



UNIVERSITY OF DELAWARE DEPARTMENT OF PHYSICAL THERAPY
ALUMNI NEWSLETTER

Volume 10,
 Spring 2009

Editors: Jessie Haury, DPT Class of 2009 & Mackenzie Roby, DPT Class of 2010

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MESSAGE FROM THE CHAIR



Greetings, I hope this past year has been good to you and your family. As you will see when reading this newsletter, the Department of

Physical Therapy continues to grow and lead our profession in many new and exciting ways. In addition, effective January 1, 2009, we changed colleges. We left the College of Arts and Sciences and are now housed in the College of Health Sciences. We believe that the time was right for this move and that it will open up several exciting opportunities for growth and development.

Although it has not yet been publicly announced (but will be by the time you receive this newsletter), we were recently informed that Lynn Snyder-Mackler has been named the 2009 recipient of the Francis Alison Award, the University's highest faculty honor. Established in 1978 by the Board of Trustees, the Alison Award recognizes the scholarship, professional achievements and dedication of the UD faculty. This is a great honor for Lynn, our Department, and the College. We should all be proud of Lynn's outstanding achievements and we can all agree this recognition is much deserved.

I also want to invite everyone to a very bitter sweet celebration. Some of you may know that after nearly 35 years at the University, Dr. Joe Lucca has announced that he will

be retiring. He plans for this spring to be his last full semester at UD. We will be hosting a party at the APTA's Annual Conference & Exhibition to be held in Baltimore on Friday June 12th to celebrate Joe's storied career at UD. We have reserved a room that can hold at least 200 people and we anticipate that it will be filled to capacity. Please plan to join us. I know it will mean a great deal to Joe to have you there. There are more details in the newsletter and we will be sending out invitations soon. Feel free to contact Cyndi Haley (302-831-4576 or chaley@udel.edu) if you have any questions. Details and updates will also be posted on our website.

Once again, 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. Finally, I would like to thank Cyndi and the DPT students, Jessie Haury and Mackenzie Roby, for all of their hard work in helping to pull this newsletter together. Once again, they have done a great job. We hope you enjoy it!

Best wishes for a happy and healthy year,

Stuart A. Binder-MacLeod

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

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!

Calendar of Events	
UD Forum & Reunion Weekend	June 5-7, 2009
Retirement Party for Joe Lucca	June 12, 2009: 6:00-8:30pm (See Page 6 for more information)
APTA National Conference	June 10-13, 2009, Baltimore
Graduation DPT Class of 2009	January 9, 2010
Combined Sections Meeting (CSM)	February 17-20, 2010, San Diego

CLASS OF 2008 GRADUATION



Congratulations DPT Class of 2008 !

Listed Alphabetically:

Douglas Adams (Class President), Lauren Blubaugh (Fundraising Chair), Greg Cecere, Eric Chicas, Katie Clements, Elizabeth Cook Henninger, Steve Correa, Nicole Defeo, Desiree Dye, Rachel Farley, Jennifer Flug (Vice President), Jamie Hartnett (Treasurer), Erika Hess (Social Chair), Ari Kaplan, Eric Kennedy, Andrew Lynch, Margaret Manning, Amy Meyer, Sarah Meyer, Lindsey Moore, Yasmine Noorali, Amy Novotny, Kimberly Pasquale (Secretary), Chad Pattee, Rebecca Silver, Jennifer Tola, Sara Toner, Rebecca Wolfinger

Message from Doug Adams, President of the Class of 2008:

The class of 2008 would like to sincerely thank everyone who helped us along the way to our graduation! All of your efforts have assisted in preparing us to begin our careers as young professionals. We look forward to the future and will surely not forget all those who got us started on the path to excellence.

With sincere thanks,
UDPT Class of 2008



To the graduating class:

- Faculty Award: to **Jennifer Flug** for demonstrating exemplary personal qualities deemed most valuable to the PT profession, including integrity, cooperation, initiative and leadership.
- Director's Award: to **Jennifer Tola** for special contributions of time and effort to improving the UDPT program and helping the faculty and director fulfill the missions of education, scholarship, and service.
- Scholarship Award: to **Amy Novotny** for a high level of scholastic achievement in the UDPT program as demonstrated by the highest grade point average in the class.

To Community Member & Alumni:

- Cossoy Award: to **Andrew S. Reisman, MD** for extraordinary contributions to the UDPT program from outside the department.
- Catherine Dozier Kohlenstein Clinical Educators Award: to **Amy Briley** for outstanding contributions to the clinical education of UD students.
- Alumni Award: to **Cynthia Barbee** who made outstanding contributions to the Physical Therapy Department.

To UD Physical Therapy Residents:

- Certificate of Completion of the Orthopedic Residency was presented to Teonette Velasco.
- Certificate of Completion of the Geriatric Residency was presented to Jessalyn Ciampa

STUDENT NEWS

Dividends... Class of 2009 Written by Chris Runkle, SPT



DPT I Student Matt Westcott shows off his handmade "Dermatome Man" Costume during the 2008 Halloween Luncheon. Students were eager to use him as a human study reference.

The University of Delaware class of 2009 is now well on its way to becoming new clinicians in the profession of physical therapy. Our second year of physical therapy school has been both a challenge and an adventure. We have continued to progress through our course work, and at this point in the program, we have the opportunity to spend a lot more time in the clinic developing our hands-on skills and clinical practice.

Over the past year, we have progressed as clinicians while working in the University of Delaware physical therapy clinic during our integrated clinical experiences, and we are realizing how all of the time and work we put into our academic courses during our first year is

now paying off. As the year moves forward, our full time clinical internships are approaching quickly and our class will once again be spread out across the country with sites in places such as North Carolina, Texas, and California!

As always, events outside the department are important too. Members of the UDPT class of 2009 once again participated in the polar bear plunge in February, and during the spring of 2008 the UDPT program successfully hosted its first CEU course featuring Dr. Joshua Cleland. The course was well-attended and all proceeds were donated to the Georgia State - Marquette challenge for the promotion of research within the profession. UDPT is already planning on setting up more

opportunities for CEUs, and we hope to offer courses on a more regular basis in the near future.

As a class, we look forward to welcoming the UDPT class of 2011 in June, and when looking back and remembering our first days, it is hard to believe we are almost third year students!



We Are Family...Class of 2010 Written by: John Mayer, SPT

I would like to start by thanking the faculty and second and third year students for welcoming the Class of 2010 into the UDPT program and helping to facilitate our transition into graduate life. We are very excited to be a part of the UDPT tradition of academic and professional excellence. Many of us are eager to start utilizing our academic knowledge in a clinical setting by having the opportunity to treat patients this spring in the UDPT clinics. Our entire class is looking forward to embarking on our first clinical affiliation this summer in acute care.

Though we are the "new kids on the block", our class has been very proactive with taking part in several activities over the fall and winter semesters. We prepared the annual Halloween luncheon for the faculty and students, organized Teacher Appreciation Week which honored the faculty and staff for their hard work and dedication, and participated in fundraisers for the UDPT club.

Our class has continued the tradition of service learning by caring for people in the Newark area and promoting the physical therapy profession to the community as well as the UDPT program to prospective students. We were also able to assist the second year PT students in organizing the first student run CEU course at UD for the Georgia State - Marquette Challenge with proceeds benefiting the Foundation for Physical Therapy. Due to scheduling conflicts, the DPT Class of 2010 was unfortunately unable to attend CSM in Las Vegas but is very proud of the faculty and other students representing UD's Physical Therapy Department.

During summer orientation, our diverse group of students was told we would not just be a class but eventually a family. As the semester moved forward, it was interesting to see the class evolve through the obstacles and stressors faced thus far. We have become more unified

and I can certainly see a family dynamic. As surprising as it may be, not all of our time together is spent in the classroom. Several of us attended events such as a Blue Rocks game and enjoy playing intramural sports with our team dubbed the "formalde-herd", reflecting our roots in the cadaver labs this past summer.

The spring semester is building up to be a busy one for most, but we have several events we are looking forward to participating in. We have plans, as active APTA student members, to travel to the Annual APTA Conference which happens to be in our backyard in Baltimore, MD. Also, we are eager to help with the Special Olympics and Relay for Life as well as attend our first UDPT formal. And though it is a little early, we are anxious for the opportunity to welcome the Class of 2011. It was recently brought to my



DPT 1s show off their school spirit during Dr. Steve Tepper's Applied Physiology class. Dr. Tepper had the class come up with a creative picture that represented UDPT to send to other PT classes he teaches around the country.

attention that we will technically be the new second year students by the end of spring semester, which is an exciting prospect to say the least. With this brings the opportunity of attaining a more integral role in the program. We feel that the bar has been set high for our class and we look forward to raising it higher. We greatly anticipate continuing the tradition of extending the same warm welcome we were given and introducing the new class into the UDPT family.

FEATURED ALUMNI

Cynthia Barbee, MS, PT, DPT

Recipient of the 2008 Alumni Award



Cynthia Barbee graduated from the University of Delaware with a Master's Degree in Physical Therapy in July of 2002. Since then, she has been working at Johns Hopkins Hospital in Baltimore, Maryland, where she has advanced to the position of Team Coordinator. Primarily covering the oncology units

(medical, surgical, orthopedic, and urological), she supervises Physical and Occupational Therapist as well as Speech Language Pathologists in the acute care setting.

Along with patient care, Cynthia participates in performing functional assessments to gather data that

applies to physical therapy interventions in the intensive care unit for patients with acute lung injury/acute respiratory distress syndrome. She is an author of a published abstract that compiled the data to begin looking at evidenced based practice for providing physical therapy in order to improve long term outcomes for these patients. This research is on-going as she continues to gather data for the research team.

Cynthia has attended the APTA National Conferences as well as Combined Sections Meeting. In January 2009, she completed the t-DPT program at Temple University. In addition to continuing education, she also lectures to students regarding physical therapy treatments and interventions in the acute care setting.

In the fall of 2008, Cyn-

thia was afforded the wonderful opportunity through Johns Hopkins to travel abroad to Switzerland to provide physical therapy to a patient while recovering at home. She spent five weeks performing treatments/interventions twice a day to the patient, who was also participating with a Speech Language Pathologist. In December, Cynthia was able to return to visit the patient and observe further progress.

Cynthia and her husband, Randy, have two dogs and live in Manches-ter, MD. She is also a Longaberger Home Consultant in her spare time.

We would like to thank Cynthia for her dedication to the UDPT Program and for continuing to promote excellence in the profession!

Katie Clements, PT, DPT & Jamie Hartnett, PT, DPT

Rapid Response Saves UD Professor's Life Article based from UDaily

Recent class of 2008 graduates Jamie Hartnett and Katie Clements had their training in emergency response put to the test during UD's June 2008 Annual Wellness Fair. When Assistant Professor of Art Conservation Vicki Cassman collapsed while having her blood pressure taken by Hartnett, the two sprung into rapid action with assistance from UDPT Professor Cathy Ciolek, who was staffing a nearby table. "I'd just taken the cuff off [Cassman's] arm, when I looked over and noticed that her head had dropped

down," Hartnett recalled. "When I tried rousing her and didn't get a response, I went and got the two medical professionals from Christiana Care and called 911." Clements quickly retrieved an AED which was then used by Ciolek to shock Cassman's heart back to life. "The incident was really a team effort," Ciolek said. "The CPR performed on Cassman by the two Christiana Care employees [Kathy Sullivan, a nurse-practitioner, and F. Todd Harad, a vascular surgeon] was immediate, and the quick accessibility

of the AED saved critical minutes." As health care providers, physical therapy students are trained professional rescuers, certified in administering emergency oxygen and in identifying and using AEDs. Following a stenting procedure to address an artery with 90% blockage, Cassman reflected, "I feel extremely lucky, and I'm grateful to everyone who helped me that day. I don't know what little angels I had over me, but I was certainly in the right place at the right time."



Rescuers Professor Cathy Ciolek & DPT Class of 2008 Graduate Jamie Hartnett (Picture by Kathy Atkinson)

ALUMNI UPDATES

Alumni News

The following news was collected from responses to "Let's Keep in Touch" in the Spring 2008 Newsletter and via e-mail request. Congratulations to all of our graduates for their personal and professional accomplishments!



Class of 1979

Jim Groschan is continuing his outpatient orthopedic practice in Lutherville, MD (just north of Baltimore). He has owned Groschan and Associates since 2003. His twin daughters were recently admitted to the DPT program at Quinnipiac University in Hamden, CT and will graduate in December of 2012.

Class of 1980

Nancy Liggett Vinroot works as the Therapy Services Manager at the Deer's Head Hospital Center in Salisbury, Maryland. She has been married to Paul Vinroot for 28 years and has four children and two grandchildren.

Class of 1981

Karon Goggins (formerly Karon McMinn) graduated from the t-DPT program at Virginia Commonwealth University in December 2008.

Class of 1983

Dave Kietrys, PT, MS, OCS has lived in Center City Philadelphia since 1983. He is currently an Associate Professor at the University of Medicine and Dentistry of New Jersey within the School of Health Related Professions in Stratford, NJ. He is also a doctoral candidate at Temple University. Dave was civil-unioned in New Jersey in December 2007 and married in Massachusetts in August 2008 to his partner of 20 years, Jack Edler. He is continuing to work for full marriage equality of all Americans regardless of sexual orientation.

Dave would like to get the Class of 1983 together on Facebook, so look for him if you are a member, and if you are not, join soon to see what others are up to!

Class of 1994

Jeff Konin is an Associate Professor at the University of South Florida. He was recently appointed to serve as Vice Chair of the Department of Orthopaedics & Sports Medicine. He also currently serves as the Executive Director for the Sports Medicine & Athletic Related Trauma (SMART) Institute at USF, and resides in Tampa, Florida with his wife Gina, and two boys Kyle (11) and Chris (9).

Class of 1995

Liz Kahrl MPT, COMT, ATC (formerly Liz Rovere) accepted a job in the outpatient clinic at George Washington Medical Center following graduation. As inpatient help was also needed, she got several months experience bridging

across all areas of PT. After 3 years, she transitioned to outpatient private practice, where she has worked for the past 11 years, acquiring her certification in orthopedic manual therapy in 2008. Liz married a wonderful husband in 1999. In 2000 she did the "Make a Wish" Foundation's Olympic distance triathlon, which she squeezed in before having two great kids – Kayla, who is now 6, and Peter, 3.

Class of 1996

Jennifer Lee Stoddard is now *Jennifer Eley* following her marriage to husband David. The couple resides in Middletown, DE.

Class of 1997

Kristen Henderson, MPT, lives in Ellicott City, Maryland with her husband Mark and two children, Connor, who is 5½ years old, and Grace, who turns 3 in May. She and Mark have a 9½ year old yellow lab named Daisy, who was their first "baby". After graduation, Kristen started working at Mt. Washington Pediatric Hospital in Baltimore. She worked at Mt. Washington for 7 years and focused primarily on the inpatient rehab unit but also did some work with outpatients. Her favorite patients were the children who had undergone hemispherectomies (yes, removal of half the brain) by Dr. Carson at Johns Hopkins because she could see such amazing recovery of function in only 1-2 weeks! Kristen left Mt. Washington a year after Connor was born and started working in the local school system, Howard County Public School System. She is about to finish her 5th school year in HCPSS and expects to be there for quite a while!

Class of 1998

Jim Griesi is the Director of Operations for Bon Secours Rehab Services in Hampton Roads, VA. The local Rehab facilities include a 25 bed CARF accredited ARU, Home Health Agency, 3 med surg hospitals, 100/P sites and ATC contracts with 20+ local schools/semi professional sports teams. He is living in Chesapeake, VA with wife Nanette (also a PT!) and three children (Kyle–5, Mitch–4 and Julia–3). Jim's new passion is half marathons; he recently finished the Shamrock Half Marathon in Virginia Beach. He tries to get back to UDPT each summer for the Job Fair. He is working on updating the class of '98 e-mail list, so please email him at JVGriesi@rehabcare.com with the following info: last name, married name, facility name, city, state, e-mail, type of facility. Jim would love to hear how they rest of the class is doing, and sends a big shout out to class of '98 (especially the Happy Hour crew!).

Class of 2000

Colleen Sullivan has been working for SportsCare of America Physical Therapy since graduation. She was a staff therapist for 5 years and has been a director for the past 3 years. Colleen got married in 2004 to a UD alumni, Edward Fagan, and is now Colleen Fagan. She and Edward are living in Neptune, NJ.

Class of 2002

Abby & Marc Douek now have a son, Landon, who is 19 months old. Abby works in an outpatient orthopedic facility and also with the Carolina Hurricanes hockey team, where she is currently working on research with the orthopedic surgeon for the team. Marc is now a partner in his outpatient practice, which is doing very well, with a recent move to expand and add another PT. Abby and Marc are living in Raleigh, NC.

Class of 2003

Tim Rementer and his wife Katie had a baby boy on December 28, 2007: Ryan William Rementer.

Class of 2004

Becky O'Neill and her husband Jim had a daughter, Maureen, born on October 3, 2007, and are expecting another baby due in July.

Class of 2006

Stephanie Kuehne married Walter Wilson, Jr. on May 25, 2008 and is now *Stephanie Wilson*.

Julia Kegelman married Matt Allmond on October 18, 2009. The pair bought a home in Wilmington, DE and Julia is still enjoying working at The Back Clinic in Pike Creek. She is currently working toward a certification in Functional Manual Therapy (CFMT) from the Institute of Physical Art.

Michael Wheeler is engaged (as of December 12, 2008) to Heather Walenga, with wedding plans for June 12th, 2010 at the McDonogh School Chapel in Owings Mills, MD. Heather is also a Doctor of Physical Therapy (Northwestern 03') and plays/coaches for the Washington Wetskins, a DC area coed waterpolo team. Besides coaching (Mike is a volunteer coach for Eagle Swim Team (EST)), water polo, and work, Mike and Heather enjoy outdoor activities, college football, tailgating, and travel.

Sarah Caldwell Wellenhoffer would like to announce the birth of her son, Spencer Christian Wellenhoffer, born February 17, 2009.

Class of 2008

Nicole DeFeo is working at Al Dupont Hospital for Children/Nemours in the Outpatient Department. She is also eagerly planning for her wedding, scheduled for March, 2010.



DEPARTMENT NEWS

Dr. Joe Lucca, Professor of 35 Years, Plans Retirement



Dr. Joe Lucca, PT, DPT, PhD, GCS

All good things must come to an end. Joseph Lucca, PT, DPT, PhD, GCS (Joe to anyone who has know him for more than ten minutes), a beloved professor and mentor to countless students within the Physical Therapy Department since July of 1974, has decided to retire. Dr. Lucca will go on sabbatical during the fall of 2009 prior to officially retiring in 2010. How do you summarize a career that impacted so many people in so many ways? You truly cannot but here is our attempt.

Joe was born and raised in South Philadelphia. He earned a Bachelor's Degree in Special Education from West Chester University, a Certificate in Physical Therapy at the University of Pennsylvania, an MEd in Human Development and Educational Psychology

at Temple University as well as a PhD in Family Studies from the University of Delaware. He also completed a DPT at Temple University. He became board certified in Geriatrics in 2002.

Dr. Lucca began his career at the Delaware Curative workshop in Wilmington as a Staff Therapist in September 1969, pursuing his first love in physical therapy, pediatrics. By 1972 he had become the Director of the Pediatric Program, a position that he maintained for 2 years. Dr. Lucca started at the University of Delaware in 1974, working as an Assistant Professor in the Department of Physical Therapy until 1979. He helped the late Barbara Cossoy establish this brand new BS in Physical Therapy program. In those early years, Joe taught just about everything in the PT curriculum but has focused on geriatric issues lately. Joe has served as an Associate Professor since then and been a great help to the chairs that followed Barbara in the development of the MPT and later the DPT programs. Joe has also owned Home Based Physical Therapy since 1975.

Dr. Lucca has done much to advocate on behalf of the profession and the University. He is a member of the APTA Pediatrics, Geriatrics, and Research Sections, serving as the State Representative of the Pediatric Section from 1976-1980 and the Treasurer for the Section on Research from 1982-1984. For the DPTA, Dr. Lucca first served as Vice

President from 1975-1979, as President from 1980-1985, as Delegate or Chief Delegate from 1983-1999, as Treasurer from 2000-2007, as alternate delegate from 2000 through the present, maintained the DPTA website between 2003-2005, and once again began a stint as President in 2007. Dr. Lucca also served on the State Board of Physical Therapy examiners for eight years. He was awarded the honorary first Joe Lucca Distinguished Service Award by the DPTA in 2005 for his efforts, as well as the Friends of Private Practice Award given by the Private Practice Section of the APTA and the Lucy Blair Service Award by the APTA in 2007. His lengthy service record spans far beyond these two organizations, making it too difficult to fully encapsulate here.

Within the Department of Physical Therapy, Dr. Lucca has served as Coordinator of Program Assessment Activities (2000-present), a member of the Departmental Web Site Team (2000-present), Chair of the Public Committee (1999-present), Chair of the Alumni Committee (1998-present), Chair of the Safety Committee (1997-present), Chair of the Minority Recruitment Committee (1996-present), Chair of the Curriculum Committee (2006-2007), Chair of the Search Committee for Clinic Director (1999), and has actively assisted with the admissions process since 1980. In recent years, Dr. Lucca has primarily taught Introduction to PT as a Profes-

sion, Research Methods, Educational Process in Community Health, Geriatrics, and Psychosocial Aspects of Health and Disease.

Joe has demonstrated an obvious love for our profession, the University of Delaware, the Physical Therapy Department, and, most importantly, the many, many students who have benefitted from his knowledge and caring heart. It is hard to imagine this department without him. It is impossible to summarize of the things he did over the years to contribute to the department's significant advancement. He has always been there when we needed him and carried many of the jobs that go unsung as we became more and more nationally recognized. The most incredible understatement we can make is to say how much we will miss him and the way he touched each and every one of our lives.

A celebration in Dr. Lucca's honor will be held on June 12th, 2009 during the APTA National Conference in Baltimore, MD. Drinks and hor d'oeuvres will be served at the Baltimore Hilton (401 West Pratt Street) from 6:00-8:30pm. All current students, alumni, colleagues, and friends of Dr. Lucca are invited to attend. Invitations are forthcoming. Please e-mail Cyndi Haley at chaley@udel.edu for inquiries.

2008 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 CEU course featuring Dr. Joshua Cleland with proceeds donated to the Georgia State-Marquette Challenge
- Collected canned goods for the Thanksgiving food drive
- Took the Polar Bear Plunge in Lewes, DE to benefit the Special Olympics
- Assisted with Special Olympics events
- Participated in Relay for Life
- Organized a clothing drive to benefit the Friendship House of Delaware
- Provided scoliosis screenings at Newark Charter School
- Ran 5K race for Scott Mackler to benefit the ALS Foundation
- Volunteered at MS Clinic
- Volunteered at Stroke Clinic
- Gave massages at the MS Society "Bike to the Bay"
- Staffed Newark Community Day booth to provide education about physical therapy
- Sold tickets and worked as spotters for UD's Field Hockey and Lacrosse games
- Provided free blood pressure screening for students and faculty at Delaware State University
- Participated in the Brain Injury Association 5K & 1 Mile Walk
- Attended the Traumatic Brain Injury Support Group at A.I. Dupont with patients
- Assisted with assessment of service dog matching with safe gait pattern for TBI patient at Pennsylvania's Canine Partner's for Life
- Promoted pediatric PT at National Down Syndrome Society "Buddy Walk"
- Volunteered to work with a vast number of patients as a supplement to their current therapy at UD's Clinics or as a continuation of their therapy



Special Olympics of DE, Polar Bear Plunge participants (left to right): Jeff O'Laughlin, Lisa Parton, Ryan Scheller, Mackenzie Roby, Hayes Glanden, Anthony Carroll

DEPARTMENT NEWS

2008 Professional/Staff Promotions, New Hires, Retirements

New Hires:

- Joy Harms, Records Analyst/Coordinator, UDPT Clinic
- Teonette Velasco, Part-time Staff PT & Research Assistant, UDPT Clinic
- Marty Fontenot, Staff Physical Therapist, UDPT Clinic
- Karla Bell, Associate Director of Orthopaedic Physical Therapy & Director of Orthopaedic Clinical Residency Program, Clinic Coordinator of Clinical Education, UDPT Clinic

Moving on...

- Noel Goodstadt, PT, DPT, OCS, former Associate Director of Orthopaedic Physical Therapy in the UDPT Clinic, accepted a position at Drexel University during the summer of 2008. We wish him the best in this new opportunity to serve his alma mater.

Multidisciplinary Project Seeks to Improve Walking After Stroke Article based from UDaily



In May 2008, a team of researchers in UD's Department of Physical Therapy, led by Dr. Stuart Binder-Macleod, Edward L. Ratledge Professor of Physical therapy, were awarded a \$2.8 million, five-year grant from the National Institutes of Health to develop an innovative treatment to improve daily function and quality of life in patients with hemiparesis following stroke. Such individuals typically walk with difficulty and at speeds slow enough to limit them from participating in

daily activities. Recovering walking ability is a major challenge as well as a priority for those who have had a stroke and for the rehabilitation specialists who treat them.

Known as the FastFES Project, the study combines two interventions which have been shown to be helpful in stroke rehabilitation: the development of a customized treadmill walking program along with application of functional electrical stimulation (FES). Participants practice walking on the treadmill with parameters designed to improve their walking pattern, increase their walking speed, and reduce the energy cost of overground walking. In addition, the investigators use functional electrical stimulation of several leg muscles during walking to strengthen weak muscles and address gait deviations. The stimula-

tion methods chosen are based on the novel work of Dr. Binder-Macleod, who is internationally known for his research in muscle physiology and electrical stimulation, in his Muscle Performance Laboratory. It is hoped that this combined treatment approach will increase walking speed and efficiency among patients more than current standard rehabilitation procedures.

The multi-disciplinary research team supporting Dr. Binder-Macleod includes Dr. Darcy Reisman, Assistant Professor of Physical and a researcher who is an expert in motor control and locomotion in people with hemiparesis; Katherine Rudolph, Assistant Professor of Physical Therapy; Ramu Perumal and Margie Roos, research scientists in physical therapy; William Farquhar, Assistant Professor of Health, Nutrition and Exercise

Sciences; and Jill Higginson, Assistant Professor of Mechanical Engineering.

The team plans to study 60 survivors over a five year period. Involvement in FastFES includes both detailed evaluations and up to 36 training sessions to identify the most effective training procedures. The training sessions, conducted under the supervision of a licensed physical therapist, are customized for each individual with the goal of identifying a training strategy to optimize that person's walking ability. There are no out-of-pocket expenses for participants in the study.

For more information about the FastFES study, please visit www.udel.edu/PT/Research/fastFES, send an e-mail to UDPTresearch@udel.edu, or call (302) 831-4616.

Infant Motor Behavior Laboratory Boasts Award-Winning Talent Article based from UDaily

Dr. Cole Galloway's Infant Motor Behavior Laboratory continues to grow and flourish, with Stacey Dusing and Michele Lobo leading the way. Dusing, a visiting professor from Virginia Commonwealth University, and Lobo, a postdoctoral researcher at the University of Delaware, are both recipients of national awards in their quest to identify precursors to cognitive and motor developmental delays in infancy and early intervention strategies for infants at risk for these delays.

Stacy Dusing will be with Galloway's research team for two years (June 2008 - June 2010) as a faculty scholar in the Comprehensive Opportunities in Rehab Research Training Program (CORRT). CORRT is a Multicenter Career Development Program for Physical and Occupational Therapists that encourages focus on topics important to fostering diverse rehabilitation interests. Dusing's work is aimed at determining the relationship between postural control and the development in reaching in preterm infants, thereby providing a foun-

ation for the development of early intervention strategies for infants at risk for motor and cognitive disabilities. She is working in conjunction with researchers from multiple universities, in addition to Galloway and Lobo.

Michele Lobo is the recipient of the competitive Lolas E. Halverson Motor Development Young Investigator Award, given to a (story continued on pg. 8)



Visiting professor Stacy Dusing at work in the Infant Motor Behavior Lab
(Picture by Duane Perry)

DEPARTMENT NEWS



UD postdoc Michele Lobo is winner of competitive national award (picture by Ambre Alexander)

(story continued from pg. 7) researcher whose work makes significant contributions to the field of motor development. Lobo's award-winning research, also published in the journal *Child Development*, investigates how postural and object-oriented experience advance early reaching, object exploration and "means-end" behavior. Her study demonstrated that babies exposed to experimental

interventions designed to develop postural control or associated with object-oriented play activities achieved reaching ability earlier than babies exposed only to social experience. In a UDaily article published on February 13, 2009, Lobo discussed the importance of the onset of reaching, as reaching changes how babies are able to interact with their caregivers and world.

When asked about the influence that both Stacy Dusing and Michele Lobo have in his lab, Dr. Galloway said, "For an

infant behavior lab to produce studies that impact children and communities it must be composed of individuals with a range of outstanding personal and professional skills. For a lab to have either Dr. Lobo or Dr. Dusing is a lucky break. Having both of these talented PT, PhDs at the same time is almost too good to be true. Their awards and funding are simply reflections of their commitment to infants and their families."

Dr. Snyder-Mackler Receives National Press for Knee Research Article based from UDaily

Alumni Distinguished Professor Lynn Snyder-Mackler had another fruitful year at the helm of research, continuing to further the field's understanding of the knee joint. Her findings were featured in the New York Times and on the U.S. Department of Health and Human Services "HHS Healthbeat" radio show.

Snyder-Mackler's research has largely centered around pre- and post-operative management of those who are candidates for knee replacements, dispelling some common myths. "I've always had a burning desire to bring evidence to bear on clinical problems—that's always been really important to me," Snyder-Mackler said. There are real people at the end of the research loop—patients, physical therapists and physicians, and the patients' families."

Nearly a half-million total knee arthroplasties (TKAs) are performed every year in the U.S. to treat severe knee osteoarthritis. The joint disease, in which deterioration of the cushion of cartilage padding the knee eventually yields bone against bone, leaves its sufferers with persistent pain and limited function. Though traditional medical wisdom previously urged those with ailing knees to wait as long as possi-

ble to undergo TKA so that the artificial joint would outlast the patient, Dr. Snyder-Mackler has shown that those who wait until they can no longer stand the pain may ultimately risk their mobility and quality of life.

Supported by a grant of \$1,125,000 from the National Institutes for Health, Snyder-Mackler and her team compared men and women with OA to healthy counterparts matched for gender, age, and body mass index on tests of physical function, such as stair climbing and distance covered during a six-minute walk test. Participants' quadriceps strength and knee range of motion were also assessed.

After controlling for gender differences in strength and agility, female knee replacement candidates showed a much greater degree of physical disability than males. Snyder-Mackler hypothesizes that women may have a higher pain tolerance than men, may become increasingly home oriented as they age leading to less active lifestyle, or may simply be trying to follow doctor's recommendations to "wait it out" because women tend to live longer than men. Findings from the Canadian Medical Association Journal confirm that doctors provide differential recommendations for men and

women of the same age and impairment level. Women waiting longer than men to undergo TKA is concerning because as Dr. Snyder-Mackler notes, "Your level of function going into surgery generally dictates your level of function after surgery."

She posits that women need to become more educated about the risks and benefits of knee replacement surgery and heed the warnings of serious problems. "When you feel profound buckling and weakness in your knees when climbing stairs . . . you compensate—eventually you may come downstairs only once a day," she observes. "As a result, you become sedentary and that's not good for your health. Earlier intervention can help preserve your mobility and quality of life." Artificial joint technology and surgical techniques have improved so that joints often last 20 years or more, reducing the concern about lasting power.

Once patients do take the plunge and undergo knee replacement, research by Snyder-Mackler and colleagues recently published in *Arthritis Care & Research*, indicates that quad strengthening is critical to recovery. Post-operative patients regularly exhibit impaired quadriceps activation, strength, and function as compared to age-matched norms. "There

are all of these old wives' tales that . . . the new knee should be treated delicately. Our study demonstrates that intensive strength exercise as outpatient therapy is critical to begin three to four weeks after surgery," she explains. The RCT conducted at UD's clinic from 2000-2005 showed that patients who completed six weeks of progressive strengthening starting four weeks after surgery showed significant improvements in strength and functional performance, with greater gains after 12 months than a group that underwent conventional rehabilitation. As Snyder-Mackler concludes, "Why undergo a \$25,000 elective surgery and then not do as much as you can to get the most out of it and improve your quality of life?"



A patient completes quadriceps strengthening under the watchful eye of Lynn Snyder-Mackler

INTEGRATED CLINICAL EXPERIENCE UPDATES

Clinical Services & Sports/Orthopedic (SO) Update Written by Dr. Tara Manal



Our Sports and Orthopedic (SO) and Neurologic and Older Adult (NOA) clinics have grown this year.

Two of our senior clinicians Laura Schmitt PT, DPT, OCS, SCS, ATC and Cathy Ciolek PT, DPT, GCS have moved to new split positions between clinical service and directors of clinical education (DCE). The clinics continue to benefit from Cathy and Laura's student supervision, expert consultations and residency mentorship and the department applies their clinical depth to clinical education. It has been an exciting partnership and the rewards are evident. Our staff added Angela Hutchinson, PT, DPT, ATC and Grace Keenan PT, DPT (both UD DPT Class of 2006) to cover the clinic time of Laura and Cathy. After 8 years, Noel Goodstadt PT, DPT, OCS returned to his alma

mater, Drexel University and we wish him well on his new opportunity. Karla Bell PT, DPT joined our staff in his position bringing years of expertise in Orthopedics, teaching at the University of Connecticut, and insurance company review experience to the role. We are thrilled to have Karla as part of our team and she has adjusted quickly to become a valued team member.

In 2008 our clinical staff gave numerous presentations and authored monographs, chapters and clinical cases on topics related to the spine, osteoarthritis, ACL injury and rehabilitation, electrical stimulation, clinical care, and physical therapy residency development. We were very excited to increase our residency training to include 2 positions in Sports, 2 positions in Orthopedics and 1 in Geriatrics. Our 13 month residency is competitive and challenging. Residents are very busy among clinical treatments, physician office and surgical experiences, specialist observations, clinical teaching and scholarly activity. We have had 100% pass rates on all specialty exams for our residents and they are highly val-

ued as clinical experts in their subsequent clinical and academic positions. We value recommendations from alumni for residency applicants. Most applicants are new graduates or have 5 years of experience or less. When you supervise a superstar, please educate them on residency training options.

The clinics continue to attract leaders from other academic institutions and clinical settings seeking working visits to understand how the clinic and residency programs were developed and managed while ensuring the highest quality of care. We had 10 visits this year from other American physical therapy programs as well as academic and clinical faculty from Israel, Columbia and Italy. We value the collegial interaction and collaborative opportunities.

Research is alive and well in the clinic and we are actively involved in 5 research projects in the areas of ACL, Osteoarthritis and total knee replacement, and elderly low back pain. We hired our first Research Coordinator, Teonette Velasco PT, DPT, a UD orthopedic resi-

dency graduate, splitting her time between Dr. Hicks' research projects and clinical care and instruction. This role really helps support the bridge between clinical research and treatment; we hope these expand in the future.

The clinics are always open (8AM to 8PM) and we love when alumni stop by to say hello—come by anytime! If you are local consider joining our Sports and Orthopedics Journal Club, Clinical Case Rounds and our Neurological and Geriatric Journal Club. All times and content are listed on our website under Clinical Services.

Tara Jo Manal, PT, DPT, OCS, SCS, Director of Clinical Services



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

The Neurologic and Older Adult Clinic continues to train our students and serve the Delaware community for patients with neurologic or geriatric based impairments. Grace Keenan, PT, DPT (Class of 2006) who joined us in 2008 has increased her hours to be full time in 2009. We currently also have Meredith Perny, PT, DPT (Class of 2006) part time as a CI this spring as well as Marty Fontenot (Class of 2006) helping us out this spring.

In April we welcomed our 3rd Geriatric resident, Kelly Danks, PT, DPT, who is a 2007 graduate of the PT program at Slippery Rock University. Kelly will be with us through April 2010, treating in NOA, exploring geriatric physical therapy practice in external settings, and contributing to research through the Fast FES project.

Our Journal Club continues to meet on the third Tuesday of every month at

8:00 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.

Cathy Ciolek, PT, DPT, GCS Associate Director NOA Clinic

INTEGRATED CLINICAL EXPERIENCE UPDATES

Join UD in a DELA-bration for All Alumni and Friends!

DELA-bration, n. (del'ə-brā-shən)

1. A celebration that is distinctly University of Delaware.
2. A one-of-a-kind party for all loyal Blue Hens and friends of UD.
3. An event that is not to be missed!

Return to UD on June 5-7, 2009 to celebrate the first UD Forum & Reunion Weekend. You'll be able to reconnect with alumni and friends and take part in a variety of fun and stimulating activities, including a walking tour of the haunted campus, Mug Night on the Green, Blue Hen 5K Run/Walk, University Showcases, International Foods Picnic, All Alumni Dance Party, networking opportunities, and more! Overnight accommodations in the new air-conditioned dorms are available, and free child-friendly programming will be offered.

Please visit <http://www.udconnection.com/reunionweekend/> for more information.



Pediatric Clinic Written by Dr. Tara Manal

Tracy Stoner PT, DPT, PCS (UDPT class of 1990) continues to provide outstanding clinical care in pediatrics, supervise our DPT students on pediatric rotations and assist the clinical education staff with pediatric advice and expertise. The UD DPT Class of 2008 honored Tracy and the children she cares for by contributing to the purchase of a pediatric treadmill to allow Tracy to use un-

weighted treadmill training on children with emerging gait skills. Tracy had previously been modifying an adult treadmill with blocks and stools so this was a huge upgrade for her and the children. As you can see in the picture to the right, they are very happy with the result!

Tara Jo Manal, PT, DPT, OCS, SCS,
Director of Clinical Services



Tracy Stoner works at the Early Learning Center (ELC) on gait training with a young patient using the pediatric treadmill and body weight support system donated by the DPT class of 2008. The ELC hosts UDPT students during their Pediatrics Course and for Pediatric Integrated Clinical Experiences.

Stroke Clinic Written by Dr. John Scholz

The University of Delaware's Stroke Assessment Clinic will meet on September 11, October 9, November 13, and December 11, 2009. The mission of the clinic is to provide comprehensive evaluations, exercise recommendations and referrals for individuals

who have suffered a stroke, who no longer receive therapy, and who would like to determine if they would benefit from additional 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 physical therapy student volunteers under the supervision of Dr. John Scholz, faculty advisor. Currently, Mrs. Karen Setting serves as

scheduling coordinator. The clinic meets once monthly through the academic year. Patients can contact Mrs. Setting at 302-831-8521 for an appointment. We would be grateful for referrals of appropriate patients in the tri-state area.

Multiple Sclerosis Assessment Clinic Written by Dr. Cathy Ciolek

Now in our tenth year, the University of Delaware MS Assessment Clinic continues to provide free, multi-disciplinary evaluations to persons battling Multiple Sclerosis. After performing a complete neurological and musculoskeletal evaluation, second-year Physical Ther-

apy students provide each participant with an individualized home program.

Local professionals from other health disciplines including Occupational Therapy, Nutrition, Counseling, local optometry, a representative for Durable Medical Equipment, and a staff

member 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.

We always welcome referrals

from community practitioners who have patient/clients who would benefit from participating in the clinic. If you have a client who has MS who would benefit from participation in the MS Assessment Clinic, please have them contact Cathy Ciolek at 302-831-2430.

2008 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 2008 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!!!



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American Society of Biomechanics
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George L. Barrett
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For further information, please contact www.udel.edu/makeagift or call the Office of Annual Giving on 302-831-4654. Thank you!

FACULTY: AWARDS & DEGREES CONFERRED AS WELL AS GRANTS & PUBLICATIONS IN 2008



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

Publications: Perumal R, Wexler AS, Binder-Macleod SA. Development of a Mathematical Model for Predicting Electrically Elicited Quadriceps Femoris Muscle Forces During Isovelocity Knee Joint Motion. *J Neuroeng Rehabil.* (in press, October 2008).

Chou LW, Lee SC, Johnston TE, Binder-Macleod SA. (2008) The Effectiveness of Progressively Increasing Stimulation Frequency and Intensity to Maintain Paralyzed Muscle Force During Repetitive Activation in Persons with Spinal Cord Injury. *Arch Phys Med Rehabil.* 89(5):856-64.

Kesar TM, Ding J, Wexler AS, Perumal R, Maladen R, Binder-Macleod SA. (2008) Predicting Muscle Forces of Individuals with Hemiparesis Following Stroke. *J Neuroeng Rehabil.* 27:5:7.

Willson J, Binder-Macleod SA, Davis IM. (2008) Lower Extremity Jumping Mechanics of Females With and Without Patellofemoral Pain Before and After Exertion. *Am J of Sports Medicine* 36:1587-96.

Chou LW, Kesar TM, Binder-Macleod SA. (2008) Using Customized Rate-Coding and Recruitment Strategies to Maintain Forces During Repetitive Activation of Human Muscles. *Phys Ther* 88(3):363-75.

Petterson SC, Barrance P, Buchanan T, Binder-Macleod S, Snyder-Mackler L. (2008) Mechanisms Underlying Quadriceps Weakness in Knee Osteoarthritis. *Med. Sci. Sports and Exerc.*, 40(3):422-427.

Kesar T, Chou LW, Binder-Macleod SA. (2008) Effects of Stimulation Frequency Versus Pulse Duration Modulation on Muscle Fatigue. *J Electromyogr Kinesiol.* 18(4): 662-71.

Grants: NIH 1R01NR010786 (PI: Binder-Macleod) 9/12/07 – 5/31/12
Title: Fast Treadmill Training/Functional Electrical Stimulation to Improve Walking: The overall goal of this multidisciplinary research partnership project is to develop a physiologically based intervention to improve functional ambulation in individuals who have sustained a stroke. The Specific Aims are to: 1) develop and test a fast treadmill training and functional electrical stimulation (FastFES) intervention that improves the walking patterns and energy efficiency during treadmill -walking in individuals who have sustained a stroke, 2) develop and test a 12-week training protocol using FastFES to improve body structure and function in individuals who have sustained a stroke, and 3) demonstrate the feasibility and potential effects of FastFES training compared to traditional treadmill training on body function, activity, and participation in individuals who have sustained a stroke. A total of 60 stroke survivors will be rigorously studied over the course of this five-year grant. Role: PI

NIH R01 PAR-060459 (PI: Binder-Macleod) 8/15/08 – 7/31/13
Title: Robotic Exoskeletons, FES, and Biomechanics: Treating Movement Disorders: This competitive renewal of HD38582 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. Role: PI

NIH T32 HD 7490 (PD: Binder-Macleod) 5/1/03 - 4/30/08
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. Role: Program Director and Mentor

NIH K12-HD055935 (PI: Mueller) 9/15/07 – 8/31/12
Title: Multicenter Career Development Program for Physical and Occupational Therapists: The goal of this multicenter training program is to provide training for new investigators to acquire the research skills necessary to become independent investigators in rehabilitation approaches. The core institutions are Washington University, University of Pittsburgh, and University of Delaware

but training also can occur at John Hopkins University, Emory University, University of Miami, or the University of Iowa. Role: Program Director

NIH P20 RR1658 (PI: Buchanan) 6/1/07 – 5/31/12
Title: COBRE for Women in Science & Engineering on Osteoarthritis
The goal of this grant is develop a center for biomedical research excellence at the University of Delaware that focuses on the mentoring of women scientists and engineers and the prevention and treatment of osteoarthritis. Role: Scientific Advisory Board Member and Mentor

NIH R01 HD043859 (PI: Samuel CK Lee) 7/1/04 - 3/31/09
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. Role: Investigator

NIH R01-NS055383 (PI: Higginson) 4/1/08 - 11/30/12
Title: Muscle Morphology, Strength and Compensatory Strategies Following Stroke: Stroke is a leading cause of long-term adult disability. The relationship between altered muscle force-generating capacity, activation and coordination during walking after stroke is unclear. Through coupled experiments and simulations, the goal of this project is to identify factors that limit gait speed post-stroke to assist rehabilitation professionals in designing treatment interventions that address the specific impairments of an individual subject. Role: Investigator



CATHY CIOLEK, PT, DPT, GCS, (Ithaca), Associate Director Neurologic & Older Adult Clinic, Director Geriatric Clinical Residency, Co-Director of Clinical Education



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

Student Awards: Rebecca Fellin and Brian Noehren, Biomechanics Interest Group of ACSM Travel

Joaquin Barrios, American Society of Biomechanics Research Grant

Brian Noehren, American College of Sports Medicine Research Grant

Brian Noehren and Richard Willy, American Physical Therapy PODS II Award

Publications: Bulter RJ, Royer TD, Barrios JA, and Davis IS (2008) Effect of Laterally Wedged Foot Orthoses on Rearfoot and Hip Mechanics in Patients with Medial Knee Osteoarthritis. (in press) *Prosthetics and Orthotics, International*

Barrios JA, Crenshaw JR, Royer TD, Davis IS (2008) Walking Shoes and Laterally Wedged Orthoses in the Clinical Management of Medial Tibiofemoral Osteoarthritis: A One-year Prospective Controlled Trial. (in press), *The Knee*

Zifchock RA and Davis IS (2008) A Comparison of Custom and Semicustom Foot Orthotics in High and Low- arched Runners. *Clinical Biomechanics*, 23:1287-1293.

Willson JD and Davis IS (2008) Utility of the Frontal Plane Projection Angle in Females with Patellofemoral Pain. *JOSPT*, 38(10):606-615.

Hamill, J, Miller, R, Noehren, B and Davis, I (2008) Prospective study of Iliotibial Band strain in runners. *Clinical Biomechanics*, 23(8):1018-1025.

Willson JD, Binder-Macleod S, and Davis IS (2008) Lower Extremity Jumping Mechanics of Females with and without Patellofemoral Pain Before and After Exertion. *Am J Sports Med*, 36: 1587-1596.

Zifchock RA, Royer T, Higginson J and Davis IS (2008) Side-to-Side Differences in Overuse Running Injury Susceptibility: A Retrospective Study. *Human Movement Science* 27:888-902.

Dierks TA, Davis IS, Hamill J and Manal K (2008). Proximal and Distal Influences on Hip and Knee Kinematics in Runners with Patellofemoral

Awards, Degrees, Grants & Publications continued

Joint Pain. *JOSPT* 38(8):453-456.

Pohl M, Mullineaux D, Milner C, Hamill J and Davis IS (2008) Biomechanical Predictors of Retrospective Tibial Stress Fractures in Runners. *Journal of Biomechanics* 41:1160-1165.

Davis IS, Zifchock R and Deleo A (2008) A Comparison of Semi-custom and Custom Orthoses on Rearfoot Control and Comfort. *JAPMA* 98 (5):1-10

Willson JD and Davis IS (2008) Lower Extremity Mechanics of Females with and without Patellofemoral Pain Across Activities with Progressively Greater Task Demands. *Clinical Biomechanics* 23:203-211.

Zifchock RA and Davis IS (2008) The Symmetry Angle: A Novel, Robust Method of Quantifying Asymmetry. *Gait and Posture* 27:622-627

MacLean C, Davis IS and Hamill J (2008) Short and Longterm Influences of a Custom Foot Orthotic Intervention on Lower Extremity Dynamics. *Clinical J Sports Med* 18:3

Butler RJ, Hillstom H, Song J, Richards CJ, and Davis IS (2008) The Arch Height Index Measurement System: Establishment of Reliability and Normative Values. *J Am Pod Assoc*, 98(2):102-106

Zifchock RA and Davis, IS (2008) Non-consecutive Versus Consecutive Footstrikes as an Equivalent Method of Assessing Gait Asymmetry. *Journal of Biomechanics* 41(1), 226-230.

Grants: NIH 1R01HD050679-01A2 09/2007– 08/2010
Title: Real-time Gait Retraining to Reduce Loading in Runners

Department of Defense 04/2007—03/2009
Title: The Effect of Reduced Loading during Running on Tibial Strain: A Modeling Study



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

Publications: Galloway JC., Rhu J., and Agrawal S. (2008) Babies Driving Robots: Self-generated Mobility in Very Young Infants. *Journal of Intelligent Service Robotics*.

Lobo MA., Galloway JC. (2008) Postural and Object-Oriented Experiences Advance Early Reaching, Object Exploration, and Means-End Behavior. *Child Development*. 79(6): 1869-1890.

Lee HM, Galloway JC. (2008) Toy-oriented Changes in Early Arm Movements IV: The Coordination of Hand, Shoulder and Elbow. *Infant Behavior and Development*. 31:447-469.

Heathcock J., Lobo MA., Galloway JC. (2008) Movement Training Advances the Emergence of Reaching in Infants Born Less than 33 Weeks Gestational Age. *Physical Therapy* 88: 310-322.

Lynch A, Lee HM, Bhat A, Galloway JC. (2008) No Stable Arm Preference During the Pre-reaching Period: A Comparison of Right and Left Hand Kinematics With and Without a Toy Present. *Developmental Psychology*. 50:390-398.

Tseng Y., Galloway JC., Scholz JP. (2008) The Organization of Intra-limb and Inter-limb Synergies in Response to Different Joint Dynamics. *Experimental Brain Research* DOI 10.1007/s00221-008-1616-1

Grants: NIH NICHD R01 HD051748-02

Title: Motor learning and coordination in pre-term infants. Role: PI (15%)

National Science Foundation: Developmental and Learning Sciences Program. Title: Robot Enhanced Mobility: The Capacity for Young Infants to Learn Real World Navigation, and Its Effect on Perception, Action and Cognition Development. Role: PI (9%)



GREGORY HICKS, PT, 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: Hicks GE, Shardell MD, Miller RR, Bandinelli S, Guralnik JM, Cherubini A, Lauretani F, Ferrucci L. Associations Between Vitamin D Status and Pain in Older Adults: The InCHIANTI Study. In Press: *Journal of the American Geriatrics Society*. 2008 Mar 5; [Epub ahead of print]

Miller RR, Shardell MD, Hicks GE, Cappola AR, Hawkes WG, Yu-Yahiro JA, Magaziner J. Association of Interleukin-6 with Lower Extremity Function Following Hip Fracture * The Role of Muscle Mass and Strength. In press: *Journal of the American Geriatrics Society*. 2008 Jun; 56 (6): 1050-6. [Epub 2008 Apr 11]

Hicks GE, Gaines JM, Simonsick EM. Associations of Back and Leg Pain with Health Status and Functional Capacity of Older Adults: Findings from the Retirement Community Back Pain Study. Manuscript submitted to *Arthritis Rheum*. 2008 Aug 29; 59(9): 1306-1313. [Epub ahead of print]

Grants: No number (PI: G. Hicks) 06/01/07—05/31/08
University of Delaware Research Foundation, Inc. Title: Trunk Muscle Training to Improve Function in Older Adults with Chronic Low Back Pain: A Pilot Trial: The purpose of this project is to examine the effectiveness of trunk muscle training augmented by neuromuscular electrical stimulation, to reduce pain and improve functional capacity of older adults with chronic low back pain. This work will serve to collect pilot data for future randomized trials on this topic. Role: Principal Investigator

1 R21 HD057274-01 (PI: G. Hicks) 07/01/08— 06/30/10
Title: Trunk Muscle Training + NMES: Improving Function in Elders with Chronic Back Pain: The purpose of this project is to examine the effectiveness of trunk muscle training, both volitionally and augmented by neuromuscular electrical stimulation, to reduce pain and improve functional capacity of older adults with chronic low back pain. This study also proposes to examine changes in trunk muscle composition with this intervention via MRI. Role: Principal Investigator

No Number (PI: G. Hicks) 11/08—Present
Title: Mechanisms of Disability in Older Adults with Chronic Low Back Pain. Role: Principle Investigator

1K12HD055931-01 (PI: M. Mueller) 01/01/08—12/31/09
Title: NICHD Multicenter Career Development Program for Physical and Occupational Therapy (Comprehensive Opportunities in Rehabilitation Research Training-CORRT): The overall goal of this proposal is to establish a Multicenter Physical Therapy and Occupational Therapy Career Development Program (PT/OT CDP) designed to provide new investigators with the skills needed to lead research programs that validate rehabilitation approaches, optimize treatments, and incorporate new technologies to maximize the potential of all people. Role: Faculty Scholar

R37 AG009901 (PI: J. Magaziner/M. Hochberg) 03/15/05—02/28/10. Title: Sequelae of Hip Fracture in Men: An Epidemiological Study: The primary aims of the proposed study are: 1) to describe the trajectories of components of bone strength, including bone mineral density, ultrasound properties, and bone geometry in men with hip fractures during the year after fracture and contrast this with these components in women with hip fractures; 2) to describe the trajectories of other aspects of non-bone components of body composition, including muscle and fat mass in men during the year after hip fracture and to contrast these with observations in women; 3) to describe the trajectories of physical activity, neuromuscular function, and functional performance in men and to compare these to trajectories observed in women during the year after hip fracture; 4) to describe the trajectory of motivation, depression, cognition, social support and social function, in men during the year after hip fracture, and to contrast these with women post hip-fracture; 5) to describe metabolic factors during the year after hip fracture and to compare trajectories observed in men and women; and 6) to determine the differences in selected aspects of bone, muscle, function, activity, and metabolism that are attributable to hip fracture vs. those that occur naturally in similarly frail

Awards, Degrees, Grants & Publications continued

older men who do not sustain a hip fracture. Role: Co-Investigator and Rehabilitation Scientist

R01 AG029315 (PI: J. Magazine/M. Hochberg) 03/01/07—05/31/12 Title: The Epidemiology of Bone Strength and Muscle Composition After Hip Fracture in Men: This ancillary study is designed to extend the investigation of the hip fracture consequences further by examining trajectories of change in bone strength, bone metabolism, muscle composition, hormones, and markers of inflammation following hip fracture, and by comparing these changes in men and women during the year following a hip fracture. Role: Co-Investigator and Rehabilitation Scientist



AIRELLE HUNTER-GIORDANO, PT, DPT, SCS, OCS, CSCS (Delaware), Associate Director of Sports Physical Therapy, Sports Clinical Residency Coordinator, Sports and Orthopedic Clinic, CCCE.

Publications: Hunter-Giordano A, Burlovich E, Manal TJ: Rehabilitation following ACL reconstruction: Update on anterior cruciate ligament injuries. APTA Monograph



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.

Awards: Lucy Blair Service Award; American Physical Therapy Association



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

Publications: Manal TJ and 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 2008 (Book Chapter)

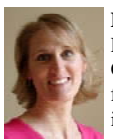
Gamboa J, Bronner S, Manal TJ. (2008) Developing Expert Physical Therapy Practice in Dance Medicine, *Dance Medicine: Strategies for Prevention and Care of Injuries to Dancers*. APTA Independent Study Course 18.3 2008 (Peer-reviewed Publication)

Pongetti G, Skaling J, Manal TJ. (2008) A Gymnast's Low Back Pain Responds to Shoulder and Hip Stretching; *Orthopedic Physical Therapy Practice* Vol 20: 219-223.

Manal T, Hunter-Giordano, Fontenot M. (2008) Management of a Music Student with Thoracic, Shoulder, Arm and Hand Pain. *Orthopedic Physical Therapy Practice*; Vol 20: 150-153



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



DARCY REISMAN, PT, PhD, (Delaware), Research 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.

Awards: Nominee 2008-2009 Eugene Michels New Investigator Award, American Physical Therapy Association

Publications: Choi JT, Vining EPG, Reisman DS, Bastian AJ. (2008) Walking Flexibility after Hemispherectomy: Split-belt Treadmill Adaptation and Feedback Control. *Brain*, doi:10.1093/brain/awn333

Farquhar S, Reisman DS, Snyder-Mackler L. Altered Movement Patterns Persist During a Sit-to-stand Task One Year Following Unilateral Total Knee Arthroplasty. *Physical Therapy*, 88: 567-579.

Grants: AHA 0765314U (PI: D. Reisman) 7/1/2007—6/30/2009 Title: Relationship Between Speed and Walking Function Post-stroke Role: PI (20%)

K01 HD050582-01A1 (PI: D. Reisman) 4/20/06-3/31/2011 Title: Locomotor Adaptations Following Stroke. Role: PI (75%)

NIH 1R01NR010786-01 (PI: S. Binder-MacLeod) 9/12/2007-5/31/2012 Title: Fast Treadmill Training and Functional Electrical Stimulation (FastFES) to Improve Walking Post-stroke. Role: Co-investigator (5%)

1R01NS055383-01A2 (PI: J. Higginson) 4/1/08-11/30/12 Title: Muscle Morphology, Strength and Compensatory Strategies Following Stroke. Role: Co-investigator



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.

Student Awards: "University of Florida Neuromuscular Plasticity Scholar" Awarded to Deepak Kumar, PT, PhD

"Post-professional Student Award" for the best abstract submitted to the Neurology Section for the Combined Sections Meeting of the American Physical Therapy Association; Awarded to Roos M, Kesar T, Rudolph KS, Reisman DS. Systematic increases in walking speed have varied effects on post-stroke walking patterns.

Publications: Zeni J, Rudolph KS, Higginson JS. (2008) Alterations in Quadriceps and Hamstrings Coordination In Persons With Medial Compartment Knee Osteoarthritis. *J Electromyogr Kinesiol*. (in press)

Reisman DS, Rudolph KS, Farquhar WB. (2008) Influence of Speed on Walking Economy Post-Stroke. *Neurorehabilitation and Neural Repair*.

Schmitt LC, Fitzgerald GK, Reisman AS, Rudolph KS. (2008) Instability, Laxity, and Physical Function in Patients with Medial Knee Osteoarthritis. *Phys Ther* 2008 Dec 88 [Epub ahead of print]

Schmitt LC, Rudolph KS. (2008) Muscle Stabilization Strategies in People with Medial Knee Osteoarthritis: The Effect of Instability. *J Orthop Res*. 2008 Apr 10. [Epub ahead of print]

Grants: NIH P20 RR16458 (PI: Rudolph) 06/07 - 05/12 Title: Knee Stiffness, Proprioception and Instability affect Knee Control in OA. Role: PI

Beginning Grant-in-Aid (PI: Reisman) 7/1/07 - 6/30/09 Title: Relationship between speed and walking function post-stroke. Role: co-investigator (10%)

NIH R01 NR010786 (PI: Binder-MacLeod) 9/12/07 - 5/31/12 Title: Fast Treadmill Training & Functional Electrical Stim to Improve Walking Post-stroke. Role: Co-investigator



LAURA SCHMITT, PT, DPT, OCS, SCS, ATC, (Temple), Academic Coordinator of Clinical Education

Awards: APTA Advanced Credentialed Clinical Instructor



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: Tseng YW, Scholz JP, Galloway JC (2008). The Organization of Intralimb and Interlimb Synergies in Response to Different Joint Dynamics. *Experimental Brain Research*. [E-pub ahead of print]

Awards, Degrees, Grants & Publications continued

Fetters L, Scholz JP (2008) Upper-extremity Movements of Infants with Brain Injuries. *Physical Therapy*. 88: 1034-1036.

Scholz JP, Kubo M. (2008) Implications of Research on Motor Redundancy for Rehabilitation of Neurological Patients. *Journal of the Japanese Physical Therapy Association*, in press, 35(8): 357-365.

Zhang W, Scholz JP, Zatsiorsky VM, Latash ML (2008). What Do Synergies Do? Effects of Secondary Constraints on Multidigit Synergies in Accurate Force-production Tasks. *Journal of Neurophysiology*. 99: 500-513

Grants: NS050880 (PI: Scholz) 1/1/05-12/31/08
Title: Coordination of reaching in healthy adults and stroke

2R01HD38582-06A1 (PI: Sunil Agrawal) 8/08—07/13
Title: Robotic exoskeletons, FES, and biomechanics: Treating movement disorders.



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

Publications: Peterson SC, Barrance P, Buchanan T, Binder-Macleod S, Snyder-Mackler L. (2008) Mechanisms Underlying Quadriceps Weakness in Knee Osteoarthritis. *Med Sci Sports Exerc*, 40(3):422-7.

Farquhar SJ, Reisman DS, Snyder-Mackler L (2008) Persistence of Altered Movement Patterns During a Sit-to-Stand Task 1 Year Following Unilateral Total Knee Arthroplasty. *Phys Ther*. Feb 21; [Epub ahead of print]

Moksnes H, Snyder-Mackler L, Risberg MA. (2008) Individuals with an Anterior Cruciate Ligament-deficient Knee Classified as Noncopers may be Candidates for Nonsurgical Rehabilitation. *J Orthop Sports Phys Ther*. 2008 Oct; 38(10):586-95.

Hartigan E, Axe MJ, Snyder-Mackler L. (2008) Perturbation Training Prior to ACL Reconstruction Improves Gait Asymmetries in Noncopers. *J Orthop Res*; Nov 20. [Epub ahead of print]

Axe MJ, Snyder-Mackler L. (2008) Musculoskeletal Imaging; Proximal Tibiofibular Dislocation/Subluxation. *J Orthop Sports Phys Ther*; 38(2):87.

Grants: NIH R44 HD055019-01 03/07— 09/09
Title: Adaptive High Intensity Electrical Stimulation for Post-Surgical Rehabilitation. Role: Investigator

NIH 1 R01 AR048212-01A1 (PI: L. Snyder-Mackler) 01/01/05— 11/30/09 Title: Can Neuromuscular Training Alter Movement Patterns? Role: PI



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

Photos are welcome.

FULL NAME: _____

first

middle

(maiden)

last

DEGREE/YEAR: _____ CHECK HERE IF THIS IS A NEW ADDRESS

HOME ADDRESS: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____ EMAIL: _____

HERE'S MY NEWS:



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