



## University of Iowa Physical Therapy and Rehabilitation Science

Alumni Newsletter Fall 2010

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### Plan to Attend!

All-Alumni Reunion  
September 17, 2010  
6:30 - 10:00 pm

Marriott Coralville Hotel &  
Conference Center  
300 East 9th Street,  
Coralville, IA

Registration form [at bottom of](#)  
this newsletter

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### Note from the Chair

This newsletter provides an opportunity for us to share many of the accomplishments of your previous classmates, faculty, and staff from the Physical Therapy and Rehabilitation Science Community at Iowa. We also want to keep you informed of new developments and future plans within the department. We have a lot to be thankful for as we continue to attract the top students in the country, maintain a 100% first time pass rate in the licensure exam, implement novel clinical internship and educational opportunities, and continue to be a leader in the discovery of new knowledge in our field. We aspire to always make you, our alumni, proud that you graduated from the Physical Therapy Program at the University of Iowa. Thank you for your longstanding support and I hope you enjoy this electronic communication. We will be featuring our Alumni in the next edition, so please send us an update ([physical-therapy@uiowa.edu](mailto:physical-therapy@uiowa.edu)). I hope to see many of you at the Alumni Reunion on September 17, 2010.

Rich Shields PhD, PT, FAPTA

### Hammills Endow Scholarship Through Deferred Gift



*Jean Hammill, PT, MA*

Many of our alumni can recall the rigors of their PT school classes. For Jean Hammill, that was a snap compared to getting into Iowa's PT program. "I applied probably four or five times. The first time didn't count because I applied after the deadline, but I finally made it, and the rest is history," Jean said. That was more than 30 years ago. Now Jean and her husband, Walt, have established the Jean Hammill Scholarship for Physical Therapy through a deferred gift.

"It's been a great career. Walt and I are pleased to be able to give back to a University and a program that's given so much to us," Jean said.

[Iowa Physical Therapy Association](#)

[Foundation for Physical Therapy](#)

## Contact Us

Physical Therapy and  
Rehabilitation Science  
1-252 Medical Education Bldg.  
The University of Iowa  
Iowa City, IA 52242

Phone: 319-335-9717

[physical-therapy@uiowa.edu](mailto:physical-therapy@uiowa.edu)

Jean earned her certificate in Physical Therapy in 1979 and a master's degree in 1993. She was a physical therapist at Mercy Medical Center in Cedar Rapids for 17 ½ years and started Marion Physical Therapy in Marion, Iowa, in 1996.

"The Hammills have been great stewards of the Physical Therapy program. They've been loyal donors for 29 years and their commitment to provide future support couldn't have come at a better time. Their interest in providing scholarship support for future students is a testament to their character," said Richard Shields, Professor and Director of Physical Therapy and Rehabilitation Science.

While an undergraduate student, Jean played on the Hawkeye women's basketball team for three years. Juggling classes along with practices and games was great preparation for the rigors of the Physical Therapy program.

Jean said that being on the UI women's basketball team helped her to see the difference that leadership makes. She highlighted the influence of Dr. Christine Grant, the first women's athletic director at Iowa. "She was a real pioneer and advocate for women around the country," Jean said.

"Over the years we've given to several areas including the Tracy Dahl Class of 1979 scholarship (Tracy was a classmate of Hammill), and we give to the Dr. Christine Grant scholarship," she said. "Dr. Grant has always been an inspiration to me. Seeing that she established a scholarship, we decided to explore the possibilities. I'm glad we did! We're so excited to support the Physical Therapy program."

## Biderman Enters 50th Year



*Judy Biderman,  
Program Assistant*

In 1961, a recent high school graduate from Bloomfield, IA accepted her first job; a secretarial position in the PT education program. Five decades later she's that Program's linchpin, the ultimate answer source for questions of every variety. If a student, staff, or faculty member needs information, the most expedient action is to "go ask Judy."

Judy Biderman, an illustrious Program Assistant, has begun her 50th year of service. She has been the backbone of the department through its entire evolution - from a certificate program to a Masters degree and now the DPT. If our math is correct, Judy has witnessed the educational process of 1514 entry-level physical therapists and 164 graduate students. Through every single Director and several changes of location, Judy has been the Program's unifying presence.

Judy was a part of the vanguard of women entering the workplace. She received a scant 2 weeks of maternity leave after the birth of each of her sons, Mitch and

Jeff, while her husband was in graduate school. She received numerous promotions and gradually her position expanded to include accounting, grant preparation, departmental budgeting and a host of other responsibilities. Through it all, Judy has been the heartbeat of the Program...a consummate team player and a whiz at meeting impossible deadlines.

Judy began phased retirement in 2008 and is gradually reducing her work hours over the next 3 years. As much as we'll miss her gentle wit and her resourcefulness, we're glad she's embarking on this next exciting phase of life. Her priorities as she phases into retirement will be travel (a longtime passion), hobbies, and catching up on 50 years of reading. We will miss her dearly and we cherish our remaining time as her colleagues.

After Judy retires though, she might want to change her cell phone number. It'll be hard to break our instinctual impulse to "go ask Judy."

This year's Alumni Reunion will offer a great chance to congratulate Judy on her 50th year of service. Join us in "raising our glass" to Judy on September 17th!

## All-Alumni Reunion - Save the Date!



This year's All Alumni Reunion will be Friday, September 17, 2010 at the Marriott Coralville Hotel and Conference Center. Beginning at 6:30 pm, hors d'oeuvres will be served and a cash bar will be available. The Class of 1960, celebrating their 50-year reunion, will be specially recognized at this event. This will be a casual and fun social gathering for all alumni and their families. Contact your classmates and plan to connect with them at this event.

A continuing education program will be offered on Friday, September 17, 8:30 am - 4:30 pm. Richard Shields, PT, PhD, FAPTA will present "Plasticity and Adaptation of Tissues: Underlying Principles that Guide Exercise Prescription and Human Performance". This course will promote critical thinking about the "dose" of exercise necessary to trigger neural, muscular, and skeletal adaptation in clients subjected to decreased activity due to illness, injury, or aging.

To register for the All Alumni Reception and the continuing education program, please complete and return the registration form [at the back of this newsletter](#). We look forward to seeing you!

## International Partnership Announced

Our program is pleased to announce a new cooperative partnership with Tsukuba University of Technology in Ibaraki prefecture, Japan. Tsukuba University is the only higher education institution in Japan that offers a specialized curriculum for students with hearing and visual impairments.

The Tsukuba Faculty of Health Sciences offers an entry-level physical therapy curriculum for students with visual impairment. Students receive scientific and clinical training in a barrier-free educational environment that includes intensive technological support. In addition to the core physical therapy curriculum, students learn to overcome educational and professional challenges by honing their visual compensation strategies.

Our Program's links with Tsukuba University began in 2003 when Masaki Iguchi, PT, a Tsukuba graduate, enrolled at Iowa to pursue a doctoral degree in

Rehabilitation Science. After graduating, Dr. Iguchi returned to Tsukuba to join the Faculty of Health Sciences.

Each year since 2006, our Program has been privileged to host physical therapy students and faculty from Tsukuba University. The visitors attend lecture and lab sessions and tour the Rehabilitation Therapies department of the University of Iowa Hospitals and Clinics. This newly-announced partnership will facilitate further exchanges of this nature and will foster educational and scientific collaboration between the two programs.

## Alumni Spotlight: Justin Moore PT, DPT



*Justin Moore, PT,  
DPT*

***Iowa PT alumni have achieved distinction in clinical practice, education, and many other facets of our profession. In this section we highlight the accomplishments of Iowa graduates who are changing the face of physical therapy.***

As PTs navigate the ever-changing world of healthcare policy and law, many wonder who is at the helm - who is promoting the interests of our profession to lawmakers?

A key voice in the debate is Justin Moore, PT, DPT, a 1996 physical therapy graduate from the University of Iowa. Justin is Vice President of the Government Affairs and Payment Policy division of the American Physical Therapy Association (APTA).

In this capacity, he oversees APTA's federal, state, regulatory, and payment policy initiatives. Justin is a driving force behind APTA's efforts to increase recognition and support of physical therapy amid a turbulent healthcare reform environment.

Justin practiced physical therapy for 3 years before joining APTA as Associate Director of State Affairs. In this position, Justin advocated for APTA policy priorities in state legislatures and in regulatory agencies nationwide. He was quickly promoted to lead APTA's efforts in policy analysis and development on Capitol Hill. During this time, Justin worked closely with Senators Grassley and Harkin on several issues related to rehabilitation practice, education, and research.

Throughout his career with APTA, Justin has maintained strong links with the University of Iowa. Each year he returns to our Program to provide clinicians, students, and faculty with an update on legislative goals such as direct access, repealing therapy caps, and improving physical therapy access for rural and underserved areas. Justin's annual visits are highly anticipated and remind us how critical the APTA's legislative mission is for the future of our profession.

Justin is uniquely able to translate the complexities of the legislative process to his listeners, be they students hearing the issues for the first time or clinic owners with a long-standing interest. It's gratifying to know that the converse is also true; that as a PT, Justin communicates critical information about our field to lawmakers who may have limited or inaccurate information. Through Justin's efforts, many members of Congress now count themselves as supporters of our profession. As the health care reform debate continues, these advocates of physical therapy will make decisions that shape the next era of physical therapy practice.

Our Program is proud to recognize Justin Moore's work to build the future of our profession. It's great to know there's an Iowa voice on the Hill.

## Faculty and Staff Updates

Gary Smidt, PhD, PT, FAPTA - Gary is enjoying his retirement in Minneapolis, Minnesota, playing golf and continuing as an avid reader. He inspired our students as the guest speaker for our research day in 2007 and remains active as Professor Emeritus within the department.

Gary Soderberg, PhD, PT, FAPTA - Gary is retired and living in Springfield, Missouri. He stays active with golf, reading, and travel. He provided an outstanding "keynote" presentation to our students at our annual research day in 2008 and remains active as Professor Emeritus within the department.

David Nielsen, PhD, PT - Dave is enjoying retirement, living in Iowa City, Iowa. He spends lots of time in Wisconsin spoiling his grandchildren. He is Professor Emeritus within the department and continues to serve on PhD dissertation committees for students in our PhD program.

Tom Cook, PhD, PT - Tom continues with his international educational role within the College of Public Health. He maintains a secondary appointment in our department and routinely serves on our students' doctoral dissertation committees.

Dave Gerleman, BA - Dave is enjoying his retirement on his farm in Swisher, Iowa. He is an avid reader, the ultimate student, and enjoys traveling to Alaska. He stops by "periodically" to straighten us out on technological challenges within the department.

Ken Leo, PT, MA - Ken is in phased retirement, working three days a week in the Rehabilitation Therapies department at UIHC. He is an adjunct faculty member and serves on the interview team for the admissions committee.

Laura Frey Law, PhD, PT - Laura was awarded APTA's Eugene Michels New Investigator Award for her research in musculoskeletal pain and fatigue. She leads the Curriculum and Instruction Division within the department and oversees the health promotion and biomedical instrumentation courses within the curriculum.

Susanne Morton, PhD, PT - Susanne trained at Washington University in St Louis and joined the faculty two years ago. She oversees the neuroscience and neurorehab curriculum and her research examines motor learning strategies to improve gait in individuals with stroke.

Glenn Williams, PhD, PT - Glenn leads a research team examining new strategies to rehabilitate individuals after ACL injury in the new outpatient Sports Medicine Center located outside the medical campus. He oversees the radiology and critical inquiry courses within the curriculum.

John Yack, PhD, PT - John oversees a runners clinic in UIHC to determine optimal biomechanical alignment to alleviate or prevent injuries during running. He oversees the kinesiology curriculum and critical inquiry courses within the curriculum.

Kathleen Sluka, PhD, PT - Kathleen recently published a new textbook used in her Pain Mechanisms and Management course taught within the curriculum. She leads the Research and Development Division within the department and examines mechanisms of pain and analgesia in animal and human models.

Richard K. Shields, PhD, PT, FAPTA - Rich was recently awarded the APTA's Williams Award for his research in movement control and spinal cord injury. He teaches courses in motor control and sensory motor systems and is past president of the Foundation for Physical Therapy.

Byron Bork, PT, MA - Byron oversees the Faculty, Staff, and Student Affairs Division within the department which includes admissions, recruitment, and financial aid. He begins his 35<sup>th</sup> year as a faculty member, teaches several courses, and coordinates clinical education.

Kelly Sass, PT, MPT - Kelly teaches multiple courses in the DPT curriculum and assists with the clinical education program. She is completing her PhD with an emphasis in educational methods that

enhance learning.

Karla Laubenthal, PT, MS, PCS, - Karla teaches the pediatric courses in the curriculum, is the Physical Therapy ILEND Training Director through the Center for Disabilities and Development, and participates in pediatric neuromuscular clinical research through the Department of Pediatrics.

Erin Pazour, PT, MA - Erin was recently certified in the vestibular rehabilitation program at Emory University. She teaches orthotics/prosthetics and clinical medicine. She also practices at St. Luke's Hospital.

Carol Vance, PT, MA - Carol will present at the IASP World Congress on Pain and complete her PhD this year. She teaches Physical Agents, Integumentary, Differential Diagnosis, and practices PT at UIHC.

Carol Leigh - Carol is in her 27th year as a member of our department's support staff. She has recently been promoted to an administrative position within our department.

Jackie Searls, MBA - Jackie joined our program this year as an Administrative Assistant. She brings expertise in departmental budgeting and grant administration to her position. We are thrilled to have her as Judy begins the transition to retirement.

Jason Wu, MSE - Jason replaced Dave Gerleman as the department engineer. He brings extensive experience in electrical engineering, mechanics, and software design. We are happy to have Jason on board.

Mariellen Bower - Mariellen is in her 12th year as a member of our department's support staff, handling our busy telephone, mail, and electronic communications.

## Faculty Grants and Publications

### Research Grants (2010):

Laura Frey Law, PhD, PT, Assistant Professor

-*Genetic and Trait Influences on Pain Heterogeneity*, \$487,358: National Institutes of Health - K01 Research Training Award

Susanne M. Morton, PhD, PT, Assistant Professor

-*Effect of Contralateral Leg on Motor Output Post Stroke*, \$355,054: National Institutes of Health - K01 Research Training Award

-*Acquisition and Retention of Locomotor Adaptations after Stroke*, \$377,638: National Institutes of Health - R21 Research Award

-*Locomotor Adaptation in Healthy Individuals and Persons with Post-Stroke Hemiparesis*, \$40,010: Foundation for Physical Therapy

Richard K. Shields, PhD, PT, Professor

-*Neuro-Musculoskeletal Plasticity after SCI*, \$1,587,090: National Institutes of Health - R01 Research Award

-*Mechanical Stress and Skeletal Plasticity after Spinal Cord Injury in Humans*, \$1,556,250: National Institutes of Health - R01 Research Award

-*Novel Intervention to Influence Muscle Plasticity in Veterans with SCI*, \$750,000: Department of Veterans Affairs

-*Electrical and Mechanical Stress on Post-SCI Muscle and Bone*, \$248,992: The Craig H. Neilsen Foundation

Kathleen A. Sluka, PhD, PT, Professor

-*Role of ASIC3 in the Etiology of Fibromyalgia*, \$1,948,947: National Institutes of Health - R01 Research Award

-*Central Contributions to Pathobiology of Fibromyalgia*, \$1,519,671: National Institutes of Health -

#### R01 Research Award

- Role of ASIC3 in the Etiology of Fibromyalgia, \$893,569:National Institutes of Health - American Recovery and Reinvestment Act Supplement
- Frequency-Related Mechanisms of Spinal Cord Stimulation (SCS) in a Rodent Model of Neuropathic Pain*, \$143,389: Medtronic, Inc.
- Global Year Against Pain Videos*, \$25,000: International Association for the Study of Pain

#### Glenn N. Williams, PhD, PT, Assistant Professor

- *Effect of High Intensity Voluntary Exercise and NMES on Quadriceps Muscles after Arthroscopic Partial Meniscectomy*, \$136,382: DJO Inc.
- *Quadriceps Muscle Activation Failure following ACL Injury and Reconstruction*, \$101,144: NFL Charities

## Scientific Publications 2010

- Avin KG, Naughton MR, Ford BW, Moore HE, Monitto-Webber MN, Stark AM, Gentile AJ, Frey Law LA. Sex Differences in Fatigue Resistance Are Muscle Group Dependent. *Med & Sci Sports & Exer* 2010 Feb 26. [Epub ahead of print:PMID: 20195184]
- Bai E, Zhijun C, Dudley-Javoroski S, Shields RK. Identification of a modified Wiener-Hammerstein system and its application in electrically stimulated paralyzed skeletal muscle modeling. *Automatica*. 2010 March;45:736-743.
- Ballantyne BT, Shields RK. Quadriceps fatigue alters human muscle performance during a novel weight bearing task. *Med Sci Sports Exerc*. 2010 Feb 13. [Epub ahead of print: PMID: 20164810]
- daSilva, LFS, DeSantana JM, Sluka KA. Activation of NMDA receptors in the brainstem, RVM and NGC, mediates mechanical hyperalgesia produced by repeated intramuscular injections of acidic saline. *J Pain*. 2010 Apr;11(4):378-87.
- DeSantana JM, daSilva LFS, deResende M, Sluka KA. Cholecystokinin receptors mediate tolerance to the analgesic effect of TENS in arthritic rats. *Pain*. 2010 Jan;148(1):84-93.
- Dudley-Javoroski S, Shields RK. Longitudinal changes in femur bone mineral density after spinal cord injury: effects of slice placement and peel method.*Osteoporos Int*. 2010 Jun;21(6):985-95.
- Frey Law LA, Avin KG. Endurance time is joint-specific: A modeling and meta-analysis investigation. *Ergonomics*. 53(1):109-29, 2010.
- Frey Law LA, Lee JE, McMullen T, Xia T. Relationships between maximum holding time and ratings of pain and exertion differ for static and dynamic tasks. *Applied Ergonomics*. 2010, May. [Epub ahead of print: PMID: 20462566]
- Iguchi M, Shields RK. Quadriceps low-frequency fatigue and muscle pain are contraction-type-dependent. *Muscle Nerve*. 2010 Aug;42(2):230-8.
- Kolker, SJ, Walder RY, Usachev Y, Hillman J, Boyle, DL, Firestein GS, Sluka KA. Acid-sensation ion channel 3 expressed in type B synoviocytes and chondrocytes modulates hyaluronan expression. *Annals Rheum Disease*. 2010 May;69(5):903-9.
- Krishnan C, Williams GN: Error associated with antagonist muscle activity in isometric knee strength testing. *Eur J. Appl Physiol*. 2010 June;109(3):527-36.
- Krishnan C, Williams GN: Quantification method affects estimates of voluntary quadriceps activation. *Muscle Nerve*. 2010 June;41(6):868-74.
- Lee JE, Watson D, Frey Law LA. Lower-order pain-related constructs are more predictive of cold pressor pain ratings than higher-order personality traits. *J Pain*. 2010 Jul;11(7):681-91.
- Meszaros AJ, Iguchi M, Chang SH, Shields RK. Repetitive eccentric muscle contractions increase torque unsteadiness in the human triceps brachii. *J Electromyogr Kinesiol*. 2010 Aug;20(4):619-26.
- Morton SM, Tseng Y, Zackowski KM, Daline JR, Bastian AJ. Longitudinal tracking of gait and balance impairments in cerebellar disease. *Mov Disord*. 2010 Jun 11 [Epub ahead of print: PMID: 20544808]
- Nonnenmann M W, Anton D C, Gerr F, Yack H J. Dairy farm worker exposure to awkward knee posture during milking and feeding tasks. *J Occup Environ Hyg*. 2010 Aug;7(8):483-9.
- Rakel B, Cooper N, Adams HJ, Granquist MJ, Messer BR, Frey Law LA, Dannen DR, Miller, CA, Mitchelson AC, Ruggle RC, Vance CGT, Walsh DM, Sluka KA. A new transient sham TENS device allows for investigator blinding while delivering a true placebo treatment. *J Pain*. 2010 Mar;11(3):230-8.

- Rao S, Saltzman C L, Yack H J. Relationships between segmental foot mobility and plantar loading in individuals with and without diabetes and neuropathy. *Gait Posture*; 2010 Feb;31(2):251-5.
- Reisman DS, Bastian AJ, Morton SM. Neurophysiologic and rehabilitation insights from the split-belt and other locomotor adaptation paradigms. *Phys Ther*. 2010;90(2):187-195.
- Sluka KA, Rasmussen LA. Fatiguing exercise enhances hyperalgesia to muscle inflammation. *Pain*. 2010 Feb;148(2):188-97.
- Stefanik JJ, Zhu Y, Zumwalt AC, Gross KD, Clancy M, Lynch JA, Frey Law LA, Lewis CE, Roemer FW, Powers CM, Guermazi A, and Felson DT. The association between patella alta and the prevalence and worsening of structural features of patellofemoral joint osteoarthritis: The Multicenter Osteoarthritis Study. *Arthritis Care & Res*. 2010 Apr 9 [Epub ahead of print: PMID: 20506169]
- Tseng S, Morton SM. Impaired interlimb coordination of voluntary leg movements in post-stroke hemiparesis. *J Neurophysiol*. 2010 Jul;104(1):248-57.
- Tseng S, Stanhope SJ, Morton SM. Visuomotor adaptation of voluntary step initiation in older adults. *Gait Posture*. 2010;31(2):180-184.
- Walder RY, Rasmussen LA, Rainier JD, Light AR, Wemmie JA Sluka, K.A. ASIC1 and ASIC3 play different roles in the development of hyperalgesia following inflammatory muscle injury. *J Pain*. 2010 Mar;11(3):210-8.

## PT and Rehab Science All-Alumni Reunion

Friday, September 17, 2010,

Marriott Hotel & Conference Center, Coralville, IA

6:30 to 10:00 pm, hors d'oeuvres and cash bar

Special Recognition: The Class of 1960, celebrating their 50-year reunion!

Continuing education program: "*Plasticity and Adaptation of Tissues: Underlying Principles that Guide Exercise Prescription and Human Performance*".

Richard Shields, PT, PhD, FAPTA.

Friday, September 17, 8:30 am to 4:30 pm.

Hotel rooms have been blocked for UI Physical Therapy at the following hotels, located at I-80 exit 242 in Coralville (reserve by August 26):

319-688-4000 Marriott Hotel & Conference Center, 300 East 9th St, Coralville, IA

319-251-5029 Holiday Inn & Conference Center, 1220 1st Ave, Coralville, IA

### All-Alumni Reunion Registration Form

Name \_\_\_\_\_ Class of: \_\_\_\_\_

Mailing Address \_\_\_\_\_ City, State, Zip \_\_\_\_\_



Email (to receive confirmation)\_\_\_\_\_

**Yes, I will attend the All-Alumni Reunion** \_\_\_\_\_  
(\$0)

**Fees for continuing education course:**

UI PT alumni: \_\_\_\_\_ \$100

Employed @ UI clinical site (location:\_\_\_\_\_)  
\$100

Not UI alum, not employed @ UI clinical site: \_\_\_\_\_  
\$175

**Payment**

\_\_\_\_\_ Enclosed is my check made payable to *Physical Therapy Graduate Program*

\_\_\_\_\_ Charge my \_\_\_\_\_ Visa \_\_\_\_\_ Master Card in the amount of  
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The University of Iowa  
1-252 Medical Education Building  
Iowa City, IA 52242-1190

**Fax Registration Form to:** 319-335-9707

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