Last year was a phenomenal one for the College of Applied Health Sciences. We hosted the largest convocation ceremony in our history. More than 700 students participated in the ceremony and were cheered on by nearly 5,000 friends and family members. In the fall we welcomed more than 300 new students, putting our total college enrollment at approximately 2,400.

Our faculty recruiting efforts went well and we were able to add 12 scholars to our tenure-track faculty across all three departments. While celebrating the endowed professorship investitures of four of our outstanding faculty members, we recognized both their remarkable achievements and the generosity of the donors who made the awards possible: Shahid and Ann Carlson Khan, Saul Morse and Ann Morgan, the families of Charles Brightbill and Allen Sapora, and all the alumni and friends of the College who supported the Timothy J. Nugent Professorship.

As though this were not enough, in November we broke ground for the Chez Family Foundation Center for Wounded Veterans in Higher Education. The Center will be the first of its kind on a university campus, and will serve as a national model for providing educational support services for student veterans with disabilities. Joining us on this momentous occasion were national, state, and campus officials; current members of the military and veterans; representatives of several veterans’ groups; and donors to the Center and their families. We are so grateful for the contributions of committed individuals who share both our belief in this important effort and our pride in once again reaching out to injured veterans in a meaningful way, just as we did in 1948. Should you wish to also help us by supporting the Center you will find further information in this issue and on our website, www.ahs.illinois.edu.

In addition to news about the groundbreaking and our faculty, we are also sharing in this issue some of the exciting research we are doing in kinesiology and community health, speech and hearing science, and recreation, sport, and tourism. Examples include work that is helping us better understand brain injuries and how to help individuals who have sustained them, the role of exercise in treating inflammatory conditions such as ulcerative colitis, the aging process in developing nations, vocal problems related to aging, and the role of fear in adolescents’ physical activity choices.

You will also meet two outstanding alumni who credit the college with their subsequent extraordinary professional achievements. The recipient of the AHS Distinguished Alumni Award, Richard Schroth, shared that the skills he gained in the Department of Recreation, Sport and Tourism were critical to his success as an internationally renowned business consultant. The recipient of the Harold Scharper Award, Parviz Parhami, shared that the support he received from DRES made possible what he could not have even imagined before coming to the University of Illinois.

We appreciate your continued interest in the College.

Sincerely

Tanya Gallagher
Dean, College of Applied Health Sciences
Campus and government officials and members of the Chez Family Foundation broke ground for the Chez Family Foundation Center for Wounded Veterans in Higher Education. The groundbreaking on November 8, 2013, took place at the site of the Center on West Nevada Street in Urbana, next to Doris Kelly Christopher Hall. The new Center will extend the University of Illinois’ leadership in serving individuals with disabilities, which began in 1948 with the Division of Disability Resources and Educational Services (DRES). The first postsecondary program of support for people with disabilities, it was founded by Dr. Timothy Nugent to serve wounded veterans of World War II. Now serving more than 1000 students with both visible and non-visible disabilities, DRES developed for the first time most of the accessibility standards that we take for granted today in architecture, transportation, and services. The $14 million Chez Family Foundation Center for Wounded Veterans in Higher Education, slated to begin operations in Fall 2015, will offer academic and non-academic support services to more than 150 severely wounded veterans and their families.

Ron Chez, President of the Chez Family Foundation, which made the lead gift of $6 million toward the Center:
“The real heroes are those who have the courage to serve in the military and defend their country. Coming back is a very difficult transition. We have a special responsibility to those who have served. We need to do a better job of supporting those who return.”

Tanya Gallagher, Dean of the College of Applied Health Sciences:
“We once again step forward to facilitate the educational and community reintegration of those who have been injured in military service to their country, including those who have sustained the most severe injuries. As before, we will learn everything we can about how best to support and empower those who will be served by our Center. And in doing so, we will continue to contribute breakthroughs that will enrich the lives of all those facing challenges to their quality of life and full participation in society. We’re committed to sharing, as we always have, what we learn with others, enhancing the positive effect these breakthroughs will have for us all.”

Garrett Anderson, U of I student and U.S. Army veteran:
“A soldier doesn’t die in the battlefield when they’re like me. They’re reborn. They come back as different people. I’m not going to let my injury define who I am. I’m going to define my injury. That’s what the Center is going to do—it’s going to let soldiers define their injuries and become who they want to be.”

View groundbreaking highlights of the ceremony at: http://woundedvetcenter.ahs.illinois.edu/
Four Endowed Professorships Celebrated in 2013

Four outstanding members of the College of Applied Health Sciences were appointed to endowed professorships last year, with three of those professorships being awarded for the very first time. Endowed professorships recognize excellence in research, teaching, and service. They signify distinction beyond that of a traditional faculty appointment and are used to recruit and retain highly accomplished scholars whose careers have brought them international renown.

Dr. Chalip brought a strong record of leadership when he joined AHS in August 2013. As a professor in the Department of Kinesiology and Health Education at the University of Texas at Austin, he coordinated the Sport Management program and was a Fellow in the Teresa Lozano Long Endowed Chair for Excellence in Kinesiology and Health Education.

While at Texas, Dr. Chalip revised and updated the curricula in sports management at both the undergraduate and master’s levels, and developed and implemented a Ph.D. program in sport management.

His research focuses on theoretical and practical issues in the uses of sport for policy purposes, as well as policy issues specific to the sport industry. His current research examines strategies and tactics for the leveraging of sport programs and events to optimize economic and social development benefits.

Dr. Chalip has received the most prestigious award given by the North American Society for Sport Management, the Earle F. Zeigler Award, as well as the Distinguished Service Award from the Sport Management Association of Australia and New Zealand. He completed his Ph.D. at the Irving B. Harris Graduate School of Public Policy Studies at the University of Chicago.

Dr. Gallagher has gained international renown for her studies of language development and disorders. Her extensive list of books, scholarly articles, and presentations has addressed syntactic and pragmatic language assessment and intervention with language disordered children at high risk for social and behavioral problems and speech-language pathology treatment outcomes. The excellence of her work has earned the highest level of recognition in speech-language pathology, the Honors of the Association of the American Speech-Language-Hearing Association.

Dr. Gallagher is a Fellow of the American Speech-Language-Hearing Association and has served as the Vice President for Research and Technology of the American Speech-Language-Hearing Association and as President of the American Speech-Language-Hearing Foundation. As the President of the International Association of Logopedics and Phoniatrics, she served as a representative to the World Health Organization and was a contributor to WHO’s World Report on Disability. She directed the Disability Research Institute in the College of Applied Health Sciences from 2000 through 2011. From 2006 through 2011, she was also the Director of the Center on Health, Aging, and Disability at Illinois. The Center is housed within Huff Hall’s fully accessible and state-of-the-art Khan Annex, which Dr. Gallagher was instrumental in obtaining the funds to complete. She currently is leading the development of the Chez Family Foundation Center for Wounded Veterans in Higher Education at the University of Illinois.

Charles Brightbill, the first head of the Department of Recreation, was at the forefront of the local, state, national, and international parks and recreation movement. In his writings, still cited today, he demonstrates a deep understanding of the challenges of leisure and expresses a profound philosophy related to the recreation and park profession. Allen Sapora’s service and leadership were critical to the development of countless park and recreation programs here in the United States and abroad. He was instrumental in establishing the Department of Recreation at the University of Illinois, and later served as head of the department.

Charles Brightbill and Allen Sapora.

The Timothy J. Nugent Professorship in Rehabilitation Research is named for the man who founded the College’s Division of Disability Resources and Educational Services. Dr. Nugent fought for the opportunity for World War II veterans with disabilities to attend college through the educational benefits of the GI Bill. He not only addressed the academic needs of students with disabilities, but also instituted a wide range of adapted sports, founded the National Wheelchair Basketball Association, and established the first fraternity for students with disabilities, Delta Sigma Omicron. Under his leadership, Illinois became the first university to admit students with disabilities who require assistance with the performance of daily living activities.
Dr. Wojtek Chodzko-Zajko, Head of the Department of Kinesiology and Community Health, the third Shahid and Ann Carlson Khan Professor in Applied Health Sciences

Dr. Chodzko-Zajko joined AHS as department head in 2000. A leading scholar in the fields of exercise science and health policy, he earned his doctoral degree in exercise science at Purdue University and was a post-doctoral researcher in Purdue’s Center for Research on Aging. He coordinates the Aging and Diversity Lab in the College of Applied Health Sciences. Its mission is to study the processes that lead to healthy aging, thereby optimizing well-being and independence. He recently represented the University of Illinois on a consortium of experts established by the European Union to develop a consensus definition of frailty for application across member states of the EU. He also contributed to WHO’s Global Report on Falls Prevention in Older Age.

His current appointments include the Strategic Health Initiative on Physical Activity and Aging of the American College of Sports Medicine; the Scientific Advisory Board of the Life Fitness Institute; Physical Activity and Aging of the American College of Sports Medicine; the Scientific Advisory Board of the Life Fitness Institute; and the Board of Directors of the American Council on Exercise, of which he is chair. He is also the current president of the American Kinesiology Association.

Dr. Klonoff-Cohen joined AHS from the Department of Family and Preventive Medicine at the University of California, San Diego, where she is a Professor Emerita. She received her doctoral degree in Epidemiology from the University of North Carolina. Here at Illinois, she is pursuing a rigorous research program that examines biological, behavioral, cultural, and socio-political aspects of disease and disease prevention. She is particularly interested in the health of women and infants and in cancer epidemiology. With research funding for the past two decades, she has investigated such things as the role of sperm exposure, smoking, and stress in preeclampsia, and the effects of lifestyle habits on in vitro fertilization endpoints, including pregnancy, miscarriage, and birth defects. Her current research focuses on the barriers, concerns, successes, and risks of fertility preservation in girls and women of reproductive age with cancer, late effects and risky behaviors among childhood cancer survivors, and training of primary care physicians about caring for cancer survivors. Her work has resulted in numerous publications in the Journal of the American Medical Society, the American Journal of Medical Genetics, and other prestigious journals; invited presentations before the Environmental Protection Agency, American Public Health Association, and California State Legislature, among others; and extensive coverage by such media outlets as The New York Times, National Public Radio, Science and Time magazines, ABC News, and Reuters.

Hillary Klonoff-Cohen, Professor, Department of Kinesiology and Community Health, and Director, Master of Public Health program, the first Saul J. Morse and Anne B. Morgan Professor in Applied Health Sciences

The professorship is named for Saul Morse and Anne Morgan. Mr. Morse is an alumnus of both the University of Illinois and the Division of Disability Resources and Educational Services. He completed his undergraduate degree in history in 1969, and his law degree in 1972. He has been admitted to the bar of Illinois, U.S. federal courts, and the U.S. Supreme Court, and practiced in healthcare centers in North Dakota and Minnesota with an undergraduate degree in psychology in 1972. She completed a master’s degree in 1975 and a Ph.D. in 1978, both in clinical psychology, at the University of North Dakota. She practiced in healthcare centers in North Dakota and Minnesota before joining Memorial Medical Center in Springfield. She founded the Healthcare Psychology Department in the belief that with good emotional health, people are better able to adjust to chronic conditions. She retired from practice in 2011.

Dr. Anne Morgan graduated from Muskingum College in Ohio with an undergraduate degree in psychology in 1972. She completed a master’s degree in 1975 and a Ph.D. in 1978, both in clinical psychology, at the University of North Dakota. She practiced in healthcare centers in North Dakota and Minnesota before joining Memorial Medical Center in Springfield. She founded the Healthcare Psychology Department in the belief that with good emotional health, people are better able to adjust to chronic conditions. She retired from practice in 2011.

The Khan Professorship was endowed by Shahid and Ann Carlson Khan. Shad completed his bachelor’s degree in industrial engineering in 1971. He owns Flex-N-Gate Corporation, which employs more than 12,000 people in 48 manufacturing plants around the world. In 2011, Shad was named a Lincoln Laureate, the State of Illinois’ highest honor, in recognition of his philanthropic efforts. In 2012, Shad became owner of the Jacksonville Jaguars of the National Football League. Ann Carlson Khan earned her bachelor’s degree in economics in 1980. She had a career in marketing with Quaker Oats Company, and now serves as president of the Khan Foundation.

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THE KHAN PROFESSORSHIP

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Two Elected to the National Academy of Kinesiology

Kinesiology and Community Health faculty members Kim Graber and Jeff Woods were elected to the National Academy of Kinesiology during its 82nd annual meeting in September. The Academy encourages and promotes the study and educational applications of the art and science of human movement and physical activity. Individuals who are elected to its membership have made significant and sustained contributions to the field of kinesiology through scholarship and professional service.

Dr. Graber is an associate professor and the associate head of the department for undergraduate studies. As director of the Pedagogical Qualitative Research Laboratory, Dr. Graber oversees research on physical education pedagogy, teaching and learning, and children’s wellness. Her own research focuses on teacher socialization, teacher education, faculty micropolitics, and undergraduate student learning. Dr. Graber has received recognition for “Outstanding Scholarship in Teacher Education” from the Association of Colleges and Schools of Education in State Universities and Land Grant Colleges and Affiliated Private Universities.

Professor Jeff Woods focuses on exercise physiology in his research. Among the issues he has addressed are the role of exercise in the modulation of immune function in the young and old, neuroendocrine mechanisms underlying exercise, and stress-induced immunomodulation. His current focus is on the neuroimmunological and behavioral impacts of exercise and nutrition during the aging process. He directs the Exercise Immunology Research Laboratory within the T.K. Cureton Physical Fitness Research Laboratory, and is a Fellow of the American College of Sports Medicine.

Lansing Named Fellow of ASHA

Charissa Lansing, associate professor in the Department of Speech and Hearing Science, was named a Fellow of the American Speech-Language-Hearing Association during the organization’s annual convention in November. One of the association’s highest honors, fellowship recognizes individuals who have made outstanding contributions to the discipline of communication sciences and disorders. Dr. Lansing was honored as a longtime teacher, mentor, and leader in professional doctoral education in audiology who pioneered eye-movement monitoring techniques to investigate speech perception. She also was recognized for her service as associate editor of the Journal of Speech, Language, and Hearing Research.

SBRC Recognizes Two AHS Faculty

The Social and Behavioral Science Research Council (SBRC) recently selected Edward McAuley, professor in the Department of Kinesiology and Community Health, to receive the Outstanding Career Achievement Award. The Council also selected Aron Barbey, assistant professor in the Department of Speech and Hearing Science, to receive the Best Paper by a Junior Faculty Award. They were honored at an awards ceremony in April.

The College of Applied Health Sciences and the University of Illinois at Urbana-Champaign annually recognize the professional accomplishments of outstanding faculty and staff members.
The College of Applied Health Sciences welcomed 12 new professors to the faculty in the fall.

**NEW FACULTY**

**IN THE COLLEGE OF APPLIED HEALTH SCIENCES**

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**RUOPENG AN**

Assistant Professor | Ph.D. Policy Analysis, Pardee RAND Graduate School

**RESEARCH:** the relationship between neighborhood food environments and dietary behavior; the role of financial incentives in dietary choices

**WHY AHS?** “I was very impressed by the working environment here. The professors are very easy to talk with and willing to collaborate.”

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**NICHOLAS BURD**

Assistant Professor | Ph.D. Kinesiology, McMaster University

**RESEARCH:** the effects of exercise and nutrition on muscle protein accretion

**WHY AHS?** “What attracted me to Illinois is the potential to do good work here. I wanted to be at a place where I’d have support. I felt people here were genuinely interested in my work.”

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**CHUNG-YI CHIU**

Assistant Professor | Ph.D. Rehabilitation Psychology, University of Wisconsin-Madison

**RESEARCH:** health promotion for people with disabilities and chronic illnesses

**WHY AHS?** “What’s really nice about this college is that I can expand my research by collaborating with others.”

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**MICHAEL DE LISIO**

Assistant Professor | Ph.D. Kinesiology, McMaster University

**RESEARCH:** the effects of exercise on blood-forming bone marrow stem cells

**WHY AHS?** “I came here as a visiting scholar in 2011 and joined Dr. Marni Boppart’s lab as a post-doctoral scholar the following year. I know I can do the kind of work I want to do here, so I applied to join the faculty and, happily, was successful.”

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**JULIET IWELUNMOR**

Assistant Professor | Ph.D. Biobehavioral Health and Demography, The Pennsylvania State University

**RESEARCH:** social, cultural, behavioral, and policy factors that influence the health of individuals, families, and communities across the lifespan

**WHY AHS?** “I was attracted here by the humanness of the people I met. They believe family comes first, and that helps you thrive in your work.”

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**HILLARY KLONOFF-COHEN**

Professor, Director of Master of Public Health Program | Ph.D. Epidemiology, University of North Carolina

**RESEARCH:** biological, behavioral, cultural, and socio-political aspects of disease and disease prevention, with particular interest in women and infants’ health and cancer epidemiology

**WHY AHS?** “I love to build things from the ground up. The [Master of Public Health] program is already off to a great start. I’m excited about taking it the rest of the way.”

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**LARA PILUTTI**

Assistant Professor | Ph.D. Kinesiology, McMaster University

**RESEARCH:** the impact of adapted exercise modalities in individuals with disabilities and neurological disorders

**WHY AHS?** “I’ve been in a postdoctoral position here for two years before joining the full-time faculty. What drew me here were the quality of the people working here and the research they were doing. And that’s definitely what made me stay.”

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**LAURA RICE**

Assistant Professor | Ph.D. Rehabilitation Science and Technology, University of Pittsburgh

**RESEARCH:** the management of secondary physical impairments, depression, and anxiety associated with disability

**WHY AHS?** “The Division of Disability Resources and Educational Services is an outstanding partner for the kind of research I’m doing. I really like being in health care and hope to have a long-lasting impact on students going into the field.”
As a clinical speech-language pathologist, Karen Iler Kirk often wondered why an intervention that worked so well for one child with communication disorders was unsuccessful with another. Her questions led her to a Ph.D. in Hearing Science from the University of Iowa and more than 30 years as a clinical researcher focusing on cochlear implants.

Dr. Kirk’s background in clinical practice and research will play an important role in her leadership of the Department of Speech and Hearing Science. She takes over from Dr. William Stewart, who served as Interim Department Head for two years.

“I came to Illinois because it offered a wonderful opportunity to lead a department at a major research university,” Dr. Kirk said. “Moreover, the Department of Speech and Hearing Science at Illinois has a long history of excellence in the field.” Her number one priority as Department Head is to promote the outstanding research that goes on within the department and to build stronger bridges between research and clinical practice in the communication sciences.

Dr. Kirk’s own work with cochlear implants began as a research associate at the House Ear Institute in Los Angeles, California, where she was the speech-language pathologist on the very first pediatric cochlear implant team headed by William House, M.D. She published the first paper on speech and language outcomes in children with cochlear implants in Ear and Hearing in 1985. At that time, she recalls, the cochlear implant contained a single electrode to send impulses to the auditory nerve, and its wearers faced difficulties achieving good speech perception and production skills. Today’s cochlear implants are multichannel, containing electrode arrays that collect multiple impulses from the receiver and send them to different parts of the auditory nerve.

Over the course of her career, Dr. Kirk has investigated various facets of speech perception (the process by which language is heard, interpreted, and understood) as impacted by cochlear implantation, as well as speech production and speech intelligibility. She has developed tools for assessing speech perception, including audiovisual tests, and studied language development in infants with cochlear implants. Her work, which is supported by NIH, resulted in more than 300 scholarly publications, invited lectures, and conference presentations.

Dr. Kirk joins the College of Applied Health Sciences as the fourth Shahid and Ann Carlson Khan Professor. She is a Fellow of the American Speech-Language-Hearing Association, for which she served as Vice President for Science and Research from 2010 to 2013, and a member of Sigma Xi, The Scientific Research Society.
DISTINGUISHED ALUMNI AWARD

RICHARD SCHROTH
M.S. Parks and Recreation Management
Department of Recreation, Sport and Tourism, 1974

Richard Schroth, Ph.D., Founder, President, and Chief Executive Officer of Executive Insights, Ltd., received the 2013 Distinguished Alumni Award from the College of Applied Health Sciences. He was honored for his outstanding contributions in the areas of corporate technology strategy and business education. The award was announced Friday, October 25, 2013, during ceremonies at Huff Hall.

Dr. Schroth is one of the top executive consultants, professional speakers, and private advisors on technology and business for leading corporations around the globe. With more than 35 years of experience as an international business strategist, he is considered to be among the world’s most highly innovative thought leaders on corporate technology strategy. He has been a confidential advisor to CEOs and their top executives in such major global organizations as Marriott, Pfizer, Exxon-Mobil, Bank of America, and AT&T. In 2008, he was named one of the Top 25 Consultants in the World by Consulting Magazine, and a 2008-2013 U.S. State Department Senior Fulbright Scholar for Information Sciences.

Dr. Schroth is a current member of the National Cyber Security Council and senior advisor to the National Healthcare Information Sharing Analysis Center of the Department of Homeland Security. The best-selling author of How Companies Lie: Why Enron Is Just the Tip of the Iceberg and Inside the Minds: The Board of the 21st Century, Dr. Schroth has amassed more than 200 professional publications. He is also very active in business education, having served as an Executive Scholar at the Carey Business School of Johns Hopkins University, a Dean’s Fellow at the University of Pennsylvania Wharton School, and Distinguished Visiting Professor in the School of Law, Business and Public Policy within the University of Ireland, among others.

“I learned my consulting skills in the Office of Recreation and Park Resources, working with people like Bob Espeseth and Jim Brademas. It’s very important when you’re out in the community that you understand people. And these were some of the best ‘people’ people in the world.”

RICHARD SCHROTH

HAROLD SCHARPER AWARD

Dr. Parviz Parhami, founder and Chief Executive Officer of Scientific Applications & Research Associates in Cypress, California, received the 2013 Harold Scharper Award from the Division of Disability Resources and Educational Services. He was recognized for outstanding contributions to research and development for the defense and energy industries. The award was announced Friday, October 25, 2013, during ceremonies at Huff Hall.

Born in Tehran, Iran, Dr. Parhami became a paraplegic at the age of two after contracting polio. Because Iran lacked wheelchair accessibility for those with physical disabilities, Dr. Parhami relied on long leg braces and crutches for mobility. After graduating from high school at the top of his class, he immigrated to the US. He was given his first wheelchair shortly after arriving at the University of Illinois.

Between 1970 and 1979, Dr. Parhami completed undergraduate, master’s, and doctoral degrees in electrical engineering. He also engaged in a wide range of sports and social activities. He was a member of the Gizz Kids wheelchair basketball team as an undergraduate and played for the Black Knights as a graduate student. He also played wheelchair football and won several national championships in wheelchair table tennis.

After completing his studies at Illinois, Dr. Parhami joined TRW’s space and defense unit, where he remained until forming SARA in 1989. The company develops and commercializes innovative technologies in electromagnetics, lasers, acoustics, and alternate energy for such clients as the Departments of Energy and Homeland Security, all branches of the U.S. military, NASA, and the aerospace industry. His work has led to numerous U.S. patents and peer-reviewed technical publications and conference presentations. Dr. Parhami is a member of the Institute of Electrical and Electronics Engineers, the Dean’s Engineering Advisory Board at California State University-Long Beach, and Vistage, an international CEO advisory group.

The Harold Scharper Award is named for the first paraplegic to attend the University of Illinois. Following his death in 1950, members of the Delta Sigma Omicron rehabilitation service fraternity and friends established the Harold Scharper Award in his memory. The award is a tribute to the example he set for others with disabilities and is given in recognition of his preference that the unselfish achievements and services of others be recognized above all other things.
“The INSIGHT brain training system incorporates some of the best available scientific evidence for building better brains and, we believe, has great potential for success,” Dr. Barbey said. He and his research group investigate the neural architecture of human intelligence, with particular emphasis on the prefrontal cortex. In a series of landmark studies, Dr. Barbey and his colleagues have mapped several brain systems related to general intelligence, fluid intelligence, working memory, and cognitive flexibility. His study mapping the physical architecture of intelligence in the brain is one of the largest and most comprehensive analyses so far of the brain structures vital to general intelligence and to such specific aspects of intellectual functioning as verbal comprehension and working memory.

In groundbreaking studies published last year, Dr. Barbey’s research team mapped brain regions that contribute to emotional intelligence, or the ability to process emotional information and navigate the social world. Their findings illustrate the interdependence of general and emotional intelligence in the healthy mind and will help scientists and clinicians understand and respond to brain injuries in their patients. Another study mapped areas of the brain vital to understanding language. The findings offer new insights into basic questions about the nature of discourse comprehension, as well as new targets for clinical interventions to help patients with cognitive-communication disorders.

Dr. Barbey’s current project, INSIGHT, will be one of the largest scientific investigations of fluid intelligence conducted to date, involving nearly 2,000 subjects and more than 100,000 hours of planned data collection over a three-and-a-half year period. INSIGHT program participants will engage in the training activities over 18 weeks in an effort to improve reasoning and problem-solving skills.

Joining Dr. Barbey’s INSIGHT research team is College of Applied Health Sciences colleague Dr. Charles Hillman of the Department of Kinesiology and Community Health, as well as Art Kramer, director of the Beckman Institute and professor in the Department of Psychology; Neal Cohen, director of the Center for Nutrition, Learning, and Memory and professor in the Department of Psychology; Wai-Tat Fu, associate professor in the Department of Computer Science; and John Erdman, professor emeritus in the Department of Food Science and Human Nutrition. Academic partners include the Georgia Institute of Technology, the City College of New York, and the Autonomous University of Madrid, Spain. Aptima, Abbott, and Circinus are business partners.

BARBEBY TO LEAD MULTIMILLION-DOLLAR BRAIN TRAINING STUDY

INSIGHT will be one of the largest scientific investigations of fluid intelligence conducted to date.

A team of international scholars will undertake a multidisciplinary study to identify the best kind of training to improve adaptive reasoning and fluid intelligence. Based at the Beckman Institute for Advanced Science and Technology, the INSIGHT project will be led by Dr. Aron Barbey, an assistant professor in the Department of Speech and Hearing Science and a member of the Cognitive Neuroscience team at Beckman. The study recently received $12.7 million in funding over 42 months from the Intelligence Advanced Research Projects Activity of the Office of the Director of National Intelligence.

INSIGHT is designed to establish a comprehensive and rigorous brain training protocol that incorporates the best available cognitive, physical fitness, neuroscience, and nutritional interventions for the enhancement of fluid intelligence, which is the ability to solve problems effectively and to recognize meaningful patterns in novel situations.
Dr. Johnson's research focuses on the prevention and treatment of voice disorders in older adults. In a study published in the *Journal of Gerontology* in May 2013, he and his colleagues at the University of Wisconsin found that vocal training of older rats reduces some of the voice problems related to their aging, such as the loss of vocal intensity that accompanies changes in the muscles of the larynx. Using operant conditioning, in which rewards are given only for certain responses, both young and old rats in the treatment group were trained to increase their number of vocalizations. At the end of the eight-week training period, the researchers found the trained old and young rats had similar average vocal intensities, while the untrained older rats had lower average intensities than both the trained rats and the young rats that had not been trained. They also found several age-related differences in the neuromuscular mechanisms of the trained and untrained rats. Because rats and humans utilize similar neuromuscular mechanisms to vocalize, Dr. Johnson says the study indicates that humans can reduce the effects of age on vocal muscles and improve voices that have degraded through vocal training.

**Aaron Johnson**
Assistant Professor, Department of Speech and Hearing Science

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**Flavia Andrade**
Assistant Professor, Department of Kinesiology and Community Health

**OBESE OLDER ADULT BRAZILIANS FACE HIGHER RISK OF DISABILITY**

Dr. Andrade is among the leading scholars who are examining demographic and population health in Latin American and Caribbean countries. Demographic changes in these countries, including those related to aging, are occurring at a much faster rate than in developed countries. Developing nations also are seeing substantial increases in the consumption of foods high in saturated fat and sugar, refined foods, and foods low in fiber. In Brazil, for example, policies that historically focused on curbing malnutrition now target the marketing of highly processed and unhealthy foods. Understanding the impact of these transitions on the health and well-being of individuals has important implications not only for individuals residing in those countries, but also for the Latino population in the U.S. Dr. Andrade’s recent study in Brazil, published in the *Journal of Aging Research* in 2013, is among the few to examine the effect of obesity on disability and mortality and of weight changes on health transitions related to disability. She found that weight gain and obesity in older Brazilians is associated with the development of restrictions on Activities of Daily Living and Instrumental Activities of Daily Living. However, she found no difference in mortality among underweight, normal weight, overweight, and obese individuals. Her findings have important implications for policy makers in Brazil who are working to make healthy aging a reality.

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**Monika Stodolska**
Professor, Department of Recreation, Sport and Tourism

**CRIME CURTAILS HEALTH-PROMOTING PHYSICAL ACTIVITY IN INNER CITIES**

It is widely accepted that participation in physical activity and recreation is beneficial to youth and teens. What if those youngsters live in areas of high crime and fear for their safety? Dr. Stodolska and Dr. Shinew are longtime collaborators on research examining relationships among culture, environment, and leisure. Research published in *Leisure Sciences* in 2013 investigated how perceptions of crime affected outdoor recreation and physical activity among Mexican-American youth 11- to 18-year-olds in Chicago, Illinois, and how these youth negotiated constraints related to fear of crime. The study revealed that crime prevents youth from visiting parks or places that require crossing gang boundaries, and that fear restricts participation in outdoor recreation. Fear of crime did not lead the youth to abandon participation in health-promoting behaviors completely, but rather to seek out activities that are supervised by adults in the vicinity of homes, on school property during school hours, and within community organizations such as boys’ and girls’ clubs. Among the recommendations Dr. Stodolska and Dr. Shinew made based on their findings were to make gang activity a top priority of law enforcement and public officials and to provide youth with safe outdoor settings in which to pursue recreational activities while recognizing the geography of crime and the territorial behaviors of residents of communities with high levels of crime.

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**Amy Woods**
Associate Professor, Department of Kinesiology and Community Health

**NATIONAL BOARD-CERTIFIED PHYSICAL EDUCATION TEACHERS CONFIDENT ABOUT EFFECTIVENESS**

Dr. Woods focuses on pedagogy in her research, with particular interest in teachers’ movement through their career cycles. In 2013, she was the lead author of a study published in the _Journal Teachers and Teaching: Theory and Practice_ that examined the teaching efficacy beliefs of National Board-certified physical education teachers. The National Board of Professional Teaching Standards offers a voluntary advanced certification for K-12 teachers. Participants described perceptions of their abilities to influence learning and of their teaching effectiveness when compared to non-board certified physical educators. Scores on the Teacher Efficacy Scale revealed a strong belief in their own abilities to promote student learning (Personal Teaching Efficacy). These scores were higher than their ratings of General Teaching Efficacy, that is, their beliefs about the power of teaching in general to reach difficult children. Most National Board-certified teachers expressed confidence in their abilities to influence student learning, attributing their success to such things as differentiated instruction, persistence, connection with and care for students, and working in a content area conducive to influencing students. While comparing their own teaching effectiveness to that of non-certified teachers, most participants articulated a propensity to reflect, to excel.
A new study indicates that aerobic exercise can lessen – or worsen – the symptoms of inflammatory bowel diseases such as ulcerative colitis, depending on the circumstances under which the exercise is undertaken.

The researchers found that, in contrast to their sedentary peers, mice allowed to run freely on an exercise wheel for six weeks had fewer symptoms of colitis after exposure to a chemical agent that induces colitis symptoms in mice. However, mice forced to run at a moderate pace on a treadmill a few times per week for six weeks had more colitis symptoms and higher mortality after exposure to the agent than sedentary mice, the researchers found.

These seemingly contradictory findings add to a growing body of research into the role of exercise and stress in reducing or increasing the severity of a host of inflammatory states, including those associated with Alzheimer's disease and infection with the influenza virus.

“We are building a strong case to investigate how exercise affects gut immune function in humans and why exercise may beneficially affect disease activity in ulcerative colitis patients, as a few preliminary studies have indicated,” said University of Illinois graduate student Marc Cook, who led the research with U. of I. kinesiology and community health professor Jeffrey Woods. “Our exciting new data give us some potential causes of these benefits that need to be tested in humans, which is our ultimate goal.”

The scientists, whose work is reported in the journal Brain, Behavior, and Immunity, also found that voluntary wheel running significantly reduced the expression of some pro-inflammatory genes in the colon in the mouse model of colitis, while forced treadmill running significantly increased expression of many of those same genes. Forced running on a treadmill by itself, but not voluntary wheel running, also increased expression of an antibacterial signaling protein, suggesting that forced exercise disrupted the microbial environment of the gut.

“There is evidence that prolonged, intense exercise can cause gastrointestinal disruption in competitive athletes. However, very little is known about regularly performed moderately intense exercise, especially in those with inflammatory bowel diseases,” Woods said. “From a public health perspective, this would be important information to gather.”

In humans, inflammatory bowel diseases “cause chronic morbidity that significantly reduces physical functioning and quality of life in afflicted patients,” the authors wrote. Although diseases of the gut, including colitis, appear to arise spontaneously, scientists know that environmental influences such as diet, genetic factors, infection and psychological stress play a role. The microbial populations of the gut are also key contributors to gastrointestinal health, and disruptions can trigger chronic inflammatory responses, “instigating clinical symptoms, including colon ulcers, rectal bleeding, diarrhea, abdominal pain, fatigue, and an overall altered emotional well-being,” the authors wrote. Ulcerative colitis also “significantly increases the risk of developing colorectal cancer later in life.”

A number of factors may help explain the different physiological responses to voluntary and forced exercise in the mice, including altered gut populations of harmful versus beneficial bacteria and changes to the resident populations of specific immune cells in the gut, the researchers said.

Although more studies must be conducted to clarify the interplay of exercise and stress in maintaining or undermining the health of the gut, the research “supports a role for exercise in the adjunct treatment of ulcerative colitis in humans,” the authors wrote.

The American College of Sports Medicine and the National Institutes of Health supported this research.
Private gifts play a critical role in our ability to enhance teaching, research, and outreach programs within the College that impact not only our students, but also the health and wellness of our community. We are pleased to recognize those who have contributed to our success, in both lifetime and annual giving. Together, we are charting the future of health across the lifespan. Although every effort is made to ensure accuracy, errors may occur. If you have any questions or need to list your name incorrectly, please contact the Office of Advancement, College of Applied Health Sciences.

THANK YOU
It has been an exciting year for the Office of Advancement in the College of Applied Health Sciences. The generosity of the friends and alumni who support AHS was evidenced by the ground-breaking in November for the Chez Family Foundation Center for Wounded Veterans in Higher Education and by the investment celebrations for four named professorships, three of them awarded for the first time! We are deeply grateful for the commitment you have shown to our mission of improving the health and well-being of all individuals across the lifespan through teaching, research, and service.

Because of your outstanding support, we were also able to celebrate student excellence with more than 100 scholarships, fellowships, and awards. We sent several students to LeaderShape, a leadership development retreat that teaches participants how to lead with integrity, and we helped nearly two-dozen undergraduate students to join professional associations, attend professional meetings, conduct research, and study abroad through Career Development and Leadership Awards, all of which are made possible through gifts from friends like you.

We also welcome you to visit us if your plans bring you to campus. You have a standing invitation to attend AHS events and to see how we have grown. That growth can be credited, in part, to the support of our alumni and friends, and we are sincerely grateful!

Best Regards,
Jean Driscoll
Assistant Dean and Director
AHS Office of Advancement

Alumni Scholarship. In addition, Illini Student Veterans and ROTC donated the proceeds from their respective 5K races to the Center.

Traveling to meet our alumni and donors is one of the things we most enjoy doing, and in 2013 our Advancement staff met hundreds of people across the country. We enjoyed hearing about your favorite memories of AHS and about your lives since leaving us. We will be traveling to many more locations throughout the year, and we look forward to meeting you, too.
**Naming Opportunities**  
**Suggested Minimum Investments**

If you believe that veterans who return with combat-related disabilities deserve the same chance to succeed as their able-bodied peers, we invite you to make an investment in the Chez Family Foundation Center for Wounded Veterans in Higher Education. Your financial support sends a powerful message of commitment to the long-term success of the Center and of the men and women who will secure a brighter future because it exists.

There are three ways to help:

1) Make an outright gift to the Center through our secure giving page at [http://ahs.illinois.edu/giving/CWVHE.aspx](http://ahs.illinois.edu/giving/CWVHE.aspx).

2) Make a pledge payable over time. Download the pledge form at [http://woundedvetcenter.ahs.illinois.edu/pdf/PledgeForm.pdf](http://woundedvetcenter.ahs.illinois.edu/pdf/PledgeForm.pdf).

3) The College of Applied Health Sciences has identified a number of naming opportunities, described below. We also encourage you to work with the College in developing other naming opportunities that reflect your special areas of interest. Please note: All facility naming opportunities are subject to Board of Trustees approval.

The University of Illinois Foundation is a 501(c)(3) non-profit organization. Your donation is tax deductible.

If you wish to name the building or entire floor, these opportunities are available:

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<thead>
<tr>
<th>Floor</th>
<th>Name</th>
<th>Suggested Minimum Investment</th>
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<tbody>
<tr>
<td>1st FLOOR</td>
<td>Student Commons</td>
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<tr>
<td></td>
<td>Dining Room</td>
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<tr>
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<td>Training Kitchen: Pantry &amp; Prep Kitchen</td>
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<td>Student Lounge</td>
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<td>Administrative Office Suite</td>
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<tr>
<td></td>
<td>Reception*</td>
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<td></td>
<td>Visitor Room</td>
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<td></td>
<td>Classroom</td>
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<td>Career Services &amp; Employment Office*</td>
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<td>Rehabilitation Services</td>
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For more information:  
Jean Driscoll  
Assistant Dean for Advancement  
[http://woundedvetcenter.ahs.illinois.edu](http://woundedvetcenter.ahs.illinois.edu)