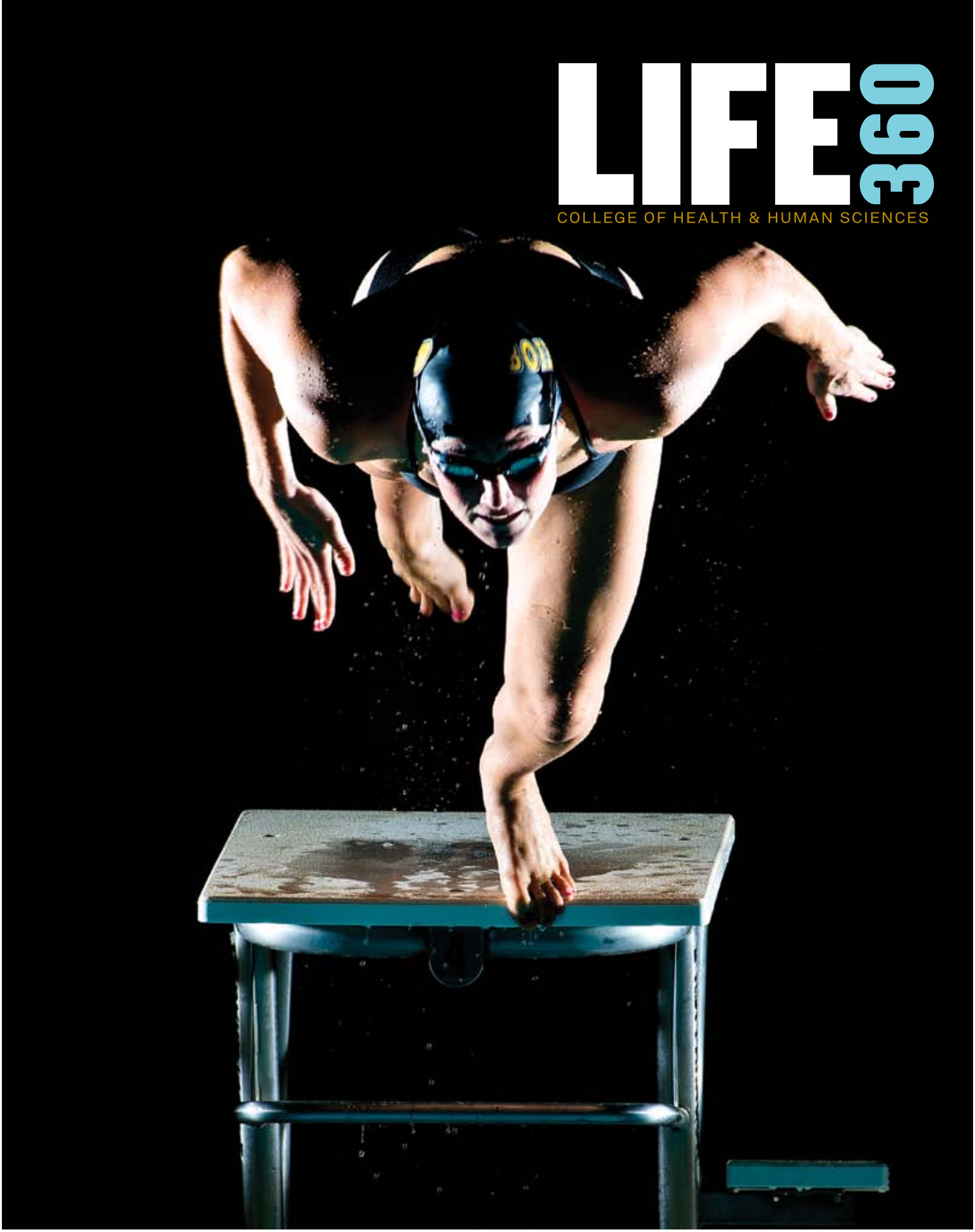
LIFE 360

COLLEGE OF HEALTH & HUMAN SCIENCES



PURDUE
UNIVERSITY

Swimming Scholar: Lauren Gustafson, our cover model and a senior in Purdue's School of Health Sciences, is setting a soaring pace through one of the nine academic units of the College of Health and Human and Sciences. Like many of our best students, she personifies the college's emerging strategic plan. That is through the acts of learning, discovery and engagement. Gustafson is not only one of the fastest Purdue swimmers in its history of women's swimming, she's also a Distinguished Big Ten Scholar. The freestyle sprinter qualified for the U.S. Olympic Team Trials in 2012 while balancing a rigorous academic schedule. After she graduates in May 2013, she'll attend the Indiana University School of Medicine on a new path to becoming a doctor, possibly a pediatrician. For more on Gustafson, look for her profile online at www.purdue.edu/hhs. (Photos by Andrew Hancock)

LIFE 360

COLLEGE OF HEALTH & HUMAN SCIENCES

FALL 2012

SECTIONS

P.08

LEARN

P.18

DISCOVER

P.28

ENGAGE

DEPARTMENTS

F1RST IMPRESSIONS

Over the past year, faculty and staff from the College of Health and Human Sciences (HHS) have been working together to develop the college's strategic plan. Throughout its development, a guiding principle has been to build a strong foundation for HHS. Establishing an environment of openness, innovation and collaboration, as well as an appreciation of diversity, is critical to achieving our goals. Such an environment reflects the enduring values of HHS faculty and staff, and it prepares the college for exciting growth and greater impact on the state of Indiana, the nation and the world.

The planning process forced us to look inward — to determine what was important to us, to ask what we wanted to become and how we would get there. Through our teaching, research and engagement, we will continue to address important problems central to improving the lives of people. We have the strategic advantage of being the academic home to scholars in both the human sciences and health sciences. Together, we aspire to a reputation for excellence in our research, in how we teach and prepare students for the future and in the ways in which we serve our communities. As each day passes, we move closer to achieving these goals, which are intentionally and closely aligned with those in the University's *New Synergies* plan.

We anticipate having our strategic plan completed by the end of this year.

In this issue of *Life 360*, those three areas of the HHS strategic plan — learning, discovery and engagement — are exemplified through stories and photos. In "Rethinking Teaching," you'll read about new learning strategies taking place in HHS classrooms. "Battling Parkinsons" covers eight HHS researchers who are studying potential causes and the effects of Parkinson's disease, a disease affecting nearly 1 million people living in the U.S., along with innovative ways patients are coping with the disease. On page 28, you'll learn about our newest initiative, the Women's Global Health Institute, a comprehensive and collaborative partnership with Purdue's Discovery Park that is proactively focusing on protecting and improving women's health and well-being through prevention of disease. Our engagement stories also include a piece on the "My Plate" exhibit, which made its premiere at the Indiana State Fair this summer, and an article about the Center for Global Urban Sustainability.

This issue continues our magazine's mission to tell our story through vivid photography. I think you'll enjoy our "Tools of the Trade" photos beginning on page 26, as well as photos from the most recent (2012) Purdue University Dance Marathon, a student organization founded by Travis Stoutenborough, an HHS alumnus.

As we enter into our third academic year as a college, I'd like to thank you for your support and encouragement as we build your new home at Purdue, the College of Health and Human Sciences.

OPPORTUNITY TO CHANGE THE WORLD

Hail Purdue!

Christine Ladisch

Inaugural Dean

REVERBERATIONS

THE COLLEGE OF HEALTH AND HUMAN SCIENCES (HHS) BECAME AN OFFICIAL PURDUE ENTITY ON JULY 1, 2010. *LIFE 360*, THE INAUGURAL PUBLICATION FOR ALUMNI AND FRIENDS, WAS CREATED IN PART TO SHOW THE CONNECTIONS BETWEEN NINE ACADEMIC UNITS WITHIN THE COLLEGE, THE BURGEONING COLLABORATIVE EFFORTS OF LIKE-MINDED RESEARCHERS AND THEIR STUDENTS AND THE INCREASING GLOBAL REACH OF HHS. BASED ON FEEDBACK, THE MAGAZINE HAS BEEN WELL-RECEIVED. IN-HOUSE COLLEAGUES AT PURDUE AND ALUMNI SHARED THEIR ENTHUSIASM FOR BOTH THE PUBLICATION AND THE POSSIBILITIES OF THE NEW COLLEGE. HERE'S SOME OF WHAT WE HEARD FROM EMAILS AND ON FACEBOOK.

BEAUTIFUL!

BEN PAOLILLO
Senior Director - Alumni Clubs
Purdue Alumni Association

LOVE

the *Life 360* magazine! The articles are well-written and fantastic graphics!

ANNE SHIELDS (SCIENCE '80)

Life 360 is great! From the articles to the photos ... layout and design, (including paper texture and binding)!!

KUDOS!

LISA L. STEIN (LA '98)
Communications and Proposal Coordinator
Human Development and Family Studies
Purdue University

Thank you for the "65 and Holding, Baby Boomers Plan for the Golden Years" article!!

EXCELLENT!!

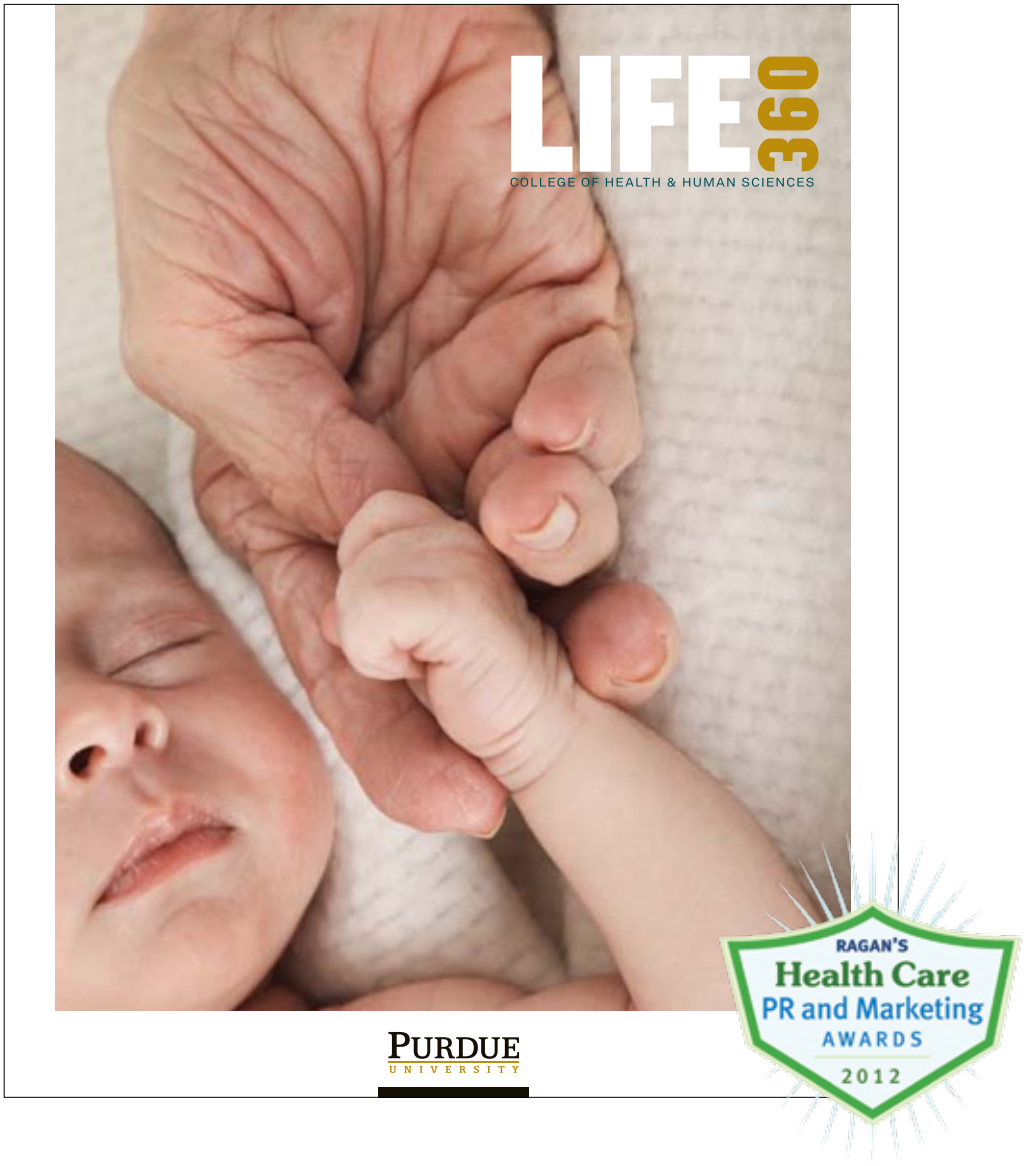
MARYANN BLODGETT WILSHERE (HDFS '72)

DEAR DEAN LADISCH:
My wife (Andrea Coward, NUR '73) and I recently received the *Life 360* magazine from the College of Health and Human Sciences. We thoroughly enjoyed reading about the new college and the many exciting initiatives that are under way. Now that we are both graduates of the same academic college (Nursing and Human Development and Family Studies), we have

GREAT PRIDE

in sharing this common bond. Congratulations to you and other colleagues who are building on an extraordinary foundation and shaping the future. We both wish you the very best as this exciting endeavor continues to unfold.

RAYMOND T. COWARD (PhD '74)
Executive Vice President and Provost
Utah State University



LIFE 360 | LOOKING GOOD

Life 360 caught the eye of industry professionals as well. The magazine was named a finalist in the category of best design for a print publication in Ragan's Health Care PR and Marketing Awards 2012. The contest had more than 300 entries.

360° REVIEW

FROM STANDOUT STUDENTS TO HONORED PROFESSORS TO FACULTY RESEARCHERS ON THE CUTTING EDGE OF DISCOVERY, THE COLLEGE OF HEALTH AND HUMAN SCIENCES (HHS) CONTINUED TO MAKE NEWS IN ITS SOPHOMORE YEAR. HERE ARE A FEW HIGHLIGHTS FROM THE 2011-12 ACADEMIC YEAR. FOR THE LATEST, VISIT HHS ONLINE AT WWW.PURDUE.EDU/HHS.

CONSUMER SCIENCES AND RETAILING

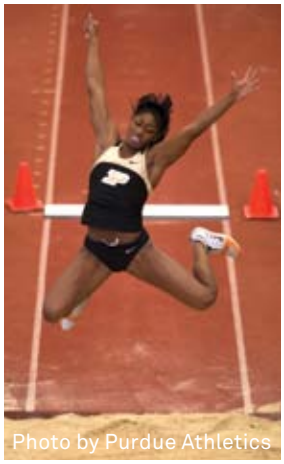


Photo by Purdue Athletics

With a flair for fashion and the ability to leap several meters through the air, Leah Eber, an apparel and design technology major, added two more Big Ten Championship long jump titles to her resume, taking home firsts in both the conference indoor and outdoor meets. The four-time champion (she defended both titles from 2011) and second-team All-American, Eber also put her clothing line on center stage at the spring Fashion Show. She graduated in May and hopes to pursue a career in professional track and field. www.purdue.edu/hhs/leaheber

HEALTH AND KINESIOLOGY

June marked the 40th anniversary of the Title IX legislation mandating that women and girls have equal opportunities in high school and college sports programs. Cheryl Cooky, assistant professor of health and kinesiology and women's studies, continues to explore how Title IX has made a place for women in sports and what changes are needed to truly level the playing field for female athletes. On the administrative front, Timothy Gavin became the department's new head on August 1, 2012.

HEALTH SCIENCES

The school announced the establishment of a 3+2 program, formally the "accelerated health care management degree program," which combines three years of health sciences curriculum and two years of Krannert business management study for an advanced business degree in health management. The Commission on Accreditation of Medical Physics Educational Programs (CAMPEP) accredited a joint graduate program in medical physics with the School of Medicine at the Indiana University. The CAMPEP accreditation ensures that students are eligible for board certification upon graduation and helps foster research collaborations among participating faculty, clinicians and technologists across the disciplines at two premier higher learning institutions in Indiana.

HOSPITALITY AND TOURISM MANAGEMENT

An innovative pizzeria is getting a leg up in the business world. Azzip Pizza, led by Brad Niemeier, a senior in hospitality and tourism management, won $20,000 as the top finisher in the Black Division of Purdue's 25th annual Burton D. Morgan Business Plan Competition. Neimeier delivered the winning presentation in February for his restaurant concept aimed at the fastest-expanding sector of the industry, fast-casual, where customers can choose their toppings while the pizza is being made.


Photo by University News Service

HUMAN DEVELOPMENT AND FAMILY STUDIES

Four faculty members were honored for their teaching and research efforts. Shelley MacDermid Wadsworth, professor of human development and family studies, received one of the 2012 Morrill Awards, which recognize faculty who have excelled as teachers, researchers and scholars and in engagement missions. Daniel Mroczek was named the William and Sally Berner Hanley Professor of Gerontology. Shawn Whiteman, associate professor of human development and family studies,

received the HHS Early Career Research Achievement Award. Doug Sprenkle, professor emeritus of marriage and family therapy, received the Award for Outstanding Contribution to Marriage and Family Therapy from the American Association for Marriage and Family Therapy.

NURSING

Karen Yehle, assistant professor of nursing, received an honorable mention in the *Indianapolis Star*'s 10th annual Salute to Nurses. Honoring nurses and nurse educators from around the state who provide selfless service and dedication to their communities, the Salute to Nurses received more than 900 nominations. Nine individuals received awards.

NUTRITION SCIENCE

Connie Weaver, head and Distinguished Professor of Nutrition Science, received the Herbert Newby McCoy Award, the most prestigious research honor given at Purdue. Weaver was recognized for her work on calcium metabolism in adolescents and the impact of diet, gender, race and sexual maturity on calcium utilization. She is also a member of the Institute of Medicine, which is the health arm of the National Academies. Weaver also received the Linus Pauling Institute Prize for Health Research. Wayne Campbell, professor of nutrition science, won the college's Research Achievement Award.

PSYCHOLOGICAL SCIENCES

David Rollock, associate professor of psychological sciences, was named one of six 2012 Murphy Award winners at the Faculty Awards Convocation in April. Drawing on his extensive background as a licensed clinical psychologist, Rollock often leads in-class interviews with patients suffering from conditions such as eating disorders, autism, bipolar disorders and schizophrenia. Putting a human face on the disorders discussed in class helps students realize the magnitude of abnormal psychology, Rollock says. In other news on the faculty front, Robert Kail was named a Distinguished Professor of Psychological Sciences.

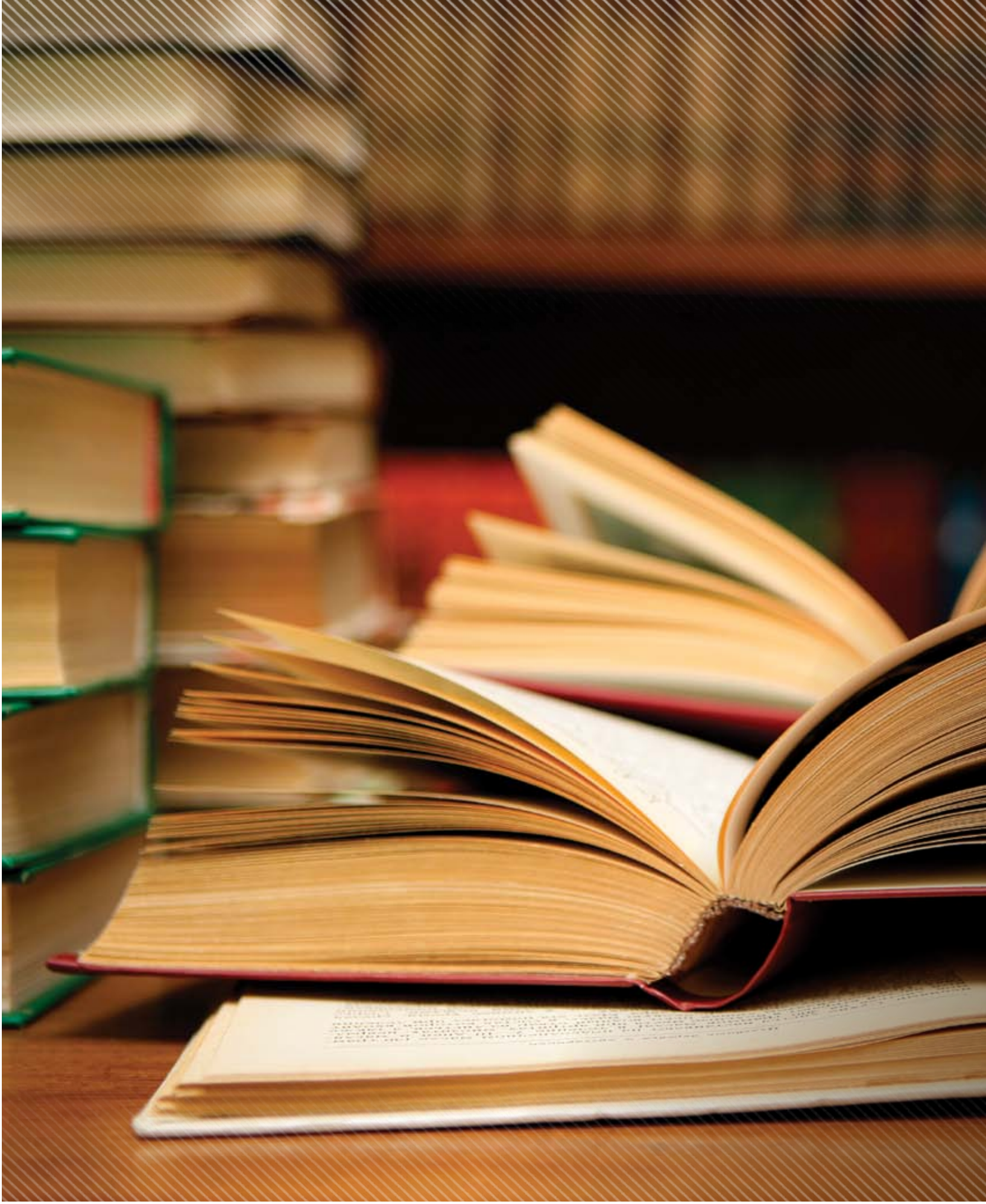
Photo by Mark Simons

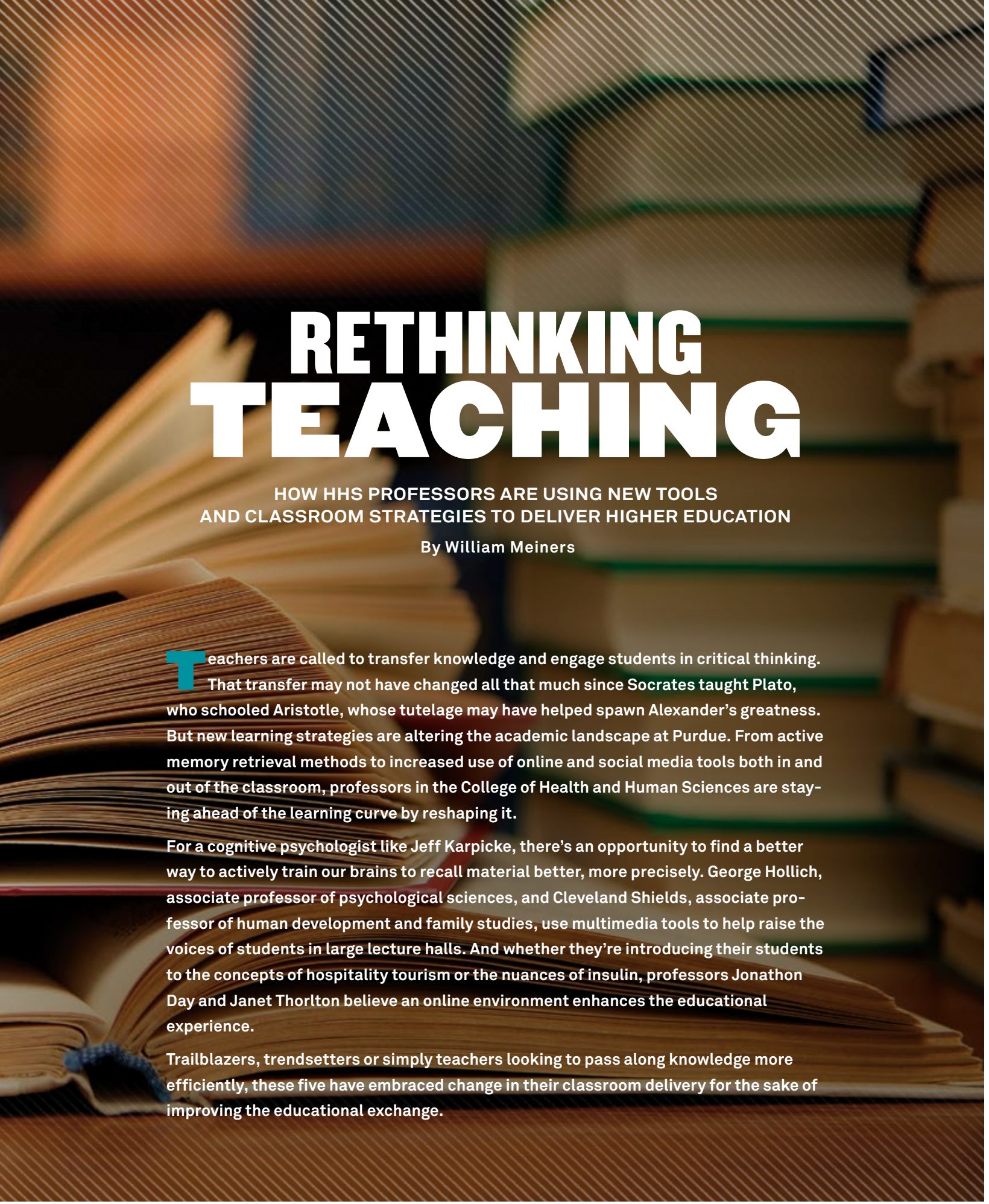
SPEECH, LANGUAGE, AND HEARING SCIENCES

Students in a Purdue service-learning program developed an application for Apple's iPad that helps children with severe autism learn how to communicate. The app, called SPEAKall!, allows the children to construct sentences by choosing photos and graphic symbols. The app speaks the sentence, which allows a child to communicate a thought and also helps the child learn to talk. Launched on iTunes in November, the free app has been downloaded more than 3,300 times.

HHS EXTENSION

Extension educators received the Ann Hancook Award for excellence in educational program for Captain Cash, an initiative designed to deliver relevant and exciting financial education to third- and fourth-grade public school children throughout Indiana. According to a 2009 study by the Council on Economic Education, some 70 percent of youth from elementary grades to high school are not required to learn money management skills in the traditional classroom. With the mean amount of family credit card debt current at $7,300, financial literacy becomes paramount. Last year, more than 2,000 students interacted with Captain Cash in classrooms, significantly impacting attitudes toward financial behavior.





RETHINKING TEACHING

HOW HHS PROFESSORS ARE USING NEW TOOLS AND CLASSROOM STRATEGIES TO DELIVER HIGHER EDUCATION

By William Meiners

Teachers are called to transfer knowledge and engage students in critical thinking. That transfer may not have changed all that much since Socrates taught Plato, who schooled Aristotle, whose tutelage may have helped spawn Alexander's greatness. But new learning strategies are altering the academic landscape at Purdue. From active memory retrieval methods to increased use of online and social media tools both in and out of the classroom, professors in the College of Health and Human Sciences are staying ahead of the learning curve by reshaping it.

For a cognitive psychologist like Jeff Karpicke, there's an opportunity to find a better way to actively train our brains to recall material better, more precisely. George Hollich, associate professor of psychological sciences, and Cleveland Shields, associate professor of human development and family studies, use multimedia tools to help raise the voices of students in large lecture halls. And whether they're introducing their students to the concepts of hospitality tourism or the nuances of insulin, professors Jonathon Day and Janet Thorlton believe an online environment enhances the educational experience.

Trailblazers, trendsetters or simply teachers looking to pass along knowledge more efficiently, these five have embraced change in their classroom delivery for the sake of improving the educational exchange.

Brain Builder: Jeff Karpicke, associate professor of psychological sciences, has shown that the act of retrieving knowledge has produced learning. (Photo by Mark Simons)

Mind over Material

Traditionally in the field of cognitive psychology, the study of learning and memory has taken place in laboratory settings. But Karpicke, associate professor of psychological sciences, says his research team has revealed many principles and ideas that could have big implications for learning if they are transported into an educational context. His particular call to action? To develop easier ways for students to not only retain, but also better explain the concepts of what they've read.

"Our research is focused on retrieval," Karpicke says. "Our studies have shown that when you're retrieving knowledge, that activity itself is actually producing learning."

So they tested a total of 200 students in two different studies by having them read texts on various science topics. The first group, using elaborative study techniques, created concept maps, or diagrams that illustrate the complicated connections and relationships in the material. The second group read the texts and practiced retrieval, putting aside the material and recalling concepts as best they could. A week later, the students returned to the lab for an assessment of their long-term learning. The group of retrievers proved golden, showing a 50 percent improvement in long-term retention scores and beyond the group that created concept maps.

"The final retention test was one of the most important features of our study because we asked questions that tapped into meaningful learning," Karpicke says. "The students answered questions about the specific concepts they learned as well as inference questions asking them to draw connections between things that weren't explicitly stated in the material. On both measures of meaningful learning, practicing retrieval continued to produce better learning than elaborative studying."

That points to a deeper understanding, critical to absorbing complex material. As far as techniques for retrieval, Karpicke says it could be as simple as having students write down a few clues as they're reading the texts. The group is also developing some computer-based programs that prompt students to engage in the retrieval process, which is individualized and lets students work at their own pace and gauge their own progress. Grants from the National Science Foundation and the U.S. Department of Education's Institute of Education Sciences are helping to further this research.

Karpicke has tested students in Purdue labs and has taken the research on the road to Indianapolis elementary schools. One of their immediate findings: Students typically do not have a huge arsenal of study strategies. "We spend a lot of time in K-12 and college education giving students content instead of telling them how to go about learning," Karpicke says. "So we hope to develop strategies and technologies that guide students to learn in a good, effective way."

Education of the Masses

You may recall crowding into a large lecture hall in your own college days, elbow to elbow with some 200-plus restless, sometimes sleepy, 18- to 20-year-olds. These settings present learning challenges — for both professor and pupils. "It feels lousy when you lose an audience of 200 students," Karpicke says.

Though he probably hasn't lost too many audiences. One of five Purdue teachers honored with a 2011 Outstanding Undergraduate Teaching Award in Memory of Charles B. Murphy, Karpicke tries to keep students personally engaged in the heady material.

"In any of the big foundational courses students are going to be responsible for a lot of content that's brand-new to them," Karpicke says. "So I try to make it relevant. Cognitive psychology is about how the mind works and I'm talking to a

Withstanding the Heat: With a student audience of 200-plus, Elliot Friedman, assistant professor of human development and family studies, is using Hotseat in his Human Development class. The social media tool allows students to post comments and questions via Facebook and Twitter. (Photo by Andrew Hancock)

bunch of people with minds, so I'll spend a lot of time talking about learning strategies."

Hollich, Karpicke's colleague in psychology, uses a tool called Hotseat in his Introduction to Child Psychology class. The Purdue-built backchannel system allows students to post comments and questions via Facebook and Twitter. And in Hollich's case, that's a chance to hear from all of the 155 students enrolled.

In spite of some initial challenges, such as getting all the students to enter their phone numbers into Hotseat for attendance purposes, Hollich is thrilled with the response he's getting from his students. "Often the things that are most misunderstood are not the things the top students would ask in a large class," he says. "My principal use of Hotseat is to have students to text me one thing they had trouble understanding or one question they would like answered at the end of the class. This gives me a better picture of exactly where students are having difficulty and what topics need more lecture."

For Shields, who teaches Human Sexuality and the Family to a class of 77, Hotseat helped create a dialogue that was previously unattainable in a large class, especially one with a subject matter that may make some students reluctant to speak their minds. "I alternate my lecture between PowerPoint and discussing Hotseat comments," he says. "There's never been a shortage of comments or questions."

Both early adopters of Hotseat, Hollich and Shields have adjusted their teaching styles accordingly. But both seem enthusiastic about the apparent educational sea change — and where it's leading them. "Teaching and learning is all about engagement," says Hollich, who won Purdue's Class of 1922 Helping Students Learn Award for teaching a traditional course in a nontraditional way in a program called IMPACT, which stands for Instruction Matters: Purdue Academic Course Transformation. "These days students are turning to technology as another method to share their thoughts, questions and ideas. These new technological tools help us connect with students — pure and simple. We understand how much and exactly what they're

learning. In the past, we could've had students write short response papers or ask them to speak up in class, but this new technology gives us instantaneous feedback from all students in the classroom. It's just a better tool, and I can't see why more teachers don't use it. It's like digging a hole with a spoon instead of a shovel. Why not use the best tool to do the best job?"

Blackboard Learners

Like Hotseat, which was developed by Information Technology at Purdue, Blackboard Learn allows professors to structure courses and deliver the content in an online environment. Students may meet for live lectures, as they do in Thorlton's Clinical Applications of Pathophysiology class, so the online component becomes supporting material.

Thorlton, assistant professor of nursing, is able to offer multiple tools to convey the complex content of pathophysiology. For example, Blackboard Learn allows her to develop learning modules and embed illustrations and YouTube videos in her course materials. Group assignments, discussion boards and social media integration have all helped to develop a learning community — even if it's online.

As Thorlton helps prepare students to become registered nurses, Blackboard Learn lets her track their progress along the way. "With date and time stamps of student activity, I can easily run a log report to see who's spending the time they need to with the online material," she says.

With an undergrad and a grad class, each with about 50 students, Thorlton divides the 50 into groups of six to eight. "It's crucial that nursing students fully understand how insulin works," she says, "so this makes for an ideal online discussion topic in smaller groups."

Among her graduate students in her Health Policy: Local to Global course, Thorlton has a wide range of students with different work and life experiences, from nurses with minimal experience to those with more than 30 years of experience. She's divided those students into special interest groups and they can post drafts of papers and offer peer critiques. "It's been one of the most successful classes I've ever taught," she says, as some of her more mature students take on a natural mentoring role.

Day, assistant professor of hospitality and tourism management, came to academia as a natural progression from a successful career in destination marketing, earning his

Blackboard Teachers: Janet Thorlton, assistant professor of nursing, and Jonathon Day, assistant professor of hospitality and tourism management, use Blackboard Learn to enhance the in-class experience with an online component. (Photo by Mark Simons)

master's and a PhD along the way. He brings the industry experience to his classroom that his students crave.

In addition to the intuitive ease in which Blackboard Learn helps him organize his undergraduate and graduate classes, Day likes having the extras of the system, so class time can be focused on discussions. Rather than spending the class taking copious notes, students can get lecture notes online. He's also looking into putting some more self-guided lectures online.

"One of our challenges as teachers is to engage our students," Day says. "They're already using a variety of different media, both in class and online. Coming from the business side of things, I really appreciate the impact of social media tools. Teaching is more than a couple of hours of face time in the class. These tools allow us to continue the conversation outside of class."

And in the history of academic conversations, from dialogues between Socrates and Plato on what constitutes a virtuous life to cyber chats between Day and one of his hospitality and tourism students on the business of marketing, these are the exchanges that lead to learning.

TALK OF THE CLASSROOM

Christine Weber Fox (in red) with Skylar Powlen, one of her seniors. (Photo by Mark Simons)

Christine Weber-Fox, a well-known scientist for her work in understanding how the brain processes language and speech, has now been honored for her teaching with the College of Health and Human Sciences Award for Outstanding Undergraduate Education. Her students praise her for relating these experiences as a researcher, and speech-language pathologist, to the classroom.

Weber-Fox's career in speech-language pathology started as a senior in high school when she took a guess on which communication area to study.

"At the time, I didn't know the major of speech-language pathology existed," says Weber-Fox, professor of speech, language, and hearing sciences. "I was looking at a possible list of majors and I thought that sounded interesting. So, I signed up for it and ended up loving the field and making it my career."

By the time students step into Weber-Fox's classroom, they are committed to their major of speech, language, and hearing sciences. The 60 students she sees each week for Speech Language Disorders in Health Care Settings are already motivated to learn and excel in the classroom. She continues to inspire that passion, and as one student noted on an anonymous course evaluation, "She has an effective teaching style that keeps my interest and actually urges me to learn more."

Recent graduate Erin Coffey, who was an honors student her junior year in the speech language disorder class, says, "She is a well-known professor in our field, which can be intimidating for students, but she comes across as very down-to-earth and it's obvious she wants us to succeed."

Knowing that many of these students' experiences with speech problems in dementia, Parkinson's disease or traumatic brain injury patients are limited, Weber-Fox invites guest speakers to class. Throughout the semester, these patients share their personal stories about the difficulties, quirks, challenges and even funny moments about living with a serious communication disorder.

"My students see that these people, and their loved ones, are inspiring," Weber-Fox says. "Whether it is a speech or language problem due to a stroke, dementia, trauma or disease, these individuals and their families are facing immense challenges in their daily lives. The visitors broaden the students' perspectives, and show them that despite their disorders they can work to achieve life goals. It really brings home what the focus of the students' careers will be about, whether they go on to do clinical work and treat patients or pursue a career in research."

One classroom visitor, a young woman who had been in a car accident, inspired Coffey to focus on speech and cognitive issues for people with traumatic brain injury. The speech challenges for traumatic brain injury patients can vary, but she struggled with slow and labored speech that made her sound different from most young adults.

"She stuck with me," says Coffey, who began her graduate work at Purdue this fall. "She talked about what it is like to live with the injury and what her life like was before and how it has changed."

"It is a pleasure to teach these students because we share a fascination for human communication and a desire to help people with speech and language disorders," Weber-Fox says. "It's important for teachers to remember what it is was like to be a student, and that students are there too because of their passion and interests. If educators can build on the students' curiosity and excitement, the students are going to invest more of themselves in the class. That inspires me."

Amy Patterson Neubert

Jenny (Jiyeon) Lee (HTM '00)

EDUCATED TRAVELERS

To spur his students to global exploration, Liping Cai, professor of hospitality and tourism management, often shares a quote from St. Augustine. "The world is a great book," the theologian philosophized, "of which they that never stir from home read only a page." In that context, Purdue's School of Hospitality and Tourism Management (HTM) is helping to produce some voracious readers.

Consider Jenny (Jiyeon) Lee (HTM '00). Now a professor in the Australian School of Business and program director in services marketing tourism at the University of New South Wales, Lee earned her first degree in science education in her native Seoul, South Korea. "I taught chemistry and earth science at a Korean high school for a year, but wasn't very challenged," Lee says. "I wanted a bigger place where I wouldn't have limitations on my life."

Purdue's internationally top-ranked HTM program allowed Lee to learn in the Crossroads of America. Lee's global perspective changed by coming overseas. She has since visited almost every U.S. state and many countries in Europe. After Purdue, internships at the Hilton and Marriott gave her critical insight into tourism operations.

Cai, also director of Purdue's Tourism and Hospitality Research Center, says the increasingly global nature of the travel business has created career opportunities for HTM students. "There is a new wave of U.S.-based multinational hospitality and tourism firms aggressively entering new markets for expansion and growth," he says. "Last year, Marriott International signed its 100th hotel in China and plans to open a hotel in that country every month for at least the next three years."

With the global marketplace in mind, HTM students often travel. The school claims the highest percentage of its students in the college who take advantage of international learning experiences. Those opportunities range from spring break field trips to six-month internships.

Katey Wheeler, an HTM senior, worked for six months as a guest relations intern for Shangri-La Hotel, Qingdao, China. The half-year changed her life. "I had to catch on to their language very quickly," says Wheeler, who plans to return to the company. "Luckily, I had my iPhone and used a Chinese/English dictionary."

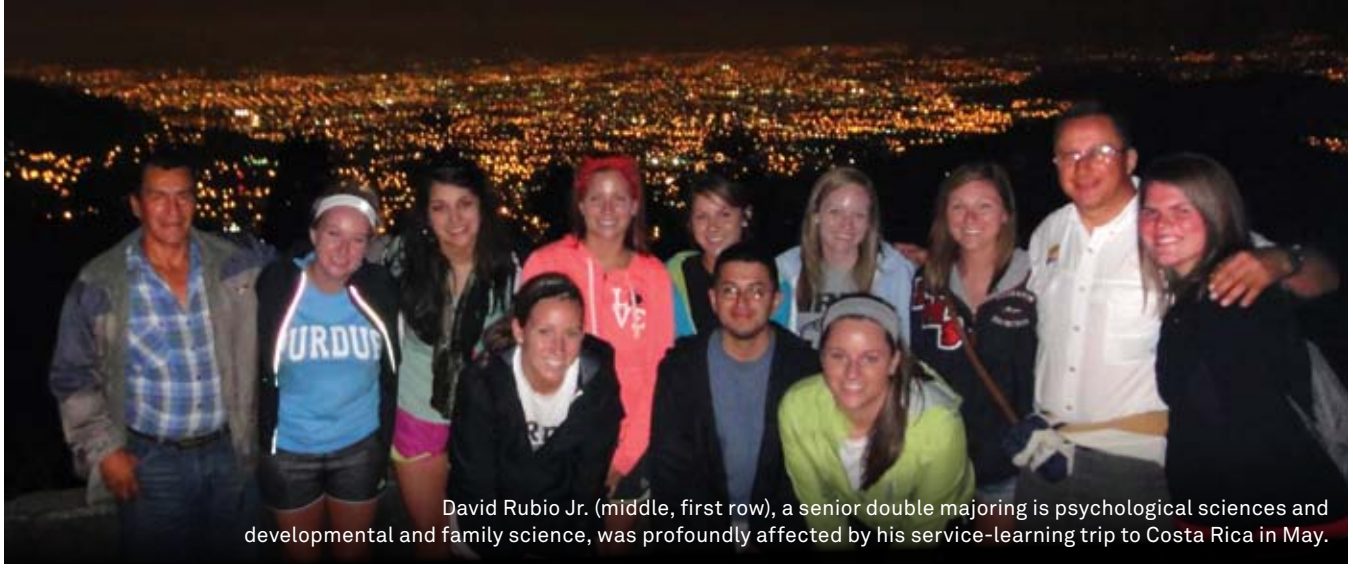
For an academic like Lee, the global experience informs her worldview. "My travel experiences are often integrated into my teaching and research," says Lee, who looks at tourism marketing through the eyes of a tourist, specifically from a psychological and behavioral standpoint.

Cai, also the associate dean for diversity and international programs, noted Lee's dedication on a visit to New South Wales. "She's truly concerned for the intellectual and personal growth of her students."

Though she still travels to the U.S. regularly, Lee feels right at home as a professor in Sydney. "There's a unique mindset in Australia. We have centralized decision-making like many Asian countries, but equality and harmony are important among colleagues and within the classroom. It's really a mixture of Eastern and Western culture."

That harmonic accord suits the world traveler just fine. As for Wheeler and others following in her footsteps, whether in business or academia, Cai says: "To better serve tourists, our students need to be educated travelers themselves."

William Meiners



David Rubio Jr. (middle, first row), a senior double majoring is psychological sciences and developmental and family science, was profoundly affected by his service-learning trip to Costa Rica in May.

LEARNING TO SERVE

RIKER FUND TAKES STUDENTS ABROAD

Growing up in nearby Monticello, Purdue senior David Rubio Jr. enjoyed a childhood similar to many in America's heartland, attending Twin Lakes High School and working summers at Indiana Beach Amusement Resort.

As immigrants from El Salvador, however, Rubio's parents had experienced very different childhoods. "They told me stories about growing up in Latin America, but it's a different world here in the United States," Rubio says. "I really had no idea what they went through. I wanted to get a sense of the culture and the people of the region."

Rubio, who majors in both psychological sciences and developmental and family science, earned that opportunity thanks to the Charles V. and Audrey Palm Riker Fund, which supports programming and scholarships for students in the Department of Human Development and Family Studies (HDFS).

The fund was established to honor the teaching and counseling career of the late Charles V. Riker, who served Purdue from 1959 to 1983 as a professor of child development and family studies, and his spouse, Audrey Riker Vizzard, a registered nurse, clinical psychologist and adjunct faculty member at Purdue who worked in Greater Lafayette.

The fund gives specific emphasis to study abroad programs that incorporate activities relating to economically disadvantaged children, says Riker Vizzard. "My husband's dream was to establish a foundation for the most needy in the world," she says. "What better place to begin to fulfill that dream than at home, at Purdue University?"

The Riker Fund first provided financial support to graduate students from India, Taiwan, Brazil and other developing nations. In 2007, the focus shifted to undergraduates through study abroad programs in Mexico, and more recently through "Latin American Children and Families: The Costa Rican Experience," a 12-day visit led by Germán Posada, associate professor of human development and family studies, each May after final exams.

This year's attendees included Rubio and three other Riker scholarship winners, all from HDFS: seniors Kaitlin Cannon and Alicia Vega and junior Megan Neher.

The group toured San José and EARTH University at Limón; visited family homes; experienced urban and rural communities in need; engaged in service learning in schools that serve disadvantaged children; visited institutions that assist children and their families; and learned about children's education and Latino-American values.

"Growing up in America, you always hear about people in need, but it's a very different thing to see them firsthand," Rubio says. "I learned that those in a position to help others have a responsibility. I plan to use my education to help others. I want to work in a children's hospital as a psychologist and help families."

Neher also returned from the trip with a renewed sense of purpose. "My time in Costa Rica was one of the greatest experiences of my life," she says. "I learned so much about the people and culture and I had a great time doing it."

Riker Vizzard says these experiences are what she and her husband envisioned when the fund was established. "This year's scholarship winners personify what we hope to achieve: exposing young people to a wider world, different cultures and the impact of poverty, and inspiring them to make a difference in that world."

Eric Nelson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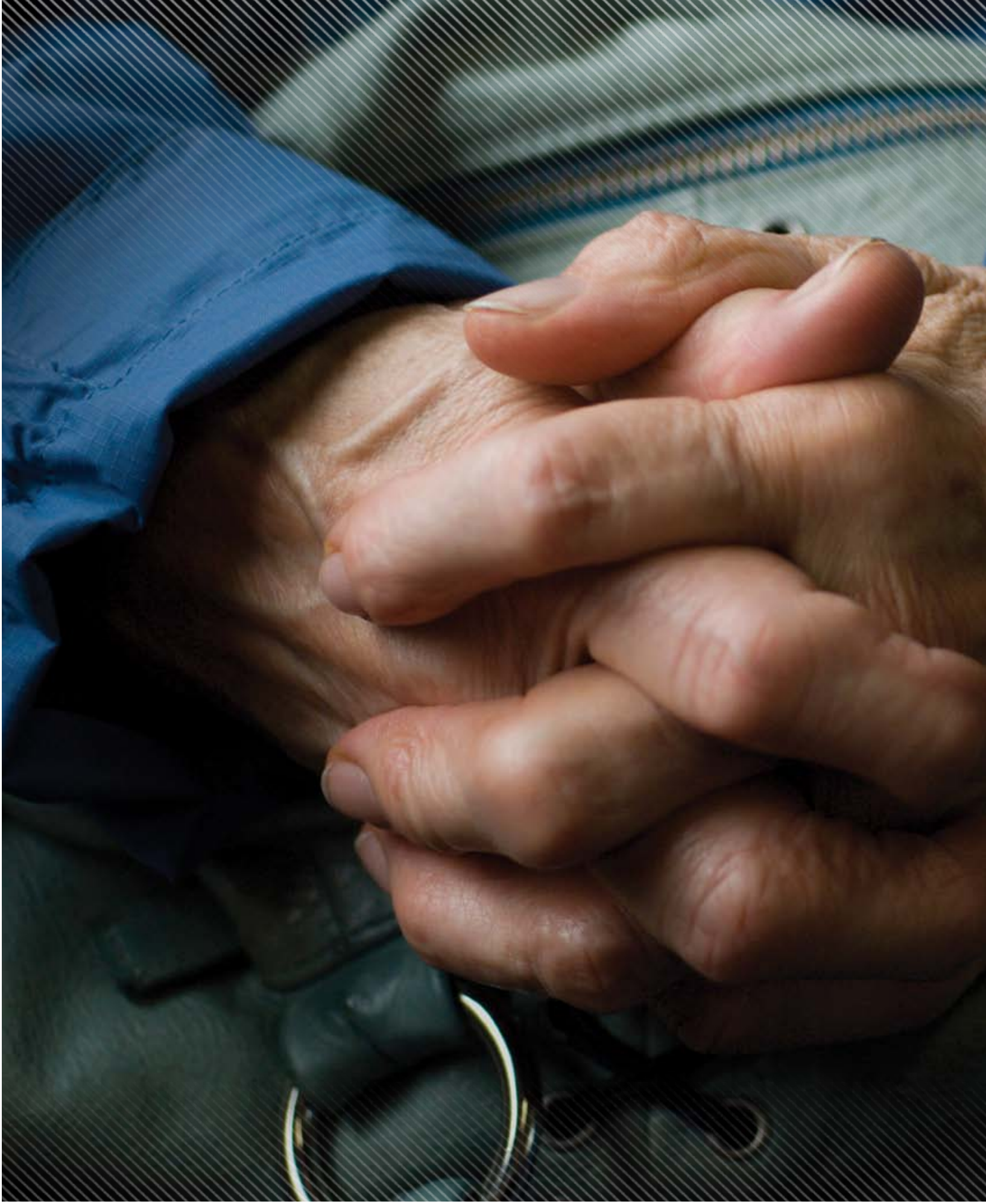
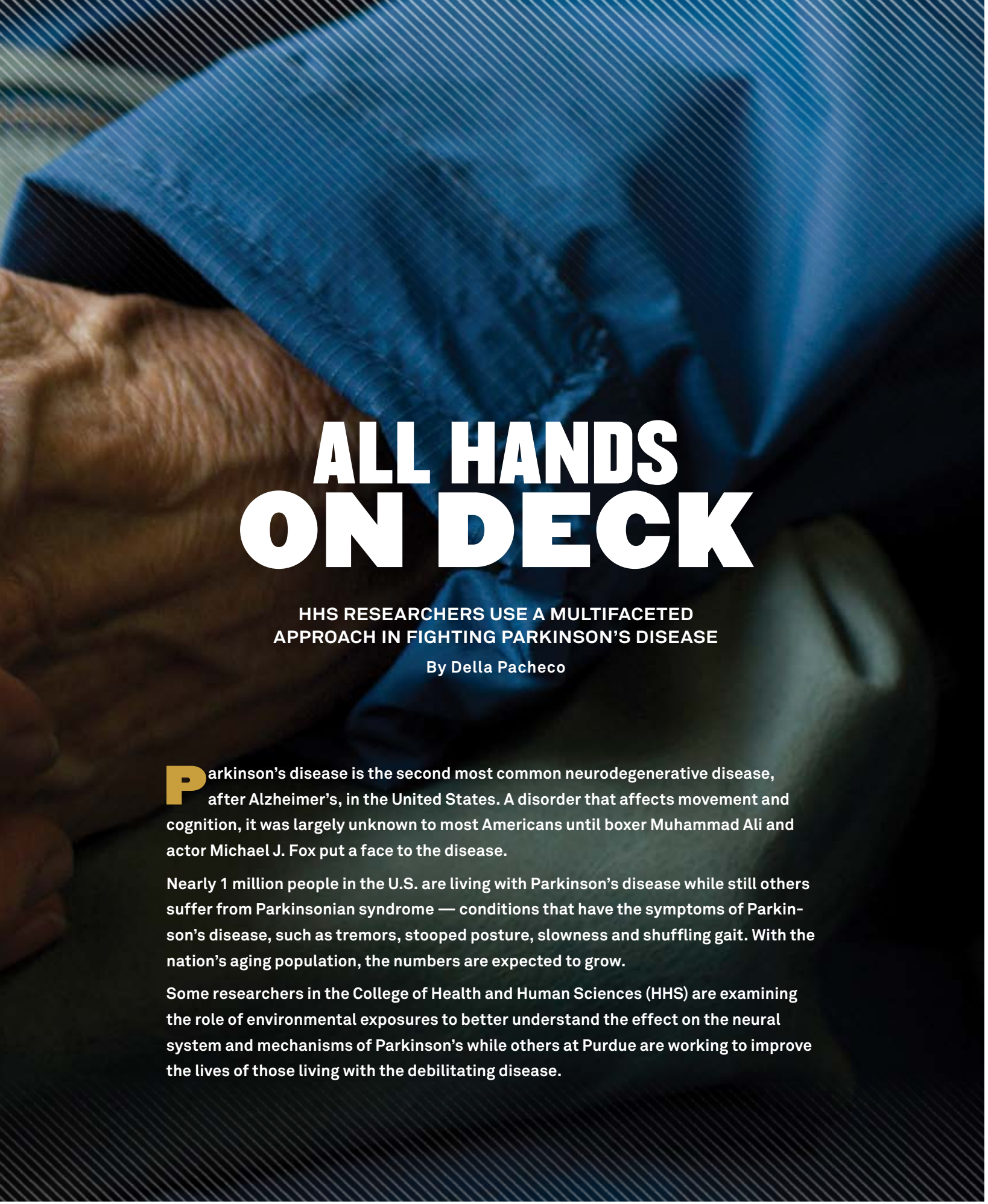
WORLD WITH A VIEW

Purdue classrooms extend far beyond the campus of West Lafayette, especially for students from the College of Health and Human Sciences who take advantage of various study abroad opportunities. Here is a small sampling of what they caught with their cameras overseas.

- Lena Gerber, a junior in psychological sciences, found the Opera House in her lens (upper left) in Sydney, Australia, as an exchange student at the University of Queensland in November 2011.
- Halim Yoo, a senior in human development and family studies, brought back a couple of great shots from his studies in India. The first (lower left) was taken while riding a bicycle rickshaw through the narrow streets of Old Delhi in monsoon season. "It began to rain very hard," Yoo says. "We got soaking wet through the ride, but it was one of the most memorable experiences I had on the trip." On a visit to a school with an ashram (above left), he arrived just in time for morning prayer.
- Holly Campbell (CLA '12) photographed classmate (near left) Alex Colsten (CSR '12) in July 2011 on the Cliffs of Moher in Ireland.
- Elizabeth Overpeck (above right), a junior in hospitality and tourism management, took an eight-hour hike with two friends up 5,000 steps to reach the top of Tai Shan, one of the five Chinese mountains sacred to Buddhists.





ALL HANDS ON DECK

HHS RESEARCHERS USE A MULTIFACETED APPROACH IN FIGHTING PARKINSON'S DISEASE

By Della Pacheco

Parkinson's disease is the second most common neurodegenerative disease, after Alzheimer's, in the United States. A disorder that affects movement and cognition, it was largely unknown to most Americans until boxer Muhammad Ali and actor Michael J. Fox put a face to the disease.

Nearly 1 million people in the U.S. are living with Parkinson's disease while still others suffer from Parkinsonian syndrome — conditions that have the symptoms of Parkinson's disease, such as tremors, stooped posture, slowness and shuffling gait. With the nation's aging population, the numbers are expected to grow.

Some researchers in the College of Health and Human Sciences (HHS) are examining the role of environmental exposures to better understand the effect on the neural system and mechanisms of Parkinson's while others at Purdue are working to improve the lives of those living with the debilitating disease.

Scientific Cannon: Jason Cannon, assistant professor of health sciences, examines the role of dietary and environmental factors on the development of Parkinson's disease. (Photo by Mark Simons)

Revealing Toxic Exposure

Since British physician James Parkinson first described the "shaking palsy" in 1817, Parkinson's disease has been linked to a variety of possible environmental causes, both natural and artificial.

According to research reported in *Archives of Neurology* (Sept. 2009), individuals whose occupation involves contact with pesticides appear to have an increased risk of developing Parkinson's disease.

Jason Cannon, assistant professor of health sciences, has examined the protective role chemical preconditioning plays in animal models of Parkinson's disease.

He joined the faculty in the School of Health Sciences in January and is setting up a laboratory where he and his research assistants will test the role of dietary and environmental factors on the development of the disease.

Cannon's Purdue research is funded by a career development award from the National Institutes of Health (NIH) and focuses on the development of new models using compounds that have been linked to Parkinson's disease. These newly developed models are used to test interactions between environmental and genetic factors and also to test potential treatments.

"Only about 10 percent of Parkinson's disease cases can be directly linked to inheritance," Cannon says. His prior postdoctoral research focused on both environmentally relevant toxins and genetics.

Researchers suggest that the disease is probably a combined result of having a genetic predisposition to the disease and exposure to some sort of neurotoxin. Many people in the field express this as "genetics loads the gun and environment pulls the trigger."

Although the exact origins of the disease remain to be found, Cannon and his team hope to identify multifactorial causes, examining the critical role of environmental factors, such as pesticides like rotenone, that may act on genetically predisposed individuals. He also is developing a new graduate course titled Analytical Toxicology and Pathology.

Ulrike Dydak, assistant professor of health sciences, specializes in medical imaging of neurodegenerative diseases, studying people with jobs like welding.

Welding exposes workers to manganese and there is no clear way to tell at present who might develop Parkinsonian symptoms. Of course, not all welders will develop the disease but researchers hope to identify specific markers that warn of that possibility if a certain threshold is passed.

Several others, including Neil Zimmerman, associate professor of industrial hygiene, and Wei Zheng, head of the School of Health Sciences, have studied neurotoxicology of manganese in populations of welders in Italy and China.

Through her NIH grant, Dydak's team has studied welders in China, where exposure levels to manganese are greater.

"We were surprised to find elevated brain GABA levels in young Chinese welders who haven't been exposed to man-

ganese that long or at high levels and who aren't exhibiting symptoms," Dydak says. GABA (gamma-aminobutyric acid) is an inhibitory neurotransmitter in the brain that prevents over-firing of the nerve cells.

"We need to find out the specificity of this finding. The GABA level itself may not be specific to Parkinson's disease, but could serve as a biomarker that needs to be watched," Dydak says.

Through a new $2 million NIH grant, Dydak will expand her research to follow welders at a local manufacturing company and a Chinese cohort over a five-year period. Her team will assess other types of exposure markers from the air, blood and nail clippings and measure GABA, neurotransmitters and 15 other metabolites in the brain.

"One is N-acetylaspartate (NAA), a metabolite that indicates how well neuronal cells are working in the brain," Dydak says. For example, if the density level of neurons goes down or dies, this marker goes down as well. This occurs in many diseases like Alzheimer's and Parkinson's. "We have found this happening in the frontal cortex of welders."

Manganese creates a bright signal seen on MRIs that show areas where it has been deposited in the brain.

The best-case scenario, Dydak says, is that the study will find a clear biomarker that shows when someone is at risk for developing Parkinsonian symptoms.

"It's about understanding the mechanism and differences between idiopathic Parkinson's disease and manganese toxicity, which should help with treatment," Dydak says. "If we understand where in the brain things are different, then we can understand what kinds of drugs should work."

Julia Chester, associate professor of psychological sciences, is looking for mechanisms that can be targeted with drugs to help alleviate some of the motor dysfunctions associated with Parkinson's and other neurodiseases.

Chester says current drug therapies for Parkinson's aren't very effective. "And they tend to become more ineffective over time. We're still working on the dopamine mechanism but in more selective ways to avoid some of the side effect issues."

Dopamine agonists directly stimulate the receptors in nerves in the areas of the brain where dopamine-generating cells have been destroyed by the disease. Agonists, chemicals that bind to a receptor of a cell, often mimic the action of a naturally occurring substance.

"This is very exciting work for me," Chester says. "We're on the forefront of new discoveries and better drug treatments."

Living with Parkinson's

While these HHS researchers search for Parkinson's causes, other faculty research is leading to improvement in the quality of life for those stricken with the disease.

Jessica Huber, associate professor of speech, language, and hearing sciences, teamed with Jeffrey Haddad, assistant professor of health and kinesiology, on a study that looked at the ability of patients with Parkinson's disease to balance and talk.

"People with Parkinson's are more apt to fall because walking, standing and talking are all very cognitively demanding," Haddad says. Neural circuits between the basal ganglia and the frontal lobe are responsible for the ability to do more than one thing at a time. These areas are impaired in patients with Parkinson's disease, and they often have difficulty managing multiple tasks simultaneously.

To examine this problem, Haddad and Huber had individuals with Parkinson's disease and typical older adults stand on a metal force plate to measure balance. While the subject was standing on the plate, a computer monitor displayed

NIH Investigator: Ulrike Dydak, assistant professor of health sciences, specializes in medical imaging of neurodegenerative diseases. She'll follow welders over a five-year period to test how exposure to manganese can lead to Parkinsonian symptoms. (Photo by Andrew Hancock)

In the Balance: Kristen Clark, a senior in nutrition science, puts a University Place resident through the paces of the Biodex Balance System, which uses visual feedback to mimic the everyday activities where people might be in danger of falling. (Photo by Andrew Hancock)

pictures and commands to say certain sentences that varied in language complexity. Haddad says, "We examined how their balance changed when they had to generate more complex speech or memorize things while standing and talking."

This earlier investigation led to a study collaboration with Shirley Rietdyk, associate professor of health and kinesiology. Her research focuses on the interaction of neural and mechanical systems in mobility, posture and balance.

Rietdyk, Haddad and students conducted a study at University Place, a continuing care retirement community, using a new balance device call the Biodex Balance System. It is similar to the Wii Fit game but the base is unstable, like a wobble board with visual feedback.

"If you want to test someone's balance, you don't just have them stand still," Rietdyk says. "You have to challenge their balance system because people are more likely to fall when they're moving during everyday activities such as walking, stepping up onto a curb or reaching forward to put something in a cupboard. The risk of instability increases further if they are completing another task at the same time, such as talking to their spouse while carrying a tray of food."

They train people with balance and mobility issues in a difficult task to improve stability in their everyday lives.

People coping with Parkinson's disease may see it as the fight of their lives. For a growing number of Parkinson's patients at a boxing gym in Indianapolis, the fight is quite literally on.

Scott C. Newman, a former Marion County prosecutor, founded Rock Steady Boxing in 2006, a few years after being diagnosed with early-onset Parkinson's disease. The first and only gym of its kind in the nation, Rock Steady offers people with all ranges of the disease a non-contact boxing-based fitness curriculum. Taught by boxers and certified trainers, many of the nearly 200 participants believe the boxing regime (essentially all but exchanged blows) is improving their Parkinson's symptoms.

Now four researchers from the College of Health and Human Sciences are collaborating with a neurologist from Indiana University (IU) to measure the effectiveness of the program. The secret could be in boxing's intensity. "It's the idea of forced exercise," says Jeffrey Haddad, associate professor of health and kinesiology. "If someone exercises intensely beyond their comfort level, a neural-protective effect may delay the progression of the disease."

Haddad, Shirley Rietdyk and Meghan McDonough, also associate professors of health and kinesiology, and Jessica Huber, associate professor of speech, language, and hearing sciences, bring varied expertise to the table. Elizabeth Zauber, assistant professor of clinical neurology at IU Medical Center, works with Parkinson's patients on a daily basis. She's also on the board of directors for Rock Steady.

Rather than a symptom-by-symptom examination, Rietdyk says, this multidimensional research incorporates everything from mobility and balance issues to the cognitive and psychosocial aspects of people living with Parkinson's.

McDonough says, "One of our goals is to look at how those things might play off each other. There seems to be some evidence of psychosocial improvements, but we want to establish that."

Haddad and Rietdyk did a six-week intervention with older adults without Parkinson's at University Place three times a week for 20 minutes at a time. They assessed the group in the Biomechanics Lab and the Motor Development Lab and found that the benefits of training transferred to Haddad's manual precision task and to Rietdyk's mobility task requiring subjects to walk and step over obstacles.

"Even though our training did not include walking or manual precision tasks, the intervention improved their mobility and their balance while reaching forward," Rietdyk says.

Better Walking and Talking

A new research investigation will study treadmill and Biodex training to improve mobility in patients with Parkinson's disease and typical older adults.

Though it may sound like an impossible task for those with mobility issues, Haddad says treadmill training helps patients overcome halting or freezing of gait by forcing them to walk because the belt is moving.

Subjects are harnessed for safety. "The treadmill belt pulls the foot backward," Rietdyk says, "providing an external cue to push them beyond their level of comfort in walking."

Haddad, Rietdyk and Huber will compare Biodex training to treadmill training to see which is more beneficial and if gains translate to improvement in quality of life.

Rietdyk says one of the most satisfying outcomes of the research has been the involvement of undergraduates in the training. "It was rewarding to see relationships develop between the students and the residents at University Place. The students became much more invested in the research than I've seen in other projects."

In addition to mobility studies, Huber and colleagues in the Purdue Research Park have created a wearable device, the SpeechVive, improving both loudness and clarity of speech in patients with Parkinson's disease in real-world conversations, not just in a speech therapist's office.

"People with Parkinson's disease commonly have voice and speech problems," Huber says. Because of these difficulties with communication, patients often feel invisible or ignored.

The SpeechVive plays noise, called multitalker babble, which resembles the noisy chatter of a restaurant full of patrons in one of the patient's ears while he/she is speaking. The noise elicits a reflex called the Lombard effect and the patients talk more loudly and clearly.

FIGHTING PARKINSON'S

McDonough brings a community component that's not typically part of a Parkinson's study seeking to determine better modes of exercise for patients. She's also looking at the role of the group plays (see story on page 28) for both Parkinson's patients and their caretakers.

Though there have been case studies conducted at Rock Steady, this rigorous research will allow for a larger sampling, perhaps offering solutions that address quality-of-life issues.

But what is it about boxing that could ease the pain of Parkinson's patients? "I know what the trainers will tell you," Zauber says. "Parkinson's is a very asymmetric disease, usually affecting one side of the body much more than the other. Because boxing requires throwing fast and strong punches on both sides of the body, patients are getting faster and stronger on that other side."

William Meiners

Morgan Monroe, a senior in health and kinesiology, measures the blood pressure of Jim Stevenson at Purdue's Ismail Center as Lane Yahiro, Ismail's director and clinical associate professor of health and kinesiology, supervises. (Photo by Steven Yang)

HEART HELPERS

INTERDISCIPLINARY EFFORT PUTS HHS STUDENTS AT THE CENTER OF POTENTIALLY LIFESAVING PROGRAM

Part of the student discovery process is experiential learning, and experience can be a great teacher. Just ask Brittany Nikolich, a recent graduate who hopes to become a registered dietitian. Nikolich (NUTR '11) worked with clients involved in a hypertension program at Purdue's Ismail Center. The clients are now on the road to better health.

The project, spearheaded by Lane Yahiro, Ismail's director and clinical associate professor of health and kinesiology, brings together students from his department, nursing, nutrition science and pharmacy with supervising professors.

"I wanted to provide a program for our members that would help them improve their health, quality of life and decrease health care costs," says Yahiro, who worked for five years in a hospital cardiac rehab setting in Chicago and 17 years at St. Elizabeth Hospital in Lafayette. "Because one out of every three American adults has high blood pressure, a hypertension program seemed like a good place to start."

Yahiro says there's no substitute for that real-life experience. And the students got some real results to prove it. One of the early clients was a man who routinely ran inside Lambert Fieldhouse. When they first measured his resting blood pressure it was 182 over 112. "He didn't even know it was that high, and that's why they call it the silent killer," Yahiro says. "We called his doctor right away and made an appointment. He's a success story because his blood pressure is very well controlled now."

Clinical faculty also include Patti Darbishire from pharmacy, Vicki Simpson from nursing and Donna Zoss from nutrition science. With their own recruited students, the foursome developed an assessment and treatment that's tailored to the participants, whose average age is 68. Since 2010, 16 members have gone through the semester-long programs. Once a client signs up, nursing students perform a basic health risk assessment; health and kinesiology students work up an exercise program (usually aerobic-based); pharmacy students do a drug assessment; and nutrition science students provide dietary guidance.

For Nikolich, it's on-the-job training for her future career. "I worked with two hypertensive clients," she says. "I monitored their blood pressure and weight on a weekly basis. I also monitored their diet with a three-day food record, analyzed it and gave them recommendations. It really allowed me to practice counseling skills along with the clinical aspects."

Clients are paired with a student from each discipline, and a professor monitors the interaction. From a student standpoint, the interdisciplinary program may show its best results as the teams meet to discuss their experiences. "The group conference meetings are a real eye-opener," Yahiro says. "Students present cases and then have excellent discussions where they learn a lot from each other as they develop a well-rounded program for the clients."

It's no easy task encouraging people to make healthy life choices. From taking a man's blood pressure while he's on an elliptical machine to spelling out a course of action to get more fruits and vegetables into a woman's daily routine, these students are making a difference in lives before they graduate.

William Meiners

John Seffrin (PhD '70) (Photo by John Underwood)

CANCER CRUSADER

HEALTH SCIENCE ALUMNUS BRINGS PASSION TO HIS CEO ROLE

Like many around the world, John Seffrin is no stranger to the personal toll that cancer can take. His grandmother, who lived with his family, died of colon cancer when he was 10. His mother died of cancer. And his wife of 46 years is a breast cancer survivor. Unlike many, though, Seffrin has taken his experience from the personal to the professional. He is head of the American Cancer Society.

Seffrin (PhD '70, public health) comes to his current job with a background in academe — first on the Purdue public health faculty and then for 13 years as chairman of Indiana University's Department of Applied Health Science. It was in the early 1970s, while on the Purdue faculty, that he first got involved with the agency he now oversees. He volunteered with the Tippecanoe County unit of the society, eventually rising to become state chair for public education and, in 1989, national board chair. In 1992, he became the organization's chief executive, a salaried position.

From his first days with the American Cancer Society, stemming from his anti-tobacco work, Seffrin has remained committed to education as a force for changing the health of a nation. "If we fully implemented the cancer control measures that we know work, we could save 1,000 lives a day," he says. "I see it as a moral imperative. There were so many years when we had a belief in the scientific method, but no answers. Now we have answers that aren't being applied. Much of the suffering from cancer and many of the deaths from cancer are needless; they don't need to happen."

Once a community service agency that loaned medical equipment such as hospital beds to cancer patients like his grandmother, the American Cancer Society has grown to become a global public health agency with more than 3 million volunteers. It fights the deadly disease on multiple fronts, supporting research, influencing policy, undertaking advocacy for cancer patients and their caregivers and offering reliable information and support for people facing cancer.

"The key point is that we have to make sure that in a country like ours — in spite of this great recession, we still are one of the richest nations in the world — that we implement the answers discovered at places like Purdue. The information needs to get to the bedside or inform policy," Seffrin says. "We know what can happen if we do the right thing. We also know what will happen if we don't. Shame on us, if we don't."

Seffrin spends his days raising money, meeting with scientists, visiting the society's Hope Lodge facilities — free, temporary housing for cancer patients — or dropping in on the call center, staffed 24 hours as a resource for cancer patients. He is past president of the Geneva-based Union for International Cancer Control, and travels often from the society's headquarters in Atlanta, taking his commitment to the cause worldwide. Last spring, in a one-week period, he attended the 15th World Conference on Tobacco or Health in Singapore then traveled to Purdue where he delivered a speech for one of the "Life Inspired" events, a 12-day showcase of the College of Health and Human Sciences.

"It's a high privilege that has allowed me to chart directions for this incredible organization and to be part of a team that is making a difference in people's lives," Seffrin says of his work. "It has brought real meaning into my career. It's a lifesaving, disease-preventing, reducing-human-suffering enterprise."

Linda Thomas Terhune


POD

TOOLS OF THE TRADE

Researchers within the College of Health and Human Sciences often maintain that cutting edge through the machines they employ. Here are four examples used today that look downright futuristic.

- Drew Sayer (large picture, left), a graduate student in nutrition science, gets a precise measurement of his body composition inside the BOD POD. Sayer works with Wayne Campbell, professor of nutrition science, who investigates the health benefits of diet and exercise.
- Courtney Rowland (above left), a senior in speech, language, and hearing sciences, appears to have her thinking cap on. It's actually an event-related potentials technique that records electrical signals coming from the brain in response to different stimuli. "It can be a picture or word she's responding to," says Natalya Kaganovich, assistant professor of speech, language, and hearing sciences with a quarter-time appointment in psychological sciences. "This technique allows us to see what the brain is doing on a millisecond-by-millisecond basis."
- Jeongho Han (near left), a graduate student in consumer sciences and retailing, is sporting the Tobii eye-tracker, now being used in consumer science classes to better understand what makes information attention-catching. It films what the wearer sees, tracking what the pupil lands on. Researchers in consumer sciences and retailing, such as Sugato Chakravarty, department head and professor, and Meghan Norris, assistant professor, are also using the eye-tracker to investigate what people tend to look at as they navigate their environments.
- Purdue second-degree nursing students (above right) gather round the Laerdal Sim Man, under the supervision of Kit Sebrey Schafer, clinical associate professor of nursing. Sim Man is one of several School of Nursing high-fidelity simulators, most of which have voices, pulses, programmable vital signs and heart, lung and bowel sounds. Students are video recorded while performing nursing care for their simulated patient. The debriefing process guided by faculty has been shown to enhance critical thinking and clinical decision making.

Photos by Andrew Hancock

IT'S ABOUT TIME

AFTER GENERATIONS OF DEFERMENT, WOMEN'S HEALTH INITIATIVES GAIN MOMENTUM

By Patrick Kelly

The most recent chapter of this story begins last year, as Susan Butler (BSIM '65, HDR '99), noted Purdue alumna and former trustee, and current CEO of the Susan Bulkeley Butler Institute for the Development of Women Leaders, arranges a meeting with Connie Weaver, head and Distinguished Professor of Nutrition Science. The two get to talking, and Butler reveals the intent of her visit: "It's come to my attention that there's not nearly enough existing research that focuses specifically on women's health."

Without missing a beat, Weaver responds: "No, and it's time we do something about it."

From this meeting of the minds, an initiative begins to take shape on Purdue's West Lafayette campus: the establishment of the Women's Global Health Institute (WGHI), a comprehensive and collaborative partnership that would set out to improve the health of women worldwide through integrated research and training.

WGHI Investor: Susan Butler (BSIM '65, HDR '99) contributed $500,000 to the new Women's Global Health Institute. (Photo by Mark Simons)

Purdue's Emerging Role

The seeds of today's WGHI were first planted in 1991, when an organization with a similar acronym — the Women's Health Initiative (WHI) — was established by the National Institutes of Health. WHI researched the most common causes of death, disability and impaired quality of life in post-menopausal women — ailments that included cardiovascular disease, cancer and osteoporosis. WHI stood as one of the largest prevention studies of its kind ever undertaken, spanning a full 15 years and investing many millions of dollars in researching female-specific health problems and their cures.

Previous to WHI, Weaver says, "The prevailing attitude was that women shouldn't be included in high-stakes health research because it was believed that fluctuating hormones like estrogen would skew the findings. So decades and decades passed, and while medical breakthroughs proliferated, they applied directly to men and perhaps only indirectly, if at all, to women."

And though the WHI represented a sea change in reversing this prevailing assumption, Weaver says, "One study, no matter how groundbreaking, simply can't make up for decades of neglect."

But the rules of the game have changed, she says. "Now grant writers who propose only studying men have to justify why. So we're evening the playing field, but women's health issues still lag behind."

The more Weaver and Butler studied the issues, understanding the stakes at hand, the more they realized the solution was right under their noses. Indiana has a very high incidence of chronic disease in women, meaning local subjects were not only plentiful, but in great need. And Purdue already possessed several crucial components that any new health initiative would require: the extensive infrastructure needed to study disease prevention and biomedical technology development; an established network for community engagement and global health research; and Discovery Park, the innovation lab that houses Bindley Bioscience Center and Birck Nanotechnology Center.

For Weaver, it was a fortuitous convergence. "I took a closer look at the research already unfolding at Purdue, and realized much of it already focuses on preventing women's cancer — researchers are performing game-changing work on epigenetics and the health of cells and understanding how healthy cells transform into abnormal cells."

From there, Weaver considered the amazing technology base on campus, the abundant resources present at Discovery Park and how the College of Health and Human Sciences had recently been created to address these very types of issues. "We were already asking the questions and employing high-tech resources and methods to find the answers," she says. "That's the moment it all clicked, and I truly be-

lieved that we really could build a center devoted to women's health."

A 2008 grant to form the Indiana Clinical and Translational Sciences Institute laid the infrastructural groundwork, and on March 23, 2012, WGHI began with a vision to "change the way women's health throughout the life span is addressed. Rather than the classical medical model of treating people with established disease, the center will seek proactive approaches. The center will focus on protecting and improving women's health and well-being through prevention."

The idea of adopting proactive measures resonates clearly with Weaver. "Nutrition science is all about wellness and prevention," she says, "so this was a natural extension for me. My research has centered around prevention — building strong bones in kids, pinpointing the type of diet that helps people avoid osteoporosis later in life." With the new institute, Weaver's focus expands, but her emphasis on preventive care remains steadfast.

Prevention: From Lab to Real Life

It's one thing to bring cutting-edge technologies and the latest methods to engineer laboratory breakthroughs. But not every woman's health issue relies upon a solution viewed through a microscope. Often, preventive care exposes the human element of healing, one person at a time.

Melissa Franks, assistant professor of human development and family studies, co-directs Purdue's Relationships and Health Care Research Lab. Her current work with links to WGHI looks at how social and family relationships affect chronic disease management — specifically adult-onset, or Type 2, diabetes. Though only one spouse in Franks' studies carries the disease, its management greatly affects the lives of both partners.

"We look at two different but interrelated perspectives in our work," Franks says. "We certainly look at married women who have a chronic disease and the role of their husbands in its day-to-day management. Then we also look at women's health and well-being when they're disease-free but have a partner with disease. How do they wear that other shoe in those scenarios?"

Contrasting spousal interaction in those opposite situations — who is patient and who is caregiver — is an important question for Franks. Although the prevailing literature on the subject suggests that wives take on more of a caretaker role, Franks' research suggests this stereotypical phenomenon may occur less frequently in the context of chronic illness.

"Our findings help us provide better preventive care because we're determining what kind of education and training family members need to provide the best care for a partner or family member with diabetes," Franks says. "This is the type of information that may need to be conveyed right at discharge when a family member has been hospitalized. It's information that's crucial during interventions — educating families to be effective providers of support. Sometimes what seems helpful to an untrained individual can backfire and instead interfere with disease management. This is all about preventive steps to ensure healthy outcomes."

Meghan McDonough, associate professor of health and kinesiology, is attempting to ensure healthy outcomes of her own in another sector of preventive care research. By focusing on the social and psychological aspects of physical activity in breast cancer survivors, McDonough seeks to link physical activity programs designed specifically for breast cancer survivors to patients' overall health and well-being.

"The clinical name for the phenomenon I'm researching is 'post-traumatic growth,'" McDonough says. "Essentially, we know that certain positive outcomes can derive from negative experiences. By pinpointing these occurrences, we can replicate them more effectively in tomorrow's survivors."

Diabetes Dialogue: Melissa Franks, assistant professor of human development and family studies, looks at the changing family dynamic when one spouse is diagnosed with Type 2 diabetes. (Photo by Mark Simons)

One key finding: When survivors of a shared traumatic experience — like breast cancer — become actively involved in physical group activity, the well-being of each group member improves. "It's similar to a support group," explains McDonough, "with the added benefit of physical activity. If you see another person who's been through what you're going through moving on and modeling positive behavior, then you're much more likely to adopt that behavior yourself."

One of the mainstays of cancer-survivor group activities is dragon boating — long canoes of about 20 members who work together in navigating river and lake courses. In the mid-1990s, many physicians recommended that breast cancer survivors curb upper-body physical activity for the fear it could induce lymphodyma. But a study of dragon boating suggested surprising recovery rates among participants. From there, the movement took off.

"Dragon boating really epitomizes the benefits of physical group activity in breast cancer recovery," McDonough says. "The participants aren't actively talking about their cancer; instead, they're working together toward a common goal, exerting themselves, improving their fitness, and in the back of their minds, they know they share a deep connection."

Unlike a breast cancer walk, which tends to be a one-time event, dragon boating requires several weekly practices year-round.

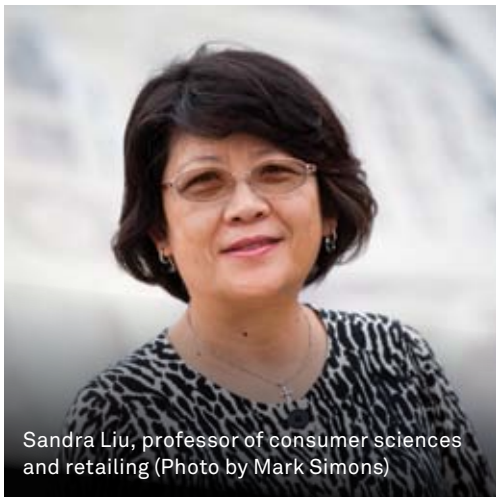
"The research suggests that it's about frequency, and it's about sustained participation," McDonough explains. "A one-and-done approach likely won't get the same results as a sustained routine. The improvements in self-perception, self-worth and social support are really promising."

Promising Future

WGHI — designed to tap the research already being conducted by the likes of Franks, McDonough and dozens of other colleagues — will serve as an umbrella organization to address four specific aspects of women's health: wellness, bone health, neurodegenerative disorders and women's cancers. Each of these areas is currently the subject of at least six Purdue professors' research, meaning the anticipation for results is palpable.

"The WGHI enhances the visibility of Purdue to a lot of stakeholders," Weaver says. "Alumni and community members and prospective students already associate Purdue with the health sciences field. The College of Health and Human Sciences needs to have a focus and a signature and this institute can quickly help define our identity. That way, we're poised for more research grants, for attracting more students, for increased philanthropy and for positioning ourselves more compellingly to women donors."

One such donor, Butler, who helped spark the institute's founding with Weaver, has already contributed $500,000 with an accompanying $50,000 challenge match.



Sandra Liu, professor of consumer sciences and retailing (Photo by Mark Simons)

ENGAGING THE UNDERSERVED

The central problem: There's a vicious health care cycle in play among low-income, at-risk inner city residents in this country: Substandard living conditions plus the lack of an adequate safety net leads to uninformed lifestyle decision making leads to staggering health problems. Repeat, ad infinitum.

The treatment model, up until now, has simply been reactive: address the symptoms, often repeatedly, at great cost to health care providers, insurance companies and the American public. Not to mention at great detriment to the long-term health of these underserved populations.

Sandra Liu, director of the Center for Global Urban Sustainability: Ensuring Sustainable Health among Underserved (CGUS), has been hard at work advocating for an about face in health care policy that could reverse this harmful trend. Her work focuses on Lake County, Indiana, and the urban communities of Hammond,

Survivor Camaraderie: Meghan McDonough, associate professor of health and kinesiology, has examined the long-term health and psychological benefits of breast cancer survivors who have taken to the open waters in dragon boat competitions.

For her part, Weaver couldn't be any more grateful for how smoothly the recent launch came off and for the reception the institute has received around campus.

"Everywhere I speak, the reception has been amazingly warm," Weaver says. "We have formed an internal steering committee and an external advisory council and people are very excited about the idea. And that's what excites me."

The palpable excitement around campus arises from the new focus on women's health and a growing sentiment that preventive care is the model of the future. "So many people are appreciative of the focus on prevention. I think the timing couldn't be better, because people understand that drugs treat a symptom, not the root cause, and they almost always carry side effects," Weaver says. "Diagnostic tools can only identify already damaged tissues. In too many cases, the damage has been done, and it can't be undone. Prevention is not yet built into our health care system — it's not built into reimbursement, it's not built into medical training. But just because the system ignores it doesn't mean we're going to."

East Chicago, Calumet and Gary, but the implications apply to urban populations the world over.

"We need to move from simply treating the symptoms of these populations to helping them lead healthier lifestyles," says Liu, professor of consumer sciences and retailing. "It's all about preventive care. We're partnering with hospital systems, community health centers, safety net providers, Boys and Girls Clubs and schools to empower underserved populations and disassemble the link between lower socio-economic status and chronic health problems like diabetes, high blood pressure, obesity, addiction and cancer. Now, the correlation between urban poverty and these endemic health problems is significant."

Various business models have been proposed for containing health care costs while enhancing a population's health and well-being. CGUS takes a community-based participatory approach in forming coalitions among health care and social services providers for underserved populations; builds a uniform platform for stakeholders to work collectively and mobilizes Purdue's interdisciplinary research teams to adapt new discoveries to directly benefit communities. The center also works to make health care more affordable, developing payment models that incentivize the providers and patients to promote healthy living.

"Throughout my life, people have always told me their problems, and I've always been compelled to listen and find solutions," Liu says. "This is my passion now. Through this center, we're working with people and improving their lives together."

Patrick Kelly

A TIME TO DANCE

They're dancing for up to 18 hours for kids who are often too sick to dance themselves. And raising money to boot. Students involved in the Purdue University Dance Marathon (PUDM), which has its roots in the Department of Health and Kinesiology, brought in more than $300,000 for Riley Hospital for Children in 2011.

PUDM specifically benefits the Indianapolis hospital's Cancer Center, Camp Riley, and supports families unable to pay the medical care costs. Since its inception in 2005, PUDM has provided nearly $1 million, and the student members have had many dozens of visits with patients and their families.

The University recognized this achievement in January by making PUDM the first student organization to receive the One Brick Higher Award. The award honors faculty, staff and students who demonstrate extraordinary effort to improve the lives of those around them.

Riley Hospital for Children also recognized the organization's efforts this summer by naming a patient room in the new cancer center for PUDM.

Travis Stoutenborough (HK '06) founded PUDM as a student member of the Health and Kinesiology Club in 2005. Inspired by a dance marathon he witnessed at Butler University, Stoutenborough wanted to bring the same excitement and inspiration to Purdue. "We had about 75 students that first year and raised approximately $2,500 for Riley Hospital," he says.

A three-year advisor to the organization, Stoutenborough is amazed by the difference a dance marathon can make. "It's overwhelming to see the impact it's had on so many students and more so on the number of children and families it supports," he says.

"Last year's marathon had a superhero theme," says Karlee Hepp, PUDM president and a senior in nursing. "And all of the Riley kids who were there came into the back where we were tallying the year's fundraising total and said, 'We just wanted to tell you that you are our superheroes!' That right there is what it's all about."

A volunteer at Riley during high school, Hepp got involved with PUDM her freshman year and took a position on the 24-member executive board as a sophomore. As president, she wants to continue to grow membership (up to nearly 400 from 300 students) in PUDM and increase engagement with the Riley children and families they support. Though anyone can show up to the dance, the members serve on various committees ranging from catering to entertainment options for the big event. Besides making personal visits, PUDM members also sponsor fun family events. Families have

In November 2012, the Purdue University Dance Marathon will have raised more than $1 million for Riley Hospital for Children. (Courtesy PUDM)

come to various Purdue days on campus, attended volleyball games and participated in bowling fundraisers.

"There are anywhere from 10 to 20 Riley families that we connect with on a regular basis," says Beka Schroeder (HTM '12), vice president of PUDM last year. "They come to the dance marathon to share their stories and celebrate with us. I always cry every year — it's unbelievable how much those kids have gone through and yet how strong they are."

Held annually in November, the dance marathon attracts more than 1,000 dancers, many actively fundraising throughout the year. The event takes place in the Armory and both Hepp and Schroeder affirm that everyone stays on their feet for the duration.

"My favorite part of the marathon is hearing the kids tell their stories and how much Riley has meant in their lives," Hepp says. "That's the motivation to keep you on your feet."

Schroeder, now a catering sales manager at the Sheraton Chicago O'Hare Airport Hotel, says she'll miss her involvement with dance marathon and considers it one of her most meaningful college experiences. There are many more PUDM alumni like her. In fact, one of Hepp's goals is to find opportunities to engage alums like Schroeder who want to continue to be part of PUDM's work for Riley.

Lindsay Van Houten (NUR '11) is another alumna who says PUDM literally helped change the course of her life. Growing up with portal hypertension, Van Houten was familiar with long hospital stays, as well as the lifesaving efforts of doctors and nurses at Riley. After getting involved with PUDM in her freshman year, she switched from liberal arts to nursing. It was no easy transition, she says, taking all science courses her sophomore year just to be able to apply.

The academics worked out for Van Houten. She was named an HHS Outstanding Senior in May, and now works as a pediatric nurse at Johns Hopkins Hospital in Baltimore. But the Riley kids helped ease the path to her career. "That's the greatest thing about the Dance Marathon," she says. "The Riley kids and families are at the focus. Seeing these families and knowing I could help them even more in the future really inspired me."

Dance Marathon is a nationwide movement involving college and high school students at more than 150 schools. Since 1991, Dance Marathon has raised more than $50 million for Children's Miracle Network hospitals.

Tammy Weaver-Stoike with William Meiners

For more information on Purdue University Dance Marathon, visit www.purdue.edu/pudm.


REDS
Choices
Reduce
FILA
Dairy
Vegetables

HEALTHY FARE AT THE STATE FAIR

While visitors to the 2012 Indiana State Fair could feast on a variety of fried foods — from chicken sandwiches wrapped in donut goo to the renowned frosting filled and fried spongy treats — there were some healthy alternatives. Purdue Extension representatives from the College of Health and Human Sciences put on the "MyPlate and Beyond" exhibit in the DuPont Food Pavilion in August. The interactive exhibit illustrated the U.S. Department of Agriculture's tool that emphasizes the five food groups that are part of a healthy diet: fruits, vegetables, grains, proteins and dairy.

- That's Connie Weaver (at left, in black), head and Distinguished Professor of Nutrition Science, no doubt emphasizing the benefits of calcium. Fairgoers who completed a scavenger hunt of questions while visiting the exhibit received a Purdue Extension cup and a coupon for a free glass of milk at the Dairy Bar.
- "Visitors learned how easy it is to shop for food, grow their own, plan meals and eat together," says Lisa Graves, Extension specialist in nutrition science. "From child to adult, the exhibit featured tips and ideas for everyone to build a healthy plate."
- The exhibit was created by the Purdue Agricultural Communication Exhibit Design Center and specialists and faculty in the Department of Nutrition Science. The American Dairy Association and Indiana's Dairy Farm Families provided funding.

Photos by Mark Simons

HHS AWARDS

IN APRIL, CHRISTINE LADISCH, THE INAUGURAL DEAN OF THE COLLEGE OF HEALTH AND HUMAN SCIENCES, WELCOMED THE SECOND GROUP OF RECIPIENTS TO THE 2012 ANNUAL AWARDS DINNER. WITH PARTNERSHIP SUPPORT FROM THE HEALTH AND HUMAN SCIENCES ALUMNI ASSOCIATION AND THE PURDUE ALUMNI ASSOCIATION, THE EVENT HONORED THE COLLEGE'S NINE OUTSTANDING SENIORS, ALONG WITH THREE DISTINGUISHED ALUMNI, A SERVICE AWARD WINNER AND AN OUTSTANDING YOUNG ALUMNA.

DISTINGUISHED ALUMNI

MARC E. FEY (PhD '81 SLHS) knew by high school that he wanted a career in speech-language pathology. His mother, a "speech correctionist," was his first professional inspiration. His road to West Lafayette, somewhat unexpected, came after a brief stop at Memphis State, where he followed Laurence Leonard, his mentor and major professor, to Purdue.

Purdue, Fey says, helped prepare him in myriad ways for an academic career. Shortly after graduating, he wrote *Language Intervention with Young Children*, considered a classic in the field. "For a junior faculty member, taking the time to write a book is not necessarily a wise thing to do," says Fey, now a professor in the Department of Hearing and Speech at the University of Kansas Medical Center. "In this particular case, the book was successful beyond my wildest imagination and really set the stage for my whole career."

VIRGINIA A. JACKO (MS '75 CSR) might have spent the rest of her career in Purdue business offices had she not taken medical leave in 2000. But with her vision slowly declining, Jacko went to the Miami Lighthouse for the Blind and Visually Impaired to learn how to more effectively use her computer. She was so impressed with Miami Lighthouse that she began volunteering there, helping others reach their full potential in spite of visual limitations. She then joined the board, became board treasurer and is today the president and CEO.

Jacko runs the company like a university, taking it from one grant to now 30 active grants and tripling revenue from $2 million to $6 million in five years. "I had an opportunity at Purdue to see how top leaders run an organization," says Jacko, who even models the renowned music program of Miami Lighthouse on the Purdue Musical Organizations.

BRENDA MAJOR (PhD '78 PSY) had begun her graduate work at Miami University of Ohio when she met Kay Deaux, a dynamic young psychology professor from Purdue. She transferred to Purdue for the opportunity to work with Deaux. "It was a game changer for me because of the level of professionalism, the mentoring and the grad students surrounding me," Major says. "It completely changed the course of my career."

After 30 years in the field, Major, now a distinguished professor at the University of California, Santa Barbara, is still thrilled by the act of discovery. "I get paid to ask people questions, and I just can't wait to see the data," says Major, who focuses on psychological resilience and how people cope with, adapt to and overcome adverse life circumstances.

SERVICE

ANTHONY CAWDRON rarely has a "typical" day. As events coordinator and house manager for Westwood, the home of Purdue's president, Cawdron could be orchestrating a Westwood gathering one week and greeting alumni on a President's Council cruise the next. Having worked for two Purdue presidents now, he says the constant change of pace keeps life interesting. A good attitude helps, too.

Cawdron has taught classes and seminars in the School of Hospitality and Tourism Management, delivering the messages of business etiquette and good manners. "All of us in academics teach with the hope of passing on knowledge to someone who will use it," says Cawdron, who was quite surprised by the award. "We don't really do it for any other reason, so it's nice to be recognized."

OUTSTANDING YOUNG ALUMNA

KRISTIN M. HITTLE (BS '03 NUR) first tested her squeamish levels for blood with a high school internship in St. Vincent's emergency room in Indianapolis. She passed with flying colors and enrolled in Purdue's School of Nursing. Now, as a pediatric nurse practitioner at Children's Medical Center of Dallas, Hittle says she uses the basic nursing training she received at Purdue all the time.

Recognized as a dedicated leader in professional nursing organizations like Sigma Theta Tau since her school days, Hittle has continued to elevate her own commitment to the field. "Health care in general allows you to take care of people one patient and family at a time," she says. "As a leader, I have the opportunity to change health care for people I'm never going to meet."

OUTSTANDING SENIORS

ALEX COLSTON
Consumer Sciences and Retailing

WESLEY WILSON
Health and Kinesiology

KAYLIE WALTZ
Health Sciences

JULIA BRANSTRATOR
Hospitality and Tourism Management

CHRISTINA CITTA
Human Development and Family Studies

LINDSAY VAN HOUTEN
Nursing

LYNDSEY RAE HUSS
Nutrition Science

AFRIDA RAHMAN
Psychological Sciences

LISA CLEMENTS
Speech, Language, and Hearing Sciences

GENERATIONS

HOW'S YOUR CAREER GOING? *LIFE 360* IS LOOKING TO PUBLICIZE THE PROFESSIONAL ACHIEVEMENTS OF OUR ALUMNI. FROM THAT NEW POSITION TO PUBLICATIONS TO HONORS AND AWARDS, PLEASE SHARE YOUR GOOD NEWS WITH US. SUBMIT ONLINE AT WWW.PURDUE.EDU/HHS/ALUMNI/UPDATE_RECORD.HTML.

1960s

JAMES LEROY KITE, HK '66, MS '69, is the store manager of a CVS Pharmacy in Brownsburg, Ind.

JANET HOWE, HE '69, is a guidance counselor and serves on the board of directors for the American School in Lansing, Ill.

1970s

EILEEN MARIE HOEFLER, PSY '72, is the program manager for sales compensation at IBM in Campbell, Calif.

CAROL (McGAUGHEY) COWEN, SLHS '73, is a senior contract manager at DSR RSTA Inc. in Melbourne, Fla.

RHEA DAWN (WILCOX) SMITH, HE '73, is the marketing director of Applied Thermal Engineering in Ostrander, Ohio.

NANCY MANUEL, HDFS '76, a Purdue extension educator, serves on the Adams County Extension Board in Decatur, Ind.

JOHN SMALLMAN, PSY '78, retired as the staff counterintelligence officer for the U.S. Seventh Fleet, U.S.S. Blue Ridge (LCC-19). In retirement he has been activated as the JAG (Judge Advocate General) attorney for the U.S. Pacific Fleets Pacific Partnership 2012 humanitarian mission to Southeast Asia.

1980s

SHAWN (SMITH) BING, CSR '81, is the owner of Shawn's Needle Nook in Longwood, Fla.

KIMBERLY (JACKSON) KIMIECIK, NUTR '83, is the director of development for Miami University Libraries in Oxford, Ohio.

BRIDGET (PRICE) NELSON, HTM '83, is the senior human resources manager specializing in compliance at Dex One in Cary, N.C.

GRETCHEN MARIE PAIGE, SLHS MS '84, works as an audiologist for ENTAA Care in Glen Burnie, Md.

MICHELLE (BILLINGSLY) WHEAT, CSR '84, is an interior designer at Scholer Corporation in Lafayette, Ind.

LANA (GRIFFIN) BURNAU, PSY '85, is the agency director of Homecare By Design in Lafayette, Ind.

LINDA SPANG, HSCI '85, is the associate dean of allied health at Davenport University in Grand Rapids, Mich.

DENNIS CAHILL, HTM '86, is the director of training and development at Applebee's Restaurants in Valparaiso, Ind.

PAMELA VEVERA, CSR '86, is the positive associate relations manager for Marmaxx, a TJX Companies division, in Miami, Fla.

CYNTHIA (BROWN) RENICKER, SLHS '88, is an ABA therapist at Cornerstone Autism Center in West Lafayette, Ind.

PHILIP SCHATZLE, CSR '88, is the assistant manager of Stew Leonard's Wines in Newton, Conn.

1990s

CHRISTINE (TURPIN) HERRON, HTM '90, is the chief operations officer at Westwind Management, a real estate property management firm in Aurora, Colo.

LINDA (PASQUALE) MEZZACAPO, HTM '90, is an operations manager and franchise business consultant at Dunkin' Brands in Canton, Mass.

HAILIN QU, HTM '92, is the Regents Professor and William E. Davis Distinguished Chair. He received the 2011 Eminent Faculty Award and the 2012 Founder's Award for Lifetime Contributions in Creation Knowledge at Oklahoma State University.

JADE (BEER) VIRA, CSR '92, is the marketing manager of Monaco RV in Wakarusa, Ind.

STACEY DAWALT, HTM '97, is the manager of production, pre-production at Nestle Dreyer's Ice Cream in Fort Wayne, Ind.

ANGELA (VANDERWIJST) HEGDE, HTM '97, is a credit/collection coordinator at Cardinal Health in Owings Mill, Md.

AMY LYNN NOESEN, HDFS MS '97, is a school social worker at Grand Prairie Elementary School in Frankfort, Ill.

LONI (CHOLTCO) MUNSHOWER, HTM'98, works as a real estate agent at Howard Hana in Mars, Pa.

SCOTT SWIGER, HTM '98, is a business/systems analyst at GuestCounts Hospitality in Merion Station, Penn.

NATHAN WEIS, HTM '98, is a national account sales manager in the sports division for Pernod Ricard USA in New York City.

ERIC JOHNSON, HTM '99, is a general manager of Kemper Sports Management, developing several programs at Swan Point Yacht & Country Club in Issue, Md.

TIMOTHY McENERY, HTM '99, is the founder of Cooper's Hawk Winery and Restaurant in Countryside, Ill.. He was named a 2012 finalist for the Ernst & Young Entrepreneur of the Year Midwest.

JENNIFER MONCEL, CSR '99, is the owner designer of Bullet Boutfits in Indianapolis.

DANIELLE (RICE) SALDIVAR, HTM '99, works as an information technology field technician at Goodwill of Central Arizona in Phoenix.

JESSICA (PETTRY) SMITH, HTM '99, is a human resources business leader at Northrop Grumman in Annapolis Junction, Md.

2000s

NICHOLAS KOONZ, HTM '00, is a rooms executive at the Hyatt Regency Bethesda in Maryland.

LUIGI CARLOS, HTM '01, is a compensation planning and forecasting analyst at Accenture in Chicago.

TERI (CUMMINS) FLORY, HTM '01, is the solo practitioner at Flory Law Firm in Lafayette, Ind.

BRICE HINER, CSR '01, directs the marketing efforts of Lyon Workspace Products in Montgomery, Ill.

PETE SHUEY, HTM '02, is the general manager at Simmzy's Restaurant in Manhattan Beach, Calif.

JESSICA BUTCHER, CSR '04, is the event marketing manager at Vail Resorts in Keystone, Colo.

EMILY KECK, HTM '04, is the human resources coordinator at the Starwood/St. Regis Houston in Houston, Texas.

DAN WILLIAMS, CSR '04, is an account director at Spotify in New York City.

ABBEY HARPER, CSR '05, is a senior account manager for CVS Caremark in Scottsdale, Ariz.

JESSE GOODMAN, CSR '05, is the south Texas district manager at Schneider Electric in Austin.

REBECCA (RIEGLE) STEUER, HTM '05, the general manager of the Fairfield Inn & Suites in Indianapolis. She earned a 2011 "Sales Excellence" award from White Lodging.

AMBER TULLY, HTM '05, is the resort experience manager at Marriott StreamSide in Vail, Colo.

KEVIN MELANSON, HTM '06, is the founder and owner of 729 Vending in Bethesda, Md.

RISHI RAJ NIGAM, HTM '06, is the corporate director of concessions services at the International Speedway Corporation/Americrown in Daytona Beach, Fla.

ANDREW NIXON, CSR '06, earned his master's degree in business administration from Purdue in 2012.

KELLEY THOMPSON, NUR '06, a neonatal nurse practitioner at St. Anthony Health in Crown Point, Ind., graduated from Rush University in Chicago with a master of science in 2011.

CARRIE PETROSKI, HTM '06, is the hotel manager of Rosen Hotels & Resorts in Orlando, Fla.

JENNA (SKIERKOWSKI) WARGO, HDFS '06, is an academic advisor in Purdue's Krannert School of Management.

MATTHEW GEORGE, HSCI '07, graduated from medical school at American University of the Caribbean in 2012 and began his residency in internal medicine at Henry Ford Hospital in Detroit.

GENERATIONS

MEGAN (STALEY) SMITH, HTM '07, works as a project coordinator at Universal Meeting Management in Raleigh, N.C.

DEREK BASSETT, CSR '08, is an account manager at CVS Caremark in Chicago.

ERICKA KING-BETTS, HDFS '08, is the executive director of the Cincinnati Human Relations Commission.

LAUREN (JONES) BRADY, HK '08, is an orthotic and prosthetic practitioner at Midwest Orthotics and Technology Center in Indianapolis.

BRIEN MONTERA, CSR '08, works as an account manager at Otis Elevator Co. in Needham, Mass.

ANNA STEVENSON, HTM '08, is a program manager at ITA Group in West Des Moines, Iowa.

ALYSHA KUPFERER, CSR '11, served as associate producer on the short animated film "The Girl and the Fox," which was written, directed and produced by her brother, Tyler Kupferer (Technology '08) and a team of some 50 young artists. Released online in June (www.girlandthefox.com/watch.html), the film is a dramatic short about a 9-year old girl who must track a mysterious fox through a foreboding wilderness. It has been recognized by some of the most notable honors in student filmmaking and animation, including the Student Academy Awards, the College Television Awards and more.

ERICA (WEBER) BIRKLEY, PSY '09, a doctoral student research assistant at the University of Kentucky, is a graduate student representative on the board of directors for the Kentucky Psychological Association.

JESSICA CHUBINSKI, NUTR '09, is a dietitian at Riley Hospital for Children in Indianapolis.

GRETCHEN DAUMEN, HK '09, is a certified athletic trainer at AthletiCo in Aurora, Ill.

2010s

JESSICA AUERITT, HK '10, took over ownership of LA Café in Whitestown, Ind..

JESSICA CATES, CSR '10, is a digital account executive at DAC Group in New Albany, Ind.

CLAIRE HARRIS, PSY '10, is an inclusion specialist at Wediko Children's Services in Boston.

MORGAN McFARLAND, HSCI '10, is a safety officer at the Joliet Job Corps Center in Joliet, Ill.

LAURA MESKER, HTM '10, is a food service director at Aramark Education K-12 in Oakland City, Ind.

MICHELLE MICHAELSON, CSR '10, is an assistant buyer at Sears Holdings in Hoffman Estates, Ill.

JESSICA PRICE, HK '10, is a receptionist at Tom Wood Automotive in Indianapolis. She also serves on the board of directors for Diabetic Teens Without Boundaries.

STACY RAUBER, HTM '12, is the manager of Pappas Restaurants Pappadeaux Seafood Kitchen in Dallas, Texas.

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SEARCH "COLLEGE OF HEALTH AND HUMAN SCIENCES."

Though their conferred degrees may have come from departments named differently at the time, the alumni listed in Generations are matched with the academic units by the current names.

CSR	CONSUMER SCIENCES AND RETAILING
HK	HEALTH AND KINESIOLOGY
HSCI	HEALTH SCIENCES
HE	HOME ECONOMICS
HTM	HOSPITALITY AND TOURISM MANAGEMENT
HDFS	HUMAN DEVELOPMENT AND FAMILY STUDIES
NUR	NURSING
NUTR	NUTRITION SCIENCE
PSY	PSYCHOLOGICAL SCIENCES
SLHS	SPEECH, LANGUAGE, AND HEARING SCIENCES

LIFELINES

PLEASE CONSIDER SUPPORTING OUR 2012-13 FUNDING INITIATIVES.

WOMEN'S GLOBAL HEALTH INSTITUTE

The institute will become a national model for comprehensive, integrated, interdisciplinary and coordinated research focused on chronic disease prevention on a global scale. Outcomes will include: strategies for improving women's health around the world; infrastructure to support research applying new technologies to optimize health and preventing disease; and training across disciplines for careers in women's health research.

UNDERGRADUATE SCHOLARSHIPS

As a new college, we've started at ground zero to establish unrestricted undergraduate student scholarships. Unrestricted scholarship funds are awarded across the college to help achieve strategic enrollment initiatives. A scholarship often means the difference between a student coming to Purdue or not. Gifts of any amount will help us build the HHS undergraduate scholarship fund and benefit students.

TEACHING AWARD FOR EXCELLENCE IN UNDERGRADUATE EDUCATION

This monetary award was established to recognize excellence and innovation in undergraduate teaching and contributions to undergraduate learning beyond classroom instruction. Award recipients are chosen by a committee of HHS faculty based on nominations by their departments or schools.

GRADUATE STUDENT SUPPORT

Financial support for graduate student education and living stipends provides a competitive advantage among our peer institutions. Exceptional graduate students are crucial to attracting high-profile faculty and research funding. In turn, high-profile faculty are crucial when competing for exceptional graduate students.

ENDOWED PROFESSORSHIPS

Endowed professorships play a vital role in attracting and retaining top faculty in the competitive world of higher education. Endowed professorships cover part or all of a faculty member's salary, thereby allowing the college to reduce its student-to-faculty ratio (a statistic used for college rankings and other institutional evaluations).

COLLEGE-WIDE INITIATIVES

Funds are needed to support a variety of college-level initiatives including expanding undergraduate student research opportunities, leadership development programs and experiential learning opportunities, such as service learning and study abroad; bringing top researchers from around the world to campus to enhance classroom learning; recognizing HHS faculty through annual research awards; and recruiting a diverse population of undergraduate students.

MARY LOUISE FOSTER

February 18, 1921 - August 28, 2012

Mary Louise Foster served as professor and academic counselor, making a difference in the lives of countless students during her nearly 60-year career at Purdue. Each year, the HHS Student Council holds a silent auction prior to the Purdue Homecoming game to raise funds for the scholarship established in Foster's name. The scholarship is awarded annually to an HHS undergraduate student.

For more information about how you can support the College of Health and Human Sciences, or to talk with someone about making a gift, please contact the HHS Office of Advancement at 765-494-7890 or 800-535-7303 or hhsalums@purdue.edu.

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Tom Berndt, Associate Dean for Academic Affairs and Administration

Liping Cai, Associate Dean for Diversity and International Programs

Dorothy Teegarden, Associate Dean for Research and Graduate Programs

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Angie Abbott, Program Leader for HHS Extension, and Assistant Director of the Cooperative Extension Service

Denise Buhrmester, Director of Communications

Linda Conner, Director of Student Services

Mona Holdcraft, Director of Financial Affairs

Anita Risk, Director of Information Technology

Judy Schumaker, Director of Advancement

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Chris Agnew, Psychological Sciences

Sugato Chakravarty, Consumer Sciences and Retailing

Doran French, Human Development and Family Studies

Timothy Gavin, Health and Kinesiology

Rich Ghiselli, Hospitality and Tourism Management

Jane Kirkpatrick, Nursing

Keith Kluender, Speech, Language, and Hearing Sciences

Connie Weaver, Nutrition Science

Wei Zheng, Health Sciences

Comments? Contact Denise Buhrmester, Director of Communications, dmbuhrmester@purdue.edu, 765-496-3663.

Moving? Send change-of-address notices to Development and Alumni Information Services, Purdue University, 403 W. Wood St., West Lafayette, IN 47907.

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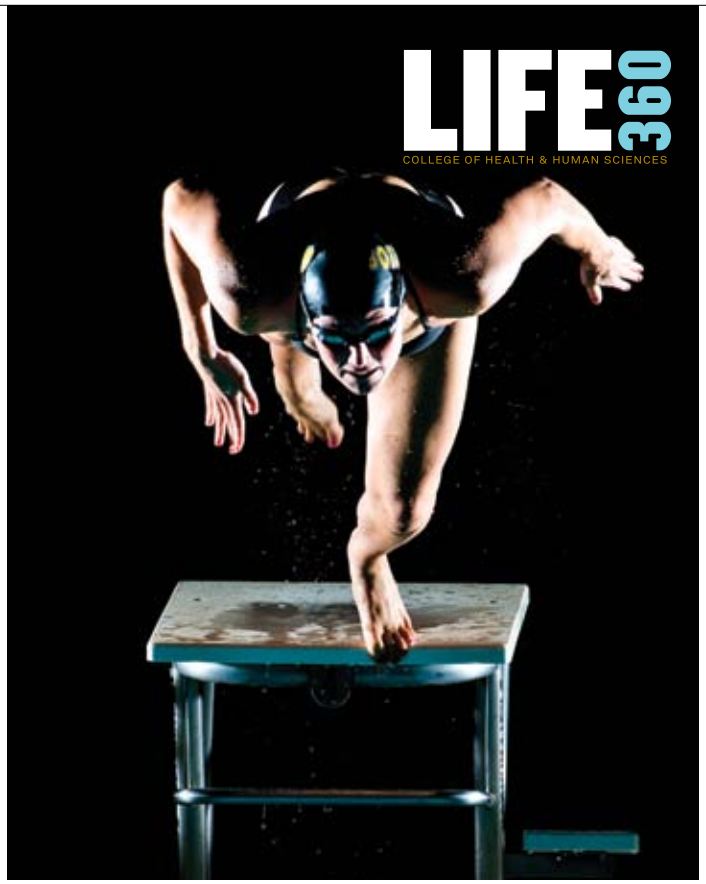

FORWARD

In its second year of existence, Purdue's College of Health and Human Sciences (HHS) continues to create a campus atmosphere that maximizes our learning, discovery and engagement mission. From classroom efforts to better educate our students to research breakthroughs that lead to both disease prevention and better coping strategies for patients, HHS remains focused on the everyday quality of life. And through collaborations and a global outlook, we're just getting our feet wet.