RESEARCH PARTNERSHIP WITH CYBEX TO HELP HONE EQUIPMENT DESIGNS

UMass Amherst’s Department of Kinesiology has developed a research partnership with Cybex International, a leading manufacturer of exercise equipment based in Medway, Mass. The department has been working with alumnus Paul Juris, executive director of the Cybex Institute for Exercise Science, to conduct research projects that will answer scientific questions and provide feedback on equipment design and effectiveness. The Cybex Institute investigates current and future products to ensure that they produce the desired results.

Patty S. Freedson, the department chair, calls the partnership “important because it allows faculty and students to provide important quantitative information about exercise response to the scientific community and to Cybex. That information helps inform further investigation and will help Cybex tailor its machines to more specific exercise outcomes.”

Former faculty member David Peckinpaugh has already completed one research project using Cybex’s new Bravo Functional Trainer. The project focused on the chest press, an exercise usually performed on a dual adjustable-pulley apparatus while standing upright without support. That position limits the amount of resistance that can be used without providing additional support or compromising good form. The Functional Trainer provides horizontal support to the pelvis or shoulder blades during chest presses. Peckinpaugh has a second study under way.

Joe Hamill of the Biomechanics Lab and Barry Braun are examining the biomechanical properties of a new treadmill design and the metabolic responses of its users. (See www.cybexinstitute.com.)

WELCOME FROM THE CHAIR

A lot has happened here at the Department of Kinesiology over the past few years. I hope that each of you will find our news interesting and be inspired to let us know where you are and what you’re doing. We’d like to include alumni updates in our newsletter but need your help in keeping us informed. (Directions for doing so can be found on page 7.)

This issue highlights some faculty members who have joined our department over the last two years. Their backgrounds and expertise have enriched our already strong faculty. Our department has grown tremendously: our undergraduate major now boasts more than 620 students. Adding faculty helps us keep up with the high teaching demands of that growth. We’ve expanded career opportunities for our undergraduate students in health and fitness by offering coursework in personal training and strength and conditioning. These students are now prepared to successfully complete certification programs that open up to them a broad array of career opportunities. (See the Body Shop section of the newsletter for more on these offerings.)

Graduate enrollment has remained steady and the quality of students accepted into our graduate program is excellent. Our graduate students have received various grants from the American College of Sports Medicine and fellowships from UMass and the NIH. The number of students presenting their research at national and international conferences is exceptionally high; you have likely seen many of their names in some of the most prestigious journals in our field.

Once again, please keep in touch with us. Our alumni numbers continue to grow and we want to share your accomplishments with our ever-growing family of Kinesiology alums. Should you wish to, email me at psf@kin.umass.edu.

Patty Freedson
Chair, Department of Kinesiology
MESSAGE FROM THE DEAN

I’ve been asked to provide a message for this newsletter and am thrilled to do so—but where to start? The department impressed me even before I arrived on campus as SPHHS dean. Various Kinesiology faculty members were part of the dean search committee or were otherwise involved in escorting me from one meeting to the next as I interviewed. I quickly sensed that the department was one of the school’s strongest in research and teaching and that it had exceptional individual faculty members—and I was right.

Since becoming dean in January 2009, I have seen firsthand that the Department of Kinesiology is a tight community of faculty, students, and staff. Energy and creativity are essential in the current economic situation and there too the Kinesiology faculty excels, taking full advantage of opportunities to improve the department and provide exceptional opportunities for students and faculty members alike.

Kinesiology continues to be a shining light in the School of Public Health and Health Sciences (SPHHS). The number and quality of the undergraduate students increases steadily each year. The number of doctoral students is greater than any of the other departments in the SPHHS, and these Ph.D. students add tremendous richness to the department and the school. The Kinesiology faculty has grown by one tenure track Assistant Professor, and is well balanced in terms of seniority and areas of expertise. Leadership in Kinesiology is exceptional. Dr. Patty Freedson is a research-active Chair who is totally committed to the Kinesiology Department. As we work together to make the SPHHS stronger, in my role as Dean I will be calling on these excellent faculty and students to provide continued and increased leadership to the school. I know that the Department of Kinesiology will rise to the next challenges and contribute in ways yet unknown. I look forward to being a part of its future successes.

C. Marjorie Aelion
Dean, School of Public Health and Health Sciences

NEW FACULTY

Edward (Ned) Debold joined the faculty in the fall of 2008. He specializes in muscular fatigue, muscle physiology, and biophysics. His current research involves analysis of molecular mechanisms involved with muscle fatigue. Despite extensive study, the molecular mechanisms underlying this phenomenon remain poorly understood. Debold’s research seeks the root molecular causes of muscular fatigue and studies the mechanics and kinetics of myosin function using state-of-the-art single-molecule biophysical techniques.

Post-doctoral fellowship, University of Vermont, 2008, Ph.D., Marquette University, 2002, M.S., University of Massachusetts, 1997, B.S.E., Seton Hall University, 1992.

Erin Snook joined the faculty in the fall of 2008. She specializes in exercise psychology and physical activity. Her current research interest involves antecedents and outcomes of physical activity behavior in populations with neurological diseases, particularly multiple sclerosis. Her additional interests include examining the influence of MS symptoms on physical activity, the benefits of physical activity and exercise for reducing MS symptoms and improving function and quality of life, and the effect of exercise on cognitive functioning.

Ph.D., University of Illinois at Urbana-Champaign, 2008, M.S., University of Illinois at Urbana-Champaign, 2003, B.A., Bloomsburg University, 2000.

Sarah Witkowski joined the faculty in January 2010. She specializes in exercise physiology, cardiovascular physiology, and cardiovascular-disease risk factors. Her research interest is in novel factors influencing cardiovascular adaptations to activity and inactivity in health, disease, and aging. Witkowski’s recent work involves the mechanisms by which physical activity influences adult stem cells known to contribute to the maintenance, regeneration, and repair of cardiovascular-related tissues. Physical activity and exercise influence the function, proliferation, and survival of these cells, thereby contributing to changes in cardiovascular function and overall health. Witkowski’s related interests include molecular mechanisms contributing to changes in myocardial and vascular tissue with exercise in conditions of health and disease.


LABORATORY NEWS

Biomechanics Laboratory
Joseph Hamill, Graham Caldwell, Brian Umberger

The faculty and students in the Biomechanics Laboratory continue to conduct exciting, transformative research using both experimental and modeling approaches. The past year saw our students and faculty present their research at numerous conferences, including the American Society of Biomechanics Annual Conference in State College, the Summer Bioengineering Conference in Lake Tahoe, and the American College of Sports Medicine Annual Meeting in Seattle. Joseph Hamill of our faculty also spent considerably time abroad, establishing research and instructional ties with the Republic Polytechnic of Singapore.

The lab’s current research projects include a study on the influence of obesity on risk factors for knee osteoarthritis, an investigation of how aging and muscle properties affect postural
stability, a modeling study of determinants of maximal running speed, and a project on the evolution of human bipedalism. These projects are funded by several federal, foundation, and corporate grants and contracts.

Body Shop Fitness Center/Activity Intervention Center

David Peckinpaugh

In 2008, David Peckinpaugh assumed management of the Body Shop Fitness Center from Frank Rife, who had created and for many years operated it. During his tenure there, Rife fashioned an excellent educational component and successfully relocated the Body Shop to a larger, more welcoming space.

The Body Shop has completed a busy couple of years, with lots of new equipment and services added. One major innovation has been a two-tiered internship program for undergraduates who have completed specific coursework. First-tier students work as exercise technicians, responsible for administering complete fitness assessments for members. After successfully completing at least one semester in that role and passing a practical exam, students are eligible for second-tier work as fitness specialists, responsible for supervising the exercise technicians and meeting with Body Shop members for one-on-one consultations, delivering workouts, or teaching specific exercises. Together with the departmental courses Peckinpaugh teaches to prepare students to apply for national-level personal training or strength and conditioning certification, these internships give students hands-on experience to help them become successful health and fitness professionals.

Over the past few years, the department has also hosted a number of training studies involving various laboratories within the department. In this role, the Body Shop functions as the department’s Activity Intervention Center and has been a great asset to its research goals.

Energy Metabolism Laboratory

Barry Braun

The Energy Metabolism Laboratory’s goal is “metabolic rehabilitation.” We work to optimize the design of an exercise “drug” to enhance metabolic health, seeking the exercise intensity, duration, and nutritional environment and the interactions with other medications most likely to improve metabolic health.

Current research in the Energy Metabolism Laboratory is centered on “Exercise Training and Metformin for Metabolic Rehabilitation,” our recent grant from the National Institutes of Health. We are trying to understand whether for people with prediabetes adding the antidiabetes drug metformin increases the efficacy of an exercise training program on glucose regulation. Research Professor Stuart Chipkin, M.D., and senior doctoral student Steven Malin are key contributors to the project. First-year graduate students Robert Gerber, Rich Viskochil, and a number of undergraduate research assistants were also vital players.

Graduate students Carrie Sharoff ’08, Rebecca Hasson ’08, and Brooke Stephens Hassan ’09 finished their Ph.D. degrees and moved on to prestigious post-doctoral fellowships. Sharoff’s Ph.D. work was published in the January 2010 American Journal of Physiology. Rebecca Hasson has two papers from her Ph.D. work in the final stages of review in the Journal of Clinical Endocrinology and Metabolism and the Journal of Physical Activity and Health. Brooke Hassan’s doctoral work, “Detrimental Effects of Inactivity on Insulin Action,” is in review at the Journal of Applied Physiology. As part of that study, Kirsten Granados extended to the effects of inactivity the work on exercise and hormonal regulation of appetite begun by Todd Hagopian ’07PhD (now an assistant professor at California State University, San Luis Obispo). We are packaging the work on inactivity into a June 2010 grant proposal to the National Institutes of Health.

The laboratory’s graduate students continue to excel in every way. In 2008–09, Sharoff and the Hassons each received $5000 research grants from ACSM. Several students won awards for presentations at regional meetings and presented their work at national meetings of the American College of Sports Medicine, the American Diabetes Association, and the APS Intersociety Meeting on the Integrative Biology of Exercise. (See www-unix.oit.umass.edu/~braunlab/index.htm.)

Exercise Neuroscience Laboratory

Gary Kamen

Several activities are ongoing in the Exercise Neuroscience Laboratory. Our investigation of the utility of surface-based EMG decomposition is continuing with Professor Edward Clancy of Worcester Polytechnic Institute. We are also continuing our collaboration with Professor David Gabriel of Brock University on a study of the relationship between surface EMG characteristics and motor-unit discharge behavior during the production of muscular force. We recently completed a study of motor-unit synchronization that, among other findings, demonstrated that the magnitude of motor-unit synchronization increases with muscular force. Our field has no reliable knowledge regarding possible changes in motor-unit synchronization during muscular fatigue, and we are currently investigating this issue. Anita Christie, a doctoral student in our lab, received ACSM funding to study neural characteristics affecting the motor-unit firing rate in younger and older adults.

Physical Activity and Health Laboratory

Patty Freedson

The primary research areas in the Physical Activity and Health Laboratory include the assessment of physical activity using accelerometers and physical activity and health. Methods we have developed employing metabolic calibration of accelerometers to categorize physical activity intensity have been adopted worldwide to objectively classify activity levels in different populations. We have applied these methods to evaluate physical activity in children and adults as well as children with Down syndrome.

Our lab is funded by three NIH grants focusing on objective physical-activity assessment methods. The primary objective of our NIH RO1 award is to develop and validate neural-network-based data-processing methods to interpret physical-activity type and intensity from wearable accelerometers. John Staudenmayer and John Buonaccorsi from the Department of Mathematics and Statistics are co-investigators on this five-year project.

Our group is also funded through the NIH-sponsored Genes and the Environment Initiative. In this four-year project we are
developing a multi-sensor activity monitor that includes an accelerometer, a ventilation sensor, and a sensor to track location. Co-investigators include John Staudenmayer (Mathematics and Statistics), Robert Gao (Department of Mechanical Engineering, University of Connecticut), and Jane Kent Braun (Kinesiology). With funding from Omron Inc. we have also studied a new pedometer that uses multiple-accelerometer sensing technology to assess walking behavior. We recently received a Challenge Grant from NIH to examine the sensitivity of neural-network analyses in discriminating different activity levels in free-living environments. We will then use these activity methods to determine how much activity outside of exercise training influences responsiveness to the training.

We are also interested in exploring strategies to increase energy expenditure during sedentary time based on the small-changes paradigm for weight management. With funding from Boston Children's Hospital, and in collaboration with Voula Osganian, director of the Boston Children's Hospital Clinical Research Program, we have conducted a pilot project examining the effectiveness of a school-based physical-activity intervention to prevent obesity using the small-changes concept to increase third-graders' daily physical activity by 100 kilocalories.

**Molecular and Cardiovascular Physiology Laboratory**

**Sarah Witkowski**

Witkowskis research interest is in novel factors influencing cardiovascular adaptations to activity and inactivity in health, disease, and aging. Recent work involves the mechanisms by which physical activity influences adult stem cells known to contribute to the maintenance, regeneration, and repair of cardiovascular-related tissues. Physical activity and exercise influence the function, proliferation, and survival of these cells and contribute to changes in cardiovascular function and overall health. Related interests include molecular mechanisms contributing to changes in myocardial and vascular tissue with exercise in conditions of health and disease.

**Motor Control Laboratory**

**Richard Van Emmerik**

We are conducting, in conjunction with the Muscle Physiology Laboratory, a large-scale investigation of dynamic balance and gait changes in people with multiple sclerosis. Stephanie Jones, Linda Chung, Jebb Remelius, Jordan House, and Mike Busa are running this multifaceted research project. Chris Palmer is investigating the effects of load and equipment on perceptual-motor performance and postural control in soldiers. Research by Jenny Baird focuses on the loss of stability and falls in older individuals. André Boulay's research addresses the integration of postural control and manual performance in learning novel motor skills.

The Motor Control and Biomechanics laboratories are also involved in collaborative projects with the Shriners's Hospital for Children in Springfield to examine the effects of scoliosis on walking and postural control in adolescents. Finally, the lab is involved in collaborative research on motor development with faculty in Communication Disorders (motor speech problems in children) and Psychology (development of postural control).

The lab's research was presented by students at a variety of national and international conferences, such as the American College of Sports Medicine, the North American Congress on Biomechanics, and the International Society of Posture and Gait Research.

**Muscle Biology and Imaging Laboratory**

**Priscilla M. Clarkson**

Stephanie Moeckel-Cole, post-doctoral fellow at the Muscle Biology and Imaging Laboratory (MBIL) and an alumna of UMass Amherst's Kinesiology program, completed her dissertation work in the Molecular Cellular Biology Program. She is currently working on the third year of an NIH study examining the effects of statin drugs on muscle function.

The MBIL also has several doctoral graduate students:

Karen Riska, the senior student in the laboratory, is working on her dissertation, "Alterations to the Extracellular Matrix and Skeletal Muscle Structure After Eccentric Exercise." Riska recently completed a study examining the bioavailability of glucosamine in serum and received a Doctoral Research Award from the New England Chapter of the American College of Sports Medicine.

Ling Xin completed her master's degree in the Molecular Cellular Biology Program before joining the MBIL. Xin recently completed a study examining the effects of two antioxidant supplements on gene expression in response to muscle-damaging exercise.

Rob Hyldahl recently developed "A Novel In Vitro Model of Muscle Atrophy," using cultured muscle cells. The project was supported in part by a UMass Space Grant Fellowship.

Kevin O'Fallon recently completed two human clinical trials, one on the bioavailability and pharmacokinetics of the dietary antioxidant supplement quercetin and the other on the effects of quercetin on muscle soreness and recovery after strenuous exercise.

Nina Moore recently completed a study of the gene expression of white blood cells following muscle-lengthening contractions. Moore is now conducting a study examining the response of cigarette smokers to muscle-damaging exercise.

**Muscle Biophysics Laboratory**

**Ned Debold**

The Muscle Biophysics Laboratory was opened in the fall of 2008, bringing exciting new biophysical technologies to the Department of Kinesiology. We are currently using fluorescence microscopy techniques to assess the molecular function of isolated muscle myosin and actin. We are also assembling a single-molecule laser trap assay to measure the mechanics and kinetics of a single muscle myosin molecule, a first for any kinesiology department. The lab will employ these techniques to understand the molecular basis of muscular fatigue and various forms of heart disease.
In collaboration with researchers in the Department of Physiology and Biophysics at the University of Illinois, we are conducting a study examining the root molecular cause of a genetic cardiomyopathy using an in vitro motility assay. Ned Debold, who created and runs the lab, received a grant from the American Heart Association to study these topics. These new biophysical techniques are becoming widely used across several scientific disciplines, enabling Debold to establish interdepartmental connections with several UMass Amherst faculty as well as some Five College faculty with related interests, including Jennifer Ross and Lori Goldner in Physics, Patricia Wadsworth and Weh Lee in Biology, and Omar Quintero, a cellular biologist at Mount Holyoke College. This represents an exciting new area of investigation for both the Department of Kinesiology and the University, and we look forward to the findings and collaborations it will foster.

**Muscle Physiology Lab**

**Jane Kent-Braun**

What happens to our muscles as we age, and why? That question is being addressed by researchers in the Muscle Physiology Laboratory. It is directed by Jane Kent-Braun, whose work over the past 15 years has centered on understanding muscle function in the elderly and in people affected by chronic disease.

The laboratory focuses on determining how muscle function differs in healthy older adults as compared to young adults. Kent-Braun and her research group are especially interested in understanding how age-related changes in muscle function affect a capacity to perform quotidian tasks. It is well understood that with age inevitable changes, such as a decrease in muscle size, occur to muscle. However, non-pharmacological measures can be taken to minimize these changes, especially those in muscle strength and function. Strengthening exercises have proven effective in maintaining muscle power and helping to maintain physical functioning (e.g., balance, walking speed).

Strengthening exercises need not be performed at the gym nor be elaborate or complicated to effectively help older individuals continue to participate in usual daily activities. Even if some muscle function is lost as a result of, for example, stroke or injury, generally speaking any muscle that can be used should be used— the old adage “use it or lose it” very much applies. Kent-Braun’s research is supported by the National Institute on Aging.

A new initiative by lab members involves getting out into the community to give talks at local retirement communities and town senior centers. These talks focus on improving or maintaining muscle function to support healthy aging. Thus far we have given a dozen or so, each tailored to the needs of the individual audience. (See www.people.umass.edu/muscle/)

**Pediatric Physical Activity and Health Laboratory**

**Sofiya Alhasson**

The Pediatric Physical Activity and Health Laboratory, under the direction of Sofiya Alhasson, has had an eventful year and is involved in several projects. In conjunction with Patty Freedson’s laboratory, we completed data collection for the REACT (Recognizing Exercise and Activity in Children and Teens) Study. Its main focus was to refine methods used to assess physical activity in children and adolescents. We have also completed data collection in the Preschool Physical Activity Study to examine the effects of structured outdoor playtime on preschoolers’ total daily physical activity. We are now conducting a study to examine the effects on preschoolers of teacher-taught, skill-based physical activity programs. Our lab is also consulting with Holyoke Community Health Center on a healthy weight-reduction study of low-income Latino children. Our research is funded by NIH, the Robert Wood Johnson Foundation, and UMass.

**Physical Activity and Behavior Laboratory**

**Erin Snook**

Research in the Physical Activity and Behavior Lab focuses on improving the measurement of physical activity and functional outcomes in multiple sclerosis, and examining how psychosocial and symptom specific variables relate to physical activity behavior.

Snook’s lab is currently funded by a UMass Faculty Research Grant, “A New Functional Outcome Measure for Multiple Sclerosis.” The goal of this project is to examine the validity of the Movement and Activity in Physical Space (MAPS) score in 20 people with multiple sclerosis. MAPS is a newly developed functional-outcome measure combining free-living physical activity (accelerometers) and geospatial (GPS and GIS) data into a standardized score that provides information about how much physical activity occurs and where.

**Et Cetera**

**UMass Kinesiology Club**

The Kinesiology Club is a Registered Student Organization—that is, it receives funding from the University to support social and program-specific activities for its members. Some of those members attended the New England American College of Sports Medicine Conference in Providence and have been involved in numerous campus events.

Along with other RSOs from the School of Public Health and Health Sciences, the Kinesiology Club recently took part in an exciting initiative to estimate the number of calories burned walking around campus. The students used activity monitors while walking specific routes in order to turn the activity counts into an estimate of energy output. These data were then compared to actual “food units” (such as numbers of Oreo cookies) and will be placed on the UMass Amherst website. (See blogs.umass.edu/kinclub/ or search for “KIN Club” in Facebook’s “Groups.”)
Diversity Initiative

In recognition of the importance of educating our students and faculty in issues related to diversity, the Department of Kinesiology launched “Weaving Diversity into the Kinesiology Curriculum” initiative in September 2008. Its goals were to enhance understanding of diversity issues (especially as they relate to health disparities), increase the cultural competency of students and faculty, and better prepare students to function effectively and comfortably in a diverse workplace. With a grant from UMass Amherst’s Provost’s Office, doctoral candidate Rebecca Hasson and professors Braun and Alhassan developed a curriculum that began with faculty training and awareness (fall 2008) and went on to incorporate diversity education into both introductory and upper-level classes (spring 2009).

DEPARTMENT HISTORY AND OVERVIEW

The Department of Kinesiology began in 1965 as the Department of Exercise Science and is considered the first such department in the United States. It became the Department of Kinesiology in 2006. Currently part of the School of Public Health and Health Sciences, the department is committed to providing a broad set of learning opportunities in biomechanics, energy metabolism, exercise biochemistry, exercise physiology, health and fitness, human integrative physiology, motor control, physical activity and health, and muscle physiology. It offers a single undergraduate degree, a bachelor of science in Kinesiology.

Many Kinesiology majors matriculate into graduate programs at outstanding institutions and find excellent career prospects in fitness and health care in the public and private sectors. Over the past ten years our graduates have gone on to medical schools or to graduate programs in kinesiology, physical therapy, physician assistant programs, and cardiac, pulmonary, and stroke rehabilitation specialties. Our students increasingly provide specialized expertise to the growing biotechnology industry, particularly in areas related to cardiovascular, musculoskeletal and metabolic health.

Our outstanding faculty is committed to providing the best lecture and laboratory experiences possible in biochemistry, biomechanics, motor control, and physiology so that our students can expand knowledge in the many aspects of human movement and its importance in people’s lives. In the past 10 years, three of our faculty have been received Outstanding Teacher Awards in the School of Public Health and Health Sciences, and one has received the University’s prestigious Distinguished Teacher Award.

The Undergraduate Program

The undergraduate major in Kinesiology provides a strong preparation for pursuing opportunities in allied health. The program has grown from a student enrollment of 303 in 2005 to approximately 615 in 2010. Many of our students are successful in a variety of departmental and University opportunities. In addition to our highly demanding undergraduate curriculum, several new undergraduate courses provide opportunities for applied learning in health and fitness.

—Frank Rife, Undergraduate Program Director

The Graduate Program

The Graduate Program in Kinesiology at University of Massachusetts Amherst is a well established program with an excellent regional, national, and international reputation. It offers an interdisciplinary approach to the study of human physical activity, investigating the mechanical, neurological, biochemical, physiological, genetic, and behavioral components of human movement. We offer both M.S. and Ph.D. degrees, with a strong emphasis on research training. Our Ph.D. program was ranked sixth overall in the 2006 Doctoral Program Review conducted by the American Academy of Kinesiology and Physical Education.

Our students come to us with a range of backgrounds, with degrees in kinesiology, biology, engineering, physical therapy, or arts and sciences. We feel that this wide range of viewpoints encourages breadth in critical thinking during discussions of research problems.

—Graham Caldwell, Graduate Program Director
KINSEIOLOGY ALUMNI UPDATE

The Department of Kinesiology would like to maintain contact with you. Please keep us informed by mailing to us the form below or sending us an e-mail message at the following address: blackbird@kin.umass.edu

We would like this information as soon as possible, so that we can print it in the next newsletter. Thank you for your cooperation.

Name ____________________________________________________________

Address ________________________________________________________

City __________________________________ State________ Zip__________

Telephone _______________ E-mail ____________________________

Please list all degrees (include when and where earned): ________________________________________________________________

Present Occupation ______________________________________________

General information (please give us news of family, accomplishments, honors, etc.) ____________________________________________

______________________________________________________________

Please send this form to:

Ms. F. Blackbird • Department of Kinesiology • 110 Totman • University of Massachusetts • Amherst, MA 01003

Faculty

Sofiya Alhassan was chosen to participate in the ACSM Leadership and Diversity Training Program. She also received an NIH grant to measure physical activity in children and adolescents and a Robert Wood Johnson Foundation grant to study the effects of teacher skill-based physical activity program on the total daily physical activity of preschoolers.

Barry Braun was selected for a Student Choice Award at the Residential First Year Experience Academic Awards Banquet. He was also awarded $310,000 from the National Institutes of Health to conduct a study on reducing the risk of type 2 diabetes in overweight adults with insulin resistance (prediabetes). Braun’s work on exercise, inactivity, and appetite was featured in “Weighing the Evidence on Exercise,” the cover story in the April 18, 2010, New York Times Sunday Magazine. (See www.nytimes.com/2010/04/18/magazine/1exercise-t.html)

Priscilla Clarkson serves as dean of Commonwealth Honors College at UMass Amherst. In April 2008 she was awarded the Graduate School Centennial Award for the School of Public Health and Health Sciences.

Edward Debold received a Scientist Development Grant from the American Heart Association to study the molecular mechanisms underlying heart failure during heart attacks.

Patty Freedson received a $2.1 million grant from the National Institutes of Health to develop and implement a device for measuring long-term free-living physical activity. She also presented an invited lecture in Toronto at the Third International Congress on Physical Activity and Public Health and in October 2008 was awarded the Graduate School Centennial Award for the School of Public Health and Health Sciences.

Joe Hamill presented invited lectures at three Brazilian universities: Sao Paulo, Sao Juda, and Ribierao Preto, and was the keynote speaker at the Human Movement Conference at the University of Ostrava in the Czech Republic. He was also appointed a distinguished research professor at the Republic Polytechnic of Singapore (where he is helping to establish a research program on lower-extremity injuries) and an honorary professor at the University of Edinburgh. Hamill won the ACSM Biomechanics Interest Group’s Career Achievement Award.

Jane Kent-Braun presented a President’s Lecture, “Skeletal Muscle Physiology In Vivo: Aging Comes of Age,” at the American College of Sports Medicine’s 2009 national conference, held in Seattle.

Brian Umberger gave an invited lecture on the biomechanics and energetics of human locomotion the Vrije Universiteit (Free University) in Amsterdam, Netherlands. He also presented invited talks at the 2008 Society for Experimental Biology conference and the annual meeting of the Society for Experimental Biology in Marseille, France; the latter was titled “Biomechanics and Energetics of Human Walking.” Umberger received the College Outstanding Teacher Award in the spring of 2010.

Richard Van Emmerik received a grant from National Multiple Sclerosis Society to study dynamic balance control in patients with multiple sclerosis. He gave a series of invited lectures in Taiwan (at
Sarah Witkowski received a Faculty Research Grant.

Undergraduate Students

Amanda Libertine and Jennifer Rivero were named American Kinesiology Association National Scholars for 2010.

The Kinesiology Undergraduate Team finished second at the New England American College of Sports Medicine College Bowl.

Megan Donovan was presented with the Spring 2010 Female Scholar-Athlete Award.

Graduate Students

Sarah Kozey received the Master’s Student Investigator Award and Rebecca Hasson the Doctoral Student Investigator Award for their oral presentations during the New England American College of Sports Medicine meeting in Providence.

Kirsten Granados and Rebecca Hasson received APS/NIDDK Minority Travel Fellowship Awards to attend the 2008 American Physiology Society Meeting in South Carolina.

Elizabeth Russell won the Student Research Award and Ryan Chang the Student Travel Award from the ACSM Biomechanics Interest Group.

Sarah Kozey and Robert Hyldahl received research grants from the ACSM Foundation.

Robert Hyldahl was awarded a 2010 University Fellowship.

Ryan Larsen was awarded a 2009–10 Graduate School Fellowship.

the National Taiwan Sports University, Ireland (University of Limerick), and the University of Connecticut at Storrs. This fall Van Emmerik will present results from his research on multiple sclerosis in Montreal at the annual conference of the American College of Rehabilitation Medicine.