



UNIVERSITY OF DELAWARE DEPARTMENT OF PHYSICAL THERAPY ALUMNI NEWSLETTER

Volume 8,
Spring 2007

Editors: Karrie Lowry, DPT Class of 2007 & Jennifer Tola, DPT Class of 2008

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WANT TO SAVE TREES AND DEPARTMENT MONEY?

If you would like to read the alumni newsletter on-line instead of receiving the printed publication, e-mail Mrs. Lynn McDowell (lynnmc@udel.edu) your name and email address and request to be added to the alumni e-mail list. We will e-mail you a web link for the newsletter each time it is completed. Thanks!



MESSAGE FROM THE CHAIR

Greetings, I hope this message finds everyone doing well. Once again, I am pleased to update everyone with some very positive news.

As you will see from this newsletter, the department continues to grow in many directions. Our clinic services continue to mature. We are training more students and colleagues and making more presentations at national and international meetings each year. The clinic and staff also continue to receive the recognition they so justly deserve.

The academic faculty continues to write exciting and innovative grants that are being funded by Federal agencies. Even during this very difficult time for securing NIH funding, I am very pleased to note that we have recently been told that the faculty have been awarded funding for four new major projects. This is great news and helps build on the already strong funding base that we have in place.

I am also very pleased to note that the faculty has once again grown. Dr. Gregory Hicks joined our faculty as an Assistant Professor this past February.

Many of you know Greg. He has his undergraduate and MPT degrees from the University of Delaware. Greg worked in the area for several years before going on for his PhD at the University of Pittsburgh. He then completed a post-doc at the NIA and worked at the University of Maryland for several years. Greg is a great addition to our faculty and we hope everyone gets to meet him soon.

I would also like to extend an invitation for you to join us for our 9th annual homecoming celebration. We decided not to have a tent this year, but Tara Manal will host a reception at her home before the game. Details will follow. As always this will be a great opportunity for our alumni to meet our current DPT students, faculty, and staff.

Finally, I would like to thank the many alumni and friends who have provided financial support to the department over the past year. Your continued support of the department is certainly appreciated.

Best wishes for a happy and healthy year.

Stuart A. Binder-Macleod, PT, PhD,
FAPTA
Edward L. Ratledge Professor and Chair

Calendar of Events

APTA National Conference	June 27-30, 2007, Denver, CO
Combined Sections Meeting (CSM)	February 6-10, 2008, Nashville, TN
Homecoming Tailgate	October 13, 2007
DPT Class of 2007	Graduation January 5, 2008

CLASS OF 2006 GRADUATION



Congratulations DPT Class of 2006!

Listed Alphabetically: Ryan Brown, Sarah Caldwell, Pancy Pui-Yu Chung, Megan Conklin, Tara Cook, Demery Dawson, Danelle Dickson, Marty Fontenot, Kate Gibson, Meghan Hajek, Sarah Hingston, Angela Hutchinson, Memy Hwang, Melissa Karschner, Grace Keenan, Robert Keeton, Julia Kegelman, Maureen Kennedy, Stephanie Kuehne, Jennifer Lipschultz (Arseneau), Michael Martin, Ryan Nakutavicius, Meredith Perny (Hershey), Thomas Reed, Nadia Sanchez-Pepio, Brett Schiller, Joseph Skocypec, Laura Tabellion, William Thompson, Jonina Turzi, Courtney Twilley (Wynn), Michael Wheeler

Message from Class President
Marty Fontenot:

Well, the journey ended (or began) on January 6th, 2007, our graduation day! It was a memorable, exciting and rewarding day, and the day we crossed the threshold from being students to being "real" therapists. It was a bitter/sweet day as we were elated to be entering the "real world" but a little saddened by the fact that we will miss our "UDPT" family. Thanks to our professors, teachers, faculty and staff for all the knowledge and guidance and to our families and friends for the love and support! Congratulations Class of 2006!!!

To the graduating class:

- Faculty Award: to **Marty William Fontenot** for exemplary qualities of integrity, cooperation, initiative and leadership in the UDPT program.
- Director's Award: to **Marty William Fontenot** for special contributions to the UDPT program.
- Scholarship Award: to **Robert Benjamin Keeton** for a high level of scholastic achievement in the UDPT program.

To Alumni:

- Cossoy Award: to **Julie Moyer-Knowles** for extraordinary contributions of time and effort to the UDPT program.

- Catherine Dozer Kohlenstein Clinical Educators Award: to **Lynne Sturgill** for outstanding contributions to the clinical education of UD students.
- Alumni Award: to **Carol Irwin Owens** who made outstanding contributions to the Physical Therapy Department.

Also the Sports Fellowship Award was presented to Kaja M. Kilburn, and the Orthopedic Fellowship Award was presented to Mark Baughman for completion of the Physical Therapy Residency Program.

STUDENT NEWS

Nearly There: Class of 2007 Written by: Valerie Martineau, SPT

Dear Alumni,
Greetings from the almost-DPT III's! This year sure has been jam-packed – we've been keeping busy!

Academics. Last summer we split up for the first time to attend our 6-week Acute Care affiliations, then returned to Newark in the fall, where most of had our first experience treating in UD's own NOA and S&O Clinics. Also in the Fall, our courses were enhanced by visits from guest volunteers from the community with stroke, brain injury, spinal cord injury, and amputations. We thank them for their time. After returning from the holiday break, we were privileged to have our Pediatrics course taught in UD's Early Learning Center, where we had both lectures and immediate hands-on time with the children. In Spring, some of us are finishing our integrated experiences, and all of us are keeping busy with Dr. Tara Manal's spine

readings, Dr. Lucca's Disability in the Community project, and Noel Goodstadt's Business Plan Project. About half of our class attended APTA's Combined Sections Meeting in Boston in February, braving a treacherous winter storm to do so!

Charity. In the fall, in just under 3 weeks' time, we helped Dr. Scholz reach his fund raising goal for the Livestrong Challenge by hosting a benefit at Shaggy's on Main. It rocked! At the time, he was about \$1500 short of his \$15k goal. But with the outstanding turnout, nearly 20 great raffle prizes from area businesses, a DPT I Date Auction, and faculty bartenders, \$2,758 was raised for Dr. Scholz's cause by the end of the night. Other charity activities we hosted this year include a Thanksgiving Food Drive, and a Holiday Toy Drive. We participated in Bike to the Bay to benefit the National MS Society, and had a booth at Newark Commu-

nity Days. This spring, as a class, we are spending an activities day with local Special Olympics participants, and an afternoon cooking and serving dinner to guests of the Ronald McDonald House of Delaware. We also participated in UD's MS Assessment Clinic, and the new UD Stroke Clinic.

What's Ahead? We are looking forward to departing soon for our 6-week outpatient ortho affiliation, then returning for our last 5 weeks of classes – Advanced Seminar, First Responder, and Sports PT. As the first class to have four full-time affiliations in our curriculum, we do not have any time off, but will finish up the program with two 8-week full-time affiliations in neuro and in an elec-

tive of our choice. It's hard to believe that graduation from the program is less than a year away, and even more amazing to reflect on all the things we've managed to accomplish in this short time. We wish you well, and ask for your wishes of luck as we approach the embarkment of our careers!

Cheers,

DPT Class of 2007

P. S. As we begin job hunting, we value your advice and input. Email us at dptclassof2007@udel.edu!



One Year Down: Class of 2008 Written by: Doug Adams, SPT

Wait...We are almost done our first year? Ok, let us catch our breaths and then we will let you know what we have been up to as the newest class.

We started the year as all classes do by learning everything we could want to know and more about anatomy under the guidance of Dr Mettler. Our class grew extremely close through bonding experiences such as first cuts down in the cadaver lab, touching scantily dressed classmates in osteology lab, and post test celebrations every three weeks on Main Street. The faculty and staff welcomed us with open arms, and we quickly settled in as the latest "First Years".

In the spirit of UDPT, the class of 2008 has continued in various acts of community service. Students have done mas-

sages at Bike to the Bay, raised money for the Pitt-Marquette challenge, helped in the MS and Stroke Clinics, helped with the rehabilitation of various people/patients who have asked for assistance, and many other charitable acts. New this year: we have also done massages with the Disney on Ice cast and crew members to help raise money for class funds.

The class of 2008 had a large number of people brave the big winter storm and head to Boston for CSM. Boston was a great opportunity to get involved in the professional community and to enjoy a few days off class in the city! Several people attended the student conclave in Texas as well, further representing the University. We also had an intra-

mural soccer team that is looking to take the championship this year after a heartbreaking loss in the playoffs.

As we finish up this Spring semester and get ready to become "Second Years", we are preparing for the challenges ahead and looking forward to all the memories along the way.



DPT I's with Scott Ward, APTA president at CSM 2007



FEATURED ALUMNI

Congratulations!

The following information was collected from those who responded to our Let's Keep in Touch article from the Spring 2006 Newsletter: We have the following news to share from 2006:

Degrees Confirmed



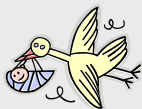
- Steve K. O MPT Class of 2003: Board Certified Wound Specialist (CWS), Recognized by GRS with 2006 PT clinical excellence award
- Beth (Havener) Gardner MPT Class of 1996: Received DPT from Temple in 2003, became certified Geriatric Clinical Specialist in 2006.

Newlyweds



- Steve K. O MPT Class of 2003: married in April 2006.
- Beth (Havener) Gardner MPT Class of 1996: married in September 2003.

Babies



- Beth (Havener) Gardner MPT Class of 1996: Birth of first child, Kathleen (2006)

*Please visit our complete listing of alumni updates online at www.udel.edu/PT/

Carol Irwin Owens



Carol Irwin Owens, PT, GCS graduated from UD's last Bachelor's Degree in Physical Therapy class in 1990. Carol has worked at Magee Rehabilitation for the last 17 years in both inpatient and outpatient rehab, and has a strong interest in Spinal Cord and Brain Injury Rehab. For the last 8 years, Carol has supervised Magee's outpatient therapy center.

Working in Philadelphia has allowed Carol to forge relationships with several local PT schools. As a result, she has done ancillary teaching on Prosthetics and Spinal Cord Injury Rehab as well as casting at Drexel University, University of the Sciences in Philadelphia, Arcadia University, Neumann College, Temple University, and Thomas Jefferson University. This past year, Carol had the opportunity to teach the Spinal Cord Injury Rehab portion of the UD's Rehabilitation course. Being back at UD was a pleasure for Carol, and she was amazed and proud of how the program has flourished since her days taking classes in what is now the PT Clinic.

During her clinical practice, Carol has developed a strong interest in geriatrics, and she received her Geriatric Clinical Specialist certification in 1999 from the American Board of Physical Therapy Specialties of the APTA. Part of her outreach in geriatrics is teaching an exercise class twice a week at a south Philadelphia senior center with participants ranging from 50 - 92 years young. Carol has also volunteered with the Philadelphia Rowing Program for the Disabled. Carol lives with her husband, who is also a PT, and 3 children in New Jersey.

Julie Moyer-Knowles



This year's recipient of the Cossoy Award is Dr. Julie Moyer-Knowles, graduate of UDPT Class of 1982. The Cossoy Award, named for the founding director of the UDPT program, Barbara Cossoy, is given to an individual outside of the Department that has made an extraordinary contribution to the University of Delaware PT Program.

Dr. Moyer-Knowles owns and operates a PT company called Southern Delaware Physical Therapy which employs several UDPT graduates. She is now Past-President of the University of Delaware Alumni Association, and continues to be involved with the association as well as on the Athletics Committee, and Gender and Racial Equity Committee.

Most recently Dr. Moyer-Knowles initiated the UDPT development challenge, matching student donations to help build up the UDPT development fund. When asked about the challenge Dr. Moyer-Knowles stated, "I am extremely happy to say that the current students

were 100% supportive of this drive, and every student participated in the donation! I am pretty sure that no other department on campus has achieved this goal! I hope that in future years, students will continue to support this wonderful university and physical therapy program, through the donation of their time and/or financial resources."

Dr. Binder-MacLeod stated, "The Department is so lucky to have alumni like Dr. Moyer-Knowles. Her vision, insight and leadership serve as an inspiration to all of us. Her support of our Department has been consistent and incredibly generous."

ALUMNI NEWS

Class of 1986 Reunion!

The Physical Therapy Class of 1986 celebrated its 20th year reunion July 15-16, 2006. The alumni enjoyed a Blue Rocks game Saturday evening followed by breakfast at the Marriott, and a presentation and tour of McKinly Lab with Dr. Stuart Binder-Macleod on Sunday.

It was great to get together to catch up, meet the families and remember old times at McKinly Lab. We are looking forward to our 25th year reunion.



Classmates that attended included (left to right from the bottom) Renee Peters, Tina Hurey, Matt Hanling, Colleen Berry, Stephanie Rehm, Jane Oeffner, Roselle Albert, Chris Turner, Carolyn Sherwood and Anna-maria Concannon.

Due to the success of this year's class reunion, we encourage other classes to follow suite and join together! Please feel free to contact the department for tours and updates to McKinly Lab.

New Faculty Member, Class of 1995: Gregory Hicks, MPT, PhD



Dr. Gregory Hicks, the newest member of the University of Delaware's Department of Physical Therapy faculty and UD PT Class of 1995 alumni, is excited to be back at the university. "It feels like being home again," says Hicks about his return.

Dr. Hicks received his BA in Biological Sciences and English, and his Masters of Physical Therapy degree here at UD. After working several years as a clinician at Schweizer's Therapy and Rehabilitation in New Castle, DE and as a Clinical Instructor and Teaching Assistant at UD, Hicks went on to the University of Pittsburgh for his PhD in Rehabilitation Science. It was there he focused his work on classification systems on low back pain and devised a clinical prediction rule to determine whether or not

a patient would benefit from a lumbar stabilization exercise program. Dr. Hicks studied the Epidemiology of Aging for his post doctoral work at the National Institute of Aging in Baltimore, MD.

Dr. Hicks has now focused his research on developing treatment strategies for patients, particular older adults, with low back pain and understanding factors that impact body composition and physical function in older adults. He expresses excitement at the opportunities for clinical research available here at UD and the opportunity to work once again with the faculty and staff.

This past spring Dr. Hicks co-taught PHYT808: Spine Management and will be teaching Research II — Evidence Based Practice next spring.

"We are thrilled to welcome Dr. Hicks back to the University of Delaware. I truly believe that he is the perfect addition to our faculty," says Dr. Binder-Macleod.

DEPARTMENT NEWS

Dr. Scholz Raises \$15, 000 to “Ride for the Roses” Written Julia Parmley & Amanda Vasilikos

Above: Lance Armstrong & Dr. Scholz

Dr. John Scholz, UD associate professor of physical therapy, raised \$15,000 to participate in the Ride for the Roses in Austin Texas this past October. Ride for the Roses is an annual weekend event held by the Lance Armstrong Foundation which raises money to support, inspire, and empower people affected by cancer.

Dr. Scholz is particularly dedicated to this cause as he was diagnosed with cancer in 2003. Since Dr. Scholz was diagnosed he continued to stay active in both his job (as a researcher

and professor of physical therapy students) and in maintaining a healthy lifestyle, including exercising regularly. Dr. Scholz has said that his interest in cycling and admiration for cancer survivor and cyclist Lance Armstrong provided him with inspiration to fight his disease. His daughter came across the Livestrong Challenge, a series of races in five different cities that raise money for the Lance Armstrong Foundation (LAF), and convinced him to bike in the 100 mile Livestrong Philadelphia challenge on September 10, 2006. When asked about his reason for participating in the Livestrong Challenge, Dr. Scholz said that funding for cancer research has been cut significantly over the past couple of years, and that Armstrong's personal commitment to raise money for can-

cer has inspired him to join the cause. He said, "All of us at some point in our lives are affected by cancer, I think it's a worthwhile cause. It's a way of giving back because I've been doing well and had good care."

As part of his first Livestrong Challenge, Dr. Scholz pledged to raise \$15,000 for LAF. With the support of family, friends and the university community, Dr. Scholz was able to raise about \$13,500 for the foundation, leaving him just \$1,500 short of his goal. In an effort to support Dr. Scholz, the DPT students hosted a benefit at Shaggy's on Main in October with the hope of helping him reach his fundraising goal of \$15,000. With the \$5 entrance fee, a portion of the tips earned by UDPT faculty guest bartenders, and the money earned in the raffle of donations from local businesses, a total of \$2,758 was raised to support Dr. Scholz's cause! This additional money raised allowed Dr. Scholz to participate in the Ride for the Roses, held in Austin, TX in October, for those who raised

at least \$15K. As a result, he was also able to meet his inspiration, Lance Armstrong. Dr. Scholz stated that, "I am grateful for the tremendous support from family, friends, and colleagues. They provided the motivation and inspiration that I needed to do my best in the ride."



Above: DPT Students & Dr. Mettler as Guest Bartender at Shaggy's on Main

Physical Therapy article wins APTA Recognition Article by Neil Thomas, Photo by Kathy F. Atkinson

UD researchers Jill C. Heathcock, Michele A. Lobo, and Anjana N. Bhat were named winners of the Dorothy Briggs Memorial Scientific Inquiry Award. All three work in UD's Infant Motor Behavior Laboratory under the direction of James C. (Cole) Galloway, Associate Professor of physical therapy. The Dorothy Briggs Memorial Scientific Inquiry Award is given by the American Physical Therapy Association (APTA) in recognition of student members of the organization who have published an outstanding article in the journal *Physical Therapy*. Their article concerns the differences in motor learning of very young infants born full term and preterm. The

article concluded that the full term infants adapted their kicking to move a mobile and retained the adaptation in their short-term memory, while the preterm infants showed no adaptation, suggesting a potential impairment of early motor learning or purposeful leg control. It is their belief that this lack of control may reflect a general decrease in the ability of infants born preterm to use their limb movements to interact with their environment.

Heathcock said that, "Preterm babies are born at higher risk for developmental delays and doctors and therapists often monitor them. We hope that by identifying potential

delays in the first months of life, appropriate treatment can be provided." Lobo added, "The earlier we can provide appropriate intervention, the better children and their families will do in the long run."

Galloway said the research team's findings are leading the way to an exciting new project that will couple the mobile paradigm with advanced brain imaging, working in cooperation with Christiana Care and the Delaware Biotechnology Institute. They plan to generate three-dimensional images of brain structures in conjunction with the paradigm to better understand motor skill impairments. Galloway also said that the final

step of the research study will be to take the findings and work with clinicians and educators to provide advanced, family-centered intervention for babies with special needs in clinics such as UD's Pediatric Rehabilitation Clinic.



Above: Heathcock & Lobo

DEPARTMENT NEWS

2006 Community Service

Over the past year both DPT classes have continued UDPT's tradition of community service, and were involved in a number of community service opportunities:

- Hosted a fundraiser to help Dr. Scholz reach his goal of raising \$15,000 to participate in the Ride for the Roses.
- Collected can goods for the Thanks-giving food drive
- Holiday toy drive for Toys for Tots
- Bike to the Bay to benefit the National MS Society
- Gave massages to the cast and crew of Disney on Ice
- Pitt-Marquette challenge
- Relay for Life
- Special Olympics
- Ronald McDonald House of Delaware
- Stroke support group/balance assessment and training
- Scoliosis screenings at Newark Charter School
- 5K run for Scott Mackler to benefit the ALS Foundation
- UD Stroke Clinic
- MS Clinic
- Newark Community Day booth to educate the community about PT
- Sold tickets and worked as spotters for UD's Field Hockey and Lacrosse games
- Students have also volunteered to work with various patients as a supplement to the physical therapy they are currently receiving from UD's Clinics or as a continuation of their therapy after discharge from PT.

Representative Castle visits UD PT Facilities Article by Jerry Rhodes, Photos by Kathy F. Atkinson

U.S. Representative Michael Castle visited the UD Department of Physical Therapy on July 6, 2006 to meet researchers, tour the clinics and research laboratories, and discuss his support for legislation to increase physical therapy services in underserved communities. The visit was arranged by the APTA and coordinated by Associate Professor Joseph A. Lucca, PT, DPT, PhD, GCS. The UD PT faculty and staff, APTA staff, and DPT students were all on hand to meet the Congressman.

One of the main topics of Rep. Castle's speech included H.R. 5134, legislation which would allow for the participation of physical therapists in the National Health Service Corps Loan

Repayment Program, a maximum loan repayment of \$25,000 per year during the two-year contract of service in underserved areas (both rural and urban communities).

"People living in underserved rural and urban communities often have pressing health needs that must be treated by a health care team," Castle said. "However, working in such a setting often presents a financial hardship for newly trained physical therapists facing thousands of dollars in school loans. By enabling physical therapists to participate in the National Health Service Corps, they will be able to join doctors, nurses, mental health specialists and dentists, and, as a result, pa-

tient's health care needs will be better served."

Castle also spoke about the importance of federal funding for UD physical therapy research programs aimed at cost reduction, quality of life improvement and enhancing the physical functioning of individuals who have osteoarthritis, stroke or other movement-related disorders.

"I am overwhelmed after touring the various clinics and labs here at UD," Castle said. "I visit the University at least three or four times a year, and I am always impressed by what I see here in all the different programs on the campus," Castle said.



UDPT New Hires

We welcomed the following individuals in 2006:

Romaine Beasley- Billing Supervisor
Debbie Coffin- Staff Assistant, Chairs Office
Gregory Hicks- Assistant Professor
Mandy Merritt- Physical Therapist (Sports and Ortho Clinic)
Andrea New- Billing
Sonya Yasack- Clinic Front Desk

UD's MS Clinic honored by State MS Society

The University of Delaware's Multiple Sclerosis Clinic was honored this past year with the "Friend of the MS Society Award" from the Delaware Chapter of the National Multiple Sclerosis Society. The award honors an individual, organization, or corporation that has supported the efforts of the chapter in the past year. Ken Seamen, PT, MA, ACCE, as both the creator and coordinator of the MS Clinic, received the award on behalf of all clinic staff members.



Those honored with the Friend of the MS Society Award for donating their services to UD's MS Assessment Clinic

INTEGRATED CLINICAL EXPERIENCES UPDATE



The NOA Clinic continues to expand and grow to serve our students and the community! At this point it seems like ages since we moved downstairs, although it has only been about a year and a half. The students, patients and staff continue to improve the clinic design and adapt to equipment changes! We now have our own kincom unit as well as our own treadmill and mini-stairs.

Neurologic and Older Adult (NOA) Clinic Written by Cathy Ciolek

The neurologic and older adult experience is now full in house with the class of 2007. Everyone will have completed their part time experience through our clinic. We are also pleased to offer some full time experiences to our students who may be interested in geriatrics or neurologic physical therapy in the coming years. Our CI's this year include Heather Galloway, PT, GCS, Angie Robertson, PT, DPT and our recent graduate Billy Thompson, PT, DPT who is now a PhD student in BIOMS.

This January marked the start of our first Geriatric PT

Resident. We are excited to have Angie Dorr Robertson come from Montana to join our clinic and work with us as our first resident. She will be participating in varied outside learning experiences during the year to see the gamut of geriatric care and we thank Christiana Care for their support as we develop this experience in their Spring-side Center and other facilities. If you see her at your clinic, please introduce yourself as a UD graduate!

Our Journal Club continues to meet on the third Tuesday of every month at 8:30 am. We are moving to

some other clinics throughout the year, so please visit the website for updates on articles and our meeting locations. Please consider having our journal club at your facility or joining us to discuss clinical care for older adults and patients with neurologic issues.



It has been a year of amazing growth for the SO Clinic. We now have two additional part time PT's: Karen Jurjans, who was a previous UD sports resident and recently moved back to the area after working in DC, and Mandy Merritt, a UD undergraduate in athletic training and graduate from the DPT program, who is now working full time between the athletic and physical therapy departments.

Our 2006 sports and orthopedic residents Kaja Kilburn and Mark Baughman graduated in December. We welcomed our new residents Sarah Do-Broka for sports, and Megan Sions for orthopedics, in Janu-

Sports and Orthopedic (SO) Clinic Written by Airelle Hunter

ary 2007 and we will have two more residents starting a rotation this summer! Also, congrats go out to our very own Airelle Hunter-Giordano, who was profiled in PT Magazine, in an article on residency training.

Our staff has been very productive over the past year, presenting at multiple local, national and international conferences.

Tara Manal and Laura Schmitt taught Emergency Response to members of the Performing Arts Special Interest Group of the APTA in September 2006 at UD.

During a conference in Prussia, Italy, the clinic staff was connected via satellite to provide visual demonstration and Dr. Lynn Snyder-Mackler presented on various rehab techniques in

November 2007.

Tara Manal was invited to present in Torino, Italy for the International Congress of University and Sports in January 2007.

We had a great showing at CSM in February 2007. The following staff members presented platform and education programs in the Orthopedic and Electrotherapy sections; Airelle Hunter-Giordano, Lynne Patterson-Sturgill, Tara Manal, Kaja Kilburn, Megan Sions, & Sarah Do-Broka.

Mandy Merritt presented at the UD Medical Aspects in Sports Conference in February 2007.

Noel Goodstadt also represented the department presenting at the 23rd annual Jerusalem Sports

Symposium held in Israel, March 2007.

Current clinical research projects in effort with Dr. Snyder-Mackler's lab include assessing the benefit of Hyalgan Injections in the knee, perturbation training in the ACL deficient population who are non-copers, and collaboration with colleagues in Norway looking at the use of perturbation training in potential copers.



INTEGRATED CLINICAL EXPERIENCES UPDATE

Pediatric Clinic Written by Dr. Megan Schaefer

This year has brought a lot of changes to the Pediatric Rehabilitation Clinic (PRC). We have relocated and joined all the other clinical services in the basement of McKinley Lab. Our central location has allowed for more collaboration among a variety of clinical expertise – and lots of smiles from many of our older adults as children flit around the clinic.

The PRC has developed a relationship with The College School. The College School is located on the campus of the University and serves school-age students in 1st through

8th grade who demonstrate learning differences (e.g. reading disabilities such as dyslexia, learning disabilities, attention issues, etc) that interfere with school success. This new collaboration has been a fun and exciting experience both for providing educational occupational and speech language therapies for children, as well as for opportunities to expand experiences for several of our graduate students to observe and work with a different age group of children.

This year we were able to offer two full-time clinical in-

ternships as well as several part-time integrated experiences in pediatrics. We have enjoyed a growth in interest in pediatrics by many of our students.

The PRC has been busy presenting on topics of pediatric rehabilitation and integrated services in childcare. Megan Schaefer, our associate director, has been able to contribute some of her neurological expertise to our Neurologic and Older Adult Clinic and we look forward to expanding our integration of NOA and Pediatric divisions over the coming year to help

provide care for persons with neurologic issues across the lifespan.



Above: 14 month old learning to drive a mobile robot for use in high tech power mobility of young infants with special needs.

Stroke Clinic Written by Dr. John Scholz

The fall of 2006 witnessed the establishment of the University of Delaware's Stroke Assessment Clinic. This service to the community is modeled after the Department's long-standing MS clinic and was the brainchild of recent PT program graduate Meredith Perny, who provided most of

the initial effort to organize this endeavor.

The mission of the clinic is to provide comprehensive evaluations, exercise recommendations and referrals for individuals who have suffered a stroke, no longer receive therapy, and would like to determine if they would benefit from addi-

tional treatment. The Stroke Clinic is designed for the additional purpose of fostering the academic mission of the Department of Physical Therapy to advance physical therapy practice through the integration of education, clinical practice and research.

The clinic is run by physi-

cal therapy student volunteers under the supervision of Dr. John Scholz, faculty advisor. Mrs. Donna Moore serves as scheduling coordinator. The clinic meets once monthly through the academic year. Patients can contact Mrs. Moore at 831-8521 for an appointment.

Multiple Sclerosis Assessment Clinic Written by Matt Scott

The University of Delaware MS Assessment Clinic continues to provide free, multi-disciplinary evaluations to persons battling Multiple Sclerosis.

Local professionals from other health disciplines including Occupational Health, Nutrition, Gait, Counseling, Energy Expenditure, a representative for Durable Medical Equipment, and a staff mem-

ber from the MS Society Delaware Chapter generously volunteer their time to the clinic. These professionals provide an initial assessment and then make a referral if further evaluation appears necessary.

This year the clinic became the only MS Assessment Class in the country as a one credit elective. In addition to regular responsibilities, each clinic staff member was also re-

quired to critique peer reviewed journal articles regarding current MS research and PT treatment in attempt to make their assessments and home exercise programs evidence based.

The MS Assessment Clinic is not only beneficial for the participants, but also provides the DPT students a hands-on experience to gain confidence when working with this spe-

cific patient population. Those involved in the clinic will be better equipped to treat a patient with MS in his/her future practice. Many DPT students have also expressed interest in taking a more pro-active role with the MS population down the road. The MS Assessment Clinic is in its eighth year and continues to grow bigger and better each year.

2006 HONOR ROLL OF DONORS

We gratefully acknowledge the following alumni and friends for their financial contributions and the encouragement their support represents. This Honor Roll includes gifts contributed to the Department and recorded throughout the 2006 calendar year.

Every effort has been made to assure accuracy of this report. Please notify our Department of any errors or omissions, and please accept our apologies for any discrepancies. For information on how to make a contribution, please contact the Physical Therapy Department at pt-admissions@udel.edu or call 302-831-4576.

Thank You!!

Randee B. Allen
Donald D. Anderson
Thomas M. Apple
Jeremie Axe
Michael J. Axe, M.D.
George L. Barrett IV
Joshua R. Billings
Stuart A. Binder-MacLeod
David C. Blanke
Jonathan L. Borger
Jean M. Butts
Carmen D. Campanelli, Jr., M.D.
Brian R. Catania
Susan C. Cecere
Terese L. Chmielewski
Melissa R. Cole
Annamaria Concannon
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Nancy J. Coto
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FACULTY: AWARDS & DEGREES CONFERRED AS WELL AS GRANTS & PUBLICATIONS IN 2006



STUART BINDER-MACLEOD, PT, PhD, FAPTA, (Medical College of Virginia), Professor and Chair: Effects of electrical stimulation parameters on muscle performance.

Awards: University of Delaware, named the Edward L. Ratledge Professor of Physical Therapy, Spring, 2006.

University of Utah, Division of Physical Therapy, Don W. Wortley Endowed Lectureship. Salt Lake City, Utah, April, 2006.

Temple University, Department Physical Therapy, Dervitz Lecturer. Philadelphia, PA, February 2006.

Publications: Keeton RB and Binder-Macleod SA. Low Frequency Fatigue: An Update. *Physical Therapy*, 86(8):1146-50, 2006.

Thompson WR and Binder-Macleod SA. Association of Genetic Factors with Selected Measures of Physical Performance. *Physical Therapy*, 86(4):585-91, 2006.

Scott WB, Lee SCK, Johnston TE, Binkley J, Binder-Macleod SA. Contractile Properties and the Force-Frequency Relationship of the Paralyzed Human Quadriceps Muscle. *Physical Therapy*, 86(6):788-99, 2006.

Perumal R, Wexler AS, and Binder-Macleod SA: Mathematical Model That Predicts Lower Leg Motion in Response to Electrical Stimulation. *Journal of Biomechanical*, 39(15):2826-36, s2006.

Grants: NIH R01 HD36797 (PI: Binder-Macleod) Title: Force optimization in skeletal muscle. The goal of the project is the identification of optimal patterns of stimulation for skeletal muscles of individuals who have sustained spinal cord injuries. Experimental and mathematical modeling approaches are both used to attack this problem. This grant is currently in its fifteenth year of continuous funding.

NIH R01 HD 38582 (PI: Buchanan) Title: FES and Biomechanics: Treating Movement Disorders. The goal of this bioengineering research partnership (BRP) project is to assist patients with CNS dysfunction to produce improved walking patterns through a combination of functional electrical stimulation (FES), robotic-assistive training, and biomechanical modeling. Dr. Binder-Macleod is the Co-PI on this five-year project. 8/1/02 - 7/31/07

NIH - NICHD/NCMRR - R01 (PI: Snyder-Mackler) Title: NMES after total knee arthroplasty. Dr. Binder-Macleod is an investigator on this grant 3/1/02 - 2/28/07

NIH P20 RR1658 (PI: Buchanan) Title: COBRE Grant - Osteoarthritis prevention and treatment. The goal of this grant is develop a center for biomedical research excellence at the University of Delaware that focuses in the prevention and treatment of osteoarthritis. Dr. Binder-Macleod is the co-director of the Center. 2/23/2002 - 1/30/2007

NIH T32 HD 7490 (Program Director: Binder-Macleod) Title: PT / PhD Predoctoral Training Program. The goal of this training grant is to increase the number of individuals qualified to conduct research in physical rehabilitation. This grant is currently in its eighth year of funding. 5/1/03 - 4/30/08

NIH - R01 HD043859 (PI: Samuel CK Lee) Title: Strength Training Using NMES for Children with Cerebral Palsy. The goal is the project is to identify the effects of using electrical stimulation for strength training in children with cerebral palsy. Dr. Binder-Macleod is an investigator on this project. 7/1/2004 - 3/31/2009



CATHY CIOLEK, PT, GCS, (Ithaca), Associate Director Neurologic and Older Adult Clinic.



IRENE DAVIS, PT, PhD, FACSM, (Penn State), Professor: Biomechanical analysis of running injuries, relationships between lower extremity structure, mechanics and injury.

Awards: Clinical Biomechanics Award for following paper at the American Society of Biomechanics Meeting, "Prospective Investigation of Mechanics associated with

Iliotibial Band Syndrome", authors: Brian Noehren, Joseph Hamill and Irene Davis.

Publications: Butler, R.J., J. Hamill & Davis, IS. (2006) Interaction of arch type and footwear on running mechanics. *Am. J. Sports Med.* 34 (12):1998-2005.

Willson, J, Ireland, ML, and Davis, IS (2006). Core strength and lower extremity alignment during single leg squats. *Med Sci Sport and Exercise* 38(5):945-952.

Zifchock, RA, Davis, IS. & Hamill, J. (2006) Kinetic asymmetry in female runners with and without tibial stress fractures *Journal of Biomechanics*, 39(15):2792-2797.

Milner, CE, Davis, IS and Hamill, J. (2006) Free moment as a predictor of tibial stress fractures in runners. *Journal of Biomechanics*.39 (15):2819-2825.

Zifchock, RA, Davis, IS, Hillstrom, H, & Song, Jinsup (2006). The effect of age, gender and lateral dominance on arch height and stiffness. *Foot and Ankle, Intl* 27(5), 367-372.

MacLean, C., McClay-Davis, I., Hamill, J (2006). Influence of a custom foot orthotic intervention on lower extremity dynamics in healthy runners. *Clinical Biomechanics* 21(6):623-630.

Mullineaux, DR, Milner, CE, Davis, IS, and Hamill, J (2006) Normalization of ground reaction forces. *Journal of Applied Biomechanics* 22:229-231.

Milner, CE, Davis, ID, Ferber, R, Pollard, CD & Hamill, J (2006). Biomechanical factors associated with tibial stress fractures in female runners. *Med Sci Sport and Ex.* 38, 323-328

Grants: The Use of an Instrumented Treadmill to Alter Locomotor Patterns. Army Research Office for \$230,000 for one year beginning 09/01/05.

The Effect of Wedged Foot Orthoses on Lower Extremity Mechanics and Function in Patients with Knee Osteoarthritis. National Institutes of Health (COBRE Grant) **\$932,815** for 5 years beginning 02/2002.



JAMES (COLE) GALLOWAY, PT, PhD, (Arizona), Associate Professor: Development of infant motor behaviors, neuro-motor development of reaching and novel early interventions for infants under 6 months.

Publications: Bhat, A., Galloway, JC. (2006) Toy-oriented changes during early arm movements I: Hand kinematics. *Infant Behavior and Development* 29: 358-372.

Bhat, A., Lee, HM, Galloway, JC. (in press) Toy-oriented changes during early arm movements II: Joint kinematics. *Infant Behavior and Development*

Galloway, JC (in press) The emergence of purposeful limb movement in early infancy: The interaction of experience, learning and biomechanics. *Human Movement*.

Bhat, A., Galloway, JC. (in press) Toy-oriented changes during early arm movements III: Constraints on Joint Kinematics. *Infant Behavior and Development*



NOEL GOODSTADT, PT, MPT, OCS, CSCS, (Hahnemann University), Associate Director Orthopedics, Orthopedic Clinical Residency Coordinator, Sports and Orthopedic Clinic.



AIRELLE HUNTER, PT, MPT, SCS, CSCS (Delaware), Associate Director Sports, Sports Clinical Residency Coordinator, Sports and Orthopedic Clinic.

Awards, Degrees, Grants & Publications continued



GREGORY HICKS, MPT, PhD (University of Pittsburgh), Assistant Professor: Interventions for low back pain, rehabilitation strategies focused on trunk muscle function, and understanding factors that impact body composition and physical function in older adults.

Publications: Ericksen JJ, Bean JF, Kiely D, Hicks GE, Leveille SG. Does gynecological surgery contribute to low back problems in later life? An analysis of the Women's Health and Aging Study. *Archives of Physical Medicine and Rehabilitation*. 2006 Feb;87(2):172-6.

Cecchi F, Debolini P, Lova RF, Macchi C, Bandinelli S, Bartali B, Lauretani F, Benvenuti E, Hicks GE, Ferrucci L. Epidemiology of Back Pain in a Representative Cohort of Italian Persons Aged 65 and Older: The InCHIANTI Study. *Spine*. 2006 May 1;31(10):1149-55.

Hicks GE, George SZ, Vogt MT, Nevitt MA, Cauley JA. Measurement of Lumbar Lordosis: Inter-Rater Reliability, Minimum Detectable Change and Longitudinal Variation. *Journal of Spinal Disorders and Techniques*. 2006 Oct;19(7):501-6.



STACIE LARKIN, PT, DPT, MEd, (Boston University), Academic Coordinator of Clinical Education.



JOSEPH LUCCA, PT, DPT, PhD, GCS, (Delaware), Associate Professor: Health care delivery systems for the elderly.



TARA JO MANAL, PT, DPT, OCS, SCS, (Delaware), Director of Clinical Services, Physical Therapy Clinics.

Awards: James A. Gould Excellence in Teaching Orthopedic Physical Therapy Award Orthopedic Section of the American Physical Therapy Association 2006

Publications: Chapter: Manal TJ, Snyder-Mackler L Electrical Stimulation for Pain Modulation Clinical Electrophysiology: Electrotherapy and Electrophysiologic Testing Ed 3 Robinson and Snyder-Mackler Williams and Wilkins Baltimore, MD 2006 in press

Monograph: Manal TJ, Sturgill L Current Concepts of Orthopedic Physical Therapy: Knee Current Concepts of Orthopedic Physical Therapy APTA Home Study Course APTA 2006



PAUL METTLER, PT, EdD, (Northeastern), Associate Professor: Higher education administration.



DARCY REISMAN, PT, PhD, (Delaware), Assistant Professor, Academic Director of Neurologic and Older Adult Clinic: Understanding the mechanisms of movement dysfunction following stroke, as well as how and why different treatments improve this dysfunction.

Publications: Reisman DS, Scholz JP. Workspace location influences joint coordination during reaching in post-stroke hemiparesis. *Experimental Brain Research*, 170:265-276, 2006.



KATHERINE RUDOLPH, PT, PhD, (Delaware), Assistant Professor: EMG to characterize movement strategies in people with orthopedic and neurologic conditions and the development of therapeutic equipment.

Publications: Dong S, Lu, K-Q, Sun J-Q, Rudolph K. Smart Rehabilitation Devices - Part 2. Adaptive Motion Control. *Journal of Intelligent Material Systems and Structures* 2006;17(7):555-561.

Dong S, Lu, K-Q, Sun J-Q, Rudolph K. Smart Rehabilitation Devices - Part 1. Force Tracking Control. *Journal of Intelligent Material Systems and Structures* 2006;Jun;17:543-552.

Dong S, Lu KQ, Sun JQ, Rudolph K. A prototype rehabilitation device with variable resistance and joint motion control. *Med Eng Phys*. 2006 May;28(4):348-55.

Dong S, Lu, K-Q, Sun J-Q, Rudolph K. Adaptive force regulation of muscle strengthening rehabilitation device with magnetorheological fluids. *IEEE Trans Neural Syst Rehabil Eng*. 2006 Mar;14(1):55-63.

Lewek MD, Scholz J, Rudolph KS, Snyder-Mackler L. Stride-to-stride variability of knee motion in patients with knee osteoarthritis. *Gait Posture*. 2006 Jun;23(4):505-11.

Ling SM, Rudolph KS. *Osteoarthritis*. In Stephen T. Wegener ST, Basia L, Gall EP (eds) *Clinical Care in the Rheumatic Diseases*. 3rd Edition. American College of Rheumatology, Atlanta, GA, 2006.

Grants: NIH R21 HD047468 Principal Investigator *Smart Knee Brace*



STEVE TEPPER, PT, PhD, (University of Maryland), Clinical Professor.



MEGAN SCHAEFER, PT, DPT, (Temple), PCS, Associate Director Pediatric Rehabilitation Clinic.



LAURA A. SCHMITT, PT, DPT, OCS, SCS, ATC, (Temple), Physical Therapist, CCCE, Clinical Education Liaison, Sports and Orthopedic Clinic.



JOHN SCHOLZ, PT, PhD, (Connecticut), Professor: Study of basic processes of motor coordination and control, including movement dysfunction in patients with problems affecting the central nervous system.

Publications: Banala SK, Agrawal SK, Fattah A, Krishnamoorthy V, Hsu WL, Scholz J, Rudolph K (2006). Gravity-balancing leg orthosis and its performance evaluation. *Robotics, IEEE Transactions on Robotics and Automation*, 22(6): 1228-1239.

Tseng YW, Scholz JP, Martin V (2006). Effects of movement frequency and joint kinetics on the joint coordination underlying bimanual circle drawing. *Journal of Motor Behavior*, 38: 383-404.

Lewek MD, Scholz JP, Rudolph KS, Snyder-Mackler L (2006). Stride-to-stride variability of knee motion in patients with knee osteoarthritis. *Gait and Posture*, 23: 505-11.

Hsu W-L, Krishnamoorthy V, Scholz JP (2006). Evaluation of an alternative Test of MVIC for EMG normalization in patient populations.

Awards, Degrees, Grants & Publications continued

Muscle and Nerve. 33(2): 232-241

Reisman D, Scholz JP (2006). Workspace location influences joint coordination during reaching in post-stroke hemiparesis. *Experimental Brain Research*. 170:265-76

Grants: National Institutes of Neurological Diseases and Stroke, Principal Investigator. Title: Coordination of reaching in healthy adults and stroke. Period: January 1, 2005 through December 31, 2008 (5-NS050880-02)

National Institutes of Health. Title: FES and Biomechanics: Treating movement disorders; Investigator on multi-departmental grant to train walking in patients following stroke. Period: September 2002 - August 2007, PI: Thomas Buchanan and Stuart Binder-Macleod (R01HD38582-01A2).

National Institutes of Health. Investigator-subcontractor. Title: Organization of a simple synergy; PI: Mark Latash, PhD, Department of Kinesiology, The Pennsylvania State University. Grant Period: February 2006-January 2007. (2286-UD-DHHS-5032)



KENNETH SEAMAN, PT, DPT, MA, (Delaware), MSCS, Academic Coordinator of Clinical Education, Director MS Assessment Clinic, Director Service Learning

Awards: Received Specialist Certification as a Multiple Sclerosis Certified Specialist.



LYNN SNYDER-MACKLER, PT, ScD, FAPTA, (Boston University), Professor: Examination of rehabilitation protocols following ACL reconstruction, examining rehabilitation following ACL injury, osteoarthritis, high tibial osteotomy, and total knee Arthroplasty.

Awards: University of Delaware, named the Alumni Distinguished Professor, , Spring, 2006.

Grants: NIH R01 HD37985 (PI: L. Snyder-Mackler) NIH/NCMRR. Title: Dynamic Stability in the Anterior Cruciate Ligament Injured Knee. The overall goal of this work is to develop more effective, physiologically based, non-operative rehabilitation programs to dynamically stabilize the knee after anterior cruciate ligament rupture.

NIH R01HD041055- (PI: L. Snyder-Mackler) 15-Mar-2002 - 28-Feb-2007. NIH/NCMRR 15%. Title: NMES for Older Individuals After Total Knee Arthroplasty. The overall goal of this work is to determine if physiologically and morphologically based rehabilitation programs are more effective than traditional rehabilitation to counter changes in muscle strength and function in older individuals.

NIH R-01 AR48212-02 (PI). 4/11/05-3/31/10. NIH/NIAMS 25%. Title: Can Neuromuscular Training Alter Movement Patterns? The overall goal of this work is to determine whether effective rehabilitation programs to dynamically stabilize the knee improve outcome and reduce mal adaptations after ACL reconstruction in a population at great risk for the development of knee OA.

NIH P20RR016458-010003 (Co-PI). 23-Feb-2002 - 31-Jan-2007. NIH/NCMRR 10%. Title: Knee alignment and the progression of osteoarthritis. The purpose of this study is to characterize the differences in movement and muscle activity before and after an opening wedge osteotomy with callus distraction to correct genu varum.

NIH S10RR022396-01 (PI L. Snyder-Mackler) 04/01/2006 - 03/31/2007. NIH/NCRR. 09 person months. Title: Motion Analysis System for Study of Human Movement Dysfunction.

NIH T32 HD 7490-03 (PI: Binder-Macleod, S.A. 5/1/03 - 4/30/08. 5%. Title: PT / PhD Predoctoral Training Program. The goal of this pre-doctoral training program is to improve the quality

and quantity of individuals who will contribute to the knowledge base and practice of physical rehabilitation.

NIH 1K01HD050582-01A1: (Co-Mentor; PI: D.Reisman) .45 person months. 4/20/2006-3/31/2011. Title: Locomotor Adaptations Following Stroke. The goal of the proposed research is to understand the capacity of persons with post-stroke hemiparesis to adapt locomotor interlimb coordination and the influence of this on gait symmetry.

NIH 1K01HD043352-03 (Co-Mentor) (PI: Gretchen Salsich) 01-AUG-2003-30-JUL-2008. NIH/NCMRR. Title: Patellofemoral Pain: Tibiofemoral Rotation Impairments. The long-term goal of the proposed research is to better understand the mechanisms by which lower extremity alignment and movement impairments contribute to the development of musculoskeletal pain conditions.

Publications: Hurd WJ, Chmielewski TL, Snyder-Mackler L. Perturbation-enhanced neuromuscular training alters muscle activity in female athletes. *Knee Surg Sports Traumatol Arthrosc*. 2006 Jan;14(1):60-9. Epub 2005 Jun 4.

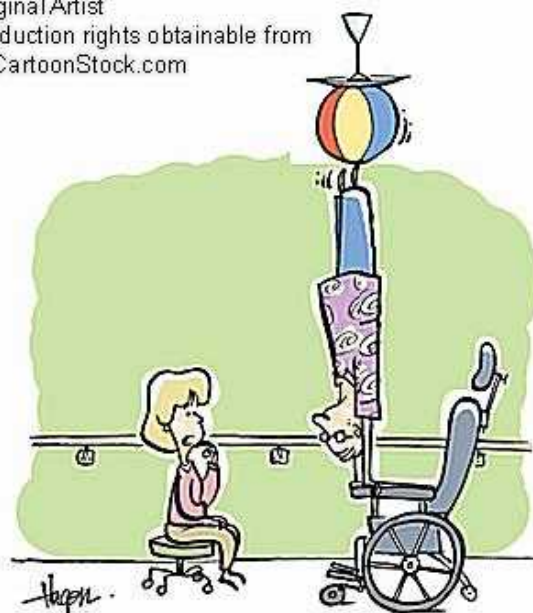
Barrance PJ, Williams GN, Snyder-Mackler L, Buchanan TS. Altered knee kinematics in ACL-deficient non-copers: A comparison using dynamic MRI. *J Orthop Res*. 2006 Feb;24(2):132-40.

Barrance PJ, Williams GN, Snyder-Mackler L, Buchanan TS. Do ACL injured copers exhibit differences in knee kinematics?—an MRI study. *Clin Orthop Rel Res* 2007 Jan;454:74-80.

Petterson SC, Snyder-Mackler L. The use of neuromuscular electrical stimulation to improve activation deficits in a patient with chronic quadriceps strength impairments following total knee arthroplasty. *J Orthop Sports Phy Ther*.

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Let's Keep in Touch!

We will continue to include a page in the Newsletter that highlights the Alumni updates we receive throughout the year. To be included: weddings, births, academic achievements, and also deaths. In addition, all alumni information received will be entered online, and organized by graduating year.

We'd like to hear from you and share your news with other alumni! Please mail this completed form to: Cyndi Haley, 301 McKinly Lab, University of Delaware, Physical Therapy Department, Newark, DE 19716, or fax to (302-831-4234). You may also e-mail us your news at: www.udel.edu/PT/alumni/updatenews.html

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