Update from the Program Director

Hello to everyone. I hope your lives and careers are going very well. In June, we graduated 48 students, bringing the grand total to 1966 alumni. Of these, 46 (95.7%) passed their licensure exam on their first attempt, compared to 89% nationally. The applicant data for the incoming Class of 2013 included 221 completed applications (up from 196 the previous year). We admitted 50 students, including 34 females/16 males with an average age of 23 years. The average GPA was 3.57. The total tuition for the three-year Program (9 semesters including summers) is now $64,236. We now have 9 scholarships that are awarded annually from alumni, which certainly helps students but we obviously could benefit from more. So, please consider and, if interested, contact me (carey007@umn.edu). Our Program is now entirely funded by student tuition with no state support – a sign of the times! We continue to search for a new pediatric faculty member. Any interested persons should contact Richard Di Fabio, PhD, PT, Chair of our Search Committee (difab001@umn.edu). Faculty scholarly productivity continues to be quite strong with 49 publications in scientific journals for 2010 and 29 presentations at national or international meetings. Students participate in many of these scholarly accomplishments. Many of the students now do clinical internships across the country or at 3 international sites (Ecuador, Niger and Tanzania). Students from the Class of 2011 led an initiative that was carried to the APTA House of Delegates and resulted in the APTA adopting a position disavowing the practice of torture, similar to the World Confederation of Physical Therapy’s statement and similar to the actions of other professional disciplines. We initiated a Geriatric Clinical Residency Program. Any interested persons should contact Dr. Becky Olson-Kellogg, DPT (olso0184@umn.edu). We received our 10-year accreditation review from the Commission on Accreditation in Physical Therapy Education in October of 2010. We will receive CAPTE’s feedback and decision in May, 2011. The University is strong and healthy and excited about its new president. Gopher football continues to struggle but at least we beat Iowa!

Geriatric Clinical Residency Begins

September 1, marked the beginning of our new Geriatric Clinical Residency, after many years of preparation and anticipation. By definition, a clinical residency is a “…planned program of postprofessional clinical and didactic education for physical therapists that is designed to significantly advance the physical therapist resident’s preparation as a provider of patient care services in a defined area of clinical practice. It combines opportunities for ongoing clinical supervision and mentoring with a theoretical basis for advanced practice and scientific inquiry.” Clearly the hallmarks of clinical residencies are the mentored clinical practice and the focused didactic education in a defined specialty area of practice. Our residency is one year in length (September – August), and we are contracting with Augustana Therapy Services as the clinical site. It is common for clinical residencies to accept just 1-2 residents each year. We welcome our first Geriatric Resident, Emma Ochs Phillips DPT, who is a recent graduate from Mayo’s Physical Therapy Program. Clinical faculty within our Residency Program are geriatric experts in a variety of disciplines from across the Twin Cities and greater Minnesota. One of the benefits of completing a clinical residency is that it allows the graduates to sit for the clinical specialist board exam in their defined practice area much earlier than their non-residency colleagues. Our residents earn a salary with benefits and pay minimal tuition. Nationwide the demand for clinical residencies continues to increase, and as of December 1, there are only 6 other credentialed Geriatric Clinical Residency Programs in the country. We are currently in the credentialing process for our Residency. We welcome both new graduates and experienced clinicians to apply to our Residency Program. Plans are already underway to expand the number of residents we accept into our Program this coming year. Applications are due March 31 for a September 1 start. For an application or more information, please contact Residency Director, Becky Olson-Kellogg, PT, DPT, GCS at 612-624-6591 or olso0184@umn.edu.
Welcome New Students—Class of 2013

On July 19, 2010 we welcomed the Class of 2013. The U of MN DPT Program continues to attract the highest caliber of students. This year there were over 200 applications for the 50 spots. Our new students have an average GPA higher than the national average and come from across the country and state. They bring with them a variety of life experiences that helps to enrich the learning experience. Fourteen students graduated from the University of Minnesota, and 33 other undergraduate colleges are represented. The majority of students majored in Kinesiology and Biology, but there were also majors in Psychology, Architecture, Journalism and History. Our new students are avid athletes and love the outdoors. One of our new students spent a month traveling in India last summer. Another student is a retired Air Force jet engine mechanic.

Class of 2010 Graduates

The University of Minnesota Program in Physical Therapy congratulates the DPT Class of 2010 who graduated on Saturday, June 19, 2010. The commencement ceremony was held at the Northrop Auditorium on a warm Saturday afternoon. The keynote speaker was Chris Kramer, Class of 2000. Dr. Kathleen Anderson presented as faculty speaker, and Dennis Holsman, Class of 2010, presented as student speaker. Following the commencement ceremony, faculty joined students and their guests for a reception.
ISTOP

Interprofessional Street Outreach Project (ISTOP) is a student-run clinic that was created with a vision to unite future healthcare professionals and extend care to needy populations that may not otherwise receive it. It was founded by University of Minnesota Medical School students and has been in development over the past few years. It incorporates all of the Academic Health Center students (PT, nursing, public health, etc.). ISTOP's main purpose is to go to the population in need of our services instead of them having to come to us to seek care. It has several established sites, including Holy Rosary Church, St. Mark's Church, and Women of Nations Shelter. As physical therapy students, we have decided to focus our student-run PT clinic at Holy Rosary Church in Minneapolis during the Loaves and Fishes weekly meal. The people who come to receive the meal are typically homeless and of an older age group. We plan on joining the medical students in holding a clinic for possible patients and providing referrals for further care. We will be performing balance screenings, diabetic foot screenings, postural assessments, and patient education as needed. The PT students will be holding the clinic the first Wednesday of every month from 5:15-6:15 p.m. Student-run clinics require a licensed physical therapist to serve as a preceptor during clinic hours. A preceptor supervises students and provides clinical knowledge. We are currently in need of preceptors to give a minimal amount of their time. We are hoping to recruit several preceptors so that any one person’s time commitment would only be one hour a few times a year. If interested, or for further information, please contact either Rachel Larson (lars2883@umn.edu) or Megan Westling (westl146@umn.edu). You may also contact our faculty advisor, Becky Olson-Kellogg, (olso0184@umn.edu).
As per tradition, the PT Program faculty, staff, students and guests all gathered for the annual Holiday Party on December 1st. The highlight of the evening is always the creative entertainment shared by students. Below is a “PT School” rendition of ‘Twas the Night Before Christmas’ authored by Dana Gervais, and presented by Dana and Kristen Kuehl, Class of 2012.

Twas the night before finals, and here at the U, no student was playing – there were notes to review. From Biomechanics’ “A dart hits you there,” to Clinical Assessment: one cane, or a pair? As the first years crammed dermatomes in their heads, second-years sought anti-anxiety meds. While Dr. D rewrites the ROC’n Curve Rap, Sarah Person says, “Hey guys, this stuff is a snap!” A functional goal might be climbing up ladders. Still, students wonder, “Will Jeanne think that this matters?”

While some students contemplate making a dash, before much-loved GPAs land in the trash, The others have chosen to go with the flow, “It’s not about transcripts, it’s about what you know.” When what to tired-out eyes should appear, but Ward with advice for all students to hear: “Now tell me your thinking and just do your best, there’s time enough later to polish the rest.” And then Dr. Carey, smile bright as a flame, drops in to review all the carpals by name; “Now Hamate! Now Capitate! Trapezoid! Trapezium! On Scaphoid! On Lunate! Pisiform! Triquetrum!” “To the arch of the wrist, don’t a one of you fall, or a tunnel release is in store for you all!” If patients complain about DOMS in their thigh, Dr. Lowe says, “No fear, they’ll get well by and by!” “So keep doing workouts, the old and the new, just use 1 rep max and results will shine through!”

Everyone says with patients to not stay aloof; they listen much more when they trust you, there’s proof! So as Becky will tell you, attach E-Stim’s ground, or down from the plinth folks will leap with a bound. Remember now, friends when it comes to the foot, the first ray does not always want to stay put. And those darn foot problems sometimes have the knack, of travelling up and annoying the back. As long as the spinal cord you do not sever, Dr. Anderson’s preferred technique is, “Whatever.” Everything will work out as Kathy does know, as long as dark coffee’s on copious flow.

The notes piled high, students buried beneath; some sought Liz and Ling for a Twix or a Heath. Profs started to resemble Machiavelli; no time to check Facebook or talk on the telly. Then at last just before the final hour itself; when all books and notes had been pulled from each shelf, A kind-hearted student sat scratching their head, “Why not share the load? Then there’ll be less to dread.” Soon out went an email: “Here’s some of my work. I thought I would share to give classmates a perk.” Soon others awoke from their mid-cramming doze; study guides and charts of their own to compose. Hopes soon were restored at the sight of this missal; cheer was restored! The crowd gave a whistle! Soon finals were done and all came out right, So don’t lose any sleep over schoolwork tonight!
Class of 2011 DPT Student Research Poster Presentation

A Comparison of Rotator Cuff Dimensions between MR Imaging and Direct Dissection—Blaine, K., Tanzy, J., Von Ruden, A., Walter, M., Braman, J., Ludewig, P. Supported by NIH R03 HD0533399

Synergistic Effect of rTMS and Motor Learning in Adults with Stroke—Klein, M., Korb, A., Laudner, J., Gillick, B., Ding, H., Carey, J.

Cognitive Task Training to Improve Gait Variability in Patients with Parkinson’s Disease: A Small n Pilot Study—Martinson, M., McBroom, A., McCarthy, M., Moen, J., Mraz, B., Spencer, M., Di Fabio, R.

Clinical Measurements to Predict Vertical Orientation of the 1-Metatarsal Axis of Rotation—Wolff, K., Wicks, A., Shaw, A., Smith, J., Ludewig, P., Glasoe, W. Funded by the Arthritis Foundation North Central Chapter and, in part, by the Foundation for Physical Therapy

Factors Influencing Changes in Cortical Excitability in Healthy Subjects—Gurda, K., Kaufenberg, L., Borich, M., Kimberley, T.J.

Effect of Aerobic Exercise on Cortical Activation and Working Memory Following Traumatic Brain Injury: A Pilot Study—Leukuma, L., Maas, A., Mallie, N., Lojovich, J., Carey, J.

Influence of Asymmetrical Loading and Stepping Cues on Step Reaction Time, EMG, and Ground Reaction Forces—Brausen, A., Neuharsh, N., Pauly, A., Pelzer, C., Dowdall-Osborn, M., Kukulka, C.

Morphological Changes in the Rat Tibialis Anterior Muscle Following Collagenase-Induced Intracerebral Hemorrhage—Priester, K., Reller, A., Rutten, J., Schultz, C., Thompson, L., Snow, L.

Integrating Physical Impairments, Biomechanics and Neuroimaging in Patients with Chronic Low Back Pain: A Pilot Study—Andersen, E., Egge, J., Engberg, M., Erickson, E., Kabela, K., Kierstead, K., Anderson, K., Kimberley, T.J., Nuckley, D.

Validation of a Force Sensing Glove for Evaluation of Quadriceps Strength—Bergman, B., Brown, N., Erickson, A., Harris, J., Nuckley, D.

Short and Long-term Effects of Repetitive Transcranial Magnetic Stimulation in Patients with Focal Hand Dystonia—Hayes, L., Herron M., Ivanoff, G., Kelly, S., Borich, M., Kimberley, T.J.

rTMS as a Treatment for Oromandibular Dystonia—Samargia, S., Foust, A., Haws, J., Kimberley, T.J.

Integrating Classroom with Culture:
Volunteering at the Diabetic Foot Clinic

By 2nd Year Students, Anna Messerly and Dana Scheppmann

The Twin Cities have become a melting pot for a wide variety of cultures over the past century, attracting individuals from Southeast Asia, Somalia, Mexico, and of course Western Europe and Scandinavia. Yet the original inhabitants of our region—the Native Americans—often go overlooked, despite the fact that they have unique needs that are not always addressed by the current healthcare system. Native Americans are almost three times as likely as non-Hispanic Caucasians to be diagnosed with Type II Diabetes. The high prevalence of Diabetes in this population, compounded by cultural tensions that cause many Native Americans to shy away from seeking medical care, results in a significant amount of individuals who suffer from poor sensation, slowed healing, and frequent sores on their feet. Student volunteers from the Programs of Physical Therapy at the University of Minnesota and St. Catherine University step in to help fill the void between Native American culture and the modern healthcare system. Students pay monthly visits to the Diabetic Foot Clinic at the Indian Health Board Medical Clinic in Minneapolis where, under the supervision of a faculty preceptor and a student coordinator, pairs of students perform foot evaluations on patients. This process involves documenting patients’ current activity levels and past medical histories, as well as examining feet for skin conditions, neurological issues, and structural abnormalities. Students then take the time to assess each patient’s risk for future foot problems and educate them about warnings signs to watch for, as well as about the importance of proper foot care, well-fitting shoes, and regular exercise. The Diabetic Foot Clinic experience is one-of-a-kind for PT students, who are able to integrate classroom skills, further develop hands-on techniques and patient interaction strategies, and gain independence in clinical situations, all the while being exposed to a culture the majority of the students are unfamiliar with.

Special thanks to the U of M faculty preceptors Jeanne Lojovich, MS, PT, NCS; Ward Glasoe, MA, PT, ATC; and Sharon Kimble, PT, DPT, GCS; and the faculty and DPT students from St. Catherine’s University.

Going Above and Beyond:
2nd Year Community Health and Wellness Projects

One way DPT students learn about culturally diverse communities and about their role as health promoters is through their participation in their 2nd Year Clerkship Experience. Within this experience, groups of 6 students develop health related projects for an existing community outreach program in either an urban, rural or international setting. Students learn about their project and culture through meeting with a liaison connected with the outreach program. The students then work together with the program to develop a project identified by the community itself. The culmination of the first semester of the class is a poster open house where student groups discuss the goals of their upcoming projects which they will implement in the Spring semester. A few of the projects developed and highlighted from the Class of 2012 are:

Informing Minnesota Physical Therapists/Center for Victims of Torture Project

Community Liaison: Mary Ann de Ruiter, PT

Book: Little Bee by Chris Cleave

Group Members: Kara Beranek, Amy Carlson, Alison Pagliaccetti, Sarah Person, Joe Schoess

It has been estimated that 400,000 to 500,000 torture victims from a large variety of countries and cultures are now living in the United States. Considering this, it is extremely important that physical therapists are educated on how to identify the signs of torture in their patients. Additionally, physical therapists need to be
Family Education and Diabetes Project (FEDS)

Community Liaisons: Shannon BadWarrier-Petersen & Betty Greencrow

Group Members: Belle Ugalde, Catherine Braden, Adam Burandt, Sally Hutson, Jenna Pederson, Grant Hennington

According to the Minnesota Department of Health, it is estimated that American Indians living in Minnesota are more than twice as likely to have Diabetes and more than three times as likely to die from complications when compared to Caucasians. In 2009, it was also estimated that 18.8% are without health insurance, compared to 7.8% of Caucasians. The Family Education Diabetes Series was created to serve the needs of American Indians living with Diabetes, as well as the families this chronic disease affects. The FEDS program meets bimonthly, providing free Diabetes health screens, a healthy meal, and educational lectures and activities aimed at addressing the health issues that go along with Diabetes. Through an ongoing relationship between the Department of Indian Work and the University of Minnesota Physical Therapy Program, our group has participated in the FEDS program over the last 3 months. On top of taking part in the health screens, our group has created and begun to implement a walking program, with the goal of both increasing awareness of the importance of exercise in the diabetic population, but to also increase the physical activity level of the participants in the FEDS program. Titled, “Walk Across America,” participants agreed to track their steps or distance walked on log sheets provided to them, with a goal for the entire program to walk the equivalent of the distance across the United States. Along the way, we will be giving educational lectures on exercise and provide activities for goal setting, an exercise and blood glucose demonstration, and Q-&-A sessions on exercise related topics. We have already given one lecture on the importance of daily physical activity for those with Diabetes, which was well received by the participants in the program. We plan to continue to implement our plans throughout the Spring semester in order to continue to serve the FEDS program.

Healing Hands for Haiti: Educational Wound Care DVD

Community Liaison: Mark Kroll, Certified Orthotist

Acknowledgements: Pam Cole, MSPT, CWS

Group Members: Layla Elmajri, Tara Kelly, Paige Neeser, Jill Swenson, Carie Steil, Megan Westling

This project was created to help Haitian technicians working with Healing Hands for Haiti to learn general wound care techniques and how to use supplies donated following the January 2010 earthquake. This earthquake devastated Haiti and increased the need for technicians with knowledge of wound care skills to care for the needs of the Haitian population both in Port-au-Prince and the country side. The DVD will be used to help teach and demonstrate techniques to Haitian technicians working with Healing Hands for Haiti. Throughout the video we will be demonstrating a number of techniques including: nutritional requirements for wound care, the use of appropriate dressings, and the importance and goals of offloading. The DVD will feature physical therapy students demonstrating the techniques and the audio will be completed in French and English.
Clinical Education at the University of Minnesota

The Clinical Education Program at the University of Minnesota Program in Physical Therapy is constantly growing and diversifying to meet the ongoing rehabilitative needs of Minnesota, the United States, and the world. The articles below, by two graduates of the Class of 2010, highlight some of the underserved communities in the United States that offer excellent clinical instruction to our students.

Bronx Early Learning Center

By Luisa Janus, Class of 2010

The Bronx Early Learning Center (BELC) is a part of Volunteers of America, a non-profit human services organization that targets underserved populations. Upon completing a gratifying clinical internship at the BELC, I accepted a full-time position in hopes that my skills would provide the opportunity to make a small difference in the lives of these children.

The patient population at the Bronx Early Learning Center includes preschool aged children (3, 4, and 5 years old) from the underprivileged Tremont area of the Bronx, NY. Many of the children are of African American and/or Hispanic descent and are in foster care or come from single-parent family homes. Overall, the children are higher functioning but delayed in terms of their gross motor skills. While “developmental delay” serves as the global diagnosis for the majority of these children, others include Down Syndrome, CVA, autism, and ADHD.

As a student, I worked with 5 other therapists (3 PTs, 2 PTAs) and thus was exposed to a variety of treatment methods, ideas, and styles. From this collaborative experience, I was able to develop my own treatment approach that I currently utilize. I also became proficient with administering, scoring, and interpreting the Peabody Developmental Motor Scales outcome measure as well as writing appropriate goals based on the test results. I learned to progress a treatment plan and alter goals according to a child’s progress as well as complete the physical therapy portion of a child’s Individualized Education Program (IEP). Upon completion of this internship, I presented an in-service on a topic related to this pediatric population. Overall, this was both an educational and fun experience.

As an employee, I treat 9 children a day, each for ½ hour, with my caseload totaling 23 children. I am responsible for writing up quarterly and annual reports as well as completing daily notes for each child I see. I perform physical therapy screens and evaluations and attend team meetings with the other therapists (OT, Speech, Psychologist) and the teacher, to discuss the progress of each child. Currently, I am involved in implementing the Applied Behavior Analysis (ABA) treatment approach for those children on the autism spectrum.

Thus far, it has been a humbling opportunity to help these children in reaching their full potential. I can only hope that I am influencing their lives as much as they are touching mine.
The Mamowii Wiidokagaywin Clinic
By Michael Wangsness, Class of 2010

Cass Lake Indian Hospital, way up north on the Leech Lake Indian Reservation, is probably not your first choice for a clinical...let’s be honest, it probably isn’t even your 50th choice. But let me tell you, it was absolutely one of the best experiences I have had with physical therapy. I know it’s way up north – and yes it is insanely cold even in May – but if you really want to have an experience in learning a different culture and add some tricks to your toolbox, this is a place to consider enhancing your education.

This was my last clinical rotation and I felt like I knew it all. Paul Schaefer (the lone PT on the Leech Lake Reservation) was quick to knock me down a peg or two and make me realize that there was a lot to consider when treating someone. During this clinical internship I learned how important it is to consider culture and the way you approach patients based on where they are from and their beliefs. I also learned so much about reservation life and that as a PT, you need to realize that the people you will see are many times coming from hours away to see you and that you really need to make every treatment session count.

Culturally, I gained a greater appreciation and understanding for the Ojibwe people. They are also very inviting and are more than glad to teach you about their culture, which many of us have no clue about, if you are open and respectful about asking. My dad and I actually had the opportunity to go to a Pow-Wow which was great, and if you want to see people who are dedicated to a trade, look no further than the people of Leech Lake and their jingle-dresses or ornate bead work.

As far as the site goes, there was a great mix of outpatient diagnoses and a little inpatient work. There are only about 10 beds in the hospital so the inpatient load is usually pretty light. Paul was really a great clinical instructor as well. He has wonderful manual therapy skills. But probably the best part about his teaching is that he let me feel for myself and learn on my own. He was quick to help if I needed it but was also ready to keep his distance and let me learn by trial and error. He made me think every single day and kept me on my toes even if we had a rash of cancels/no-shows.

If you are looking to find an extremely challenging yet very rewarding experience, you really should look into Cass Lake Indian Hospital. I am so glad I made the trek up north and got the opportunity to work with Paul and all the great patients up there. And if you’re wondering as well – the fishing up there is AMAZING!
DPT Student Awards

The Program in Physical Therapy is pleased to announce this year’s recipients of scholarships, fellowships and awards:

**The Janice Steadland Fellowship Fund:**
This award is given to students for exceptional work during their full-time Clinical Internships.

Nick Bliek, Class of 2010  
Katie Skluzacek, Class of 2010

**Beatrice E. and Hurd Boody Scholarship:**
This award is given to a student who exhibits leadership and communication skills and intends to pursue a career in hospital based Physical Therapy.

Katie Skluzacek, Class of 2010

**2010 University of Minnesota President’s Student Leadership and Service Award:**

Sarah Holt, Class of 2010

**Rudolf Ptak Endowed Fellowship in Physical Therapy:**

Michelle Engberg, Class of 2011  
Elise Erickson, Class of 2011  
Jenean Harris, Class of 2011  
Kristina Wolff, Class of 2011  
Kate Ayre, Class of 2012  
Kelsey Blom, Class of 2012

**The Sharp Family Fellowship:**

Eric Anderson, Class of 2011

**Marguerite P. Gardner Fellowship:**
The recipients of this scholarship are nominated by their class members in recognition of service to their class, department, profession and community.

Michelle Engberg, Class of 2011  
Danelle Dommer, Class of 2012

**MN Outstanding Student Award:**
This honor is awarded to a student APTA member who is nominated by the faculty based on academic merit and MN APTA Chapter participation.

Jared Bueche, Class of 2010

**Walter H. Judd International Graduate and Professional Fellowship:**

This fellowship is awarded by the Office of International Programs at the University of Minnesota to increase opportunities for professional students to undertake international internships.

Sarah Holt, Class of 2010  
Jenean Harris, Class of 2010

**Barbara Lee Graham Scholarship:**
This award is given to a student who demonstrates outstanding merit and future potential in the field of Physical Therapy.

Kallie Blaine-Tellefsen, Class of 2011

**Eleanor McManmom Daly Scholarship:**
This scholarship is awarded to a student who was accepted to participate in an international Clinical Internship experience.

Elizabeth Mraz, Class of 2011
The 11th Annual Jack Allison Memorial Lecture was provided this year by Catherine Lang, PhD, PT of Washington University in St. Louis. Dr. Lang presented on “Rehabilitation of Motor Function After Stroke,” providing a comprehensive update on the scientific literature related to therapy for stroke sufferers. Topics included the nature of motor deficit following stroke, guidelines for determining dosage of rehabilitation interventions, and a summary of a current project to establish an interdisciplinary and inter-institutional continuum of care. Clinicians, researchers, and students attended the successful event, held at the Radisson University Hotel November 6th.

The Clinical Educators of the Year Awards were initiated in 2005 to honor the unsung heroes in the U of M Clinical Education Program, the Clinical Instructor. Without their dedication and willingness, the professional education of our DPT students would not be complete. We are pleased to announce that the 2010 Clinical Educators of the Year Awards were presented to Pamela Cole, PT, CWCS from the Methodist Wound Care Clinic, and Rick Hjelm, PT from MultiCenter Physical Therapy in Roseville.

Pamela Cole was not only able to instruct her student at the Methodist Wound Care Center in St. Louis Park, but also accompanied her to Africa to work at the SIM Hospital specializing in diseases of the skin near Danja, a bush region of Niger. She was described by her student in the following quote, “Amid all of the new skills, terminology and equipment, the most important thing Pam taught me was how to connect with patients and deliver education in such a way that it held meaning to a patient’s overall quality of life.”

Rick Hjelm, a skilled manual therapist, was given the following praise by his nominating student, “I learned valuable treatment skills, patient interaction skills and even life skills that will make me a better therapist and person during my experience.”

The University of Minnesota Program in Physical Therapy thanks both of our honorees and again congratulates them on their recent awards.

Catherine Lang, PhD, PT of Washington University in St. Louis; and PT faculty member Kathleen Anderson, PhD, MBA, PT, OCS, FAAOMPT

The Program in Physical Therapy is pleased to announce Judy Hawley, PT and retired Executive Director of the APTA MN Chapter as the recipient of the 2010 University of Minnesota Program in Physical Therapy Faculty Service Award. This award is presented every year to a person recognized for their outstanding contributions to Physical Therapy Education at the University of Minnesota. Judy Hawley has devoted countless hours to the development of our students over many years, passionately speaking to them on the necessity of becoming involved in their professional association and educating PT students on legislative concerns that are affecting the profession now or will in the future. The Program in Physical Therapy would like to wholeheartedly congratulate Judy on receiving this award and wish her well on her retirement from the Minnesota APTA.
Program in Rehabilitation Science Updates

The Program in Rehabilitation Science continues to prepare PhD students for academic and scientific careers in rehabilitation related fields. There are currently 21 students enrolled in this program. Three new students began their studies this fall including Jessica Cassidy (Kream), DPT alumnus from the Class of 2009, advised by Dr. James Carey; Therese Schreder, OT, advised by Dr. Virgil Mathiowetz, and Jeffery Chih-Huang Yu, OT, co-advised by Dr. Mathiowetz and Dr. Peggy Martin. One Rehabilitation Science student graduated last spring, and four others graduated in December. Nupur Hazel, PhD, PT completed her PhD in May of 2010 investigating “Evoked Human Cutaneous Reflexes During Standing and Step Initiation.” She was advised by Dr. Carl Kukulka and is now in a post-doctoral research associate position at the Rehabilitation Institute of Chicago. Wha Yoo completed her masters degree project “fMRI of Controlled Breathing Tracking Tasks in Healthy Adults,” advised by Dr. Carey. Michael Borich (DPT alumni from the Class of 2005) completed his PhD dissertation “Enhancement of Learning: Does Sleep Benefit Motor Skill Memory Consolidation?” He was advised by Dr. Teresa Kimberley. Michael has accepted a post-doctoral position at the University of British Columbia in Vancouver, Canada. Maureen Whitford, PT, completed her PhD dissertation “Task-Related Variations in the Surface EMG of Human First Dorsal Interosseous,” advised by Dr. Carl Kukulka. Maureen has accepted a post-doctoral position at the National Rehabilitation Hospital in Washington D.C. Sarah Greising completed her PhD dissertation “The Beneficial Effects of Estradiol on Murine Skeletal Muscle Function,” advised by Dr. Dawn Lowe. Sarah is in the process of choosing between post-doctoral opportunities. Congratulations to all of these accomplished graduates!

Transitional DPT Update

The temporary transitional DPT degree Program offered by the University of Minnesota is no longer enrolling new students. The final graduate of this program was Stephanie Gore (Halverson). Stephanie (PT alumnus from the Class of 2002) completed her transitional DPT program in December with a Capstone project entitled “Shoulder Motion During a Weight-relief Raise and Transfer in Pediatric Patients with Paraplegia: A Pilot Study.” Stephanie currently works part-time in the Rochester School District servicing primarily elementary-aged school children. She reports “I continue to enjoy pediatrics and also love the perks of the school schedule! My most enjoyable time, however, is spent with our family which includes twin daughters who are 23 months old. We also are looking forward to an addition sometime early April which is when our son is due and we are excited to be bringing some blue into our home!”

Joint DPT/PhD Program Approved by the Board of Regents

The University of Minnesota Board of Regents recently approved a proposal by the Program in Physical Therapy and the Program in Rehabilitation Science for a joint DPT/PhD Program option. This joint degree program will allow select DPT students to begin work toward a PhD in Rehabilitation Science prior to completion of the DPT. The goal is to streamline the process for a DPT student completing a professional doctoral degree, to continue pursuit of an additional doctoral research degree. Students must be enrolled in the DPT program prior to applying for this joint program option. Anticipated length of completion of a joint degree program is approximately 6-7 years, versus the 7-8 years required to complete both degrees independently.
Remodeling Delivers State-of-the-Art Laboratory and Multipurpose Space

A new multipurpose conference room and laboratory space opened this autumn after extensive remodeling on the third floor of Children’s Rehabilitation Center. The southwest corner of the third floor was renovated into a multipurpose conference room with multimedia and whiteboards for small classes and working group meetings. When not scheduled for classes or meetings, this room is a quiet study space for many students. With views of the Mississippi River, this new multipurpose room is a centerpiece for transformative student interactions and learning in the PT Program.

Adjacent to the multipurpose conference room is the new Musculoskeletal Biomechanics Research Laboratory. This laboratory facility is a departmental resource with kinematic, kinetic, and EMG measurement systems capable of quantifying most human motion. Drs. Ludewig and Nuckley consolidated their research space and equipment to form this 1300 square foot facility for primary research as well as student instruction. Multiple laboratory experiences for DPT students are performed in this laboratory, exposing students to optical motion capture systems, force plates, inclinometers, and EMG systems. The students are not only introduced to state-of-the-art measurement systems, but they must use them to perform gait analysis, muscle testing, and the analysis of tasks such as sit-to-stand. The research space also supports data collection, analysis, and modeling for spine, shoulder, and foot biomechanics by DPT students with their advisors. Furthermore, many externally funded primary research projects are performed here generating new discoveries for PT assessment and treatment. This new PT Program laboratory efficiently uses our space and delivers an enhanced research facility for student learning and transformative biomechanics research.

We also recently acquired some additional space on first floor of Children’s Rehab Center which will be used for small group meetings, PhD student office space, storage, and a potential lab space for the new pediatric faculty member.

Program in Physical Therapy Curling Team Hits the Ice on March 8, 2010: An Experiment in Cohesiveness

Several faculty, staff, alum, and PhD students put the warm gloves on and hit the ice for a friendly game of curling. For the most part, it was a cohesive group until the end when Dr. Paula Ludewig and Dr. James Carey had a curl off. Dr. Ludewig won the curl off, but there has been some controversy surrounding the event. There were whispers of underhanded play tactics. I think there may be a rematch in the future.

Faculty Publications:


- Borich MB, Furlong M, Holsman D, Kimberley TJ. Goal-directed visuomotor skill learning: off-line enhancement and the importance of the primary motor cortex. Restorative Neurology and Neuroscience, in press

- Olman CA, Pickett KA, Schallmo MP, Kimberley TJ. Selective BOLD responses to individual finger movements measured with fMRI at 3T. Human Brain Mapping, in press.

- Kimberley TJ, DiFabio R. Visualizing the effects of rTMS in focal hand dystonia: small N vs. group level analysis. PLOS One, in press.


Publications:

- Xu X, Chen C-N, Arriaga EA, and Thompson LV. Asymmetric superoxide release inside and outside the mitochondria in skeletal muscle under conditions of aging and disuse. J Appl Physiol. 2010 Aug 5. [Epub ahead of print]

New grant:

- 09/30/2010 to 08/31/2014
  NIH, K02-AG036827
  “Estrogenic Effects on Aged Muscle”- PI, Dawn Lowe

Current Student and Alumni News:

Andy Wicks, Class of 2011, and his wife are expecting their first child in April 2011.

Jared Glesne, Class of 2010 got married to Danielle Ridder in Ballwin, MO, on October 23, 2010. Jared accepted an outpatient orthopedic position at PRORehab, PC in St. Louis MO. He is currently living in Ballwin, MO with his new wife Danielle.

Kristen Doherty, Class of 2009 and her husband Matt welcomed their second daughter Elyn Rae Doherty into the world on October 1, 2010. Elyn weighed 9 lbs, 8 oz.

Catherine Justice, Class of 2010 gave birth to a son Pax Gabriel Justice on August 3, 2010. He weighed 8 lbs, 6 oz. Catherine will be teaching at the University of St. Catherine College as an adjunct instructor in the Masters in Holistic Health Program. She has accepted a PT position at Orenstein Physical Therapy in Edina, MN.

Please send in news about yourselves for this newsletter! New jobs, marriages, new babies, etc. All are possible news events. Please include your graduation year. You may submit information about what is happening in your life, upcoming or former PT reunions, and pictures of classmate gatherings. You may submit information to ptquest@umn.edu.
Dr. Dawn Lowe is to be commended for achieving tenure and being promoted to Associate Professor this summer. This reflects on her high scholarly writing skills, teaching, and grantsmanship.

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Dr. Jim Carey has been featured in several newspaper and television stories during this past year for his research study “Pediatric Hemiparesis: Synergistic Treatment using rTMS (repetitive transcranial magnetic stimulation) and CIT (constraint-induced therapy),”

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Dr. Paula Ludewig became the new Director of Graduate Studies of the Rehabilitation Science Program (Masters & PhD) this past year, replacing Dr. Carl Kukulka after his six year tenure in the position.

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Dr. Carl Kukulka completed a sabbatical this past spring semester at the University of Maryland School of Medicine’s Department of Physical Therapy and Rehabilitation Science. Dr. Kukulka collaborated with Dr. Mark Rogers, Professor and Director of Graduate Studies and Research. Experiments were conducted with patients who have had a stroke and investigated the effectiveness of using a cutaneous cue (stimulation of the sural nerve) for releasing a step. Patients who have had a stroke display diminished postural responses that precede a step and delayed reaction times for taking the step. Both of these factors are believed to contribute to an increase in falls. The research provided evidence that sural cuing produces earlier release of the step and augmentation of the postural responses. Such findings raise the question of whether step training of subjects with stroke using cutaneous cuing may reduce certain risk factors associated with falls in this patient population. The results are soon to be published and will provide preliminary data for submission of a research grant.