male figures in rural writing that are the active, authoritative characters.” He hopes that his dissertation, which explores the experiences

of a single mother, her young son and a drifter as their lives collide on an early 20<sup>th</sup>-century farm, will help to bring these women’s experiences into greater focus.

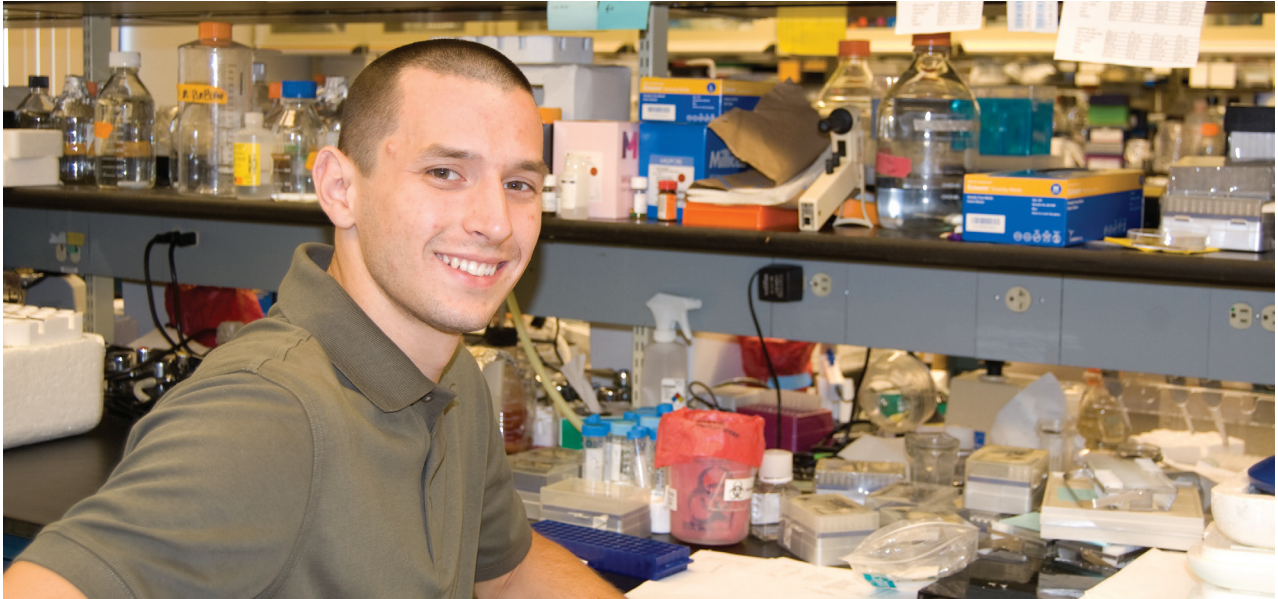
Andrew is no stranger to rural life—he spent his childhood on a farm in Illinois. He’s also well acquainted with success: He currently has three published books of poetry, and has won numerous national awards. If Andrew’s past achievements are any indication, *Pin it on a Drifter* will soon end up on a bookshelf near you.

## David Balli

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Molecular and Developmental Biology, PhD

College of Medicine



David Balli entered UC's Molecular and Developmental Biology program knowing that he wanted to study cancer. When he read a paper by Dr. Tanya Kalin on the genetic components of lung cancer, it impressed him so much that he joined her research team to study this aspect of the disease.

Lung cancer remains highly resistant to available treatments like radiation and chemotherapy. By examining the genetic factors of the disease, however, David hopes his research can contribute to the development of alternative therapies. David's research focuses on a protein called Foxm1 that, depending on what tissues it targets and other factors, can work either to encourage or discourage tumor forma-

tion. By manipulating the gene that controls Foxm1 production, David hopes to identify the conditions that make the protein inhibit cancer development.

This research is already showing promise. David's findings so far, he notes, suggest that developing drugs to target Foxm1 could be a worthwhile therapy for a number of lung diseases. And his work has already yielded exciting breakthroughs on a lung-scarring condition called pulmonary fibrosis. He explains: "We are the first to show that Foxm1 is critical for onset of fibrosis, and deletion of the protein within the lungs protects against this disease."

## 2012 Award Winners

### Arts & Humanities

Matthew Bauman

### Life Sciences & Medicine

Zirong Gu

Shatrunjai Singh

Mark Webb

### Physical Sciences & Engineering

Nathaniel Bates

Kelsey Feser

Traci Hanley

Martial Longla

Nivedita Nivedita

Li Shen

Matthew Vrazo

Liang Yan

Jian Zhou

### Social & Behavioral Sciences

Anita Williams

### Master of Fine Arts Gallery

Jennifer Wenker



## The Graduate Poster Forum

Every year, graduate students gather from the university's 300+ degree programs to share their research and hone their presentation skills. The Graduate Poster Forum serves as a "dress rehearsal" for many students who are preparing to present at a regional or national conference.

An initiative of the UC Graduate Student Professional Development Center, the Graduate Poster Forum also recognizes exceptional poster design and outstanding

oral communication. UC faculty members volunteered to evaluate posters within their area of expertise, providing valuable feedback and a numerical score.

This year, over 150 students entered posters. Topics for the award-winning posters include: a method to extract rare cells in the blood; the evolution of the Title I education policy; and filming Franz Kafka's novels.

## Graduate Poster Forum Winner

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Matthew Vrazo

Geology, PhD



How might a previously unknown fossil formation in central Pennsylvania help us better understand the evolution and extinction of certain prehistoric arthropods? Matthew Vrazo, a PhD student in the Department of Geology, hopes his research can provide some clues. Matthew studies eurypterids, an extinct group of arthropods whose modern-day relatives include scorpions and horseshoe crabs. Known as “sea scorpions,” they ranged widely in size and included some of the largest and most fearsome marine predators of their time.

Though eurypterid fossils have been found in abundance in certain sites, eurypterids are generally rare in the fossil record and, where they do appear, are often poorly preserved. What makes the Tonoloway Formation in Pennsylvania so promising to researchers like Matthew is that it contains not only a large number of well-preserved eurypterids, but it also provides the first-ever fully intact specimens of a particular species of eurypterid, *Eurypterus flintstonensis*.

Matthew hopes his work with the formation will yield

discoveries about the lifespan and development of *Eurypterus flintstonensis*, which he can then compare to existing knowledge of other eurypterids. He also hopes to discover why eurypterids are found in such large numbers in the Tonoloway Formation. He writes: “I am trying to determine what factors have led to their abundance there and not elsewhere, whether this is an artifact of behavior (such as mass-mating or molting) or the result of specific environmental conditions.” To do this, he uses both paleoecology, to recreate the environment in which these eurypterids lived, and taphonomy, examining the processes involved in their fossilization.

Ultimately, Matthew plans to pursue a career in a museum or university setting. He also plans to continue his research in a similar vein, eventually widening its scope. “During my doctorate and thereafter,” he explains, “I aim to expand my research into other arthropod groups that can be used to answer broader ecological questions, such as the influence of environment on evolution.”

## The Fulbright U.S. Student Program

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Doctoral student Ruth Williams uses her passion for language to share the inspiring narratives of WWII “comfort women” and a young North Korean defector.



When Ruth Williams set out to study in South Korea, she wanted to learn more about the country and its history. She did not anticipate, however, just how much the experience would teach her about herself and her own country. A doctoral student in the Department of English and Comparative Literature, Ruth was awarded a prestigious Fulbright Scholarship to spend a year conducting research in Korea. Embracing the Fulbright Program’s mission to foster cultural exchange and understanding, Ruth created a project that explores the history and politics of US-Korea relations. And because Ruth’s academic focus is poetry, she chose to explore these issues through a series of poems.

While Ruth has long been interested in Korean culture, and even travelled there previously, she writes: “I didn’t examine much of my nation’s history in the country nor did I really consider what it meant to be an *American* in Korea.” Ruth’s Fulbright project seeks to explore these issues by situating her personal experiences in Korea within the larger framework of U.S.-Korean relations. One way she does this is by gathering information from both primary and secondary sources (using things like interviews, newspapers and critical texts) and incorporating this into her poems. By using this source material, Ruth’s poems will draw not only from her own perspective, but also those of Koreans, Americans and scholars on U.S.-Korean relations. By drawing on this source material, she hopes to highlight the subjective nature of history. “These multiple perspectives hopefully give a sense that the ‘facts’ of history and the values we append to it shift depending on the perspective adopted,” she writes.

Ruth is particularly interested in the thousands of Korean women who, during the Japanese occupation of World War II, were forced to become “comfort women” for the Japanese military. During her time in Korea, Ruth was able to meet with several of these women. She writes: “Given how hard these women worked to demand recognition of their suffering, fighting against the stigma they faced, meeting several of them in person was incredibly inspiring.” However, Ruth was struck that, while their identities as women connect them to her, her privileged status as an American also separates her from them. Because American women have generally been insulated from large-scale sexual trafficking and violence, Ruth is placing her experiences in Korea against the backdrop of such stories to highlight this disconnect.



Ruth Williams (left) gathers a personal history account. All photos courtesy of Ruth Williams.





A statue of a “comfort woman” at the House of Sharing — a human rights museum and a safe house for former “comfort women” — in Gwangju, South Korea.

One of the most surprising — and rewarding — aspects of Ruth’s Fulbright study was the opportunity she had to tutor a North Korean-born student. Along with research responsibilities, the Fulbright Program encourages volunteer work, and Ruth contributed by giving lessons in English conversation. While volunteering, Ruth met a student who escaped North Korea as a child, only to be sent back to live in a prison camp. Incredibly, he escaped again a few years later and made it to South Korea. Ruth’s experiences with this remarkable student taught her much about the plight of North Korean defectors. It also taught her a great deal about the power of language, a lesson that reinforced her commitment to her Fulbright project. While listening to her student tell the story of his escape, she writes, “I was struck by how hard he was trying to work. And yet, he kept trying to explain. I realized in that moment that our human urge is to share ourselves with each other, and that we mainly do this through language.” Ultimately, this has confirmed Ruth’s belief in the power of writing as a form of expression. “This experience,” she writes, “has given me more enthusiasm for attempting to speak via my poetry, to share my perspective in that way.”

## UC Fulbright Recipients: 2011-2012

Fulbright scholar Ruth Williams is in good company. One doctoral student, one alumna and seven faculty members also received a Fulbright for the 2011-12 academic year.

Doctoral student **Douglas Pew** studied under well-known choral composer Pawel Lukaszewski in Warsaw, Poland.

**Caitlin Kane**, who graduated in June 2011, taught English in Haskovo, Bulgaria.

**Dr. Chia-Chi Ho** conducted nanotechnology research at the University of British Columbia.

**Dr. Nnamdi Elleh** spent eight months in South Africa teaching and studying post-revolution architecture.

**Dr. Jan Marie Fritz** conducted research at the Institute for Human Rights in Copenhagen, Denmark.

**Dr. Christopher Gauker** spent five months in Vienna, Austria, as the Fulbright-University of Vienna Visiting Professor in Humanities and Social Sciences.

Professor **Julianne Lynch** served as a Fulbright lecturer in Germany.

Professor **Jim Ridolfo** traveled to the West Bank and Israel to conduct research within the Samaritan community.

**Dr. Willard Sunderland** conducted research in Beijing, China, and Taipei, Taiwan, for his new book, “Continental Encounters: Eurasian Empires in the Cosmopolitan Age.”



Fulbright scholars forge relationships that enable an exchange of culture, scholarship and ideas.

## G-SUM/SUMR-UC

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A summer research program bridges disciplines and forges connections for a doctoral and undergraduate student.

**Walter Bosse**  
English & Comparative Literature, PhD

**Thelma Hodge**  
Social Work, BSW



Walter and Thelma were one of 10 undergraduate/graduate student pairs in the 2011 G-SUM/SUMR-UC program. The junior and senior undergraduate students represented UC as well as Miami University, Oberlin College & Conservatory, Centre College, Bowdoin College and University of Dayton. Projects ranged from the fine arts to health sciences to engineering. One pair of psychology students studied the "Perception and Attribution of Childhood Obesity," while two biology students researched "Species Delimitation Using Molecular Based Techniques." Both undergraduate and graduate students benefitted from this seven-week program: undergrads gained a better understanding of sophisticated research procedures and techniques, while graduate students developed mentoring skills in an academic setting.

Each summer, UC graduate students pair with undergraduates from UC and other schools to collaborate on intensive research projects. Known as the Graduate Summer Undergraduate Mentoring/Summer Undergraduate Mentored Research at the University of Cincinnati, this program awards each participant a stipend of \$3,000. Selection for these awards is competitive; of the many graduates and undergraduates who apply, only a small number are chosen to participate.

One such pair from summer 2011 was the team of Walter Bosse, a doctoral student in the Department of English & Comparative Literature, and Thelma Hodge, a junior in social work. Thelma and Walter worked on a project that drew in unique ways from their separate disciplines. For their

research, they sought to identify links between the social thought expressed in literary texts and the realities of the black urban experience. As a focal point for their work, they used Ralph Ellison's 1948 nonfiction essay "Harlem is Nowhere." Ellison's essay documents a group of patients at the Lafargue Psychiatric Clinic in Harlem, and it exposed some of the racial, urban and psychological conflicts that continue to be problems in America's cities.

One of the things that struck Ellison about the Lafargue patients — and which in turn struck Walter and Thelma — is



that they often repeated the phrase, "Oh man, I'm nowhere." "Thelma and I were extremely affected by such an utterance, and by the fact that it had become so prevalent," Walter writes. As a result, they decided to use this phrase as a point of departure to examine one of their primary research questions: how the words people use and the ways they are depicted in literature not only reflect but also help produce their living conditions. Thelma and Walter also used Ellison's descriptions of the clinic to explore a variety of other issues related to their disciplines. For instance, they explored the roles social institutions can play in racial oppression and ghettoization, and they investigated both the stigma associated with mental illness and the lack of access to treatment within minority communities.

As an interdisciplinary team, Thelma and Walter enjoyed a valuable opportunity that few people in academia experience: the ability to reach across different fields of study and

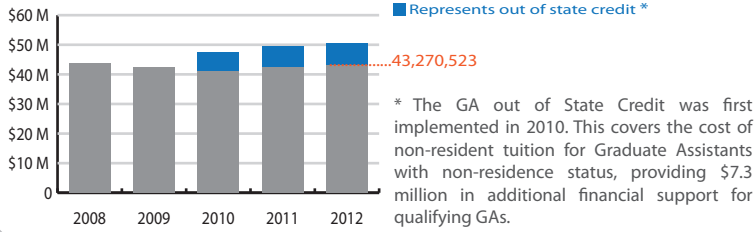
view their research from an alternate perspective. They were also able to exchange different kinds of academic expertise. For Walter, who studies in a more research-based discipline, the G-SUM/SUMR-UC experience gave him an opportunity to focus more on the practical applications of his work. The experience allowed Thelma, meanwhile, to sharpen her research skills and learn strategies for presenting her work to an academic audience. She writes: "I learned more effective ways for gathering research and techniques for processing an abundance of information into a more concrete and digestible idea."

Along with helping them exchange academic knowledge, the G-SUM/SUMR-UC experience benefited Thelma and Walter in broader ways. Thelma writes, "SUMR-UC introduced me to bright doctoral students and undergraduates, not only from UC but from colleges and universities all over the U.S." Moreover, she says that the program afforded her the opportunity to network and make connections that helped her when she transitioned to graduate student life at UC in the summer of 2012. For Walter, meanwhile, the experience gave him a new set of professional skills. Although he had experience teaching undergraduate courses, he notes that leading discussion from the head of the class is much different than mentoring one student during a focused, long-term project. For him, G-SUM/SUMR-UC served as a useful counterpoint to his classroom experience, allowing him to develop a more dynamic and interactive style of guidance. "Mentorship," he writes, "requires insight from both parties and a willingness to adapt to unexpected changes in the project design. It's a kind of thinking-on-one's-feet that has applications not only in the mentoring process, but also in teaching and writing."

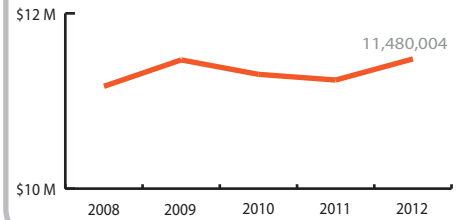
Some of the most exciting aspects of the program for Thelma and Walter involved the lasting connections they made with others. "The field trips and social gatherings integrated throughout the program allowed me to get to know everyone, not only on a professional level but a personal one as well," writes Thelma. One of the highlights of the experience for Walter was simply being paired with such a talented and promising undergraduate. After working with Thelma, "I definitely consider her to be more of a colleague than a mentee." In fact, Walter was impressed with all of the undergraduate participants in the program, especially on the final day when they presented their research. "It was pretty amazing to see the undergraduate participants showcase their expertise," he says, "and they were conveying some very complicated material!"

# UC Graduate School Growth

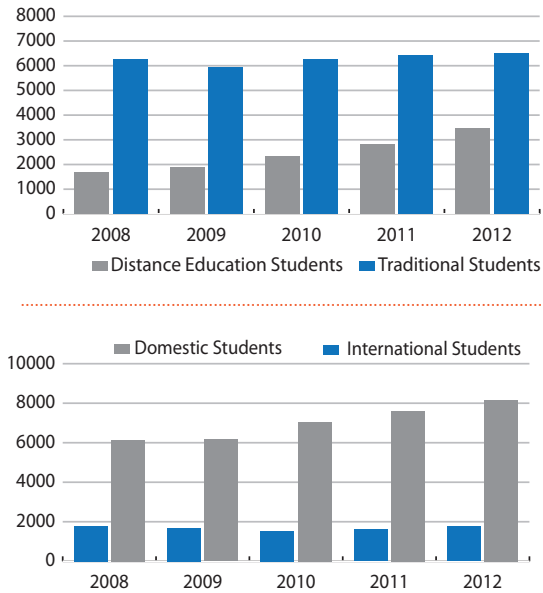
## Tuition Scholarship Trend



## Stipend Support Trend



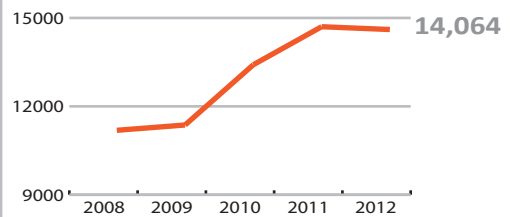
## Enrollment Distribution



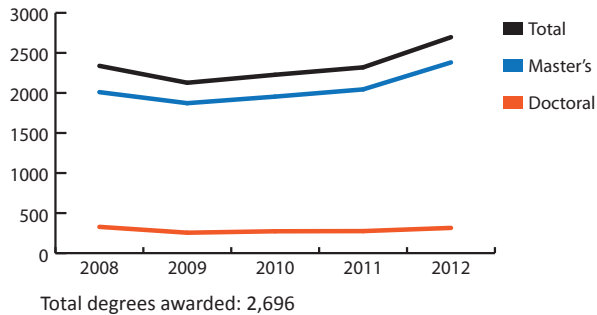
## Ethnicity Distribution of Enrolled Students

American Indian/ Alaska Native	27 (0.3%)
Asian	294 (3.0%)
Black	779 (7.8%)
Hispanic	260 (2.6%)
Native Hawaii/ Pacific Islander	15 (0.2%)
Two or more Races	89 (0.9%)
Other/ Unknown	603 (6.1%)
International	1,768 (17.8%)
White	6,108 (61.4%)
Enrolled Minority Students (US Citizens)	1,375 (13.8%)
<b>Total</b>	<b>9,943</b>

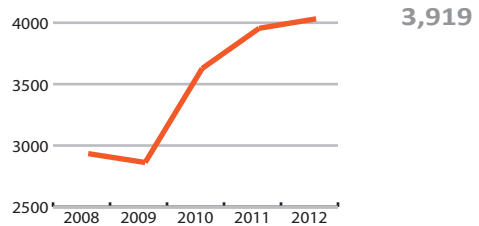
## Applications Trend



## Degrees Awarded Trend



## Newly Matriculated Student Trend



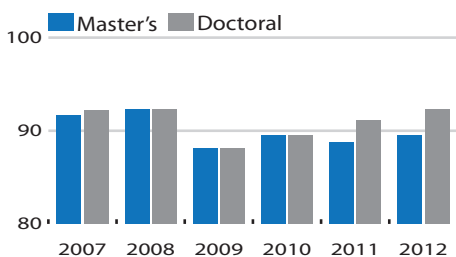
# UC Graduate Student Satisfaction

**2012**

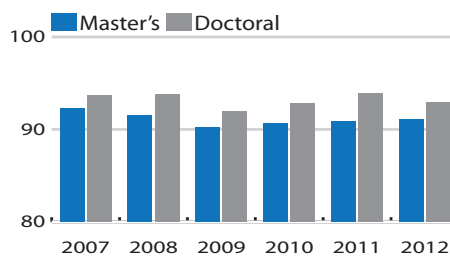
	Master's	Doctoral
<b>Overall Satisfaction</b>	<b>88.50%</b>	<b>92.30%</b>
<b>Curriculum</b>	<b>91.10%</b>	<b>92.90%</b>
<b>Career Development</b>	<b>78.20%</b>	<b>80.60%</b>
<b>Faculty Satisfaction</b>	<b>91.60%</b>	<b>93.90%</b>
<b>Graduate Aid</b>	<b>82.10%</b>	<b>84.90%</b>
<b>Thesis/ Dissertation Advising</b>	<b>90.00%</b>	<b>93.10%</b>

These graphs show the results of the Graduate School's Exit Survey for summer 2011 through spring 2012. All master's and doctoral students complete this survey as part of the graduation process.

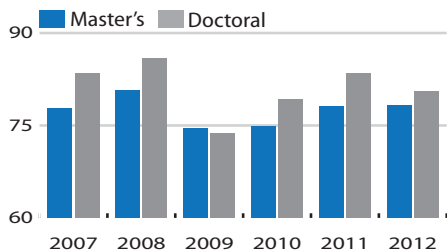
## Overall Satisfaction



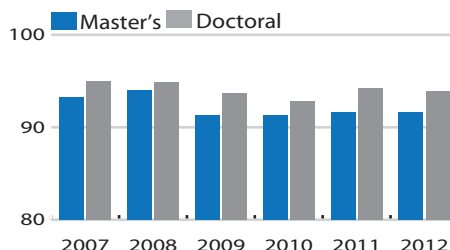
## Curriculum



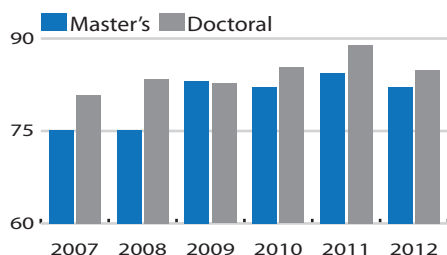
## Career Development



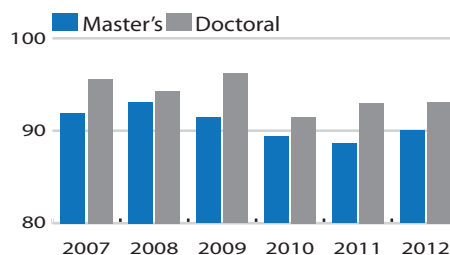
## Faculty Satisfaction



## Graduate Aid



## Thesis/ Dissertation Advising



## The Yates Scholars Program

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Every year, UC graduate programs — from nursing to bassoon and criminal justice to mathematics — nominate incoming students for the prestigious Yates Scholars Program. The award supports the recruitment and retention of underrepresented ethnic minorities who demonstrate great potential for graduate school success.

In September 2012, the Graduate School welcomed twelve new Yates Scholars. New and continuing scholars receive a stipend and a tuition scholarship. In addition, each student is paired with a faculty member from his/her program, who will act as a guide to the program and the university.

The Yates Scholars Program is named in honor of Dr. Albert C. Yates, twelfth president of Colorado State University and the first African-American person to serve as vice president and university dean for Graduate Studies and Research at the University of Cincinnati. Tiffany Poole-Wilson, Bobby Boone, Vanessa Hardin and Leonard Thomas are four of the many scholars who uphold Dr. Yates' vision of academic excellence.



# Leonard Thomas

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Sociology, PhD

McMicken College of Arts and Sciences/2011 Yates Scholar

Yates Fellow Leonard Thomas, a PhD student in sociology, wants to use his work at UC to help draw attention to residential segregation. Leonard first became interested in the issue of residential segregation before he came to UC, when he was a congressional staff member at the House of Representatives from 2006 to 2008. While working on Capitol Hill, he noticed that many of his district's poorer and minority constituents lived in close proximity to one another, and this struck him as significant. Since that time, further reading and research have confirmed his early suspicions that residential segregation negatively impacts communities, and he hopes his research can shed more light on this issue.

Leonard credits his Yates Scholars Program award in particular with giving him more time to spend working with faculty members in his department. In fact, the highlight of his time at UC has been working with his advisor, Dr. Jennifer Malat. "She has mentored me in hard times," he says, "and her friendship has inspired me to push myself." And time is especially important to Leonard—as a doctoral student who also happens to be the father of a two year old, he must take advantage of each second.

For Leonard, having resources such as the Yates Scholars Program available to minority students is vitally important. "If income equality and racial parity is the goal of an intelligent society," he explains, "it behooves universities to carry the banner of justice."



## Bobby Boone

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Community Planning, MCP

College of Design, Architecture, Art, and Planning/2011 Yates Scholar

Like Leonard, Yates Scholar Bobby Boone is interested in the role race can play in shaping neighborhoods. A student in UC's Master of Community Planning program, Bobby is researching the rise of African-American gentrification in Washington, DC. He writes, "the idea of blacks self-segregating without regard to income is a recently occurring trend." Bobby hopes to use his research to learn more about what drives this movement.

Since enrolling at UC, Bobby has been making the most of his academic experience. He currently works at Cincinnati's Niehoff Studio and Community Design Center, where he is gaining hands-on expertise. He has also partnered with Charles Graves, Cincinnati's planning director, to work on professional development. During the summer of 2012, he will intern with the community-building consulting firm Wise Economy Workshop.

Ultimately Bobby hopes to pair his planning degree with an MBA. In the meantime, he intends to tackle his research topic from another angle: as a participant in the revitalization. After earning his degree, Bobby's goal is to move to Washington's Ward 8, one of the centers of African-American gentrification, and help with community development efforts there.





## Tiffany Poole-Wilson

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Environmental Health (Occupational Safety and Ergonomics), PhD

College of Medicine/2010 Yates Scholar

Nurses and other health care professionals work hard to keep their patients healthy. But in performing these physically demanding jobs, they can put their own bodies at risk. Yates Scholar Tiffany Poole-Wilson, a doctoral student in occupational safety and ergonomics, is researching ways to reduce common injuries among these workers.

Tiffany is particularly interested in preventing injuries caused by lifting and moving patients. "I am focusing on ergonomic solutions to reduce the amount of low back and musculoskeletal disorders and injuries within the health care field," she writes. Tiffany notes that preventing these injuries is important not only for health professionals, but also for patients, because the safety of patients depends on the safety of those who care for them.

Tiffany first learned of this issue while earning her master's degree at North Carolina A&T State University. While participating in a journal review club, she read an article on the risks of patient handling, and it inspired her to search for ergonomic ways to reduce injury rates among health workers.

For Tiffany, resources like the Yates Scholars Program are valuable for finding solutions for these and other problems. Because these programs give underrepresented groups access to the academy, they provide a range of potentially new research perspectives. As Tiffany explains, "diversity creates an environment of collaboration and brings a variety of solutions to the table from an array of backgrounds."



## Vanessa Hardin

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Communication Sciences and Disorders, MA

College of Allied Health Sciences/2011 Yates Scholar

Speech-language pathology student Vanessa Hardin welcomes the significant responsibility that being a Yates Scholar carries. With a Yates Scholars award, she says, “you represent more than just yourself. You’re also a reflection of the Yates program.” To Vanessa, this means extra motivation to become the best scholar and professional she can be.

In just her first year of the program, Vanessa is well on her way to doing just that. In November, she participated in the American Speech-Language-Hearing Association’s Minority Student Leadership Program, where she was able to connect with other students and professionals. She has also attended the National Black Association for Speech-Language and Hearing’s annual conference, and this summer she has a practicum placement at Cincinnati Children’s Hospital. Ultimately, she wants to use her speech-pathology degree to help underserved children, either in a hospital or inner-city school.

Even with her busy schedule, Vanessa makes time to give back to others. “I’m able to volunteer at a local elementary school,” she writes, “which really brightens up my week.” Vanessa credits the Yates Fellowship with reinforcing her commitment to volunteering. She writes: “I’m often reminded that ‘to whom much is given, much is expected.’ Programs like the Yates start a cycle of giving and receiving support between individuals, which is why they are so important.”



## Excellence in Doctoral Mentoring Award

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**Michael Griffith**  
English and Comparative Literature

In the decade that creative writing professor Michael Griffith has taught at the University of Cincinnati, he has garnered a national reputation for his work. Along with hundreds of stories, essays and reviews, he has published a short-story collection and two novels, both to wide acclaim. In fact, his latest novel, *Trophy*, was named by Kirkus Reviews as one of the 25 best books of fiction for 2011.

But it isn't professor Griffith's status in the literary world that earned him this year's Excellence in Doctoral Mentoring Award. Instead, it is his work behind the scenes, work that ensures the next generation of writers and professors can achieve the same degree of success.

The Excellence in Doctoral Mentoring Award is given annually to the faculty member who, through outstanding and sustained guidance of doctoral students, best demonstrates what it means to be a mentor. It is awarded to someone who builds meaningful and rewarding relationships with his or her students, and whose students, in turn, achieve a high level of professional achievement.

By all measures, professor Griffith possesses these qualities in abundance. In their nomination letters, his past and current students speak in glowing terms about his dedication, his encouragement and his ability to help them become better scholars and writers. They also describe someone who exceeds the call of duty by consistently attending student readings, hosting events in his home and offering professional guidance to alumni well into their academic careers. Above all, they speak of professor Griffith as a consummate role model whose kindness and intellectual rigor they hope to emulate in their own teaching, advising and scholarship.

Darren Doyle, now an assistant professor at Central Michigan University and the author of two novels, writes: "I cannot overstate how valuable Michael has been to my development as a professional, as a writer, and as a person. Since becoming a tenure-track professor myself, I look back with amazement at how much time and attention Michael gave to



me, as well as to my peers in the doctoral program."

Professor Griffith's current students are equally enthusiastic. Doctoral candidate Leah McCormack writes: "Michael is the strongest asset to our creative writing program. His compassion for students, availability outside of the classroom, and excitement about student work is unparalleled."

Given these heartfelt letters, it is no surprise that professor Griffith's students achieve a high level of professional success. All of those whose dissertations he has directed hold academic positions, and the vast majority of these positions are tenure-track. Of the four dissertations that he's currently directing, one student has already accepted an appointment as a visiting faculty member.

Professor Griffith has provided this degree of mentorship while also enjoying an exceptionally productive career in his own right. Aside from his long list of publications, he serves on the Board of Editors for the *Sewanee Review*, as a series editor for Louisiana State University Press and as the fiction editor for *Cincinnati Review*, UC's renowned literary magazine. Fittingly, he has also received the English department's highest teaching honor: the Boyce Award for Outstanding Teaching.

Together, professor Griffith's accomplishments and his students' praise depict someone who works as tirelessly on behalf of others as he does on his own work, who pushes his students to achieve, and who goes to great lengths to help them succeed in their careers. The Graduate School—and the UC community as a whole—is honored to recognize him for his commitment.

## Letter from the Dean

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Dear Friends and Colleagues,

Dedication and perseverance characterized the largest and most complex logistical challenge the University of Cincinnati has faced—conversion from quarters to semesters, the new schedule beginning this fall. Graduate faculty took advantage of the conversion to revise and, in most cases, substantially reinvent courses (10,022 semester offerings) for 255 programs and 58 certificates. Concurrently, creation of a robust Academic Master Plan under Provost Santa Jeremy Ono’s leadership will guide momentum toward President Gregory H. Williams’s ambitious UC2019► goals to coincide with the 200<sup>th</sup> anniversary of the founding of the university. Graduate education is an integral part of these ventures, and accomplishments of the past year indicate near certainty that the goals will be achieved.

Data elsewhere in this report attest to the upward trajectory the Graduate School experienced, increases ranging from applications to admissions to graduations. The number that pleases me most documents overall satisfaction at 90% for graduating master’s and doctoral students combined, which I view with pleasure as well as a mark to improve upon. The remarkably high quality of students and their faculty provides confidence that the mark will move positively. Outcomes of the recently completed comprehensive review of our doctoral research programs will be implemented in the coming months and further raise the standards for these degrees.

Examples of research and scholarly activity are featured in this report, ranging from poetry to bench science to field work to social problems and more. Interdisciplinary research is increasingly frequent, so a survey conducted recently will be the basis for a structure to feature and encourage work that crosses disciplinary lines. The Interdisciplinary PhD will be resurrected, and interdisciplinary graduate certificates are being devised.

Follow our activities and accomplishments on these social media sites as we engage opportunities in graduate education and research.

<http://www.facebook.com/pages/The-Graduate-School-at-the-University-of-Cincinnati/93778940819>

[https://twitter.com/GradSchool\\_UC/](https://twitter.com/GradSchool_UC/)

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Zierolf'.

Robert Zierolf, PhD

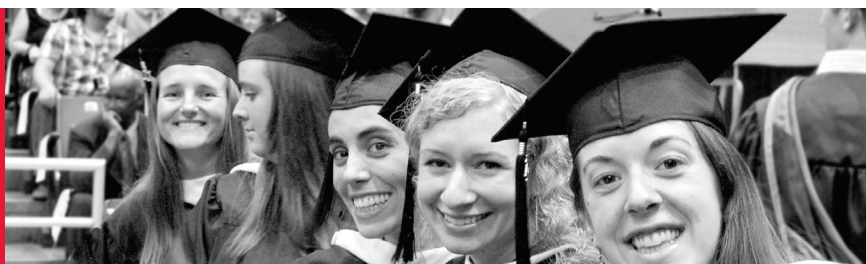
Interim Vice Provost and Dean, Graduate School



## 2012 Dissertation Listing

The Graduate School is proud of the diverse academic endeavors completed by its master's and doctoral students during the 2011-2012 academic year. All University of Cincinnati master's theses and doctoral dissertations can be found online at <http://etd.ohiolink.edu>.

The following listing of doctoral dissertations represents the quality, vitality and diversity of graduate research and scholarship at UC.



## College of Allied Health

### Anderson, Jill M.

PhD, Summer 2011

*Lateralization Effects of Brainstem Responses and Middle Latency Responses to a Complex Tone and Speech Syllable*

Chair: Fawen Zhang, PhD

### Bandaranayake, Dakshika W.

PhD, Spring 2012

*An Auditory-Perceptual Intervention Program for Fricatives: Effects and Implications for Toddlers without Fricatives*

Chair: Nancy Creaghead, PhD

### James Riegler, Lindsay R.

PhD, Winter 2012

*Military On-Line Problem Solving Intervention (MOPS-VI)*

Chair: Suzanne Boyce, PhD

### Knollman-Porter, Kelly

PhD, Spring 2012

*Intensive Auditory Comprehension Treatment for People with Severe Aphasia: Outcomes and Use of Self-Directed Strategies*

Chair: Aimee Dietz, PhD

## McMicken College of Arts & Sciences

### Abu, Eme A.

PhD, Spring 2012

*Spectroelectrochemical Sensing of Tris (2,2 bipyridyl) Ruthenium (II) Dichloride Hexahydrate in Low Ionic Strength Samples and the Spectroelectrochemical Characterization of Aeruginosin A*

Chair: William Heineman, PhD

### Ajward, Ahamed Milhan

PhD, Winter 2012

*Linear and Non-Linear Optical Properties of OMBD Grown PTCDA and Alq3 films*

Chair: Hans Peter Wagner, PhD

### Asa'd, Randa

PhD, Spring 2012

*Ages of LMC Star Clusters from their Integrated Properties*

Chair: Margaret Hanson, PhD

### Bastas, Hara

PhD, Autumn 2011

*Girls' Rights: An Insight into the United Nation from 1995-2010*

Chair: Steven Carlton-Ford, PhD

### Baum, Katherine

PhD, Spring 2012

*Measurement of Intelligence in Children and Adolescents with Autism Spectrum Disorder: Factors Affecting Performance*

Chair: Paula Shear, PhD

### Catron, Brittany Lyn

PhD, Spring 2012

*Analysis of Protein: RNA Cross-links by Inductively Coupled Plasma Mass Spectrometry and Tandem Mass Spectrometry*

Chair: Joseph Caruso, PhD

### Chen, Chen

PhD, Summer 2011

*Bayesian Analyses of Mediation Models for Survival Outcome*

Chair: Siva Sivaganesan, PhD

### Davis, Tehran J.

PhD, Winter 2012

*The Role of Affordance Perception in Action-Selection*

Chair: Michael Riley, PhD

### Dawson, Erica L.

PhD, Summer 2011

*Longitudinal Prediction of Psychosocial Functioning and Time to Reach Euthymia in Adults with Bipolar Disorder*

Chair: Paula Shear, PhD

### Doepke, Amos

PhD, Spring 2012

*Development of Electrochemical Sensors and Sensor Systems*

Chair: William Heineman, PhD

### Easter, Renee N.

PhD, Summer 2011

*The Application of Elemental Tags for Biological Analyte Identification*

Chair: Joseph Caruso, PhD

### Esen, Sevda

PhD, Spring 2012

*Measurement of  $B_s$  to  $D_s^{(*)}+D_s^{(*)}-$  and Determination of the  $B_s-B_s$ bar Width Difference  $\Delta\Gamma_s$  Using  $e^+e^-$  collisions*

Chair: Alan Schwartz, PhD

### Feltovich, Anne C.

PhD, Summer 2011

*Women's Social Bonds in Greek and Roman Comedy*

Chair: Kathryn Gutzwiller, PhD

### Fickenscher, Melodie A.

PhD, Winter 2012

*Optical and Structural Characterization of Confined and Strained Core/Multi-Shell Semiconducting Nanowires*

Chair: Leigh Smith, PhD

### Frank, Rebecca M.

PhD, Spring 2012

*The Last Time I Saw Manila*

Chair: Donald Bogen, PhD

**Funke, Matthew E.**

PhD, Summer 2011

*Neuroergonomic and Stress Dynamics Associated with Spatial Uncertainty During Vigilance Task Performance*

Chair: Gerald Matthews, PhD

**Ganesan, Uma**

PhD, Autumn 2011

*Gender and Caste: Self-Respect Movement in the Madras Presidency, 1925-1950*

Chair: Barbara Ramusack, PhD

**Gordon, Jody Michael**

PhD, Spring 2012

*Between Alexandria and Rome: A Postcolonial Archaeology of Cultural Identity in Hellenistic and Roman Cyprus*

Chair: Kathleen Lynch, PhD

**Grimes, Peter J.**

PhD, Summer 2011

*Toadman and Other Encounters*

Chair: Michael Griffith, MFA

**Guznov, Svyatoslav**

PhD, Summer 2011

*Visual Search Training Techniques in a UAV Task Environment: Pilots' Performance, Workload, and Stress*

Chair: Gerald Matthews, PhD

**Handler, Marcie D.**

PhD, Spring 2012

*Crafting Matters: A Coroplastic Workshop in Roman Athens*

Chair: Jack Davis, PhD

**Harmon Threatt, Elizabeth A.**

PhD, Spring 2012

*The Dreams of Daughters*

Chair: Donald Bogen, PhD

**Jacola, Lisa M.**

PhD, Winter 2012

*The Relationship between Executive Functioning and Maladaptive Behavior in Adolescents with Down Syndrome*

Chair: Paula Shear, PhD

**Jayatilake, Mohan L.**

PhD, Summer 2011

*Optimization and Construction of Passive Shim Coils for Fuman Brain at High Field MRI*

Chair: Robert Endorf, PhD

**Johnson Pool, Jessica**

PhD, Spring 2012

*Cultural Worldview, Religious Influence and Interpretation, and American Political Behavior*

Chair: Stephen Mockabee, PhD

**Jones, Derek R.**

PhD, Autumn 2011

*Design, Synthesis, and Photophysical Properties of Corannulene-based Organic Molecules*

Chair: James Mack, PhD

**Kinsella, Chad J.**

PhD, Autumn 2011

*The Little Sort: A Spatial Analysis of Polarization and the Sorting of Politically Like-Minded People*

Chair: Stephen Mockabee, PhD

**Kuhlmann, Julia**

PhD, Spring 2012

*Sensing as a Tool to Monitor Magnesium Based Material Corrosion in Aqueous Solutions*

Chair: William Heineman, PhD

**Lester, Charlie**

PhD, Spring 2012

*The New Negro of Jazz: New Orleans, Chicago, New York, the First Great Migration, & the Harlem Renaissance, 1890-1930*

Chair: David Stradling, PhD

**Liu, Tai-Min**

PhD, Summer 2011

*Electronic Interactions in Semiconductor Quantum Dots and Quantum Point Contacts*

Chair: Andrei Kogan, PhD

**Loo, Clement K.**

PhD, Summer 2011

*Ecosystem Health Reconsidered*

Chair: Robert Skipper, PhD

**Lose, Eric**

PhD, Summer 2011

*Living on Ohio's Death Row*

Chair: James Wilson, PhD

**Ma, Ying**

PhD, Winter 2012

*The Acquisition and Maintenance of Ethnic Languages among Second-Generation Immigrant Children*

Chair: Steven Carlton-Ford, PhD

**Meng, Xiangxiang**

PhD, Autumn 2011

*Spectral Bayesian Network and Spectral Connectivity Analysis for Functional Magnetic Resonance Imaging Studies*

Chair: Siva Sivaganesan, PhD

**Morris, Laura K.**

PhD, Spring 2012

*Spectroelectrochemical Sensors: An Absorbance Based Sensor for Rhenium (I) tris[1,2-bis(dimethylphosphino) ethane] and Development of Films for Spectroelectrochemical Sensing of Anions*

Chair: William Heineman, PhD

**O'Neill, Sean J.**

PhD, Summer 2011

*The Emperor as Pharaoh: Provincial Dynamics and Visual Representations of Imperial Authority in Roman Egypt, 30 B.C. - A.D. 69*

Chair: Peter Van Minnen, PhD

**Potter, George E.**

PhD, Summer 2011

*Global Politics and (Trans)National Arts: Staging the "War on Terror" in New York, London, and Cairo*

Chair: Jana Braziel, PhD

**Rakestraw, Bridgett**

PhD, Spring 2012

*An Investigation of the Thermal and Photochemical Reactions of Ozone with Alkenes Using Matrix Isolation*

Chair: Bruce Ault, PhD

**Ramsey, Nathan A.**

PhD, Summer 2011

*Keeping America Exceptional: Patriotism, the Status Quo, and the Culture Wars*

Chair: Stephen Mockabee, PhD

**Ranaweera, Ranaweera Arachchilage Ajantha Upul**

PhD, Spring 2012

*Photo-induced Nitrogen and Carbon Based Radicals; A study on triplet nitrenes, triplet 1,2 and 1,3-biradicals*

Chair: Bruce Ault, PhD

**Ranieri, Rafael**

PhD, Spring 2012

*Thinking Situationally About the Role of International Institutions: The Dynamics of Change*

*in the International System and the Role of the World Trade Organization*  
Chair: Thomas Moore, PhD

**Ren, Yan**

PhD, Spring 2012

*A Non-parametric Bayesian Method for Hierarchical Clustering of Longitudinal Data*

Chair: Siva Sivaganesan, PhD

**Rivas, Ivonne**

PhD, Autumn 2011

*Analysis and Control of the Boussinesq and Korteweg-de Vries Equations*

Chair: Bingyu Zhang, PhD

**Roberts, Yvonne H.**

PhD, Summer 2011

*School Readiness in Children Attending Public Preschool: Implications for Public Policy, School Programming and Clinical Practice*

Chair: Monica Mitchell, PhD

**Rosales Figueroa, Iliana**

PhD, Spring 2012

*Rebellious Detours: Creative Everyday Strategies of Resistance in Four Caribbean Novels*

Chair: Patricia Valladares-Ruiz, PhD

**Sakofsky, Cynthia J.**

PhD, Autumn 2011

*Mechanisms Of Genome Stability In The Hyperthermophilic Archaeon Sulfolobus Acidocaldarius*

Chair: Dennis Grogan, PhD

**Saxby, Dyani J.**

PhD, Summer 2011

*Impact of Driving Condition, Personality, and Cell Phone Use on Simulated Driving Performance and Subjective State*

Chair: Gerald Matthews, PhD

**Schoesler, Matthew**

PhD, Spring 2012

*The Macaw in the Supermarket*

Chair: Donald Bogen, PhD

**Sondaal, Tiest M.**

PhD, Winter 2012

*Institutional Change in an Age of Internationalization: Globalization and the Soccer Club*

Chair: Richard Harknett, PhD

**Song, Hyun Deok**

PhD, Winter 2012

*Computer Simulation Studies of Ion Channels at High Temperatures*

Chair: Thomas Beck, PhD

**Stace, Justin J.**

PhD, Summer 2011

*Oxidative-Addition Reactions of Rhodium(I) Dimers and Platinum(II) Monomers: A Study to Understand a Novel Photochromic System*

Chair: William Connick, PhD

**Stanley, Floyd E.**

PhD, Autumn 2011

*Advancing Modern Forensic Investigations Through The Use of Various Analytical Techniques*

Chair: Apryll Stalcup, PhD

**Stecher, Nadine**

PhD, Summer 2011

*Learning from the Extraordinary: How the Highly Derived Larval Eyes of the Sunburst Diving Beetle Can Give Insights into Aspects of Holometabolous Insect Visual Systems*

Chair: Elke Buschbeck, PhD

**Streckfuss, James A.**

PhD, Winter 2012

*Eyes All Over the Sky: The Significance of Aerial Reconnaissance in the First World War*

Chair: Christopher Phillips, PhD

**Su, Haibin**

PhD, Summer 2011

*Derivation of Coastal Bathymetry and Stream Habitat Attributes Using Remote Sensing Images and Airborne LiDAR*

Chair: Richard Beck, PhD

**Taylor, Stephen D.**

PhD, Summer 2011

*Solid-state Structures and Electronic Properties of Platinum(II) Terpyridyl Complexes: Implications for Vapor and Aqueous Anion Sensing*

Chair: William Connick, PhD

**Tlustos-Carter, Sarah**

PhD, Summer 2011

*Neural Substrates of Inhibitory and Socio-Emotional Processing in Adolescents with Traumatic Brain Injury*

Chair: Chung-Yiu Chiu, PhD

**Waddell, Daniel**

PhD, Winter 2012

*Environmentally Friendly Synthesis Using High Speed Ball Milling*

Chair: James Mack, PhD

**Wallot, Sebastian**

PhD, Autumn 2011

*The Role of Reading Fluency, Text Difficulty and Prior Knowledge in Complex Reading Tasks*

Chair: Guy Van Orden, PhD

**Wang, Xiaoyang**

PhD, Summer 2011

*Design, Construction and Investigation of Synthetic Devices for Biological Systems*

Chair: David Smithrud, PhD and Apryll Stalcup, PhD

**Warren, Suzanne E.**

PhD, Summer 2011

*Bad Gift: Stories and Essays*

Chair: Michael Griffith, MFA

**Wong, Muk-Yan**

PhD, Spring 2012

*The Mood-Emotion Loop*

Chair: Jenefer Robinson, PhD

**Yalcin, Hasan B.**

PhD, Summer 2011

*International Politics as a Struggle for Autonomy*

Chair: Richard Harknett, PhD

**Youssif, Mostafa A.**

PhD, Spring 2012

*Vestibular Evoked Myogenic Potential (VEMP) in children with Enlarged Vestibular Aqueduct (EVA)*

Chair: Robert Keith, PhD

**Zambito, James J.**

PhD, Summer 2011

*The Late Middle Devonian (Givetian) Global Taghanic Biocrisis in its Type Region (Northern Appalachian Basin): Geologically Rapid Faunal Transitions Driven by Global and Local Environmental Changes*

Chair: Carlton Brett, PhD

**Zhang, Yaofang**

PhD, Spring 2012

*Elemental Detection with ICPMS - Implications*



from Warfare Agents to Metallomics  
Chair: Joseph Caruso, PhD

### **Carl H. Lindner College of Business**

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#### **Carlson, John M.**

PhD, Spring 2012  
*Does the Market See through Seasonal Quarterly Earnings Patterns?*  
Chair: Pradyot Sen, PhD

#### **Ferrand, Yann B.**

PhD, Spring 2012  
*Flexible Resource Utilization in Healthcare*  
Chair: Michael Magazine, PhD

#### **Guo, Xiaoning**

PhD, Spring 2012  
*The Effects of Depletion, Need for Cognitive Closure, and Attribute Accessibility on Choice Deferral*  
Chair: Frank Kardes, PhD

#### **He, Yuanlong**

PhD, Spring 2012  
*Relationship between Firm's PE Ratio and Earnings Growth Rate*  
Chair: Pradyot Sen, PhD

#### **Li, Jie**

PhD, Spring 2012  
*Leadership, Supervisor-Focused Justice, and Follower Values: A Comparison of Three Leadership Approaches in China*  
Chair: Suzanne Masterson, PhD

#### **Lu, Ran**

PhD, Summer 2011  
*Liquidity, Price Behavior and Market-related Events*  
Chair: John Glascock, PhD

#### **Schaberl, Philipp D.**

PhD, Spring 2012  
*Essays on the Value-Relevance of Earnings Expectations and the Influence of Disclosure Policy on Analyst Behavior*  
Chair: Pradyot Sen, PhD

#### **Sprinkle, Therese A.**

PhD, Spring 2012  
*Beyond a Need-Based Fairness Perspective: Co-workers' Perceptions of Justice in Flexible Work Arrangements*  
Chair: Suzanne Masterson, PhD

#### **Wright, Scott A.**

PhD, Spring 2012  
*Using Construal Level Theory to Deter the Social Desirability Bias*  
Chair: Frank Kardes, PhD

#### **Yang, Muer**

PhD, Summer 2011  
*Resource Allocation to Improve Equity in Service Operations*  
Chair: Michael Fry, PhD

### **College-Conservatory of Music**

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#### **Bell, Cully**

DMA, Winter 2012  
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**Bronson, Stefanie L.**

PhD, Autumn 2011

*Neurobehavioral Consequences of Prenatal Exposure to Maternal Immune Activation*

Chair: Neil Richtand, MD

**Cash, Jennifer N.**

PhD, Summer 2011

*Structural and Biochemical Insights into Myostatin Regulation*

Chair: Thomas Thompson, PhD

**Chen, Liang**

PhD, Winter 2012

*IkappaB Kinase beta in the Regulation of Cell Migration, Senescence and Fibrosis*

Chair: Ying Xia, PhD

**Christensen, Heather R.**

PhD, Summer 2011

*Molecular and Integrated Systems Physiology of Prolactin*

Chair: Karen Gregerson, PhD

**Codispoti, Christopher D.**

PhD, Spring 2012

*Allergen Wheal Area during Early Childhood Predicts Allergic Rhinitis Phenotypes at Age Four*

Chair: Grace Lemasters, PhD

**Coffindaffer-Wilson, Mikah**

PhD, Autumn 2011

*Lymphangiogenesis in the Developing Zebrafish*

Chair: Jay Hove, PhD

**Daniels, Robert D.**

PhD, Autumn 2011

*Leukemia Mortality and Occupational Ionizing Radiation Exposure*

Chair: Susan Pinney, PhD

**de Kloet, Annette D.**

PhD, Summer 2011

*The Renin-Angiotensin System and the Neuroendocrine Regulation of Energy Balance*

Chair: Stephen Woods, PhD

**Djawe, Kpandja**

PhD, Winter 2012

*Effects of Environmental Exposures on: Pneumocystis jirovecii Pneumonia (PcP) Hospital Admissions; and Antibody Levels to Major Surface Glycoprotein among HIV-Infected Patients from San Francisco*

Chair: Linda Levin, PhD

**Flak, Jonathan N.**

PhD, Autumn 2011

*Chronic Stress, Neurotransmitter Plasticity, and Body Weight*

Chair: James Herman, PhD

**Graeter, Christine J.**

PhD, Winter 2012

*Longitudinal Study of Attention Deficit Hyperactivity Disorder Subjects in the American Clinical Trial of Enzyme Potentiated Desensitization*

Chair: Paul Succop, PhD

**Gu, Ying**

PhD, Autumn 2011

*A Traveling Niche: The Role of Steel Factor in Mouse Primordial Germ Cell Development*

Chair: Christopher Wylie, PhD

**Hemmerle, Ann M.**

PhD, Autumn 2011

*Effects of Stress-Induced Depression on Parkinson's Disease Symptomatology*

Chair: Kim Seroogy, PhD

**Johns, Stefanie L.**

PhD, Winter 2012

*Mechanistic Insights for Protein-Dependent Biofilm Formation in Staphylococcus Epidermidis and Beyond*

Chair: Andrew Herr, PhD

**Karns, Rebekah A.**

PhD, Spring 2012

*Integrative and Multivariate Statistical Approaches to Assessing Phenotypic and Genotypic Determinants of Complex Disease*

Chair: Ranjan Deka, PhD

**Kowalczyk, Barbara B.**

PhD, Autumn 2011

*Assessing the Risk of Irritable Bowel Syndrome One Year Post-Acute Gastroenteritis*

Chair: Paul Succop, PhD

**Krawczewski Carhuatanta, Kimberly A.**

PhD, Autumn 2011

*CNS and Peripheral Mechanisms by which Voluntary Running Wheel Exercise Affects Adiposity and Glucose Metabolism*

Chair: Silvana Obici, MD

**Li-Kroeger, David**

PhD, Spring 2012

*Integration of Regional and Neural Transcription Factors Controls EGF Signaling from Sensory Organ Precursor Cells During Drosophila Development*

Chair: Brian Gebelein, PhD

**Liu, Wei**

PhD, Autumn 2011

*Rational Targeting of Cdc42 in Hematopoietic Stem Cell Mobilization and Engraftment*

Chair: Yi Zheng, PhD

**Lu, Thomas X.**

PhD, Winter 2012

*MicroRNA in the Pathogenesis of Allergic Inflammation*

Chair: Marc Rothenberg, MD, PhD

**Manning, Janet R.**

PhD, Winter 2012

*Fibroblast Growth Factor 2-Mediated Cardioprotection: the Kinase Mediators and Downstream Targets of FGF2-Induced Protection from Ischemia and Reperfusion Injury*

Chair: Jo El Schultz, PhD

**Masterson, Elizabeth A.**

PhD, Winter 2012

*Prevalence of Workers with Shifts in Hearing by Industry: A Comparison of Occupational Noise Exposure Regulation Criteria*

Chair: Marepalli Rao, PhD

**Morrison, Monique A.**

PhD, Summer 2011

*Targeting the Human Papillomavirus E6 and E7 Oncogenes by E2 promotes Cellular Motility and Invasion*

Chair: Susanne Wells, PhD

**Phelan, James D.**

PhD, Spring 2012

*Transcriptional Control of Normal Lymphopoi-esis and T-cell Neoplasia by Growth Factor Independent 1*

Chair: Leighton Grimes, PhD

**Prasad, Joni M.**

PhD, Winter 2012

*Hemostatic Factors in Bacterial Virulence and Host Defense*

Chair: Jay Degen, PhD

**Putnam, Karen T.**

PhD, Summer 2011

*Childhood Adversities and Complex Adult Psychopathology: Findings from the National Comorbidity Survey Replication (NCS-R) Study*

Chair: Kim Dietrich, PhD

**Rugless, Fedoria E.**

PhD, Spring 2012

*The Effects of Manganese Exposure on Neuro-motor Performance in Children*

Chair: Erin Nicole Haynes, DrPH

**Singh, Umesh**

PhD, Autumn 2011

*Environmental Exposures to Airborne Microbial Sub-micrometer Particles and Airway Inflammation in Children*

Chair: Tiina Reponen, PhD

**Stefater III, James**

PhD, Autumn 2011

*Regulation of Vascular Patterning by Macrophages and Microglia*

Chair: Richard Lang, PhD

**Stengel, Kristy R.**

PhD, Autumn 2011

*Modifiers of Ras-Driven Tumorigenesis and Therapeutic Response*

Chair: Yi Zheng, PhD

**Tandon, Preeti**

PhD, Autumn 2011

*S6K1 Mediates Oncogenic Glycolysis in Pten Deficient Leukemia*

Chair: David Plas, PhD

**Waddell, Amanda B.**

PhD, Winter 2012

*Role of Macrophages and Eosinophils in Inflam-*



*matory Bowel Diseases*  
Chair: Simon Hogan, PhD

**Wagh, Purnima K.**  
PhD, Winter 2012  
*Ron Receptor Activation in Breast Cancer*  
Chair: Susan Waltz, PhD

**Wang, Huiyan**  
PhD, Winter 2012  
*Toxicity and Signaling Mechanisms Underlying Interactions of Stachybotrys chartarum Toxins with Lung Macrophages*  
Chair: Jagjit Yadav, PhD

**Willson, Tara A.**  
PhD, Winter 2012  
*STAT3 Regulation of Mucosal Inflammation in Pediatric Crohn's Disease and Murine Colitis*  
Chair: Lee Denson, MD

**Wilson-Pérez, Hilary E.**  
PhD, Spring 2012  
*Effects and Mechanisms of Bariatric Surgery: Altered Food Choice and the Role of Glucagon-Like Peptide-1*  
Chair: Randy Seeley, PhD

**Zhou, Bo**  
PhD, Winter 2012  
*The Role of Retromer in Regulating the Apical-Basal Polarity and the Immune Response during Drosophila Development*  
Chair: Xinhua Lin, PhD

**Zoller, Erin**  
PhD, Summer 2011  
*Mechanisms of Consumptive Anemia of Inflammation: Roles for Interferon-Gamma and Hemophagocytosis*  
Chair: Michael Jordan, MD

### **College of Nursing**

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**Al-Natour, Ahlam S.**  
PhD, Spring 2012  
*Jordanian Nurses Barriers to Screening for Intimate Partner Violence*  
Chair: Gordon Gillespie, PhD

**Christianson, Jane**  
PhD, Spring 2012  
*Tai Chi as a Possible Way to Reduce Cardiovascular Risk Factors in Firefighters*  
Chair: Linda Sue Davis, PhD

**Farra, Sharon L.**  
PhD, Winter 2012  
*Effects of Disaster Training With and Without Virtual Simulation*  
Chair: Elaine Miller, DNS

**Pederson, Gail A.**  
PhD, Winter 2012  
*Factors That Enable Later Career Female Nurses to Complete Their PhD Degrees in Nursing*  
Chair: Linda LaCharity, PhD

**Punsomreung, Treechada**  
PhD, Spring 2012  
*Intimate Partner Violence (IPV), Factors Influencing IPV, and Adverse Maternal Health among Pregnant Thai Women*  
Chair: John Schafer, PhD

**Qandil, Abeer "Moh'd Amin"**  
PhD, Winter 2012  
*Modification of Life Events Questionnaire for Use with Arabic Speaking Pregnant Women*  
Chair: Theresa Beery, PhD

**York, Kathie J.**  
PhD, Autumn 2011  
*The Community Health Workers' Role in the Community-Directed Treatment with Ivermectin Program in the Morogoro Rural District of Tanzania*  
Chair: Devon Berry, PhD

### **James L. Winkle College of Pharmacy**

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**Samineni, Divya**  
PhD, Summer 2011  
*Pre-Clinical and Clinical Investigation of Pharmacokinetic and Pharmacodynamic Interactions between Darunavir, a Novel Protease Inhibitor and Rosuvastatin*  
Chair: Pankaj Desai, PhD



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Photography and Layout:	<b>Sharareh Khosravani</b>
Additional Photography:	<b>Johnathan McLemore</b>
Contributing Writers:	<b>Heather Hamilton</b>
	<b>Nick Kelly</b>
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University of Cincinnati  
PO Box 210627  
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