Competitive Research 2–7
Student Success 8–13
Community Engagement 14–15
Local/National Recognition 16–19
Listings 20–35

Martha Hayes, Editor/Writer/Codesigner
Joy Wilson, Designer/Photographer
Cover photograph, “Houston Skyline and Light Trails” by © Bill Pogue
Send questions and comments to mshayes@uh.edu.
The University of Houston is an EEO/AA institution.
The University of Houston is on the road to Tier One status! The Department of Health and Human Performance is committed to assisting UH in achieving this milestone, and this year’s annual report reflects our contribution to its realization.

HHP completed its first year as a department in the College of Liberal Arts and Social Sciences. The opportunities for collaboration are already paying dividends, and we anticipate building even stronger academic and research partnerships as we get to know our new colleagues.

In January 2011, the Carnegie Foundation for the Advancement of Teaching announced they had placed UH in the foundation’s top category of research universities. We are contributing with the nationally competitive research conducted in HHP’s Center for Neuromotor and Biomechanics Research (CNBR), The Laboratory of Integrated Physiology (LIP) and the Texas Obesity Research Center (TORC). The result of interdisciplinary collaborations and research projects fast-forwards the training of our students as professionals and leaders in health and human performance.

Student success is paramount within the goals of the department. In this report, you can see the program offerings that are the centerpiece for developing leaders in the exercise, health and fitness, sport administration and nutrition industries. We have enhanced academic and research experiences through the virtual world with innovative approaches such as the Virtual Immersive Translational Applied Learning (VITAL) Showcase.

We are also constantly expanding our outstanding and diverse faculty to further assure student success. This year we welcomed Dr. Tracey Ledoux, and this fall Dr. Stacey Gorniak will join our faculty. Meet them on page 36.

Community engagement brings the students’ education full circle with opportunities to apply research and academic skills to real-world experiences. Opportunities for service not only impact the students’ lives, but improve the lives of our UH neighbors, the Texas Gulf Coast and beyond. HHP received recognition from a Houston council member for our six years as UH’s host department for the Cystic Fibrosis Foundation’s Great Strides walk for a cure. Learn more about these activities inside, which include internships, health-related fairs and programs. Much of the faculty and students’ achievements garner local, national and international recognition in both the scientific community and in the general media. Our professors are frequently sought after by news outlets as experts in their fields and for the public’s interest in their research.

HHP was instrumental in bringing and planning the International Aeronautics Association’s 18th Humans in Space Symposium to Houston, which UH co-hosted with NASA. We also congratulate Dr. Rebecca Lee upon receiving the Fulbright Scholar award to Guadalajara, Mexico!

Throughout the annual report you will notice black and white QR codes like the one below. You can download a free app to your smartphone, then scan the code and receive information about HHP!

I want to thank each of you who have contributed to the support of HHP’s programs through your generous gifts. We invite you to visit the campus, and I would love to hear from you at clayne2@uh.edu.

Go Coogs!

Dr. Charles Layne
Professor and Chair
Sensory Information Explored with Split-belt Treadmill

Understanding how sensory information from the muscle, joint and skin receptors is used to support coordinated movement is important to therapists designing rehabilitation protocols. Dr. Charles Layne and his team are currently engaged in a research project intending to provide such information.

Working within the Center for Neuromotor and Biomechanics Research (CNBR), Layne is exploring if vibration applied to either the quadriceps or hamstrings impacts the process of adaptation during split-belt treadmill locomotion. During the protocol, the participants walk on the treadmill, which then ‘splits’ causing one leg to move twice as fast as the other leg. This protocol is possible because the treadmill has two belts instead of one belt like most treadmills.

Humans display a remarkable ability to immediately adapt to this unusual situation and continue to stabilize their gait patterns the longer they walk on the split treadmill. Layne uses the vibrators to stimulate sensory receptors such that the receptors provide ‘nonsense’ input to the central nervous system. By evaluating the motion of the legs during the adaptation period with a camera-based motion analysis system, it may be possible to determine if the disordered sensory input influences the process of adaptation and thereby gain insights into the role of sensory information in movement control.

Helping Older Adults Maintain Their Balance

Shoe, a Houston based NASA spinoff company was born from the research conducted by HHP alumna, Katherine Forth (Ph.D. ’05), and HHP Professor William Paloski, among others.

Originally designed for astronauts on the moon, the vision of iShoe is to provide a low cost, mobile diagnostic device for anyone who would benefit from quantifying balance. In particular, the goal is to assist elderly people maintain balance and prevent injuries from falling. In conjunction with the CNBR, iShoe conducted clinical testing of their iBalance, a device similar to a regular bathroom scale that gives a balance score after the user stands on it.

Researchers conducted their testing at a retirement community with 60 resident volunteers ranging from 77-94 years of age. During the eight-week program, the volunteers learned what balance really is; how to improve their balance by regularly walking and exercising; and a plan was developed for each individual to determine their number at any given time. Documenting one’s balance number and any changes is valuable information for caregivers and physicians, and to assist in rehab efforts.

iShoe researchers are currently in discussions with a Houston-based health care system about their mechanism. Forth said “if all goes as we anticipate, the first iShoe balance devices could be on the market within two years, and we’ll be able to help more seniors maintain their balance … and their active lives.”
Postural instability in individuals diagnosed with idiopathic Parkinson’s disease (PD) is highly associated with falls, which results in a decreased quality of life due to hospitalization, depression or disability. Typically, falls are reported during activities of daily living involving dual tasks such as reaching, turning, or grasping while standing or walking.

Recently, Virtual Reality applications have emerged as potential tools for both evaluation and treatment of balance disorders in a variety of clinical populations. However, very little is known about how individuals with PD will respond to the postural challenges of Virtual Reality. The objective of this pilot study being conducted in the CNBR is to determine the effects of various gesture-controlled Virtual Reality applications on different dynamic postural control parameters in Idiopathic PD.

The Parkinson’s disease subjects are being recruited from Movement Disorders Clinic of Methodist Hospital under the guidance of expert neurologist, Dr. Stanley Fisher, and Dr. Adam Thrasher as the HHP faculty sponsor.

Results of this study will help estimate the effect sizes of various Virtual Reality applications, and to design a randomized longitudinal study to identify the potential of gesture controlled Virtual Reality in treating postural instability in PD.
Growing Real Human Bone

In the Laboratory of Integrated Physiology (LIP), HHP Associate Professor Mark Clarke and his researchers have created a process that grows real human bone in tissue culture, which can be used to investigate how bones form and grow.

“We have manufactured a structure that has no synthetic components,” according to Clarke. “It’s all made by the two cell types bones start with inside the body. What you end up with is a piece of material that is identical to newly-formed, human, trabecular bone, including its mineral components, its histology and its growth factor content.”

Being in a microgravity environment causes astronauts’ bodies to lose more bone mineral than they can replace, which makes them more vulnerable to fractures and breaks. After returning to Earth, an astronaut’s bone loss continues as their bodies slowly begin the process of replacing the bone mineral content.

The NASA-funded study, which included Clarke’s collaborators at NASA-Johnson Space Center, Dr. Neal Pellis and Dr. Alamelu Sundaresan, use human osteoblasts and osteoclasts, the two major cell types involved in the formation of and breaking down of bone. The 3-dimensional bone constructs allow for ideal conditions to investigate how bone forms and, more importantly, how bone is lost in environments such as space flight and conditions present in post-menopausal women and patients with spinal cord injuries.

Exercise and Spinal Cord Injuries

Infection is the leading cause of death for people living with spinal cord injuries for two years or more. Drs. Thrasher and Simpson are investigating why the immune system is blunted after a spinal cord injury.

Funded by a grant from The Institute for Rehabilitation and Research Foundation’s (TIRR Foundation) Mission Connect, the HHP professors will investigate the immune systems of 30 patients before and after functional electrical stimulation exercise.

“People who have sustained such an injury have much higher infection rates than the general population, particularly in the urinary tract, lungs and gastro-intestinal tract,” Thrasher said. “They are very susceptible to pneumonia and furthermore, because their immune system is compromised, they have a hard time fighting these infections.”

Using facilities at the CNBR and the LIP, the 12-month study will examine 30 participants: 10 with quadriplegia, 10 with paraplegia and 10 without spinal cord injuries. Thrasher, a bio-engineer and principal investigator, will oversee the participants’ exercise. Simpson, an immunologist, will examine blood samples of study participants before and after exercise, investigating the quantity of immune cells.
“Although long-term stress is detrimental to our immune system, the everyday release of certain stress hormones, such as epinephrine, is important to help maintain normal functioning of the immune system and the continued circulation of our white blood cells,” said Simpson. “Spinal cord injured patients are unable to activate the adrenal glands that are responsible for epinephrine release, which may be one reason why they have lowered immunity and greater incidences of infection.” The result of the 12-month study may be new drug therapies that stimulate the adrenal glands or new knowledge about the immune system that could benefit many populations.

Dr. Richard Simpson is conducting a NASA-funded study concerning immune system dysregulation that occurs during and after space flight. It is not known if these changes increase infection susceptibility or pose a significant health risk to crewmembers. It is also not known if changes in immunity are due to the microgravity environment, or to the stressors associated with landing and re-adaptation to the full-gravity environment.

The project proposes a Flight Definition investigation, utilizing a longitudinal repeated measures design to determine the effects of long-term exposure to microgravity on a host of salivary antimicrobial proteins (AMPs), latent viral reactivation, antibacterial properties of saliva, and blood markers associated with innate host immune defense, while also considering the impact of other acute stressors such as launch, landing and extra-vehicular activity.

Samples will be collected from crewmembers selected for the International Space Station (ISS) mission pre-flight, at early, mid and late phases during the six-month period on the ISS, and for one month upon return to Earth. This investigation will help to establish if space flight alters innate immune function, which is important to determine if altered immunity poses a significant risk of an adverse health event among crewmembers.

The data will also serve as a foundation for future countermeasure developments and technological advances to detect real-time changes in immune function during subsequent lunar or Mars missions.

“Although long-term stress is detrimental to our immune system, the everyday release of certain stress hormones, such as epinephrine, is important to help maintain normal functioning of the immune system and the continued circulation of our white blood cells,” said Simpson. “Spinal cord injured patients are unable to activate the adrenal glands that are responsible for epinephrine release, which may be one reason why they have lowered immunity and greater incidences of infection.” The result of the 12-month study may be new drug therapies that stimulate the adrenal glands or new knowledge about the immune system that could benefit many populations.

Dr. Richard Simpson is conducting a NASA-funded study concerning immune system dysregulation that occurs during and after space flight. It is not known if these changes increase infection susceptibility or pose a significant health risk to crewmembers. It is also not known if changes in immunity are due to the microgravity environment, or to the stressors associated with landing and re-adaptation to the full-gravity environment.

The project proposes a Flight Definition investigation, utilizing a longitudinal repeated measures design to determine the effects of long-term exposure to microgravity on a host of salivary antimicrobial proteins (AMPs), latent viral reactivation, antibacterial properties of saliva, and blood markers associated with innate host immune defense, while also considering the impact of other acute stressors such as launch, landing and extra-vehicular activity.

Samples will be collected from crewmembers selected for the International Space Station (ISS) mission pre-flight, at early, mid and late phases during the six-month period on the ISS, and for one month upon return to Earth. This investigation will help to establish if space flight alters innate immune function, which is important to determine if altered immunity poses a significant risk of an adverse health event among crewmembers.

The data will also serve as a foundation for future countermeasure developments and technological advances to detect real-time changes in immune function during subsequent lunar or Mars missions.

“Although long-term stress is detrimental to our immune system, the everyday release of certain stress hormones, such as epinephrine, is important to help maintain normal functioning of the immune system and the continued circulation of our white blood cells,” said Simpson. “Spinal cord injured patients are unable to activate the adrenal glands that are responsible for epinephrine release, which may be one reason why they have lowered immunity and greater incidences of infection.” The result of the 12-month study may be new drug therapies that stimulate the adrenal glands or new knowledge about the immune system that could benefit many populations.

Dr. Richard Simpson is conducting a NASA-funded study concerning immune system dysregulation that occurs during and after space flight. It is not known if these changes increase infection susceptibility or pose a significant health risk to crewmembers. It is also not known if changes in immunity are due to the microgravity environment, or to the stressors associated with landing and re-adaptation to the full-gravity environment.

The project proposes a Flight Definition investigation, utilizing a longitudinal repeated measures design to determine the effects of long-term exposure to microgravity on a host of salivary antimicrobial proteins (AMPs), latent viral reactivation, antibacterial properties of saliva, and blood markers associated with innate host immune defense, while also considering the impact of other acute stressors such as launch, landing and extra-vehicular activity.

Samples will be collected from crewmembers selected for the International Space Station (ISS) mission pre-flight, at early, mid and late phases during the six-month period on the ISS, and for one month upon return to Earth. This investigation will help to establish if space flight alters innate immune function, which is important to determine if altered immunity poses a significant risk of an adverse health event among crewmembers.

The data will also serve as a foundation for future countermeasure developments and technological advances to detect real-time changes in immune function during subsequent lunar or Mars missions.
Marathon Runners Studied

Common colds and flu account for millions of hours of lost work and school time each year. Associate Professor Brian McFarlin is studying how exercise stresses the body and compromises the body’s immune system, increasing susceptibility to infection and illness. He collected data from approximately 400 marathon runners participating in the Austin LIVESTRONG Marathon in February.

“The stress that running a marathon places on the body makes the runner susceptible to upper respiratory illnesses, colds and flu,” McFarlin said. “We want to know if there is a supplement runners can take to shore up their immune system following such a strenuous event.”

Following the event, runners were given either the Wellmune WGP by Biothera or a placebo. For four weeks after the marathon, each participant filled out a daily survey to rate their perception of their health and wellness. With those surveys, McFarlin and his research team will evaluate the effectiveness of the supplement. Biothera, a U.S. immune health company, commissioned the research.

“Health care is a big concern for people,” he said. “Staying home from work or school has consequences, as does going to work while being sick. Our findings may help other recreational athletes or those who work outdoors in extreme weather conditions.”

McFarlin works in the LIP and has been researching exercise and the immune system for more than a decade. He has published more than 40 studies in peer-reviewed journals documenting how exercise disrupts the immune system function.
at the next Science and Community symposium and health fair Oct. 18, 2011, on the UH campus.

The TORC has more than 1,500 subscribers to their listserv, and continues to maintain an active Facebook page and Twitter account to reach out to community members, students, scientists and policy makers worldwide.

Five students were awarded a TORC Summer Learning Fellowship, which provides a hands-on learning experience in obesity studies and an opportunity to apply what they have learned during their course work. Students also gain real-world experiences by teaming up with a TORC faculty member like Dr. Tracey Ledoux, who is using virtual-world environments to try to induce food cravings in order to find strategies to assess and treat them.

Findings from the HIP project indicate group cohesion interventions may have physical and psychological health benefits. The SALSA study expanded on this, using Latin dance instead of walking, and found Latin dance interventions to improve physical activity.

In exploring the use of virtual environments for obesity prevention interventions, the IHC found that those who affiliated themselves with a country visited the site more often and completed health promotion activities, suggesting virtual environments are a useful medium to engage participants and conduct health interventions and may lead to sustainable health promotion.

Lee’s work was highlighted at several conferences and scientific meetings worldwide in 2010-11 and was recently showcased at the CDC public health and disability meeting, where she discussed the adaptability of her work for disabled populations. Lee also presented data on health disparities and the importance of understanding context at the 9th Annual Disparities in Health in America Workshop held at the M.D. Anderson Cancer Center and the NIH Workshop on Enhancing Collaboration with the HMORN Research Organization in Boston, MA.

Scherezade Mama, UNDO research lab manager, received a UH 2011 Staff Excellence Award, further demonstrating the exceptional work being conducted in the UNDO lab.

Mama is completing her doctoral degree of public health in community health practice at The University of Texas School of Public Health. Her work combines theories and techniques drawn from public health, behavioral science, social justice and community health practice and focuses on individual and psychosocial determinants of physical activity, dietary habits and obesity in ethnic minority women. “UNDO provides me a unique opportunity to gain hands-on experience and combine my classic public health training with behavioral medicine,” said Mama.
HHP Degree Programs

Doctoral Programs
- Ph.D. in Kinesiology
- Exercise Physiology
- Obesity
- Motor Behavior
- Space Life Sciences

Master’s Programs
- M.S. in Exercise Science
- M.Ed. in Physical Education
- M.S. in Human Nutrition
- M.S. in Human Space Exploration Sciences

Bachelor of Science Programs
- Kinesiology
- Exercise Science
- Sport Administration
- Fitness and Sports
- Human Nutrition and Foods
  - CADE (Accredited Didactic Programs in Dietetics)

Space Life Sciences Lectures

A component of HHP’s Doctoral Space Life Sciences curriculum is a weekly lecture by various NASA scientists speaking on their expertise. The series of free lectures are opportunities for any UH student to attend and hear renowned scientists address topics such as: space flight analogs, system physiology changes, and psychological and physiological stressors associated with human space flight.

The curriculum is designed to prepare doctoral students seeking careers in supporting the space program through clinical and research expertise in federal, state, and private space agencies, industry, universities and related occupational health settings.

Read more about the space life sciences curriculum at http://tiny.cc/HHPSpaceLifeSciences.

Six hundred participants, 39 presentations, three days.

H HP hosted the Virtual Immersive Translational Applied Learning (VITAL) Showcase where peers networked and learned about new research in the unique location of the virtual world of Second Life (SL).

Participating graduates and undergraduates came from four HHP classes: Design and Evaluation of Physical Activity Programs, Urban Fitness: Program Development and Evaluation, Public Health Issues in Physical Activity and Obesity and Motor Learning. The semester-long, collaborative project was designed to teach students management skills along with teaching the structure of community health intervention programs, all while using technological tools of today.

“Students worked together in teams to create community health and exercise programs from the ground up,” said Charles Layne, professor and department chair. “From a practical standpoint, meeting in a virtual environment allowed more team members to ‘meet.’”

Presentations were 15 minutes, with a question-and-answer session following from SL audience members. The conference was open to the public and can be accessed at http://tiny.cc/HHP-SL. All the presentations are archived and available to anyone to learn more about the various health and exercise projects that HHP students are proposing.
Dr. Lisa Alastuey shared the successes of using the virtual world of SL as a part of the UH Effective Teaching Practices Showcase, a biannual event that pools in-house expertise and strategies to benefit faculty and students.

2011 HHP Outstanding Student Awards

Excellence in Undergraduate studies:
- Kathleen Woolley: Kinesiology
- Marcela De La Garza: Fitness/Wellness
- Audra Hollingsworth: Nutrition
- Shannan Arnold: Sport Administration
- Toochukwu “Ify” Mbah: Sport Administration

Excellence in M.Ed. studies:
- Mary Buckner: Motor Behavior
- Susan Bush: Sport Administration

Graduate awards in other categories:
- Ygnacio Lopez III: Teaching Excellence Award
- Heather Adamus: Overall Graduate Student Excellence Award
- Kelley Strohacker: Tony Jackson Research Excellence Award

National recognition by the American Kinesiology Association:
- Edrea Cook: American Kinesiology Association’s 2011 National Undergraduate Scholar
- Lindsey Duramo: American Kinesiology Association’s 2011 National Undergraduate Scholar

2011 HHP Scholarship Recipients

HHP Scholarships have been generously established to assist undergraduate and graduate students who are pursuing careers in the exercise, health and fitness, sport administration and nutrition industries.

- Dr. “Tony” Jackson Research Excellence Award
  Kelley Strohacker
- Barry C. Pelton Endowment Scholarship
  Amanda Powell
- Margie Sterr Scholarship
  Jennifer Wooland
- Mary Louise White Scholarship
  Yuli Pan
Shasta’s Culinary Workshop has been serving the UH community for 12 years. Faculty, staff and students of UH order and eat at the restaurant or order online with delivery available on campus.

The workshop is a lab for the Commercial Food Production class taught by Laura Moore, R.D. It gives nutrition students the opportunity to use what they’ve learned in the classroom by preparing and serving food.

The class works much like a restaurant, with hospitality positions given to each student in order for them to learn how to operate in commercial food production. “We have positions in sanitation, marketing, to-go orders, dining room manager, kitchen manager, cooks, salad/bake group, servers, host/hostess and expeditor,” Moore said. “The goal is to have each student rotate through all the positions. The students are graded on their performance each week.”

It is a requirement for each student to be certified in food safety prior to the workshop’s opening each semester. Profits go back to the class as a reimbursement for supplies that are used.

All of Shasta’s meals are created by the nutrition students from scratch with the highest standards and the best quality foods. The meals are designed to be healthy, appealing and representative of every type of cuisine. The workshop proudly bills itself as “The best lunch on campus.”
"The Best Lunch on Campus!"
## Degrees Conferred

### Graduate Degrees
- Ph.D. 3
- M.Ed. 19
- M.S. 4

### Undergraduate Degrees
- Kinesiology/Exercise Science 104
- Kinesiology/Sport Administration 41
- Kinesiology/Fitness 9
- Nutrition 75

---

**Dedication**

**Honor**
The Department of Health & Human Performance will commit to fulfilling regional and state workforce needs while becoming a primary engine of social, economic and intellectual development.

Great Strides for a Cure

HP has been the UH host organization to the Texas Gulf Coast Chapter for the Cystic Fibrosis Foundation’s (CFF) Great Strides annual walk since 2006. On the UH campus and across the U.S., tens of thousands of co-workers, friends and family come together each year as one community for one cause...to help find a cure for CF. This is CFF’s largest national fundraising event.

More than 1,000 participants wearing their teams’ t-shirts created a sea of many colors as they made their way through the 3K route, which started and finished at the Lynn Eusan Park. Donations raised for the May 21 event were more than $860,000.

On behalf of Melissa Noriega, a City of Houston At-Large council member, Toya Ramirez presented HHP with a certificate of appreciation for its leadership in the community by hosting the event.

Great strides are being made toward a cure of this debilitating disease that attacks the lungs and digestive system of about 30,000 children and adults in the U.S. annually. To learn more about the CFF, and to find a walk, visit their Web site at www.cff.org
Undergraduate kinesiology students take the Organization and Administration of Athletics class taught by Dr. Rey Treviño. In this class, students learn best practices in organization, administration, and supervision of physical education and athletic programs.

A component of this study is a service-learning project where students perform volunteer work at community organizations. This opportunity allows students to apply their classroom knowledge to real-world situations. The community-based learning activities and collaborations address the needs of individuals and organizations, which broadens our students’ experiences and impact on others’ situations.

At many community health fairs and health-related events, the Texas Obesity Research Center (TORC) team members offer free blood pressure screening, body composition tests, and deliver health information to individuals focusing on nutrition and physical activity.

Community engagement provides opportunities that allow our HHP students to improve the lives of our neighbors and to expand our students’ academic and research skills.
The Department of Health & Human Performance will be known for its accomplishments locally and nationally.

The Environmental Chamber

Dr. McFarlin is conducting a study with the goal of one day preventing deaths from heat-related illnesses. “We don’t have a really specific criterion to say this individual is prone to heat illness, and this person is not,” he said.

McFarlin and his researchers are using the environmental chamber in the LIP, which is one of only three in the Texas university system that simulates summer conditions.

The chamber resembles a large cooler, where heat and humidity can be adjusted up to 120 degrees Fahrenheit with 100-percent humidity. As subjects ride stationary bikes in sultry heat, they go through a battery of tests. Under these circumstances, investigators are able to collect data where little research has been conducted.

Age, body fat and hydration status all play a role in heat-related illnesses. During the summer it happens to older individuals who lose air conditioning as well as physical laborers who work outside. McFarlin said, “There’s not a single person who’s not at risk of having a heat-related illness.”

McFarlin's study was featured on Houston's KHOU-TV Channel 11 and KIAH-TV Channel 39 news stations.

Associate Professor Brian McFarlin was named president-elect of the Texas Chapter of the American College of Sports Medicine (TACSM). ACSM is a multi-disciplinary professional and scientific society dedicated to creating and disseminating knowledge concerning the motivations, responses, adaptations and health aspects of persons engaged in sport and exercise.
New Book Confronts Obesity

In her new book, “Reversing the Obesogenic Environment,” Dr. Rebecca Lee introduces the concept of the obesogenic environment—one that leads people to become obese—and provides suggestions and strategies to alter one’s environment to encourage healthier choices.

As researchers, practitioners and policy makers continue to explore the global crisis of obesity, they realize it is not enough to convince people of the benefits of healthy eating and regular physical activity. What happens when people go home to a neighborhood where fresh vegetables are not available and opportunities for physical activity are hard to find?

“Reversing the Obesogenic Environment” speaks to scientists, practitioners, policy makers, and community members as well as students and explores public policy, the built environment, physical activity resources, transportation systems, food supply and distribution, family and cultural influences, technology, the media and marketing.

Practical recommendations based on the latest research for reversing the obesogenic environment are incorporated throughout the book. Sample programs and policies, checklists, and potential solutions offer practitioners a starting point for changes in their own communities.

Fulbright Scholar Awarded to HHP Professor

Dr. Rebecca Lee has received the prestigious Fulbright Scholar award. She will work with researchers at the Instituto de Ciencias Aplicada a la Actividad Fisica y al Deporte in Guadalajara, Jalisco, Mexico to develop education and training protocols for health care practitioners and researchers in order to better document and define obesity, as well as the environmental factors that contribute to the obesity epidemic.

“Recent data suggests that the problem of obesity has emerged in Mexico, particularly among youth,” Lee said. “Mexico has been cited as having the second-highest obesity prevalence after the U.S. in the world.”

Lee has done extensive studies on the many factors that lead to obesity and its related illnesses, including cultural, sociological and neighborhood determinants. She is hopeful her research and research methods can be used to develop strategies to prevent and reverse the emerging obesity epidemic in Jalisco, Mexico.

“My work in Texas has examined physical activity, dietary habits and body composition in women of color and how to encourage healthier habits,” she said. “I’ll work with colleagues in Guadalajara on similar studies with parents and children in urban and rural areas.” The resulting data from the nine-month study will be presented to university and public officials.

The Fulbright Program is the flagship international educational exchange program sponsored by the U.S. Department of State’s Bureau of Educational and Cultural Affairs. Fulbright scholars are chosen for their academic merit and leadership potential and are given the opportunity to study, teach and conduct research, exchange ideas and contribute to finding solutions to shared international concerns.

New Book Confronts Obesity

In her new book, “Reversing the Obesogenic Environment,” Dr. Rebecca Lee introduces the concept of the obesogenic environment—one that leads people to become obese—and provides suggestions and strategies to alter one’s environment to encourage healthier choices.

As researchers, practitioners and policy makers continue to explore the global crisis of obesity, they realize it is not enough to convince people of the benefits of healthy eating and regular physical activity. What happens when people go home to a neighborhood where fresh vegetables are not available and opportunities for physical activity are hard to find?

“Reversing the Obesogenic Environment” speaks to scientists, practitioners, policy makers, and community members as well as students and explores public policy, the built environment, physical activity resources, transportation systems, food supply and distribution, family and cultural influences, technology, the media and marketing.

Practical recommendations based on the latest research for reversing the obesogenic environment are incorporated throughout the book. Sample programs and policies, checklists, and potential solutions offer practitioners a starting point for changes in their own communities.
Integration and Cooperation in the Next Golden Age of Human Space Flight was the focus of the 18th International Academy of Astronautics (IAA) Humans in Space (HIS) Symposium. The event was held in Houston at the Westin Galleria Hotel, April 11-15, 2011. NASA and UH hosted the weeklong conference, which drew an international group of more than 500 researchers and space industry professionals.

Professor William Paloski played a major role in the months of planning that went into the successful forum that addressed subjects such as space technology and habitats, space medicine, education and outreach, and commercial space flight. He served as chair of the scientific organizing committee, and was co-chair with Dr. John Charles (NASA Johnson Space Center) on the local organizing committee.

Special sessions were devoted to the 50th anniversary of Yuri Gagarin’s April 12, 1961 historic first manned space flight and the 30th anniversary of the first Space Shuttle mission on April 14, 1981.

In conjunction with the symposium, renowned astrophysicist Neil deGrasse Tyson presented the 2011 Elizabeth D. Rockwell Lecture on Ethics and Leadership, titled “America’s Past, Present and Future in Space” on the UH campus.

The HIS Symposium also sponsored an International Youth Art Competition for students from 10–17 years of age featuring multimedia categories. More than 500 entries from around the world were submitted. Winning art and selected pieces were displayed in various media during the symposium, including the opening ceremony and a reception attended by some of the artists and their families.

HHP’s creative team contributed extensively to the multimedia collateral showcasing the art competition by creating videos, the art program, symposium slides and an Internet gallery.

Paloski hopes that attendees walked away “not only with the latest global developments in their own areas of expertise, but also having learned some new things about Houston, UH, and some of the broader challenges we face as we enter into the next golden age of human space flight.”
he National Center for Human Performance (NCHP), where the CNBR is located in the Texas Medical Center, was designated by Congress as a national Institution for Excellence. The legislation signed by President Obama in October 2010, recognizes the center’s efforts in collecting, archiving and sharing research findings that enhance human performance in the performing arts, sports, space exploration and the military. With this recognition, the U.S. has, for the first time, an official site where scientists involved in performance-related research can come together to share expertise and develop plans of action.
Achievements and Milestones

Alastuey, L. Recipient of the University of Houston Provost Teaching Excellence Award, Instructor/ Clinical Faculty Category. 2010–2011.

Alastuey, L. Featured Faculty Member, UH Cougar Trading Card Scholarship program. 2011–2012.

Buxton, R. Received a UH 2011 Staff Excellence Award. April, 2011.

Clarke, M. S. F. Inducted as a member of the Phi Kappa Phi National Honors Society. March 2011.

Clarke, M. S. F. Received the Presidential Leadership Award from President Renu Khator for his outstanding leadership and service to the UH Faculty Senate as Faculty Senate President during 2010.

Clarke, M. S. F. Served as a member of the Local Organizing Committee of the IAA 18th Humans in Space Symposium. April 11–15, 2011.

Ledoux, T. A. Received Research Excellence award at the 2010 TORC conference for poster titled Mediation and Moderation effects of the “five-a-day achievement badge” intervention for Boy Scouts.

Ledoux, T. A. Appointed to the Houston Area Dietetic Association Board of Directors as the Community Director-At-Large.


Ledoux, T. A. Awarded the NIH Loan Repayment Program.

Lee, R. E. Received a Fulbright Core Scholars Program Award, Council for International Exchange of Scholars, Institute of International Education. 2011–2012.

Liu, J. Selected to serve on a review panel for the National Science Foundation (NSF). 12/2010.

Liu, J. Appointed to editorial advisory board for The Open Occupational Safety and Health Journal.

Liu, J. Appointed to advisory board for the National Floor Safety Institute.

Liu, J. Appointed as a member to the ANSI B101 Standards Committee on Slip, Trip and Fall Prevention.

Lowder, T. Named vice-chair of the Institutional Animal Care and Use Committee (IACUC) committee.

Lowder, T. Invited to serve on the review editorial board of Frontiers in Exercise Physiology, a specialty of Frontiers in Physiology.

Mama, S. K. Received a UH 2011 Staff Excellence Award. April, 2011.


McFarlin, B. K. Associate Editor-in-Chief for International Journal of Exercise Science.


Pearson, D. W. Appointed by Dean Roberts to College of Liberal Arts and Social Sciences Ad Hoc Committee on Diversity. Nov. 2010.


Simpson, R. J. Appointed as an alternate member of the UH Committee for the Protection of Human Subjects. Nov. 2010.


Weintraub Betts, R. J. Received a graduate scholarship from the UH University Commission on Women. April 2011.

Alumni Accomplishments

Banda, Jorge A. (’04, M.S. ‘07) Received Dean’s Award of Excellence in Graduate Study from the University of South Carolina (Cash award).


Esposito, Lisa (M.S. ’08) Recently employed as a sports dietitian at the Gatorade Sports Science Institute (GSSI) in Barrington, IL.

Hoffman, Ben Awarded an assistantship by the National Strength and Conditioning Association at Valdosta State University in Georgia. June 2011.


Alumni Accomplishments


Phillips, Jason (’01) Recipient of the 2011 Distinguished Alumni Award from the UH Black Alumni Association. He just completed his eighth season at UH & his first season as the offensive coordinator. March 2011.

Raley, Christa (’09) Named head coach at Pasadena Memorial High School in Pasadena, Texas.


Vanover Foreman, Lindsay (’05) Named assistant softball coach for Dartmouth College in Hanover, NH.

Articles


Articles


Book Chapters


Books


Funded Grant Proposals


Layne, C. S., Ledoux, T. A., McFarlin, B. K., & Alastuey, L. Enhancing the Virtual Immersive Translational Applied Learning (VITAL) Project. Faculty Development Initiative Program (FDIP), May, 2011. $30,000.

Layne, C. S. (PI), & Bordnick, P. UH New Faculty Grant to conduct a study to validate the use of virtual reality environments to induce food cravings. $6,000.


Lee, R. E. Small Grants Program 2010–2011, UH. Connecting Wii to SL technology to promote physical activity. $3,000.

Lowder, T. Received travel grant from the conference organizers to attend the 2010 Pittsburgh International Lung Conference, Pittsburgh, PA. Dec. 10–11, 2010. $500.


McFarlin, B. K. (PI). The Effect of under armour heat gear clothing on sweat rate, body temperature, and heat loss potential during exercise in a hot, humid environment. Funded by UnderArmor, Inc.10/1/10–9/30/11 (DC: $17,427; IDC: $2,092, 12%).


Iwase, S. (PI; Aichi Medical University, Nagoya, Japan), & Paloski, W. H. (Co-I). Artificial gravity with ergometric exercise on international space station as the countermeasure for space deconditioning in humans. Source: NASA. Performance Period: 1/1/11–TBD. Planned UH Budget: $120,154 (IDC: $40,051).


Simpson R. J. Awarded junior faculty travel grant from the American Association of Immunologists (AAI) to attend the 98th AAI Meeting, San Francisco, CA. May 2011. $1,250.


Invited Presentations


Clarke, M. S. F. OsteoSpheres: Bone formation in free-fall? The Bone Club of Houston hosted by Baylor College of Medicine/Department of Molecular Biology, Houston, Texas. Oct. 2010.


Lee, R. E. Multiple methods of physical activity in overweight and obese women: Correspondence, strengths and limitations. National Public Health Institute’s 14th Congress on Public Health Research, Cuernavaca, Mexico. March 1–4, 2011.


Professional Presentations


Ledoux, T., Lorenz, Baranowski, T., & Montague, R. Relationship of brain responses to palatable food with food addiction tendencies. 32nd Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Washington, DC. April 2011.


Lopez, Y., Mama, S. K., Medina, A. V., & Lee, R. E. Association of fat and alcohol consumption with physical activity among obese women of color.


McFarlin, B. K. Designing engaging and effective online learning modules. UH Teaching Excellence Workshop (Teaching Table). April 2011.


Professional Presentations


Publicity


Clarke, M. S. F. As UH faculty senate president, Clarke was featured in UH YouTube video “UH Celebrates Carnegie Tier One Research Ranking.” Jan. 27, 2011.


Layne, C. S. “Split-belt Treadmill Locomotion” article in the NCHP newsletter featured researched conducted at CNBR. May and June 2011.


**Publicity**


Lee, R. E. Interviewed by Houston’s KPFT 90.1 FM for the “Real Wellness Wednesday” segment about TORC’s Science and Community events. May 2011.


McFarlin, B. K. Keynote speaker at the 10th International Society for Exercise and Immunology (ISEI) Symposium at St Catherine’s College, Oxford, United Kingdom. July 10–13, 2011.


O’Connor, D. P. Study featured in Comparison of measured and parents’ reported height and weight in children and adolescents article on MDLinx at http://www.mdlinx.com/pediatrics/news-article.cfm/3400993.


Sunseri, C. P. Featured in “The Marine Corps Changed this Graduate Student’s Life” article online at http://tiny.cc/HHP-Sunseri-Topix. Also on Chron.com’s River Oaks and East End neighborhood sections and the American Dietetic Association’s newsletter.


Wilson, J. Highlighted in “Cougars at Work” article in UH News magazine and UH Today article featuring her husband, Jerry Wilson, a UH employee. Feb. 2011.

Student Achievements

Adams, A. (undergraduate) Selected to receive department research assistantship to pursue an M. S. in Exercise Science at Texas Christian University.


Student Achievements

Anzures, C. (undergraduate) Participated in the STAR program at UH, which is designed to increase the number of underrepresented minorities who are engaging in research.


Benjamin, A. Received a scholarship award from the UH Black Alumni Association. She is a kinesiology major studying sports medicine.


Bigley, A. B. Submitted an application to the National Science Foundation for a Graduate Research Fellowship ($121,500).

Bigley, A. B. Received an honorable mention from the National Science Foundation for his application to the Graduate Research Fellowship program.

Bigley, A. B. Received Research Assistant Fellowship from the UH College of Liberal Arts and Social Sciences.


Breslin, W. L. Selected to receive 2011 Student Research Grant from TACSM (Direct: $800; IDC: $0).


Cheung, K. Recipient of TORC’s Graduate Student Summer Learning Fellowship Award. June 2011.


Deal, C. Received a Nkrumah Study Abroad Scholarship Award from the African American Awards Studies program. May 6, 2011.


Annual meeting of Society of Neuroscience, San Diego, CA. Nov. 2010.

**Eason, C.** Selected to receive 1st year Doctoral Student assistantship from UH.


**Keenum, C.** Named to the 75th Annual Maxwell Award Watch list, which honors the nation’s best offensive player. UH News Digest. July 2011.

**Klein, Y.** Best poster at the 2010 UH Undergraduate Student Research Day.


**Kunz, H.** Received an HHP travel award to the 98th American Association of Immunologists International Meeting, San Francisco, CA. May 13-17, 2011. $350.


**Kunz, H.** Received travel grant from the conference organizers to attend the 2010 Pittsburgh International Lung Conference, Pittsburgh, PA. Dec. 10–11, 2010.

LaVoy, E. Awarded a research grant from the Texas Chapter of the American College of Sports Medicine (TACSM). Project Title: The effect of latent CMV infection on cytokine profiles of T cell subsets acute following exercise. 2011.

**LaVoy, E.** Awarded the prize for best presentation (doctoral category) from the TACSM. Presentation Title: Effect of HSV-1 infection on the exercise-induced mobilization of T-cell subsets. 2011.


**Lopez, Y.** Southern Regional Education Board (SREB) Diversity Conference – Student Travel Award. Aug. 25, 2010.


Madansingh, S. The Canadian Space Agency is sending him to Deutsches Zentrum für Luft-und Raumfahrt (DLR), which is the German Aerospace Center in Cologne, Germany to collect data using the European Space Agency’s (ESA) new short-arm centrifuge.

Momin, A. Recipient of TORC’s Undergraduate Student Summer Learning Fellowship Award. June 2011.

Montes, L. Accepted into the Doctorate of Physical Therapy program at UTMB, Galveston, Texas.

Nguy, S. Named UH Tier One Scholar.


Pourmoghaddam, A., Received a doctoral fellowship from the Houston Endowment gift for his “SYNERGOS in the Analysis of EMG Signals” dissertation. June 2011.

Robertson, A. Research at CNBR was featured in “Research Corner” article in the NCHP newsletter. April 2011.


Sahnoune, I. Awarded UH Summer Undergraduate Research Fellowship (SURF). April 2011.


Simon, K. Interviewed by Houston’s KPFT 90.1 FM for the “Real Wellness Wednesday” segment about TORC’s Science and Community events. May 2011.


Spielmann, G. 2010 Annual meeting of the French Society for Immunology, Marseille, France. Nov. 2010.

Strohacker, K. Selected to serve as a Post Doctoral Research Fellow at Brown University.


Recipients of the 2011 HHP Outstanding Undergraduate Student Awards. April 2010.
Arnold, S. Sport Administration
De La Garza, M. Fitness and Sports
Hollingsworth, A. Nutrition
Mbah, T. Sport Administration

Recipients of the 2011 HHP Graduate Student Awards. April 2010.
Buckner, M. Sport Administration
Bush, S. Sport Administration

Adamus, H. Overall Graduate Student Excellence Award
Lopez, Y. Teaching Excellence Award
Strohacker, K. Tony Jackson Research Excellence Award

Students Accepted into Dietetic Internships
Barrett, S. Ona, P.
Belleny, D. Pack, T.
Chu, A. Rancher, A.
Duane, L. Safaie, S.
Duby, H. Schwartz, M.
Harris, C. Sia, D.
Hollingsworth, A. Swaby, A. C.
Jiang, T. Taub, M.
Kabir, A. Vivchek, J.
Kahlil, M. Waheed, S.
McConnell, C. Wieland, R.
Miller, A. Williams, S.
Noriega, P.
Dr. Tracey Ledoux joined the HHP faculty in the fall of 2010 as assistant professor and member of the Texas Obesity Research Center’s executive committee.

She earned her Ph.D. in counseling psychology at Oklahoma State University in 2007, and her bachelor’s in community counseling from the University of Memphis in 2003. Ledoux is also a Registered Dietitian.

Her research focus is in developing effective obesity prevention interventions that target psychosocial mediators to mitigate the impact of the obesogenic environment and the natural rewarding properties of food on the individual among families in the earliest years of development.

Prior to joining HHP, Ledoux was with the Children’s Nutrition Research Center at Baylor College of Medicine in Houston.

This fall, HHP welcomes Dr. Stacey L. Gorniak as assistant professor of motor behavior. Her research focuses on understanding healthy and pathological neuromuscular control.

Before joining HHP, she was a postdoctoral research fellow in the department of biomedical engineering at the Cleveland Clinic Lerner Research Institute, and in the functional electrical stimulation group at the Cleveland Veterans Affairs Medical Center, both in Cleveland, Ohio. Gorniak earned her doctoral degree in kinesiology at Pennsylvania State University.