







WINTER 2012

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F1RST IMPRESSIONS



elcome to *HHS Life 360*, the magazine of Purdue's College of Health and Human Sciences (HHS). I am exceptionally proud of the work our faculty, students and staff have invested in building our new college and addressing global challenges. I am equally pleased to be able to share our progress with you through this new publication.

By bringing together nine academic units (listed on pages 4-5), HHS is now one of the largest colleges on campus.



But we are much more than our collective numbers. The college was formed to advance collaborative research, learning and engagement in health and human sciences. From students exploring studies in a variety of health care and human sciences fields, to faculty collaborations intent on discovering healthy outcomes, all of our programs are focused squarely on improving the lives of people.

We had a productive and an extraordinarily successful first year, and we are excited about our future. This inaugural issue of *HHS Life 360* covers some of the events

and milestones of that year. It highlights how HHS researchers are combating chronic diseases, delivering health care breakthroughs 52,085

and focusing on disease-prevention strategies. And it showcases the academic experiences and professional careers of our students and alumni.

598 FACULTY & STAFF

Three feature stories
demonstrate how HHS is
effectively addressing common
human conditions. "Learning
in Year One" highlights infant/
toddler research — from
prenatal care to child care.

"Life After 9/11" examines that tragic day's lingering effects, specifically on the hospitality

industry, and how our School of Hospitality and Tourism

Management is preparing students for leadership in a

world quite different from Sept. 11, 2001. Finally, "65 and

Holding" explores the challenges of an aging baby boomer
population.

HHS Life 360 was written especially for HHS alumni and friends. Though it's a large publication, it delivers just a small sampling of the dedicated efforts of faculty, staff, students and alumni who make up Purdue's new College of Health and Human Sciences. Building this college has been an exhilarating ride! I hope you'll share with me your thoughts on how we're doing.

OPPORTUNITY TO CHANGE THE WORLD

Hail Purdue!

Christine Ladisch

Chris Ladisch

Inaugural Dean

360° REVIEW

IT WAS FAR FROM BUSINESS AS USUAL FOR THE NINE ACADEMIC UNITS DURING THE FIRST YEAR OF THE COLLEGE OF HEALTH AND HUMAN SCIENCES (HHS), WHICH BEGAN JULY 1, 2010. A FEW DEPARTMENTS AND SCHOOLS CHANGED THEIR NAMES TO BETTER REFLECT THE EDUCATION, RESEARCH AND OUTREACH EFFORTS. RESEARCHERS GAINED NATIONAL AND INTERNATIONAL ATTENTION FOR THEIR WORK. AND THE SEEDS FOR COLLABORATION BEGAN SPREADING THROUGHOUT THE NEW COLLEGE AND ACROSS CAMPUS. BELOW ARE SOME OF THE HHS HIGHLIGHTS. FOR MORE NEWS, DROP BY ONLINE AT WWW.HHS.PURDUE.EDU.



CONSUMER SCIENCES AND RETAILING

Sugato Chakravarty, head of consumer sciences and retailing, was quoted in a New York Times article in May talking about the benefits of social media in a teaching setting. Students who might not otherwise speak up in a large classroom have used Hotseat — a Purduedeveloped back-channel system — to post questions and comments throughout his personal finance lectures.

HEALTH AND KINESIOLOGY

Larry Leverenz, clinical professor and a member of Purdue's sports medicine staff since 1991, became interim head of the department on July 1, 2011. He was also a part of a cross-disciplinary team, which included Purdue researchers from biomedical engineering and electrical and computer engineering, that suggested some high school football players suffer undiagnosed changes in



brain function from repeated impact and continue playing even though they are impaired. Their research was part of a Sports Illustrated cover story in October 2010. Leverenz was also named to the National Athletic Trainers' Association Hall of Fame in June.

HEALTH SCIENCES

Neil Zimmerman, associate professor of industrial hygiene, took his research global after learning about the effects of manganese exposure and their related health effects in certain Italian communities. Exposure to manganese has been found to cause neurological symptoms that mimic Parkinson's disease. Zimmerman is part of an international research team that received a \$2.5 million grant from the National Institute of

Environmental Health Sciences.

HOSPITALITY AND TOURISM MANAGEMENT

The department officially became a school on July 1, 2011. In collaboration with the College of Agriculture, students developed a student-run farming initiative to learn about sustainable agriculture. Planting of the five-acre expanse located 200 yards west of McCormick Road on State Road 26 began in spring. Students and professors met in class once a week to hear guest speakers address



important farming issues — composting, sustainability, basic economics and specialty crop production.

HUMAN DEVELOPMENT AND FAMILY STUDIES

The Board of Trustees voted in favor of changing the department's name from Child Development and Family Studies to Human Development and Family Studies. Researchers like Cleveland Shields, associate professor, are taking leading roles in the new Center for Poverty and Health Disparities, which is a part of the Regenstrief Center for Healthcare Engineering in Purdue's Discovery Park.

NURSING

Laura Sands, professor and director of research, was named to the Katherine Birck Professorship, the school's first endowed chair. If ever an endowed chair matched the wishes and philosophies of the donor, the Birck professorship — named after a career nurse — is a shining example.

NUTRITION SCIENCE

The Department of Foods and Nutrition officially became the Department of Nutrition Science on July 1, 2011. Connie Weaver, distinguished professor and head, was elected to membership in the Institute of Medicine of the National Academies in October. And on the collaborative front, the Ingestive Behavior Research Center, led by Richard Mattes, director and distinguished professor, hosted the Symposium for Flavor and Feeding, an international conference for researchers, in September.

attention with a May article in Current Directions in Psychological Sciences. Williams, a professor who

Kip Williams' work on

ostracism gained national

PSYCHOLOGICAL SCIENCES

has long studied the subject, says ostracism or exclusion may not leave external scars, but it can

cause pain that often is



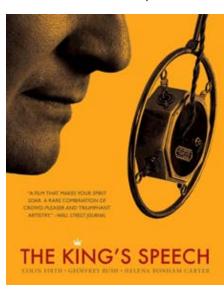
deeper and lasts longer than a physical injury.

SPEECH, LANGUAGE, AND HEARING SCIENCES

The Oscar-winning film, "The King's Speech," may have helped draw attention to stuttering disorders. "CBS

> Sunday Morning" came to campus to feature the work of Anne Smith, distinguished professor, and Christine Weber-Fox, professor. Their research project in stuttering has been ongoing for many years with the support of the National Institutes of Health.

> Keith Kluender became the new head of SLHS in January 2012. Kluender was previously at the University of Wisconsin-Madison where he directed the Wisconsin Speech Perception Laboratory and was a professor in the departments of Psychology and Communication Disorders.



360° REVIEW

HHS EXTENSION

Diabetes afflicts the lives of almost 600,000 Indiana adults. Purdue Extension Health and Human Sciences works throughout the state to educate individuals on both diabetes prevention and strategies for dealing with the disease. Extension specialists and educators teach people how to prepare enjoyable foods in ways that reduce calories, fat and sodium, and increase dietary fiber. "Dining with Diabetes" consists of four 2-hour sessions and a follow-up session presented by county extension educators and other health care professionals. Last year, 1,174 people participated in the program, reporting significant improvement in diet and exercise behaviors.



BILL AND SALLY HANLEY HALL

Faculty, staff and students began moving into Hanley Hall in May. The \$11.5 million building is the new home of the Department of Human Development and Family Studies, the Military Family Research Institute and the Purdue Center on Aging and the Life Course. The 32,600gross-square-foot structure houses two classrooms of the Ben and Maxine Miller Child Development Laboratory School, conference space and laboratory space for faculty and graduate student research. The building, dedicated in October, was made possible in part by a \$3 million gift from the Hanleys, who are Purdue alumni, and \$1.5 million from the Lilly Endowment.



MARRIOTT HALL

This \$12.2 million, 40,000-square-foot building was completed in September. The facility upgrades all program areas of Purdue's School of Hospitality and Tourism Management. A new demonstration classroom that seats 95 students, several new laboratories, a career center, and a student-services area and reception space are the signature features of Marriott Hall. Lavazza Espressions Café opened for business at the start of the school year. The John Purdue Room and the Boiler Bistro followed in the spring semester.



LYLES-PORTER HALL

The new \$54 million HHS facility will combine all components of the Department of Speech, Language, and Hearing Sciences with other clinical facilities and research centers associated with HHS and the Indiana University School of Medicine - Lafayette, which will be housed in the remainder of the new building. The building will be located on the Life and Health Sciences Park and include an 850-vehicle parking garage.

Chris Ladisch, inaugural dean of HHS, says the new facility includes academic, clinical and research space and will provide an atmosphere that supports the education and research goals of the participating entities.

"Lyles-Porter Hall will serve a principal role in establishing interdisciplinary research partnerships that focus on the

healing and well-being of people," Ladisch says. "It also will position the College of Health and Human Sciences to attract prominent educators, researchers and clinical staff who will work together to address major challenges in the area of human health."

In addition to \$38 million in bond proceeds, gifts totaling \$16 million will be used to build the facility, which is expected to be completed by fall 2014.

Alumna and speech pathologist Marybeth Lyles Higuera committed \$10 million to build Lyles-Porter Hall, named for her family.



FROM PREGNANCY BEHAVIOR TO QUALITY CARE, HHS RESEARCHERS EXPLORE THAT FIRST CRITICAL YEAR

By William Meiners

he ultra importance of a child's development in the first year of life cannot be overstated. From the physical to the cognitive, the social to the emotional, each developmental domain lays groundwork that can set a tone for a lifetime of better health.

As the College of Health and Human Sciences (HHS) turned 1 year old on July 1, 2011, several faculty members continued explorations in infant research. As researchers and clinicians, they began with questions. Can prenatal exercise have long-term health benefits on offspring? How can interventions be improved through the earliest detection of hearing loss? What pre-speech vocabulary do children possess? How can child care settings be evaluated and improved?

The answers to those questions — some still in discovery — may surprise you. A psychologist, in collaboration with an expert in speech, language, and hearing sciences, uses an iPad to learn more about what a toddler actually understands. The work of several researchers in human development and family studies underscores the importance of everyday relationships on a child's well-being — inside and outside the home. And a health and kinesiology professor is even putting pigs on treadmills to test the cardiovascular health of their piglets.

Long-term Benefits of Prenatal Exercise

Sean Newcomer, assistant professor of health and kinesiology, believes that exercise during pregnancy could be impacting the long-term health of offspring. "We know the fetal environment during that first nine months is critical, and not just for the child at birth," he says. "We've seen effects 40 years down the road. Cardiovascular disease susceptibility is greater in children from women who smoked or had poor nutrition during their pregnancies."

Newcomer's research, which looks at maternal exercise during pregnancy and the impact of cardiovascular health on offspring, is the first of its kind in attempting to find a positive side effect from pregnancy behavior. Through four months of gestation, pigs are treadmill-exercised for 20 to 45 minutes a day, five days a week, for 16 weeks at heart rates of 65-85 percent of maximum heart rate, which Newcomer says is consistent with recommendations for pregnant women.

"Unfortunately, only 50 percent of physicians recommend this level of exercise to women," Newcomer says. "And of the women who are pregnant, only 15 percent are obtaining those levels. If we can demonstrate some positive health outcomes to the children, more mothers may start exercising."

Preliminary data looks promising. Blood vessels of newborn pigs from exercise-trained mothers appear healthier and potentially will be more resistant to disease in the future, Newcomer says. In experiments three, six and nine months after birth, all signs also point to a healthier cardiovascular system in the piglets.

The next step would be to put these findings into practice. "We would like to start a community-based program here at Purdue by collaborating with obstetricians in Tippecanoe County," Newcomer says.

With students serving as interns, women would exercise in cohorts in a supervised setting, participating in a variety of aerobic exercise modalities for 30 minutes a day. "In the future, cardiovascular health outcomes could be measured in their children," Newcomer says. "It would be an excellent opportunity for both the community and Purdue to benefit from this research."

Diagnosing Infant Hearing Loss

Graduate students, as well as families and babies in the community, are also benefiting from clinical support pro-



Joellen Lewsader, a Ph.D. candidate in human development and family studies, puts Sean Newcomer's research to the test. Newcomer, assistant professor of health and kinesiology, believes a fit mother could imprint long-term health benefits on her child.

vided by HHS faculty. A trio of licensed professionals in the Department of Speech, Language, and Hearing Sciences can diagnose hearing loss in infants as young as 3 and 4 weeks old. Jennifer Simpson, clinical associate professor; Lata Krishnan, clinical professor; and Shannon Van Hyfte, clinical assistant professor, are certified by First Steps, the State of Indiana's early intervention system for infants and toddlers with special needs.

Shortly after birth, babies are given a pass/fail hearing test. Infants who fail are sent to an audiologist like Simpson, who then performs a diagnostic test to determine any levels of hearing loss.

"Most babies pass the test, but there are a handful with some degree of hearing loss," says Simpson, who estimates that of the 100-150 infants they test annually, maybe five to 10 have some permanent loss.

Once a hearing loss is determined, Simpson refers the family to an ear, nose and throat physician. With medical clearance, she can make an impression of the infant's ears and send that material to make tiny ear molds.

"A small hearing aid goes behind the ear," Simpson says. "We then need to replace the ear mold every three months because they grow so fast."

In the last few years the push to identify affected children early has led to early intervention with the available technology, Simpson says. A baby with severe to profound hearing loss may be eligible for a cochlear implant. For any child identified with a hearing loss, monitoring tests every three to six months are crucial.

The clinic itself has become a perfect learning laboratory for graduate students. As director of clinical education in audiology, Simpson also teaches classes and serves as the liaison to the Indiana University School of Medicine, where fourth-year students rotate through four Indianapolis hospitals.

Unraveling the Mystery of Language Development

Any parent who has ever decoded baby talk and even incorporated those "words" into their lives has firsthand knowledge of the nuances of language development. George Hollich, associate professor of psychological sciences, is using creative approaches to help unravel some of those mysteries. "We're looking at how kids learn to speak," he says, "and what's going on in their brains before they begin to talk."

The outcomes, he says, could help predict early measures of vocabulary intelligence and later development, as well as help identify children who are having language problems. As director of the Infant Language Labs and one of three professors in Purdue's Infant Labs, Hollich uses a preferential looking procedure to follow a baby's eyes to learn about what he's thinking. A typical child, who likely won't say anything beyond babble before he's as old as 14 or 15 months, will give visual clues to what he understands. A researcher, using a television screen with two images, may ask an infant where the flower is. The baby then looks to the picture of the flower instead of an apple.

"It's sort of like their first verbal SATs," Hollich says. "We have a host of measures that show kids understand a lot of language even before their second birthday. They're familiar with the sounds of language and the meanings of words. They know the difference between Mommy and Daddy at six months of age. And we know they understand aspects of grammar."

Hollich notes that a child will look at the right answer to questions with subtle differences. In work done in collaboration with Amanda Seidl. an associate professor in speech, language, and hearing sciences who is particularly interested in what infants are hearing, they might ask an infant, What hit the apple? (the flower) as opposed to Where is the apple? "By watching where the kids are looking, we know how much they understand," says Hollich, who likens the great unknown of infant knowledge to a study of the dark side of the moon.

Traditionally, they have brought children into the Purdue labs — "like a little trip to the movie theater," Hollich says. But more and more, by us-



Jennifer Simpson, clinical associate professor of speech, language, and hearing sciences, can diagnose hearing loss in infants as young as three and four weeks old.



Working with a child in the Ben and Maxine Miller Child Development Laboratory School, Fatimah Rashad, who earned a Ph.D. in psychology in May, uses an iPad to help gauge how much this "pre-talking" toddler understands. For researchers and educators, the lab school is equivalent to a teaching hospital in the medical field.

ing portable computers like the iPad, they're taking their research into child care settings where babies are actually experiencing life.

Quality Care

Researchers in the Department of Human Development and Family Studies are concerned about relationships both within the home and other care settings. Leah Hibel, assistant professor of human development and family studies, examines the intersection of behavior and biology, specifically in the context of the ways in which mothers soothe their infants. In addition to calming crying babies by rocking, suckling and talking, few people realize mothers are also controlling their baby's hormones as well, she says.

When a baby becomes distressed, stress hormones like cortisol increase, Hibel says. Mothers help reduce stress levels in babies by calming them down. A component of her work also examines how a mother's hormones respond to her infant's signals and how these hormones affect maternal behavior.

Jim Elicker, associate professor of human development and family studies, has worked with graduate students for 20 years to evaluate the quality of child care outside of the home. "In the United States, we have more infants in child care than any other country in the world," he says. "It's a critical issue, especially for infants who are in child care eight or nine hours a day. That's a good part of their waking life in the first year."

Elicker says the most important part of his research is studying the relationships that babies have with their non-parental caregivers. In one study, he and his colleagues are involved in a four-year evaluation



EVEN ADOPTIVE PARENTS GET THE BLUES

magine being pregnant for four years. For some adoptive parents, especially in cases with international children, the bureaucratic hoops they negotiate can have them waiting for their child for years. That vast difference from a nine-month pregnancy could contribute to post-adoption depression in new parents.

Karen Foli, assistant professor of nursing and an adoptive mother, knows the subject well. For her 2004 book, The Post-Adoption Blues: Overcoming the Unforeseen Challenges of Adoption, Foli interviewed 21 adoptive parents about their adoption and depression experiences, along with 11 adoption experts and professionals.

Foli has since furthered her research by asking some 400 adoptive parents to self-report through Web surveys. Working with Susan South, assistant professor of psychological sciences, Foli is hoping the quantitative data will lend support to her theory that of the Quality Rating and Improvement Systems (QRIS), known as Paths to QUALITY in Indiana. Much like a restaurant rating system, QRIS measures child care quality and assigns certificates for up to four achieved levels, from basic licensing to high-quality accreditation. QRIS provides information to parents looking for child care, rewards providers for moving up to higher levels and offers technical assistance to support quality improvement.

"There's a huge issue in Indiana with some types of child care that are completely unregulated," Elicker says. "For example, we know that there are now more unlicensed but legal church-sponsored centers than there are licensed child care centers in Indiana, so there are likely more children in unlicensed centers every day."

Elicker says the potentially harmful thing about low-quality or unlicensed child care is that there are no regulations regarding the types of activities available for children, no standards for the qualifications of the caregivers and no limits to the number of children within each care group.

Fortunately, Elicker and his team have a chance to effect change. He says the Department of Health and Human Services sponsors various meetings and conferences to bring researchers and policymakers together. For Elicker, that means making his research accessible to federal and state lawmakers to show what benefits children in child care settings and what can be detrimental. And for families shelling out as much as \$300 a week for child care, that's a better path toward peace of mind. W

Jim Elicker, associate professor of human development and family studies, researches the impact of caregiverchild relationships outside the home. He has been conducting scientific reviews of quality child care for more than two decades.



expectations, either unrealized or unmet, may contribute to and predict parental post-adoption depression.

"Some parents shared that they did not anticipate that bonding with their child would be a struggle or that family members or friends would not offer the same support that birth parents enjoy," Foli says.

The adoption paperwork itself can drain the parent's time and energies, effectively taking away resources needed to prepare for parenting a child.

The resulting depression may manifest itself in depressed mood, decreased pleasure in activities, significant weight changes, trouble sleeping or excessive sleeping, feelings of agitation, fatigue, guilt and more.

"There's also an incredible amount of fear from adoptive parents for disclosing this depression because they're worried the child is going to be taken away from them," Foli says. "It may be totally irrational or it may not be, but it's tough to get them to disclose this to people who have authority over them."

Most importantly, the child suffers when a parent is depressed. With an estimated 2 million adoptive parents in the United States, Foli's research could be an eye-opener, perhaps even a mood lifter, for adoptive parents and their children.

William Meiners



CHILDREN CONTINUE TO WIN WITH TO THE PALS PROGRAM

uring the past 10 years, more than 2,000 children ages 8-14 have spent four weeks in the summer at a day camp on campus learning how to play sports, eat better, balance a checkbook and respect their peers and themselves.

Katelyn Lopez, a senior studying psychological sciences, is one of those students who has been involved with the Purdue Athletes Life Success program, and she credits her success — from attending college to training for local road races — to her experiences in the program.

Ten years ago Lopez was referred by her middle school to the Purdue program, which is free to children who qualify for the federal free and reduced lunch program.

At that time, Lopez wasn't sure if attending college was a financial possibility, but then she learned about the Twentyfirst Century Scholars fund through the camp, also known as PALS. She was a little intimidated at attending a university, but that changed as she learned from older students who served as the program's team leaders and role models.

"It helped define me as a person," she says. "I matured through camp and learned how to be a role model."

For the past seven years, Lopez has been a role model for 20 children she guides through the program's daily activities.

The Department of Health and Kinesiology runs the program, and just like its campers, PALS has gone through a number of changes during the past 10 years. It started as a part of the National Youth Sports Program, but the federal program lost its funding in 2007.

"The camp itself is an example of how positive support and resources can help something flourish," says Bill Harper, camp co-director and professor of health and kinesiology. "Just a few years ago, the future of the camp looked dim when the federal organizing program lost its funding, but we are so thankful for the support from the University, community and individuals who have not only kept this camp running but also helped it grow."

Because the program had strong campus and community support, it was able to keep going, and today it has evolved into a program that teaches more than just sports. For example, the emphasis placed on sports 10 years ago has evolved to focus on teamwork, positive self-image, financial literacy, friendship and good choices.

Thanks to support from major supporters, Purdue Federal Credit Union and Drew Brees' The Brees Dream Foundation, the program was able to change its name in 2008 to PALS.

"There is no timeout during the program because we keep the campers moving and engaged," says Kim Lehnen, coprogram director and operations assistant in health and kinesiology. "We do provide lunch, and we've learned and observed that this peer interaction time is just as critical as anything we teach."

Amy Patterson Neubert



For more on the PALS program, please visit www.purdue.edu/hhs/hk/PALS.



THE BUILDING BLOCKS OF

STUDENT TEACHER LOOKS FOR PRE-ENGINEERING TRAITS IN PRESCHOOLERS

or senior Christina Citta, one of her biggest accomplishments to date is creating a lesson plan that kept 20 preschoolers attentive and still for an hour. "I thought, 'If I can do that, I can do anything!" she says.

Citta is a senior majoring in early intervention and early childhood education and exceptional needs. Her 'aha moment' happened in a classroom at the Ben and Maxine Miller Child Development Laboratory School while conducting research as part of the honors program. She is examining pre-engineering behaviors exhibited by preschoolers and the activities and lessons in the classroom that foster those behaviors. With help from her faculty mentors, she created a unique observation protocol to record pre-engineering behaviors displayed by children during free play.

Examples of these behaviors include asking how things are made, how they work, what an object is or what it does. Also, Citta watched for children explaining verbally or through motions how something works to a peer or adult, making models, trying to reconstruct something previously built or improve upon how a toy functions. "My focus is really on how the children interact with their peers, adults and the environment — and how these behaviors might be precursors to engineering thinking," Citta says. "I hope to continue refining the observation protocol and eventually share it with teachers and parents."

Citta believes this will be especially helpful to teachers who are trying to incorporate STEM (science, technology, engineering and mathematics) concepts into the classroom.

"Given Purdue's emphasis on STEM education, starting when formal education begins makes a lot of sense," says Demetra

Evangelou, assistant professor of engineering education and one of Citta's faculty mentors. "Christina's strong background in mathematics and science, along with her early childhood education studies, make her an ideal young researcher in this area."

While Citta was working and conducting research at the lab school, the nearby construction of Hanley Hall provided fertile ground for young imaginations. "They were very interested in the building process, and it was a great opportunity to talk about some basic engineering concepts such as problem solving, communication and teamwork."

Citta attended an engineering-focused academy during high school, and says her interest in studying STEM behaviors at the preschool level is the perfect way to combine her interests in engineering and early childhood education. "Experiences at this age are so significant — they can be life-changing. A lesson in the classroom might stimulate an activity at home or a way of thinking that continues with that child throughout their elementary years and beyond."

She dreams of one day establishing her own preschool program that would provide an inclusive environment for typically developing children and children with special needs. "I get a personal satisfaction working with children, but I want to make an impact beyond a single classroom," she says.

Tammy Weaver-Stoike



To read more about Citta, visit Purdue's "5 Students Who are Discovery Makers" at www.purdue.edu/ fivestudents/discovery/citta.html.



Corrie Whisner (PhD '11) ran cross country and track as a Purdue undergrad (NUTR '07). She ran a blistering 7:01 minutes-permile pace in the 2011 Indianapolis Mini-Marathon. Her finishing time of 1:31:48 was good enough for 59th overall among 683 women. Greg Dargie, a self-described "HHS adoptee" who works in Purdue's Office of Investments, walked the Indy Mini in just over three hours. The best news: He lost 38 pounds and 4.5 percent body fat training for it.

EXERCISE IN COLLABORATION

ne of the first examples of cross-college collaboration came in late in 2010 when Wayne Campbell, professor of nutrition science, started asking colleagues and students within his department if they'd be interested in running or walking the Indianapolis Mini-Marathon.

A starting group of seven became 10, ballooned to 20, and doubled to some 40 people, all connected to the department. Ultimately, the college-wide initiative gathered nearly 85 people who had opportunities to get body assessment tests, form training groups and download tips and training programs from a website. Not everyone competed in the race, but they wanted to be part of the training.

A veteran of three Indianapolis Mini-Marathons and a total of five half marathons (that's 13.1 miles), Campbell enjoyed the camaraderie of a small training group several years ago before his first run in Indianapolis. After he and his wife signed up for the 2011 race, he decided he would spread the word to gather another group.

"I started, almost as a lark really, to encourage other people to sign up. I went into people's offices and twisted some arms," Campbell says. "There were two things that helped it along. As I was meeting people face to face, they really responded. And I got enough people to sign up as walkers."

When Christine Ladisch, inaugural dean of the College of Health and Human Sciences (HHS), heard about Campbell's successful recruits within his own department, she encouraged him to spread the word throughout the college. They found another 40 or so who had already signed up for the race.

The training programs Campbell compiled were based on 12-week schedules, offering specialized programs for novice, intermediate and seasoned walkers and runners. Campbell offered to measure body composition and aerobic fitness levels early in the training and just before the race.

There have been Purdue classes offered in the past that trained students for marathons, but this was the first college-wide initiative to encourage students, faculty and staff to train together.

For Campbell, it's a pursuit that goes hand-in-hand with the philosophical approach to his teaching and research. "I'm interested in how to use nutrition and exercise for successful aging," he says.

William Meiners

IN HUMAN SERVICE

egan Ober (HDFS '99) is a self-proclaimed poster child for Purdue's College of Health and Human Sciences (HHS). Not only was she a part of the alumni board for the former College of Consumer and Family Sciences, but she was also an active participant in the transition team with the HHS alumni board. And in a professional career spanning only 12 years, she has transitioned from work in developmental and family studies (her chosen major) to the business world to what now seems like her true calling in nursing.

After stints at the Pleasant Run Children's Home in Indianapolis (a residential treatment facility for neglected and abused children) and the state office of College Mentors for Kids, Ober gravitated to the work of employee benefits with a third-party administrator and two different brokerage firms. The common denominator between the varied fields seems to be the strong interpersonal connections she developed at Purdue. But even though she says she loved her employer, Ober felt a void in her professional life.

"I decided I was missing the service aspect I went to school for," she says. "I always valued my education at Purdue, even in the business world. But I didn't have the same connection — that sense of serving others beyond helping someone solve a claims issue."

Her solution? A return to school — this time at Indiana University-Purdue University Indianapolis. There she entered a second-degree program, earning a bachelor's degree in nursing in 2008.

Upon graduation, Ober took a position on the hematology and oncology floor of Riley Hospital for Children. As her new career began, she felt more prepared than her fellow nurses because of a Purdue program that promoted active listening and familial relationship building.

"I like being able to create that therapeutic relationship with patients and families and trying to make things a little better, for even a few minutes, in one of the most difficult times in their lives," Ober says.

As her own life evolves, Ober is looking to transition from pediatric to adult oncology nursing. Last summer she landed a job in Sacramento, Calif., delivering chemotherapy infusion to adults in an outpatient clinic.

A Middlebury, Ind., native, Ober knows the California move will make her a well-rounded nurse, and she's become a spokesperson for crossdisciplinary education, as well as a fiercely loyal Boilermaker.

"I love the education I received from Purdue," Ober says. "It has helped me more than anything else in being as successful as I have been."

William Meiners



Megan Ober (HDFS '99), now a working nurse in California, is shown here in front of the Tower Bridge in Old Sacramento. Photography by Katherine and Nikki Prudhomme-Judge of Essence Photography.





5 EMERGING URBAN LEADERS

ot everyone knows at age 18 what she wants to do for the rest of her life. As such, creators of the core curriculum (still in the works) in the College of Health and Human Sciences are hoping that first-year students will be allowed to do a bit of exploring in health-related fields.

For three freshmen, all from Chicago, that learning and growing experience could translate into leadership roles down the road. Daijon Marshall, Anna Lok and Larrina Patterson (shown left to right) entered Purdue as the college's first recipients of the Emerging Urban Leaders (EUL) Scholarships in the 2010-11 academic year.

Lok and Patterson, both enrolled in the School of Nursing, are staying the course toward a nursing degree. Marshall, however, switched from the School of Health Sciences to the Department of Health and Kinesiology. A nurturing nature has each suited for a health care career, and the scholarship offers financial assistance in getting there. Lok, who became a U.S. citizen after the summer of her freshman year, says she is keeping her options open for now.

The EUL scholarships provide \$5,000 to select Indiana students from public high schools in Indianapolis, Hammond, Gary and East Chicago. Students from the Chicago Public Schools District qualify for a \$15,000 scholarship to help meet nonresident tuition costs. All of the scholarships are renewable for four years.

William Meiners



LIFE GAFTER

THE CHANGING FACE OF THE HOTEL, TOURISM AND GLOBAL FINANCIAL MARKETS
By Grant Flora

uesday morning. Sept. 11, 2001. At 8:46 a.m., American Airlines Flight 11 hit the north side of the World Trade Center's North Tower in New York City. Minutes later, at 9:02 a.m., United Airlines Flight 175 crashed into the south side of the World Trade Center's South Tower.

Another day in infamy ensued. The Sept. 11 terrorist attacks in New York City, at the Pentagon and in Pennsylvania killed more 3,000 people. That day changed the American psyche. It broke hearts. It brought people together if only briefly. It launched two wars. It hurt the economy. It altered ways of life. It inaugurated the so-called "New Normal."

Fast forward ... May 1, 2011. Shortly after 11 p.m., President Barack Obama declares, "Justice has been done." Osama bin Laden is dead.

Now, 10 years after the worst attack on American soil, it's time to remember and reflect on that decade-defining event's lingering impact. As memory recedes into history, faculty within Purdue's College of Health and Human Sciences prepare students for leadership on the world stage — a very different world from Sept. 11, 2001.



Purdue students gathered for a candlelight vigil on Sept. 12, 2001, on Slayter Hill. Photo by Dave Umberger.

An Industry Plans Ahead

Anyone under the illusion that Osama bin Laden's disposal to a watery grave would diminish the threat of terrorism soon found out otherwise. Especially for those in the hospitality industry.

The hospitality business — restaurants, hotels, resorts, travel and tourism — is the largest industry in the world, operating nearly everywhere and thus vulnerable to any number of business disruptions. The worldwide industry is larger than the U.S. agricultural industry, the U.S. airline industry and the U.S. motion picture industry combined. The restaurant industry alone accounts for millions of jobs and trillions of dollars in the U.S. and international economies. Among those working in the industry are hundreds of Purdue alumni from the School of Hospitality and Tourism Management (HTM), including hotelier Bruce Grosbety (HTM '85) who was working at The Pierre Hotel in New York City at the time of the attacks.

Just days after the terrorist's demise, the American Hotel & Lodging Association (AH&LA) issued a call for continued vigilance, urging its members to remain alert to terrorist attacks targeting hotels. AH&LA recommended that owners and managers meet with their emergency response teams to review preparedness procedures and be sure to have relationships in place with local emergency response agencies.

"Hotel attacks are not new," says Howard Adler, the C.B. Smith Professor of Hotel Management and director of the Center for the Study of Lodging Operations in HTM, the topranked program in the country.

What is new, Adler notes, is the hotel industry's sudden open acknowledgement of emergency response preparedness procedures and relationships. For the major hotel chains before 9/11, whatever plans existed were closely guarded secrets — and with good reason.

Since September 2001, more than 60 attacks have occurred in hotels in more than 20 countries, according to AH&LA. Hotels rank among the top soft targets of terrorist groups around the world.

He recalls the contingencies invoked in the aftermath of Sept. 11. "Our industry is cyclical and we were headed into a recession at the time," Adler says. "But 9/11 topped us out. A large number of companies canceled attending the annual HTM career fair we had planned later in September. Recruiting slowed down and some job offers were rescinded."

As a result, a large number of students applied to graduate school. Adler says many students were forced to take hourly positions in the industry due to cutbacks on management ranks and trainee positions.

Of course, travel slowed too. The hijacking of planes to attack the World Trade Center shut down North American airspace for several days. When it was deemed safe to fly, air traffic decreased as much as 20 percent, according to U.S. Department of Transportation figures.

Teaching to Expect the Unexpected

Immediate impact and the industry's cyclical nature underscore a lesson Adler and his colleagues try to convey to students. "We are teaching students to think in a long-term perspective," Adler says. "We are teaching them skills that will work effectively in good times and bad."

He cites other business-disruption incidents such as Hurricane Katrina and the Japanese tsunami. "Overall the tourism and hospitality industry is very susceptible to outside issues that it can't control, which slows down tourism." Last year's volcano eruptions in Iceland hurt European air travel. Similar volcanic explosions in Chile hurt flights to Australia and New Zealand. "There's always something going on and our students will constantly face challenges like these in their careers. In the classroom, we prepare them to think ahead."

And thinking ahead means thinking globally. Students who were 8 years old in 2001 are now in college. "Their outlook is more global," Adler says. "And so are their opportunities."

In the past 10 years, the economy has become more global, as has the school's instruction. "We are preparing our undergraduates with knowledge about other cultures and expanding their horizons due to globalization," Adler says. "Most of the major companies' growth will take place outside the United States. Our students need to know this."

Hotel companies such as Intercontinental Hotel Group, Starwood Hotels and Marriott are all counting on global markets for a significant share of their future growth. Marriott, for example, is taking its entire product line — 15 different brands — international, Adler says.

Accordingly, the HTM curriculum includes more discussions of cultures and customs, even politics, Adler says. Furthermore, the majority of the school's master's and Ph.D. candidates are international students. A third of the faculty members hail from other countries.

"China is the number one tourism destination in the world," Adler says, citing the school's internship programs with two hotel chains in China. China also is the top growth

Sandra Sydnor, assistant professor of hospitality and tourism management, is looking at how communities and businesses rebound from disasters.

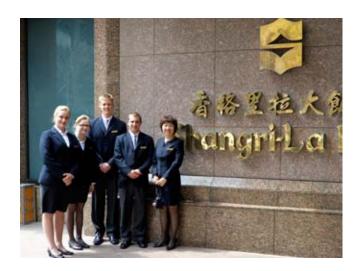




I WAS IN MANHATTAN WORKING AS DIRECTOR OF ROOMS AT THE PIERRE HOTEL. WHICH WAS ABOUT 4.5 MILES FROM THE WORLD TRADE CENTER. DURING A MORNING MEETING OUR GENERAL MANAGER WALKED IN AND SAID HE JUST HEARD A PLANE HAD HIT THE WORLD TRADE CENTER. ON THE CLEAR DAY IT WAS. WE WERE ALL FROZEN IN SHOCK WHEN WE STEPPED OUT ONTO FIFTH AVENUE AND SAW THE TOWERS ON FIRE AND THEN ULTIMATELY COLLAPSE. THE DAY'S SURREAL MOMENTS WERE AMPLIFIED WHEN GUESTS AND THE PUBLIC CAME INTO THE PIERRE COMPLETELY COVERED IN WHITE ASH. HAVING WALKED ALL THE WAY FROM DOWNTOWN.

BRUCE GROSBETY (HTM '85)

Grosbety is vice president of operations for the Terra Resort Group. He is profiled in an article about sustainability and the hotel industry on page 44.



Hospitality and tourism management students expanded their global views through a six-month hotel internship in Dalian, China.

market for McDonald's restaurants. With more than 1,000 restaurants and tens of thousands of employees there already, McDonald's Corp. announced plans to increase its investment in China by 40 percent in 2011, opening 175-200 new restaurants in the country.

Such global realities mean study abroad opportunities have grown and will continue to increase, Adler says. Over the last few years, Alder has been to 108 countries himself, and HTM study abroad programs were conducted in Argentina, Chile, Dubai, Oman, Scotland, France, Germany, Italy, Portugal and Denmark.

Resilience Research

Tuesday, Sept. 11, 2001. Sandra Sydnor is talking on the phone, watching the "Today" show in the background.

"I thought I was watching a trailer for a disaster movie," she says. "That day was a game-changer for me, as well as the country. I felt vulnerable. I had no sense of how to protect my children and myself. Little by little, as information came out, I began thinking about disasters and how people deal with devastating events. It was an intersection of the personal and the professional in my life."

Sydnor, now an assistant professor in HTM, says the events of Sept. 11 and other disasters — both natural and manmade — have informed her academic work and research these past 10 years.

Sydnor's primary research interests focus on the hospitality industry and how businesses survive, grow and decline particularly after disasters and crises. Her work, "Weathering the Storm: Firm Resilience Under Sudden Change," was nominated for the Best Paper Award at the 2011 I-CHRIE (International Council on Hotel, Restaurant and Institutional Education) Annual Conference.

he greatest threat to global good may not be an obvious one. Because trillions of dollars move across the world every day, an attack on the world's banking system could strike a blow mightier than even an atomic bomb, says Sugato Chakravarty, professor and head of the Department of Consumer Sciences and Retailing, who specializes in the areas of banking, investments and the microstructure of global financial markets. Among other things, it would freeze global credit, which, as evidenced by the recent freeze in the housing market, can stun world

In 2001, Osama bin Laden lashed out at U.S. capitalism by targeting the financial heart of the country. Ten years later, the American economy is still feeling the effects, from wars to new homeland security measures. The specter of terrorism also adds a layer of risk to the speculative and risky nature of investments, according to Chakravarty.

"Trading in stock markets becomes more costly because of the added risk that manifests itself through the bidask spread," he says of the difference between the price we pay to buy a security and the price we receive to sell the same security at any given point in time. "The spread becomes wider as the uncertainty in the markets increase. An important driver of wide spreads is liquidity, or the ability to quickly convert an asset to cash. When our national security alert level increases, investors go into a defensive stance, and liquidity, the lubricant that greases financial markets, dries up."

Sydnor's "ripped from the headlines" research explores the impact of disasters on hospitality industry businesses, including the jobs they create, and focuses on how those businesses survive and bounce back after a disaster. Surviving and, at minimum, maintaining businesses and jobs after a calamity is the spectrum of plans and practices she refers to as resilience.

Hospitality industry disaster research increased dramatically, primarily in response to the terrorist attacks of Sept. 11, 2001, and the impact of Hurricane Katrina in August 2005, Sydnor says. "From a government perspective, such as National Science Foundation grants that afford funded research on disaster resilience, research has increased. The government has invested a lot of resources and talent in disaster preparation, mitigation, response and recovery. There still hasn't been as much investment as you'd suspect from a non-government perspective."

In fact, she says, despite the frequency and ferocity of recent natural and man-made disasters, there is little industry or academic research regarding plans that deal with disasters. Her research seeks to impress industry leaders to fully appreciate the impact, reach and consequences disasters have on the industry, as well as the businesses and communities in which they operate.

"Because the industry is a critical source of domestic economic activity, it is important to understand what happens to it and its jobs after a disaster, and to understand the mechanisms by which industry resilience is achieved," she says.

Hospitality disaster research efforts remain centered on evacuation and the preservation of life, buildings and equipment. "The primary focus is, understandably, on the preservation of life and not so much on post-disaster business and job continuity," she says.

Sydnor hopes her continued research will establish a new model of resilience, in part built on her findings that creating and maintaining social networks of shared norms and values specific to various communities will foster industry business and job sustainability in the face of disasters.

Initial research findings suggest that businesses experience enhanced resilience through community resilience, Sydnor says. Industries and businesses invested in their communities and workforce are better able to adapt and survive after a disaster. New Orleans post-Katrina comes to mind, she says. People coming together in the immediate wake of disasters like Sept. 11 offer another example of a community's interdependence and support as a survival mechanism.

If there is any enduring coda to take away a decade after 9/11, it may be the collective resilience of people to endure, to survive and rise from the inevitable challenges and disasters of our time.

The result for individual investors is a more defensive approach to the market, he says. "This may mean fewer transactions and a more conservative approach to investing, including leaving money in one's savings account where only minimal interest is earned. Over time, this cautious approach slows down the economy because money no longer circulates through the global economy."

to financial systems when it announced plans to improve the nation's cybersecurity. The legislative proposal calls for private companies that manage the nation's "critical infrastructure" to submit detailed plans showing how they can defend themselves against cyber attack.

Linda Thomas Terhune



BEWARE OF CYBERTERRORISM



TOUCH

Milad Alucozai suggests that he may have been born at the absolute wrong time. At least, in the first place he called home. In 1991, in Kabul, Afghanistan, violent Taliban forces were replacing remnants left over from a 10-year Soviet invasion.

From an early age, Alucozai, now a sophomore in psychological sciences, remembers hearing the sound of rockets at night and being aware of friends and neighbors suddenly disappearing. "Everyone was scrambling to get out of the country," he says.

They caught a break. Through a global program that allowed people to apply for visas on a lottery-like basis, Alucozai, along with his mother, father and baby sister, made their way to America. His father, who dreamed of becoming an engineer, knew of Purdue's engineering reputation.

"We had no idea what or where Indiana was, but we knew of Purdue," Alucozai says.

So after some time in New York City, the family made their pilgrimage to West Lafayette (see story on page 30).

Jamie Simek, who grew up in Rockville, Ind., has two Purdue degrees. An athletic training major, she graduated in 1999 with a degree from what is now the Department of Health and Kinesiology. She earned a master's in education in 2000.

A few years later, as part of a military family (her husband is a deployed Marine), it was the Military Family Research Institute (MFRI) that brought her back to Purdue. "I was reading an article in the *Indianapolis Star* about Purdue's summer camp for military



YWAR

kids," she says. "I was so impressed that these activities for military families were happening right on my campus."

Simek volunteered to work with MFRI's Passport Toward Success program, a reintegration program for the National Guard. The volunteer job turned into a paid one and she now works for Operation Diploma, which deals specifically with higher education for veterans.

With her husband in Afghanistan, Simek says her work is both rewarding and close to her heart. "There are military families in every community," she says. "And MFRI does a fantastic job of determining where those families need the support."

William Meiners



I'M IN THE MIDST OF PEOPLE WHO ARE GIVING THEIR LIVES. I **LIKE THE CHALLENGE OF TAKING** CARE OF THE SICKEST OF THE SICK, THE MENTAL CHALLENGE, THE PHYSICAL CHALLENGE. I FEEL LIKE I REALLY HAVE IMPACT. THERE ARE DAYS WHEN SITTING **DOWN MIGHT MEAN SOMEONE COULD DIE. IT'S VERY POWERFUL TO WORK ON TEAMS THAT TAKE** CARE OF PEOPLE.



Amanda Loepker observed the 10th anniversary of 9/11 from an Air Force field hospital in Afghanistan. Loepker (NUR '07) followed in her father's footsteps after graduating from Purdue and enlisted in the Air Force, where she works as an intensive care nurse.



ILLER GOES

ALUMNUS HELPS NATIONAL SECURITY STAFF DECIPHER THE SEVERITY OF JAPAN'S NUCLEAR CRISIS

ife had been relatively quiet in Atlanta for Charles Miller (PhD '73) until a tsunami followed an earthquake in Japan in March. The immediate threat of a radiation event with potential international consequences put Miller, head of the Radiation Studies Branch at the Centers for Disease Control and Prevention (CDC), into fast action.

When word spread that a Japanese nuclear power plant failed to shut down safely, Miller, who earned his Ph.D. from the Department of Bionucleonics (absorbed by the School of Health Sciences in 1979), was poised to head to Tokyo to support the U.S. Embassy. Instead, he was assigned to the White House to work with the national security staff of President Barack Obama. He quickly found himself in the role of translating "radiation speak" into understandable language that would provide good advice all the way up through the chain of command to the commander-in-chief.

"First of all, I was fortunate," Miller says of the assignment, which could have been a real pressure cooker. "I was dealing with some very smart people. While they were not experienced in radiation matters, they were very quick to pick things up."

In the first nuclear crisis in the "Information Age," Miller helped advisors separate fact from fiction on matters of radiation and public health. In addition to generalized science translation problems, Miller says the international community uses different units to measure levels of radiation, so there were some conversions to be made as well.

Miller, who spent five weeks in Washington, is concerned about his lack of colleagues in the environmental assess-

ment field. Much to the surprise of the national staffers he was advising, the radiation assessment community is very small. "I'm a mature gentleman and I'm not going to be around forever," he says. "There's not a large cadre of people coming along to replace us."

That's a particular challenge for the industry and his alma mater, where Miller stepped into the Department of Bionucleonics some 40 years ago and became part of the Boilermaker tradition he had dreamed about as a child growing up in Sulpher Springs, Ind. His path through Purdue was somewhat unexpected, he says, but certainly life changing.

Miller, who has a bachelor's degree from Ball State and a master's in meteorology from the University of Michigan, was hoping to pick up a couple of pamphlets on the department, but was instead introduced to professors John Christian and Paul Ziemer, who took him on a tour of the labs, mapped out his coursework and practically accepted him into the program on site.

"I've been tickled to death ever since," says Miller, who previously thought his career would reside in academia.

After Purdue, he spent 10 years at Oak Ridge National Laboratory before joining the CDC in 1992, where he's been a branch chief since 2002. In 2009, the School of Health Sciences brought Miller's Purdue experience full circle when he was given the John E. Christian Award, which honors a distinguished alumnus.

William Meiners



SERVING THOSE WHO SERVE

n the collegiate sporting world, a visit to the White House is often associated with a crowning moment for national championship teams. For people examining the very realworld effects that wars and global conflicts have on families, a presidential invitation can be a humbling experience. Shelley MacDermid Wadsworth, director of Purdue's Military Family Research Institute (MFRI), has been humbled and awed by several White House visits.

MFRI, which celebrated its 10-year anniversary in fall 2010, was created in peacetime by the Department of Defense to generate knowledge about military families. The government wanted to gauge the general satisfaction of military families, commitment levels of service men and women and how it all affects military personnel in doing their work.

"From the beginning we've been able to make observations about military families, point out gaps in programs and services and keep our eyes on the unmet needs of military families," says MacDermid Wadsworth, also professor of family studies and HHS associate dean for academic affairs.

Since Sept. 11, 2001, more than 2 million military service members have been deployed, many to the far corners of the world for multiple tours of duty. The research and outreach efforts of MFRI have helped ease both the burdens of families at home and the reintegration of military personnel into society. For example, Operation Diploma (MFRI's higher education initiative) has awarded more than \$1.4 million to help higher education campuses across Indiana create supportive services for student service members and veterans.

For MacDermid Wadsworth, the institute is an extension of the work that preceded it. "One of the reasons MFRI has been able to do its work is because the people who created the Center for Families 16 years ago had a vision about the role Purdue could play in society in trying to address quality of life issues for families," she says. "Had those people not had that vision, I don't believe MFRI would have come to Purdue and achieved what it has today."

In 2010, Lilly Endowment awarded the institute a \$6.3 million grant. MFRI employs several people who are military family members themselves (see Jamie Simek on page 26), so the struggles at home are very real and understood. No surprise then that the programs, grants and initiatives originating from MFRI resonate with the families they're serving — and some appreciative folks at the White House.

William Meiners



For more information on the Military Family Research Institute, visit www.mfri.purdue.edu.



WITHOUT BOUNDARIES

PSYCHOLOGY STUDENT MAKES GLOBAL IMPACT THROUGH APPLIED SCIENCES

hallenges for many freshmen new to Purdue's campus may include finding their way around all the red brick buildings, knowing when to add fabric softener to laundry and eating smart enough to avoid the "freshman 15" weight gain. A few, however, arrive with a certain vision and drive on how they might parlay their education into something leading to a greater good. Milad Alucozai is such a student.

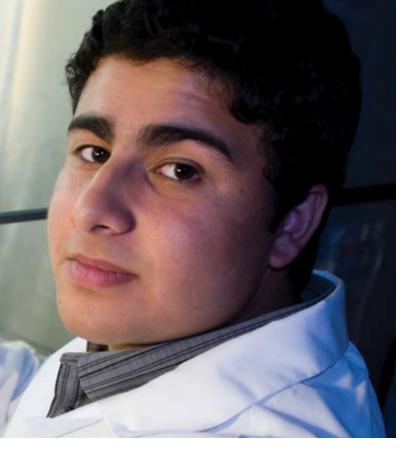
Born in Afghanistan (see page 26), Alucozai, a sophomore in psychological sciences, says the day-to-day struggles of his early childhood have motivated him not just to succeed but also to overachieve. His journey to and through Purdue has seemingly made him wise beyond his mere 20 years.

Through a summer program, Alucozai first entered Purdue's biomedical engineering labs as a freshman in high school. He worked with Riyi Shi, professor of both biomedical engineering and neurosciences, looking at sciatic nerve damage. The summer start led to more work throughout the academic year, and Alucozai took home several awards usually won by older students.

When it came time to choose a major at Purdue, Alucozai determined that psychological sciences could give him the most well rounded education. "I wanted to combine science with humanities," he says. "To communicate best, you have to know the cognitive principles behind every science."

Alucozai still works with Shi, now on his own project specializing in pharmaceutical microbiology. He uses cell cultures to simulate neuron cells, ultimately hoping to use synthetic drugs as a scavenger for acrolein, a highly toxic compound to the body. In April, Alucozai was one of the youngest researchers in the United States inducted into the Sigma Xi Honors Research Society for his work in neurodegenerative diseases. He also has two patents in the works.

On the humanities front, Alucozai wanted to learn the politics of science. "Aside from the research, I've always had a focus on the global impact of things," he says. "If you know the policy, you can push a lot of good ideas through. Otherwise, good ideas may end up on the shelf."



ALUCOZAI'S AWARDS

Milad Alucozai, a sophomore in psychological sciences, spent much of his freshman year at various podiums accepting He's been winning research and other awards since his days at West Lafayette High School. A few of his most recent honors follow here.

- 2011-14 Dept. Neuroscience Associate Membership Sigma Xi Honor Society
- 2011-12 Quantitative Physiology Scholarship
- 2011 Purdue Roosevelt Chapter of the Year
- 2011 Purdue Study Abroad Overseas Graduate Internship
- 2011 1st Place Purdue Undergraduate Research Symposium
- 2011 Fred & Dorine Santogrossi Study Abroad Award
- 2011 Purdue Soybean and Corn Product Innovation
- 2011 Clinton Global Initiative U Featured Education Project

To that end, before he stepped on campus as a freshman, Alucozai founded Purdue's chapter of the Roosevelt Institute, which has a decidedly global focus. The chapter, Indiana's first, has worked on three large-scale projects — a white paper on Islam in America, an education program and a fiscal budget proposal. For the latter project, Alucozai was one of the lead authors (working with other Roosevelt chapter presidents) who proposed and presented a plan at the Fiscal Budget Summit in Washington, D.C. The Peterson Foundation awarded the Roosevelt network a \$200,000 grant to develop a comprehensive plan for putting the country on a fiscally sustainable long-term path.

Alucozai also signed up for the Global Seminar Policy course taught by Arden Bement, director of the Global Policy Research Institute. Bement was impressed by the young man's drive. "Milad certainly has an open interest in things that are going to be important over the next 50 years," he says. "He has developed some ideas about informing global policy through science, especially in the health sciences area."

Alucozai would go on to serve as a teaching assistant for the spring version of the course, and Bement signed off on Alucozai's medical mission trip to Nepal over the December break. There, he convinced managing directors of hospitals to set up free health clinics. His people skills came in handy, especially in selling hospital directors on the benefits of good public relations.

"Preventive care is huge in medicine," Alucozai says. "There's no such thing as insurance there and people are going into hospitals with fourth- and fifth-stage diseases. It costs almost nothing to open up a health clinic."

Pretty productive for a winter break project. Alucozai insists it's more hard work and dogged determinedness than any sort of "freshman phenom" labels people might put on him. But perhaps Bement describes him best. "I would classify Milad as a big thinker, very hard working," he says. "He's not a person that's bounded."

William Meiners



ike thousands of other college students, Adam Tiller and Arianna Brooks traveled to tropical climates for spring break last year. But their itinerary was far away from normal.

Now two of Purdue's newest College of Health and Human Sciences alumni, Tiller and Brooks were among 17 undergraduates and three faculty members from HHS to explore the multifaceted dimensions of international nonprofit organizations during a weeklong study abroad trip to Cartagena, Colombia.

Accompanying them were 15 other Purdue students from liberal arts, management, science and engineering, as well as two representatives from Bridges of Hope International, a humanitarian organization dedicated to breaking the cycle of generational poverty in Central and South America through mission trips and international partnerships.

The group was led by Thelma Snuggs, assistant professor of consumer sciences and retailing; Sandra Sydnor, assistant professor of hospitality and tourism management; and Mope Adeola, clinical assistant professor of nursing.

Tiller, a selling and sales management major who also studied abroad in China, originally took the class to travel internationally, but enjoyed learning about nonprofit organizations and Colombian culture more than he expected. "All the people we met, especially the children, were very welcoming," he says. "They were genuinely happy that we were there."

Brooks, a psychology and law and society major, embraced the service-learning aspect of the course. "I'd always wanted to visit South America, and the timing of this course over spring break fit perfectly with my academic schedule," she says. "I loved every moment of it."

The concentrated pace of activities and diversity among participants also created a strong group dynamic. "Everyone bonded early in the trip and no one wanted to come home," Tiller says. "It was one of the best experiences of my entire time in college."

Snuggs, who has previously led study abroad programs in El Salvador, says the group's unique experience was by design. "I've been doing this for a long time, but I've never grown as close to a group of students as I did on this trip. Besides their









diversity, I think part of the reason for the camaraderie was the multidisciplinary nature of the class."

The structure of the course allowed students to customize their learning experience by focusing on one of three distinct academic areas: international marketing, business feasibility or nursing care services. Each of the three instructors led a group, Snuggs says.

"Everyone came together for the core course — before, during and after the trip," she says. "We were intent on making it one class looking at the same content through three different lenses."

Students prepared and packed more than 40 suitcases with shoes, clothing, school supplies, toys and other items — valued at \$14,000 total — that were distributed throughout the travel week to children and support staff at numerous Cartagena nonprofits, including a children's hospital and cancer hospice and a school for the deaf. Students also conducted eyeglass and health clinics.

Participants also learned about international business and the export trade on a visit hosted by Purdue alumnus

Rodolfo Gedeon (BSCE'60, MSCE'61), whose company, GloMed, manufactures latex gloves from petroleum products. Other activities included presentations on business, nursing and hotels/tourism at the University of Cartagena and visits to the city's historical and cultural districts.

"The students were given a broad view of the culture and reality of Cartagena," says co-instructor Janet Michel, president and founder of Bridges of Hope International. "It is truly a 'city with two faces,' one of beauty and charm, the other of 60,000 refugees living around the edges in extreme poverty."

For Brooks and her classmates, it is both a lasting memory and a guidepost for the future. "We'd all like to go back someday, as a group or individually," she says. "I'd leave tomorrow!"

Eric Nelson

Nursing students Tamara Lee (top left) and Sarah LeCount (bottom right) enjoy spending time with the children they encountered in Cartagena. Both graduated in May 2011. Photos by Patricia Karina.



AND HOLDING BABY BOOMERS PLAN FOR THE GOLDEN YEARS people born from 1946 to 1964 — are poised to either overwhelm or overhaul the American health care landscape. Through sheer numbers and, too often, negative lifestyle choices, this cohort will transform health care one way or another. Boomers say they want to feel young, stay fit and be active. In other words, they don't want to grow old. Despite that, they are starting to suffer from degenerative disease. They want smart solutions to their health problems. Faculty researchers in the College of Health and Human Sciences are exploring the aspects of aging with the hope of finding better ways to optimize health while controlling rising health care costs.



Growing Older - and Wider

According to research conducted by faculty in the Department of Nutrition Science, more than 60 percent of the population is overweight and 25 percent is clinically obese. A disproportional number are baby boomers. A recent AARP study backs up these numbers. Boomers are less healthy and heavier than their parents were at their age. They consume more prescription drugs than the previous generation. In fact, the average 50-year-old man takes four prescription medications daily, the report says.

Postmenopausal women and men in their 60s are the heaviest segment of our population, says Wayne Campbell, professor of nutrition science and researcher in Purdue's Ingestive Behavior Research Center. "As people transition through adulthood there is a tendency for weight gain. On a population basis that progression peaks in their 60s, then progressively declines as they go into their 70s and 80s."

One reason for the decline, Campbell says, is that many of the heaviest people have died from obesity-related diseases like diabetes, hypertension and heart disease. "The idea that you can extend your life span by maintaining a normal weight is very well documented."

Also well documented is the reduction in the number of calories needed to maintain body weight as we age. "People need to consume less food as they age, partially because they tend to become more sedentary and because of muscle loss. Your body is burning less calories a day."

Not all foods are created equal, however. Campbell says that when people cut back on food consumption to maintain or lose weight, they typically eat fewer carbohydrates, fats and protein. But protein is essential for older adults in fighting sarcopenia, the loss of muscle that occurs in aging.

"The body needs the amino acids that protein provides to maintain muscle mass, so if you don't consume enough protein, your body will go to your muscle to obtain it," he says.

Although much of nutrition literature is focused on trying to prove the superiority of one protein over another, in reality as long as people consume sufficient amounts of protein, where it comes from becomes less important, Campbell says. That is if the source isn't highly processed or high-fat meats.

"The highest-quality proteins are animal-based because they contain all of the amino acids that our body needs to build muscle." Campbell suggests egg whites and low- or nonfat dairy as good sources of protein.

His research focuses on the combination of exercise and a moderately higher protein intake — somewhere between 50 and 75 percent more than the government's recommended dietary allowance. The results are promising.

The old adage, "use it or lose it" couldn't be more applicable when it comes to preserving muscle as we age. "You have to have the building blocks that are the amino acids from your diet to repair and build muscles bigger and stronger when you do exercise," Campbell says. An exciting research finding is the importance of patterning diet to include protein at every meal and in snacks.

Typically people eat the most protein at dinner, a little less at lunch and even less at breakfast, Campbell says. "Instead of having a 7-ounce portion of meat or chicken at dinner to fulfill your protein needs, have an egg white omelet with a glass of milk at breakfast, a tuna fish sandwich or salad with a soy-based product for lunch and a reasonably sized portion of protein at dinner."

The payoff? Appetite control and an easier way to meet health goals for optimal aging.

Research Continues on Bone Health, Cancer Prevention

Department of Nutrition Science researchers are also leading the way in tackling two of the biggest challenges facing an aging population: maintaining bone density and preventing cancer.

Connie Weaver, head and Distinguished Professor of Nutrition Science and an expert in mineral bioavailability, calcium metabolism and bone health, says it's critical that people pay attention to the amount of calcium they are consuming daily.

"Calcium is very critical for every body function. Without it your muscles won't contract and your nerves won't send messages," she says. "You either provide calcium through your diet or your body will strip it from bone tissue. If your body robs the bones, they will weaken and break."

It's especially critical that those over the age of 50 consume the recommended 1,200 milligrams of calcium daily. Weaver says this is the equivalent of eating a rich calcium source such as a dairy product at each meal. Other foods such as orange juice are fortified with the mineral, and calcium supplements are available.

Postmenopausal women should pay special attention to their bone health because of hormonal changes, but calcium is also important for men since they, too, can be victims of osteoporosis. For both sexes, good nutrition coupled with weight-bearing exercise can reinforce bone strength. "This activity communicates to your body that you need to build bone," Weaver says. "A well-balanced diet is essential because many nutrients work together. For example, the protein that shuttles calcium through the intestines to be delivered to the rest of the body is dependent on vitamin D."

Weaver is part of a team of Purdue researchers that has launched a 20-year, multinational study to learn more about the role diet can play in preventing breast cancer.

The International Breast Cancer and Nutrition Project, which has partnered with the World Health Organization and the International Agency for Research on Cancer, held its first symposium on the West Lafayette campus in September 2010. Researchers from around the world joined Purdue faculty in presenting a framework for the project.

Eleven international teams are in place with scientists who will study worldwide diversity in breast cancer rates, dietary patterns and cultural background. The teams will secure funding to obtain breast tissue samples to profile the epigenetics and to complete diet assessments.

"There are many unknowns about how nutrition relates to breast cancer prevention and recurrence," Weaver says. "What we learn in one corner of the world can really help us learn how to prevent the disease because





Top: Brooke Hoffman, a senior in nutrition science, spots a weight-lifting client as part of her practicum in the nutrition, fitness and health program. Rachel Clark (background), sports dietician for Purdue Athletics and continuing lecturer in nutrition science, supervises. Bottom: Wayne Campbell, professor of nutrition science, focuses his research on a combination of exercise and a moderately higher protein intake.

we will identify common threads as well as important peculiarities all in one global study."

Other department research studies are examining bioactive compounds and botanicals for their potential effectiveness on chronic diseases like osteoporosis, cancer, cardiovascular disease, eye lens deterioration and obesity. A large project is under way in the area of Alzheimer's disease and cognitive function deterioration.

Planning for the Inevitable

Boomers are the major reason for projections that the number of Americans 65 and older will reach 88.5 million by 2050 — more than double the estimated 40.2 million from a 2010 U.S. Census report, "The Next Four Decades."

By 2030, when all of the boomers are 65 or older, they will constitute 19 percent of the total population. This will have enormous implications for government programs like Social Security and Medicare. Baby boomers should expect to spend more than \$3,899 annually for health care, according to the U.S. Bureau of Labor Statistics.

That figure doesn't include in-home nursing care or residential care in an assisted living facility or nursing home.

Laura Sands, the Katherine Birck Professor of Nursing, is studying programs, interventions and policies that affect older adults. Although she's not a nurse herself, Sands has worked with post-M.D. fellows and gerontologists to study disease and disuse (a result of injury, disease or lack of activity) as it leads to physiological changes and limitations.

"Disease and disuse results in disability when there is a lack of resources to overcome those limitations," Sands says. "Many researchers look at the disease for the disuse, but fewer are looking at what happens between the transition from limitations to disability."

A limitation might be as simple as having difficulty bending to put on shoes, something that could be overcome by wearing loafers. Other limitations are more challenging and result in older adults' requiring more care from others either at home or in a nursing home.

Ways to prevent disease are to adopt healthy behaviors and comply with doctor's orders. The orders, however, become more complex as one develops chronic diseases, Sands says.

Researchers within the School of Nursing are developing self-care interventions that are easy for patients to adopt. Nancy Edwards, associate professor of nursing, is looking at





PREPPING FOR 3 STAGES OF

f you don't think financial fitness is a part of good health, try being poor. Or try planning for retirement without understanding the dynamic changes you could be in for on a fixed income. Sharon Burns tells people to think big picture and long term when planning for their golden years.

Burns, clinical associate professor of consumer sciences and retailing, has written books on such money matters, including Financial Caregiving, a handbook for adults taking care of their aging parents to be rereleased this fall. Passionate about helping seniors manage their money, Burns says people nearing retirement should brace themselves (while simultaneously preparing) for change the years bring.

"Income in retirement will likely come from a third party, such as Social Security or a pension plan," says Burns (PhD '88), who has how to improve quality of life in those who are very disabled, including those with severe dementia. She has implemented a chair-based exercise program, in collaboration with colleagues from the Department of Health and Kinesiology, to improve range of motion and strength. As an added benefit, Edwards has seen an improvement in participants' moods.

"A lot of people think that managing illness is taking medication properly, but there's more to it," Sands says. "It also means seeking the appropriate medical care at the appropriate intervals." For example, diabetics need to have regular blood tests, but in a study conducted with the Indiana University Medical Group, 20 percent of patients didn't show up for appointments.

Lynn Nuti, a graduate nursing student, works with Sands and Mark Lawley, professor of biomedical engineering, to develop care planning and scheduling algorithms to get patients into their primary care physician's office at the correct intervals. Nuti is automating the published guidelines and integrating it into scheduling software at medical offices.

"These kinds of innovations are important," Sands says. "We all have information overload and the last thing we need is another email reminder. This is a proactive intervention that schedules patients and reminds them at the proper interval to have those tests and procedures done that are required in the course of their chronic illness."

Getting the necessary help is just as important in treating or managing a disease as it is in preventing disease, Sands says. Without proper care — whether it's self-care or



Nancy Edwards, associate professor of nursing, has implemented a chair-based exercise program to improve the range of motion and strength in older adults.

medical care — people will become sicker and create a greater burden on the health care system.

Baby boomers will be big drivers of available health care options in the future.

"We receive a lot of messages as we grow up," Sands says. "One is 'save for retirement' and another is 'save for college." Few people want to think about saving for future disability and yet it's just as real. That's a message that needs to be made clear to baby boomers." 💥

three Purdue degrees and came back to teach at her alma mater in 2009 after working for 12 years as a certified public accountant. "The key is to understand how much income and expenses are going to change."

Burns says retirement usually involves two to three stages. In the first stage, work-related expenses may diminish, but couples looking to travel sometimes buy some sort of cruiser, giving them a new car payment. In the second stage, from the late 70s to early 80s, travel and social expenses may decrease, but medical expenses start to rise. The octogenarians with many years left end up spending a lot of money for care giving in the third stage.

"A common mistake is that people only think of retirement as that first stage," Burns says. "Income and expenses vary over the span of retirement. If a husband and wife are both drawing Social Security and one spouse dies, for example, the survivor will see income drop by at least a third, maybe even in half. The widow or widower in this case can't rely on that money, because it won't be there."

Getting an estate plan and legal documents in order, along with attempting to go into retirement debt-free, are also good goals for people of any age planning for a nest egg. For Burns, who graduated as one of Purdue's first financial planning majors in 1981, the best advice may be to prepare as best you can for life's curveballs. Far from a static existence, retirement can be a dynamic time of life. And with money in the bank, it can make for some of the best times.

William Meiners



NURSING STUDENT USES NATURE PHOTOGRAPHY TO HELP PATIENTS LIVING WITH CHRONIC DISEASES

t's a snowy day in February, but for the eight women gathered inside the First Presbyterian Church in Bedford, Ind., the winter weather is far from their minds. Instead, they sink their toes into a sandy beach, feel a cool mist on their faces from a nearby waterfall and breathe in the succulent scent of wildflowers in a forest. They have been transported to a different place, and nursing student John Scherschel (NUR'11) is the one taking them there.

The experience was part of Scherschel's senior research project exploring the impact of nature photography on women living with a chronic disease or disabling condition. "We know that firsthand exposure to natural environments decreases depression and stress," Scherschel says, "but what about those individuals who have limited access to, or are not able to engage in, natural environments?"

Knowing that Scherschel was an avid photographer and outdoorsman, Roberta Schweitzer, assistant professor of nursing, suggested that he explore whether exposure to nature photography would produce similar benefits to experiencing nature firsthand. It was the perfect project for Scherschel, who had spent the last three summers hiking and photographing his way through New Mexico. (Those are his photos at right.)

To prepare for his research, Scherschel completed an indepth literature review and sorted through his large collection of nature photos with a critical eye, selecting just 27 for the study. The protocol involved showing the photos to a small group of women, all of whom had a chronic disease or disabling condition. The women were asked to talk about the emotions and experiences the photos evoked.









"The women shared qualitative data that I don't think we would have received without going through the photos," he says. "We spent as much as 15 minutes talking about how one photo made them feel. And for them to say they felt the warmth of sand between their toes when they were looking at a photo of a beach — that's pretty powerful when it's snowing outside."

In general, Scherschel says the women reported feeling more relaxed and experiencing less pain following the slide show. These findings could support use of nature photography in hospitals, clinics or doctors' offices to distract patients from their pain, depression or grief.

In spring 2011, he had the honor of being the first Purdue undergraduate nursing student to attend and present at the Midwest Nursing Research Society's 35th annual conference in Columbus, Ohio. "His research generated quite a bit of interest and discussion among researchers at the conference for its novelty and creativity," Schweitzer says. "The goal now is to use the pilot data to build a health promotion intervention program for women with chronic conditions, incorporating nature photography that complements use of traditional medicine in increasing well-being."

Scherschel graduated in May 2011 and plans to work in a critical care unit or emergency department. He hopes to pursue a graduate degree and continue his research.

Tammy Weaver-Stoike



To read more about Scherschel, visit Purdue's "5 Students Who Live Well" at www.purdue.edu/ fivestudents/live_well/scherschel.html.



A VOICE FOR PARKINSON'S PATIENTS

new device developed through a collaborative effort at Purdue soon could help ease the difficulties of people with Parkinson's disease. A recording of ambient sound, likened to the noisy chatter inside a full restaurant, is helping them to communicate more effectively.

"People with Parkinson's disease commonly have voice and speech problems," says Jessica Huber, pictured, associate professor of speech, language, and hearing sciences. "Their voices may become weak and quiet. They can sound breathy or rough, have changes in their rate of speech and suffer from long pausing and slurred speech."

Therapy, such as the Lee Silverman voice treatment program, has trained many patients, but not all, to speak louder. Huber teamed with biomedical engineers to create a device that would help raise voices in real-world conversations — not just in a speech therapist's office. Patients were asked to speak louder while a recording of background "multitalker babble noise" was played. The noise is essentially the sound of a restaurant full of patrons, but without the clash of silverware and glasses.

The background sound elicits a well-known phenomenon called the Lombard effect, a reflex in which people automatically speak louder in the presence of background sound. When the babble noise was turned up, Huber says, patients were able to become louder by 5 decibels on average during their everyday conversations.

Jim Jones, engineering resources manager, and Kirk Foster, senior research engineer, both in the Weldon School of Biomedical Engineering, built a prototype device that has been used with nearly 40 patients. Huber says her research team looked at the effectiveness of the device and the response from patients.

"We've noticed the patients voices are louder," Huber says. "Their speech rate is more normal and their speech is clearer."

Patients have reported speaking in groups now, and spouses say they understand them better, Huber says. "One of my favorite comments came from a patient who said, 'People don't ignore me anymore."

With the promising early results, Huber says they are now working with a design firm to make the device smaller. She believes a wireless, behindthe-ear application will be more commercially viable. To that end, the team is working with the Alfred Mann Institute for Biomedical Development at Purdue.

William Meiners



FACULTY, STUDENTS CONNECT THROUGH CHRONIC DISEASE INTERESTS

iseases such as diabetes, Parkinson's and heart disease provide myriad research questions for scientists. While one researcher is studying how relationships affect a person's eating habits while trying to manage a disease, another may be looking at the gene expression related to the disease.

A new group in the College of Health and Human Sciences (HHS) is bringing professors and students together to help them connect via similar, yet different, research interests. This past year, the HHS Chronic Disease Research interest group focused on neurodegenerative disease, statistical modeling and diabetes, cancer and cardiovascular disease. The topics were selected based on feedback and interests from faculty.

"Interdisciplinary groups are powerful because they can work together to negotiate for funding or research equipment," says Dorothy Teegarden, professor of nutrition science, pictured above with Sean Newcomer, assistant professor of health and kinesiology. "This was a way to introduce faculty, staff and students who may not have interacted before the nine departments were brought together in this new college. Research in chronic diseases is a strength for the new college, so we worked to bring together existing research efforts to enhance collaborations across campus."

It is too early to see concrete results from the introductions, but the group did accomplish its primary goal in connecting people in the college and on campus.

Thanks to the experience, Melissa Franks, assistant professor of human development and family studies, was intro-

duced to a professor in health and kinesiology and a communication professor in the College of Liberals Arts. Franks, who presented during the statistical modeling and diabetes session, focuses on chronic disease management and relationships, specifically couples. Karen Yehle, assistant professor of nursing and a presenter in the cardiovascular session, also began conversations with colleagues in health and kinesiology and human development and family studies.

The sessions, which also regularly included student attendance, emphasized connecting students with faculty and labs outside of their primary areas of study.

"I believe socializing students to an interdisciplinary approach to research is crucial," says Yehle, who also was part of the group's organizing committee. "Introducing students to the value of interdisciplinary research early on will encourage them to work in interdisciplinary teams. This is especially important in health care."

The year concluded with a poster session competition for students in any related field.

"The series and poster session showcase what we do in the college and help others understand who we are," Teegarden says. "This was an incredible opportunity for students to understand the different disciplines and approaches there are in research."

The group continued the series in the fall to spark more faculty discussions and collaborations.

Amy Patterson Neubert



IN THE LAP OF SUSTAINABILITY

ALUM PLAYS LEADING ROLE IN ECOTOURISM INDUSTRY

an sustainability coexist with luxury hotels? You bet. It's not only friendly to the environment, but it's a booming sector in the hotel and tourism industry.

There is perhaps no better place to find green luxury in this country than in the Rocky Mountains, where natural beauty begets respect for the environment among residents and guests. There, tucked against the Teton Mountains in Jackson Hole, Wyo., Hotel Terra is setting the pace for ecoboutique hotels.

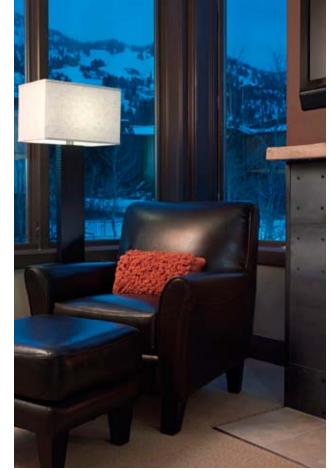
Guided by Bruce Grosbety (HTM '85) and a team that includes seven Purdue graduates, the 135-room hotel combines four-star luxury with an ongoing commitment to sustainability from the ground up. Built by the Terra Resort Group in 2008, the hotel earned LEED (Leadership in Energy and Environmental Design) certification through design with sustainable approaches to site development, water savings, energy efficiency, materials selection and indoor environmental quality. Guests may notice some of the sustainable practices; they may not notice others such as energy-efficient insulation and heating systems that manage energy consumption by detecting if anyone is in the room.

According to Grosbety, vice president of operations for the Terra Resort Group, the hotel is responding to a growing sector of the market. "We believe we are setting the pace in answering a growing desire by many guests and consumers to match their lifestyle at home with hotels and resorts that are just as conscious in how they operate and manage their operations," he says.

Sustainability is good business practice, says Jonathon Day, assistant professor of hospitality and tourism manage-







ment and a member of the Purdue Tourism and Hospitality Research Center, which helps companies develop strategies for sustainable tourism.

"In many cases, like in Jackson Hole, the environment, the culture, the biodiversity are important attractions for the hotel and destinations," he says. "To not care for the environment would be to kill the goose that laid the golden egg. Hoteliers are important stewards of their destinations. Fortunately, hoteliers who are really social entrepreneurs, like Bruce (Grosbety) and the team at Hotel Terra, recognize the important role they play."

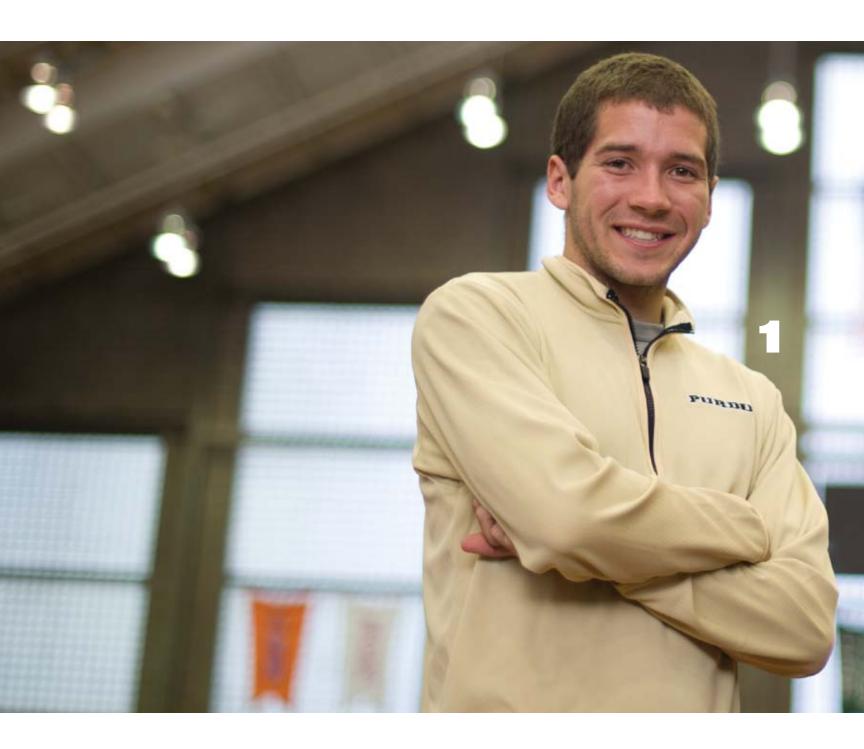
Grosbety has played the role of the hospitable hotelier for years. He grew up working in his family's hotel and restaurant in upstate New York. His pedigree includes management of the Four Seasons Parker Meridien, Boston's Fairmont Copley Plaza and the Snake River Resort & Spa. With Terra Resort Group, he not only serves as general manager of the flagship Hotel Terra but oversees daily operations of the company's properties, which include The Inn at Jackson Hole and the Teton Mountain Lodge & Spa.

Grosbety hopes the eco-friendly philosophy that guides Hotel Terra will spread throughout the industry. "We hope we can have an impact on how hotels are built in the future," he says. "One day it will no longer be about comparing traditional-built vs. LEED-built, it will just become the right way to develop all residential and commercial buildings."

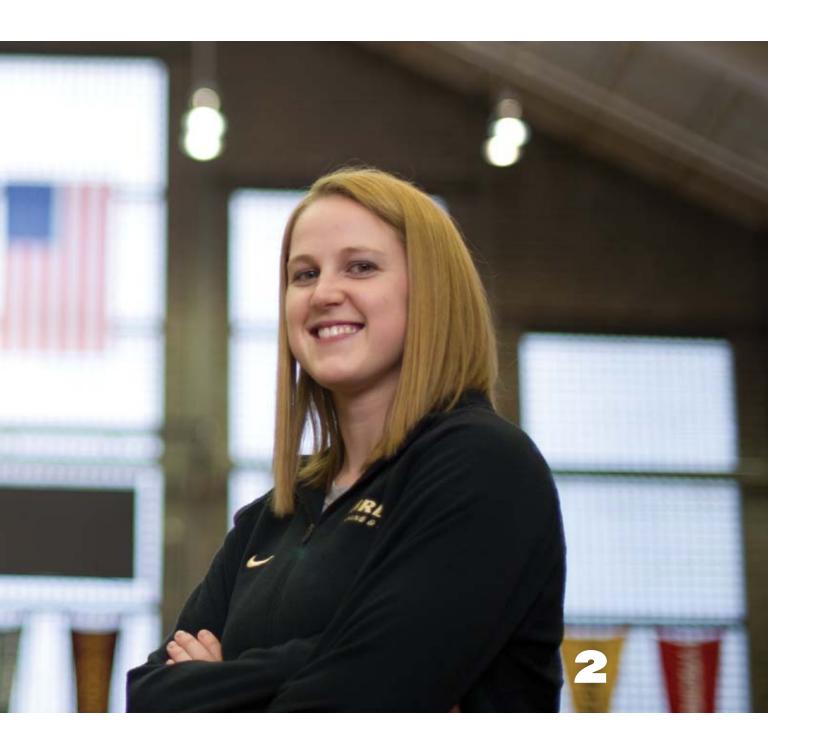
Linda Thomas Terhune



For more information on Hotel Terra, visit www.hotelterrajacksonhole.com.



5 ALL-AMERICANS



e are all looking to age as best we can. College students, especially student athletes, seem to have a healthy head start. Several student-athletes within HHS have combined studies at a top-tier academic institution with the big-time competition of Big Ten sports. This Boilermaker quintet represents some of the best of the best. Shown here in Purdue's historic Lambert Fieldhouse, Allie Smith and Stephen Schulz exemplify the ideal com-

bination of scholastic and intercollegiate athletic success. Smith, a swimmer who earned a degree in pre-physical therapy in the School of Health Sciences in 2011, was the Big Ten's female winner of the prestigious Wayne Duke Postgraduate Award last year. A two-time honorable mention All-American, Big Ten Distinguished Scholar, Academic All-Big Ten, and College Swimming Coaches Association of America All-Academic, Smith took those smarts to Wash-

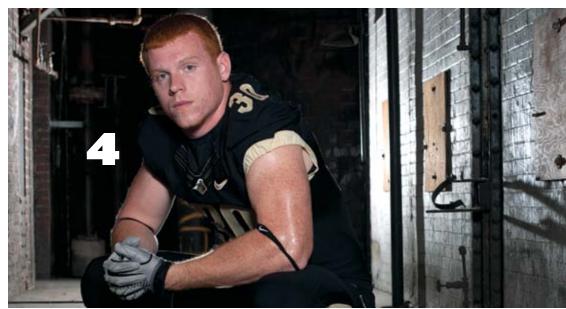


ington University in St. Louis. There she's pursuing a master's degree in physical therapy. Schulz, a junior cross country runner in the Department of Health and Kinesiology, has miles to go before he rests. In February 2011, the United States Track and Field and Cross Country Coaches Association (USTFCCCA) named him an Academic All-American.

Leah Eber (above), a senior studying apparel design and technology, is a sprinter and long jumper. She won both the Big Ten indoor and outdoor long jump titles in 2011. In August, she was named an Academic All-American by the USTFCCCA.

Late in 2011, Purdue linebacker Joe Holland, a senior in health and kinesiology (top right), was named a first-team Capital One Academic All-American by the College Sports Information Directors of America (CoSIDA). Holland, who was recognized by the National Football Foundation as one of 16 national Scholar-Athletes, had a 3.96 cumulative grade-point average in movement and sport science. He was a secondteam Academic All-American in 2010, in addition to being a four-time Academic All-Big Ten selection and a three-time CoSIDA Academic All-District V honoree. After his football playing days end, Holland plans to attend dental school.







For her performance on the course, golfer Maude-Aimee LeBlanc, a senior majoring in psychology (bottom right), was named first-team All-American by Golfweek and second-team All-American by the National Golf Coaches Association in her junior year. In 2010, she also earned the Mary Fossum Award for the lowest stroke average in the Big Ten and was a pivotal part of Purdue's national championship golf team.

"My psychology classes have been most beneficial in making me a better student," LeBlanc says. "What I have learned about memory and how to improve it has helped me in my

class work, especially when preparing for tests. Of course golf requires practice and strong focus. I have learned the importance of positive self-talk and imagery and have enhanced my ability to shut everything else out when I'm on the golf course thanks to my major."

William Meiners

LUMNI AWARN

IN THE INAUGURAL YEAR FOR THE COLLEGE OF HEALTH AND HUMAN SCIENCES (HHS), FOUR ALUMNI RECEIVED THE FIRST HHS ALUMNI AWARDS. MADE POSSIBLE THROUGH A PARTNERSHIP WITH THE HHS ALUMNI ASSOCIATION AND THE PURDUE ALUMNI ASSOCIATION, THE AWARDS WERE PRESENTED IN APRIL 2011. CONGRATULATIONS TO OUR WINNERS.



DISTINGUISHED ALUMNI

Pat Tabloski is not only an expert nurse practitioner, she is changing the way nurses and other health care professionals meet the unique needs of our aging adults. Her research career has focused on the sleep and care of the elderly, specifically in areas such as sleep improvement for nursing home residents, hospice care, Alzheimer's disease and palliative care.

> Jane M. Kirkpatrick, PhD Associate Dean, Head and Associate Professor School of Nursing, Purdue University



PATRICIA A. TABLOSKI

PhD, FGSA, FAAN Associate Dean, Graduate Programs, William F. Connell School of Nursing, Boston College, Concord, Mass.

EDUCATION

BS '73, Nursing, Purdue University MS '78, Nursing, Seton Hall University PhD '89, Philosophy, University of Rochester

CAREER HIGHLIGHTS

2006-present	Associate Dean of Graduate Programs,
	William F. Connell School of Nursing,
	Boston College
1998-2006	Associate Professor,
	William F. Connell School of Nursing,
	Boston College
1987-2002	Gerontological Nurse Practitioner,
	University of Massachusetts Medical Center
1991-1998	Associate Professor; Associate Director,
	Travelers Center on Aging, School of Nursing,
	University of Connecticut
1987-1991	Assistant Professor, Graduate School of Nursin
	University of Massachusetts Medical Center



DISTINGUISHED ALUMNI

Dr. Ziemer has always been a man of integrity, determination and honor. Through all of his roles, he has continually taken on additional responsibilities, utilizing his best attributes to impact those around him. Ever since his retirement, Dr. Ziemer has been very actively participating in the school's activities and providing his invaluable suggestions for the school's sustainable growth.

> Wei Zheng, PhD Head and Professor School of Health Sciences, Purdue University



DR. PAUL ZIEMER

Professor Emeritus and Retired Head School of Health Sciences Purdue University, West Lafayette, Ind.

EDUCATION

BS '57, Physics, Wheaton College MS '59, Radiological Physics, Vanderbilt University PhD '62, Bionucleonics, Purdue University

CAREER HIGHLIGHTS

2001-2010	Chair, Advisory Board on Radiation and
	Worker Health, National Institute of
	Occupational Safety and Health
1993-2000	Head, School of Health Sciences,
	Purdue University
1990-1993	Assistant Secretary, Energy for Environment,
	Safety and Health, U.S. Department of Energy
1983-1990	Head, School of Health Sciences,
	Purdue University
1982-1983	Acting Head, School of Health Sciences,
	Purdue University
1982	Acting Head, Bionucleonics Department,
	Purdue University



ALUMNI SERVICE

Jane Link is a lifetime ambassador for Purdue University. She promotes, publicizes and recruits for Purdue to the many audiences with whom she has contact. Purdue is fortunate to have her as a spirited advocate. Jane's enthusiasm and smile are contagious.

> Linda Conner Director of Student Services College of Health and Human Sciences, Purdue University



OUTSTANDING YOUNG ALUMNI

Nicole Osevala has foregone financial reward to pursue her passion in the severely underserved field of geriatric medicine. That passion is now translating into real change in the medical practice that will be of increasing importance in the years to come as the baby boomers dramatically increase the demand for geriatric care.

> Stephen J. Crozier, PhD Senior Scientist, Nutrition The Hershey Co., Hershey, Pa.



JANE S. LINK Former Director of Academic Advising and Recruiting, Center for Adult and Part-Time Students (CAPS), Xavier University, Cincinnati, Ohio

EDUCATION

BS '67, Vocational Home Economics Education, Purdue University

ME '72, Vocational Education, University of Cincinnati PhD '80, Vocational Education, Adult Education Curriculum and Instruction, Teacher Education, University of Cincinnati

CAREER HIGHI IGHTS

REER HIGHLIGHTS		
1994-2007	Director, Academic Advising and Recruiting,	
	Center for Adult and Part-Time Students (CAPS)	
	Xavier University	
1988-1994	Academic Advisor/Recruiter, CAPS,	
	Xavier University	
1986-1988	Director, Marketing and Intake Advising,	
	College of Mount St. Joseph	
1981-1986	Chair and Assistant Professor,	
	Consumer Science and Nutrition,	

College of Mount St. Joseph



NICOLE M. OSEVALA. MD Assistant Professor Penn State Milton S. Hershey Medical Center, Hershey, Pa.

EDUCATION

BA '99, Movement in Sports Science/Pre-Medicine, Purdue University MD '03, Penn State University College of Medicine

CAREER HIGHLIGHTS

2010-present	Assistant Professor of Medicine,
	Penn State Milton S. Hershey Medical Center
2009-2010	Geriatrician, Lehigh Valley Physician Group,
	Lehigh Valley Health Network
2007-2009	Clinical Instructor, Internal Medicine,
	University of Michigan Health System

GENERATIONS

WE'RE LOOKING TO PUBLICIZE YOUR PROFESSIONAL ACHIEVEMENTS. WHETHER YOU PUBLISHED THE GREAT AMERICAN NOVEL, LANDED YOUR DREAM JOB OR RECEIVED AN AWARD, WE'D LIKE TO KNOW WHERE YOU ARE IN YOUR CAREER. SEND YOUR NEWS TO WWW.PURDUE.EDU/HHS/ALUMNI/UPDATE_RECORD.

MARY THAMAN, HE '49, works part time as a freelance home economist for Chief Supermarkets, which serves northwest Ohio.

HELEN (WALTMAN) PEASLEY, HE '50. now retired, serves on the board and is the newsletter editor for the Red Rock Canyon Interpretive Association.

THOMAS SPEAKER, HK '63, a retired basketball coach, teacher and small business owner, is the author of The Coach, an uplifting novel about the life path of a basketball player and coach. Speaker weaves history into fiction, even bringing Gene Keady, the legendary Boilermaker coach, into the story.

CAROLE CASTEN, HK '73, is a professor at California State University, Dominguez Hills. She has published five textbooks and numerous articles on physical education.

RAMONA EMMONS PAUL, HDFS '76, retired as assistant state superintendent for the Oklahoma State Department of Education. She now serves on the board of the Foundation for Oklahoma Partners for School Readiness.

EDGAR CLODFELTER, PSY '76, is president of APAS, LLC in Adamant, Vt. RICHARD GHISELLI, HTM '76, won a 2010 International Foodservice Manufacturer Association's Silver Plate Award in the colleges and universities section. The Ivy Award is a coveted award in the food service industry.

KIM (VANDEPUTTE) MILLER, CSR '77, is the principal at Graphique Inc.

BECKY PIERSON-TREACY, NUR '79, was elected to the executive committee of the Marion Superior Court as a co-presiding judge.

PATRICIA (FANEUF) JONES, NUR '80, is a health care management consultant at Milliman in Seattle, Wash. She was elected to the board of commissioners for case management certification.

DENNIS MARK SOLLENBERGER, HSCI '81, is a senior health physicist for the U.S. Nuclear Regulatory Commission.

AMY FURRY, CSR '82, is director of Catalyst Healthcare Advisors.

JAMES HUBER, HDFS '82, taught an intensive two-week graduate course on family therapy for LaSalle University (Philadelphia) at its affiliate master's program in clinical-counseling psychology at the University of New York in Prague, Czech Republic.

SALLY SCHNEIDER LOWREY, NUR '82, is a nursing quality specialist/magnet coordinator at Indiana University Health-Arnett in Lafayette, Ind.

KAREN WEAVER, HK '83, the athletics director at Penn State Abington, is a much-sought expert on the costs of college sports. She has been featured in USA Today, The Chronicle of Higher Education, the Orlando Sentinel, the Detroit Free Press, and elsewhere.

UNA (CURRY) KILBERG, HTM '85, is an event planner at the Carnegie Mel-Ion University Software Engineering Institute.

SHELLY (WILLINGHAM) NELSON, CSR '85, is the president and chief executive officer of Etc. Financial Consulting in Mesa, Ariz.

PAIGE SHAOVLIN, HTM '85, is the restaurant manager at Rip's Country Inn in Bowie, Md.

JULIE HOFMANN-SABLACK, CSR '86, is a business analyst with Ceridian Corporation in Minneapolis.

LEE ANN IACONETTI FORESMAN, HTM '86, is a real estate broker at Century 21 Elsner Realty in Dekalb, Ill.

CHRIS RATAY, HTM '86, is general manager of St. Elmo's Steak House in Indianapolis.

KRISTIN TODD, NUR '87, is a senior research scientist at Eli Lilly and Company in Indianapolis.

DAWN ANNE (MICHAELS) BENTSEN, HTM '88, is the regional sales manager of Advanced Pierre Foods in Oklahoma City. She's also a certified yoga teacher.

KAREN CALL, NUR '90, is a registered nurse at the University of Tennessee Medical Center.

BART GEYER, HSCI '90, is an agency industrial hygienist for NASA Occupational Health at Kennedy Space Center in Florida.

JILL GOLDSBERRY, HTM '90, is a multimedia account executive at Hearst Media Services in San Carlos, Calif.

ELIZABETH ANN KENT-MCLAUGHLIN, HTM '90, is the founder and chief executive officer of Executive Women Forum in Castle Rock, Colo.

TAMMY (POE) SUMMERS, NUR '91, is the director of medical oncology at the Northwest Medical Center in Tucson, Ariz.

REMI HUECKEL, NUR '92, is a nurse practitioner in pediatric critical care at Duke University Hospital in Durham, N.C.

SONJA NICKELS, CSR '92, is the clinical coordinator of the department of education for The Children's Hospital at St. Joseph's Hospital in Denver.

DON PEARSON, HSCI '94, received the Indiana Governor's Award for Roche Diagnostics Corp.'s health and safety record.

BEN ATKINSON, HSCI '95, is pursuing freelance business development opportunities in health care.

MELANIE (BENGE) KOCH, NUR '95, is the clinical director of nursing at the Fort Wayne Allen County Department of Health in Indiana.

JAY LARKIN, HTM '95, is a technical specialist at Schenectady County Community College in Schenectady, N.Y.

BRADLEY LINCKS, NUR '95, is vice president and chief nursing officer of Our Lady of Peace Hospital in Louisville, Ky.

CHRISTOPHER SHINNENMAN, HSCI '95, is an emergency room resident at the University of Illinois at Chicago.

BRENDON QUINN, HSCI '98, is a vascular surgeon in private practice in Bowling Green, Ky.

MICHELLE HOPKINS-SHAFFER, HTM '99, is a sales representative at Demarle at Home in Seven Hills, Ohio.

GEOFFREY CAMPBELL, HTM '00, is the corporate director of rooms for the Greenleaf Hospitality Group in Kalamazoo, Mich.

ISMARIE RODRIGUEZ, CSR '00, works at Isma Casual Beachwear in Caguas, Puerto Rico.

TERRY MATTHEWS, NUR '01, is a major in the U.S. Army. She is also the chief of clinical informatics and healthcare systems analyst at Evans Army Community Hospital in Colorado Springs, Colo.

JULIE (WHITE) ALBERT, NUR '02, is a women's health nurse practitioner at Unity Health Systems in Rochester, N.Y.

WENDY HANTELMAN, CSR '02, is the premium/complex account manager for Frontier Communication in Westfield, Ind.

COURTNEY (CUMMINGS) EDDY, HSCI '03, is the INSTEP director for the Indiana State Department of Health.

ANDREA ESSIG MEYER, HSCI '01, MS '03, received the Indiana Governor's Award for Roche Diagnostic Corp.'s health and safety record.

JESSICA PIPER, HDFS '03, is the lead representative in consumer affairs for Jarden Home Brands.

DOUG DING, CSR '04, is the advisory program manager at IBM, overseeing strategic sourcing implementation at Fortune 500 firms.

AMY MICHELLE (GAMBLE) HARROLD, HDFS '04, is the volunteer services director for the American Red Cross in Lafayette, Ind.

JEREMY KINSLER, HTM '04, works in human resources at the University of Notre Dame.

KRISTA (WOODWARD) MURPHY, HTM '04, is a global account executive at Conference Direct in San Diego. She also serves as vice president on the board of directors for Weddings of Distinction.

GENERATIONS

KRISTEN (CLARK) SWARTZELL, NUR

'04, works in orthopedics at Methodist Hospital in Indianapolis. She earned her MSN at Indiana University-Purdue University Indianapolis in 2010.

DAN WILLIAMS, CSR '04, is an account executive at Centro in Chicago.

CHRISTINE YONKER, HK '04, is a doctor at Oral Rehabilitation Center in Skokie, Ill.

DONALD KENNEDY, CSR '05, is the sales manager at Global Enterprise Technologies in Niles, Ill.

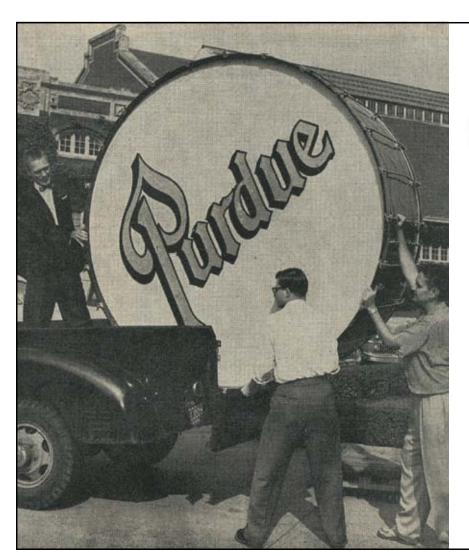
ERIN LUNSFORD, HSCI '05, is a pediatric physical therapist at St. Elizabeth Hospital in Lafayette, Ind.

MAUREEN MILLER, HTM '05, is the accounting coordinator for enVista in Carmel, Ind.

DEVIN SANDLIN, HSCI '05, is an emergency room physician at the University of Louisville Medical Center.

ANNA SCHWARTZ, HSCI '05, is a pediatric physician at Northwestern Hospital in Evanston, Ill.

JUSTIN STEWART, HTM '05, works for Compass Group North America as director of retail operations at the University of North Carolina.



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Call us today at (800) 414-1541 or visit www.purduealumni.org/member. AMBER TULLY, HTM '05, works at the Marriott Vacation Club International in Vail, Colo.

CARRIE (LYTLE) ZEMAN, HTM '05, works for the Courtyard by Marriott in Lafavette, Ind.

LYDIA Y. CHUNG, NUTR '06, is the quality assurance/quality control coordinator at CJ Foods Inc.

BRIAN DANIELS, HSCI '06, is completing his residency in family practice in Milwaukee, Wis.

KARA PLUMMER, HTM '06, is the manager of member experience at the Ritz Carlton Destination Club in Orlando.

JASON PRESSLER, HTM '06, is an account executive at Mascari Sales and Marketing in Indianapolis.

PATRICK QUINN, HSCI '06, graduated from dental school and is in private practice in Fort Wayne, Ind.

DAYNA KELSEY, HTM '07, is the catering manager of the Antlers Hilton in Colorado Springs.

ABBEY MATTSON, HTM '07, is the area human resource manager for the University Plaza Hotel and the Holiday Inn City Centre, both near Purdue.

ASHLEY PIPER, HTM '07, is the portfolio manager for The Building Group in Chicago.

SEAN HIMES, HTM '08, is the manager of Uncle Julio's Rio Grande Café in Gaithersburg, Md..

AARON O'CONNELL, HK '08, is a model who has appeared in ads for Abercrombie & Fitch and Lucky Brand Jeans, among others.

MAGAN (BEARMAN) WACLAWSKI, FCSE '08, is a family and consumer science teacher at Campus High School in Haysville, Kan.

LORI WANDZILAK, HTM '08, is the assistant revenue manager for the Mirage in Las Vegas.

SARAH ANNE BRADBURY, CSR '09, is a sales associate at Carousel Industries in Windsor, Conn.

CHANTELLE EMBERTON, NUR '09, is a registered nurse on the flagship transplant team at Riley's Children's Hospital in Indianapolis.

SARA MATHAVICH, CSR '09, is the sales manager for Erharts Catering in San Pedro, Calif.

RITESH RAMAKRISHNAN, CSR '09, is the managing director for Transworld Group of Companies in Dubai.

AALIYAH TAYLOR, HK '09, is a sales consultant for Verizon Wireless in Fort Wayne, Ind.

NATHAN VANRADEN, HK '09, is an athletic trainer for AthletiCo in Oak Brook, Ill.

MEGAN COMERFORD, NUTR '10, is a clinical study technician at Indiana University-Purdue University Indianapolis.

JENNIFER DING, PSY '10, is a licensed real estate salesperson at the Mark David Company of New York.

ANNEMARIE HEISE, CSR '10, works at Enterprise in Minnetonka, Minn.

KYLE RUSSELL, HSCI '10, works for the Defense Contract Management Agency providing industrial hygiene technical support.

GRANT SOLIVEN, CSR '10, is a financial consultant at WestPoint Financial in Indianapolis.

Though the department names may have changed through the years, the alumni are listed with the current name. The legend below spells out those departments.

CSR CONSUMER SCIENCES AND RETAILING

FCSE FAMILY AND CONSUMER **SCIENCES EDUCATION**

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



SEARCH "COLLEGE OF HEALTH AND HUMAN SCIENCES."

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UNDERGRADUATE SCHOLARSHIPS

As a new college, we've started at ground zero to establish unrestricted undergraduate student scholarships. Unrestricted scholarship funds are awarded where they are most needed, regardless of major or department. Unrestricted funding 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 will benefit students. Those who have established an endowed undergraduate scholarship by June 30, 2013, will become members of the HHS Founders Club.

HHS 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), and/or direct money that would otherwise have been spent on salaries toward other college needs.

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Funds are needed to support a variety of college-level initiatives including enriching undergraduate programming through 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; recruiting a diverse population of undergraduate students; and expanding undergraduate student research opportunities.

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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Jane Kirkpatrick, Nursing

Larry Leverenz (interim), Health and Kinesiology

Connie Weaver, Nutrition Science

Keith Kluender, Speech, Language, and Hearing Sciences

Wei Zheng, Health Sciences

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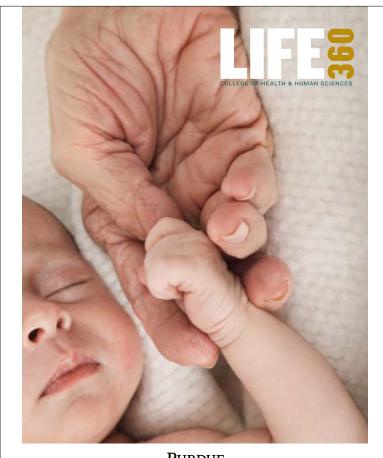
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From infant/toddler research to finding a better way through old age, the faculty, students and staff in the College of Health and Human Sciences are focused on making life better. Ours is a 360 degree, comprehensive approach to addressing broad issues pertaining to the human life span. We're looking at things differently. Fostering new collaborations. And taking our discoveries global.