



UNIVERSITY OF DELAWARE DEPARTMENT OF PHYSICAL THERAPY
ALUMNI NEWSLETTER

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 Andrea Kwok, DPT Class of 2015

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MESSAGE TO ALUMNI



As many of you know, I have had the honor to chair the UD PT Department since September of 1998. However, effective January 2nd, I stepped down as chair of the Department and Dr. Cole Galloway generously agreed to assume the position of interim-chair while we complete our search for a permanent chair. I just wanted to thank everyone for the tremendous support that I have received over the past 15 years and let you know what an honor it has been for me to chair this incredible department. We have achieved so many great things together due to the hard work and dedication of our incredibly talented faculty and staff. However, most exciting is the fact that the best is yet to come. All of the pieces are in place for the Department to continue to grow and lead the nation in PT education, practice, service and research. Our move to the new STAR campus is nothing short of a dream-come-true. We are presently growing every aspect of our department.

No, I am not retiring. I very much look forward to continuing to serve this wonderful Department, our College, and University as I begin a new chapter in my

academic career. Effective September 2013 I assumed the position of Associate Vice-Provost for Clinical and Translational Research at UD and began leading the newly funded DE-Clinical and Translational Accel Program. This \$25MM program is funded by the NIH and the State of Delaware and is designed to facilitate the growth of clinical and translational research. I am honored to lead this important project.

In closing, I would once again like to thank all of you who have been so supportive and helpful to me over the past 15 years. I look forward to seeing everyone, catching up on your lives, and giving each of you a tour of our new facilities over the upcoming year.

Sincerely,

Stuart Binder-Macleod

Stuart A. Binder-Macleod, PT, PhD, FAPTA

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 Ms. Cyndi Haley (chaley@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

APTA Annual Conference	June 11-14, 2014 - Charlotte, NC
APTA Student Conclave	Oct. 30-Nov. 1, 2014 - Milwaukee, WI
UDPT Class of 2014 Graduation	Saturday, January 10, 2015
Combined Sections Meeting	February 4-7, 2015 - Indianapolis, IN

Alumni Weekend
 June 6 - 8, 2014



Visit www.udel.edu/PT for more details on events

Emergency First Responder/CPR Re-certification courses on June 7th.

MESSAGE FROM THE CHAIR



Greetings to all of our alumni and friends!

For those of you who don't know me, I have been a part of the UDPT family since 2000, as both a professor and a researcher. Watching this program grow for the past 13 years has been a remarkable experience, and I expect an even more dramatic trajectory now that we've relocated the bigger, more beautiful STAR Campus. With so much to look forward to, I am very pleased to introduce myself as your Interim Chair.

As Chair I am of course focused on continuing the progress of the department that we have enjoyed under the leadership of Dr. Binder-Macleod. This is a very dynamic time in the development of the program, and progress takes many shapes. For one, it means increasing our class size to 60 students. It also means increasing our research impact through presentations, publications, and funding. It means improving our community connection with all the various groups interested in rehabilitation – especially our alumni and their families. We are so excited about everything that's going on right now, and we want you to see it for yourself!

Our new facility is more than twice the size of our previous space, but I think you'll notice that the department itself feels smaller, in a good way. Bringing all of the research labs under one roof alongside the clinic and classrooms forms connections that could not exist before. All this has led us to use our new space in some really creative ways, one of which includes a UDairy ice cream stand staffed by individuals

with spinal cord injuries or motor impairments. The stand itself is outfitted with a bodyweight support harness to make this possible.

So yes, we want you to stop by to check out the fun projects we're working on. And we definitely want you to get a behind-the-scenes tour of the clinic and classrooms (including the state of the art 'CSI-style' anatomy lab!!). But we believe STAR should be more than just a one-time day trip. We would like to keep in touch with you and use your input to help us make the most of our space. STAR has multiple spaces for continuing education – so let us know what you and your colleagues need most in terms of evidence based practice. And with

special on-campus events, such as the upcoming Alumni Weekend, consider STAR your place to come and visit, hang out and enjoy your time at UD.

Our new location allows us to more fully engage you, your colleagues, your families and your connection to your classmates. Whether you live next door or across the country, please come by anytime to visit. We have a big bowl of ice cream waiting with your name all over it.

Cheers,

James Cole Galloway, PT, PhD, Professor,
Interim Chair, Department of Physical
Therapy

Grab a
scoop at

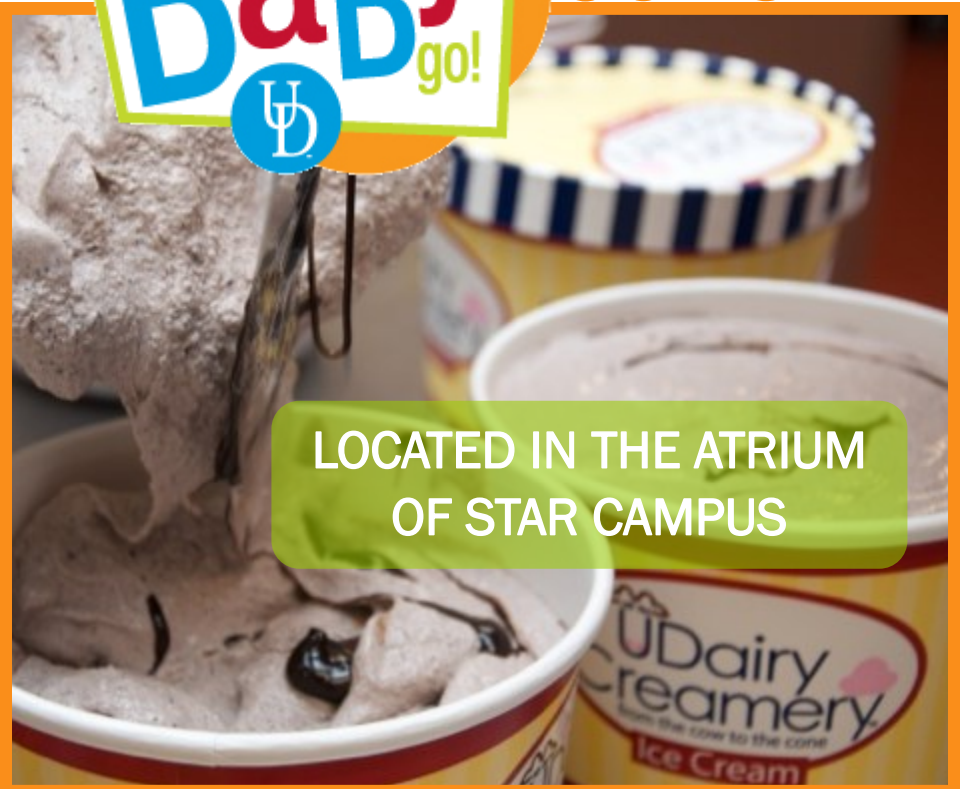
mobility & sociability



Proudly serving



café



LOCATED IN THE ATRIUM
OF STAR CAMPUS

CLASS OF 2013 GRADUATION



Congratulations DPT Class of 2013!

Listed Alphabetically: Marissa N. Allamby, Daniel Arnold, Alyssa Michelle Banks, Brittany Marie Bobik, Brooke A. Carmen, Danielle Marie Cherry, Jerry Choi, Parker Drumm, Taylor Ashleigh, Ebersole, Eric T. Fontaine, Xiang Gao, Erin Helm, Christopher Edward, Henderson, Matthew Peter Higley, Andrew G. Jasinski, Amiee Kachmar, Claire Fellows Kubizne, Filisha Mae Lustfield, Alyssa McCullough, Carlene Marie Meaney, Nicole Erin Mukoda, Jacqueline Palmer, Elise Ann Paolantonio, Carli Jo Shutter, Megan Stewart, Kristen Joy Stump, Jaquelyn Suarez-Murias, Dylan James Thorne-Fitzgerald, Jazmine M. Tooles, Lauren Trosch, Karys Whitehead, Jason Yaou Zhao.

Message from Danielle Cherry, PT, DPT, President of the Class of 2013:

"To the UDPT faculty, staff, and students:

It is hard to believe that the UDPT Class of 2013's time roaming the halls of McKinly Lab has come to an end after 2.5 years. In the past few months, our class is exceptionally proud to have obtained a 100% first time pass rate on our NPTE boards and many have already begun working in orthopedic, acute, pediatric, neuro and sports settings and clinics. As we begin our careers as physical therapists, we are proud to carry the title of UDPT graduate and know that our hard work will only service to better ourselves and our patients. We thank all the faculty and staff that have shaped and molded all of us into clinicians that improve lives on a daily basis. To the current students, embrace the remainder of this experience, always remembering what you do today at UDPT will directly influence the type of clinician you will soon become. Lean on each other and learn from all those around you.

Once again, from the Class of 2013, thank you for all that you do and we cannot wait to see how UDPT grows in both the near, and distant, future!"

Graduation Awards:

- John P. Scholz Faculty Award: to **Kristen Stump** for demonstrating exemplary personal qualities deemed most valuable to the PT profession, including integrity, cooperation, initiative and leadership.
- Chair's Award: to **Erin Helm and Christopher Henderson** 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 **Kristen Stump** for a high level of scholastic achievement in the UDPT program as demonstrated by the highest grade point average in the class.

To Community Members & Alumni:

- Cossoy Award: to **John Smith and Stephen Sciscione** for extraordinary contributions to the UDPT program from outside the department.
- Cathy Doetzer Kohlenstein Clinical Educators Award: to **A.I. DuPont Hospital**

for **Children and WellSpan Rehabilitation** for outstanding contributions to the clinical education of UD students.

- Alumni Award: to **Nicholas DeBlasio and Nikol Tews** who made outstanding contributions to the Physical Therapy Department.
- Cathy Doetzer Kohlenstein Scholarship to **Jacob Capin and Allison Siple** awarded to a second year student to assist with funding for clinical education expenses.
- Charles S. Barker, Sr. Scholarship to **Jacob Holler** awarded to a second year student who has successfully balanced academics and family related responsibilities.

To UD Physical Therapy Residents:

- Certificate of Completion of the Orthopedic Residency was presented to **Griffith J. Randle**.
- Certificate of Completion of the Sports Residency was presented to **Kaan V. Celebi**
- Certificate of Completion of the Geriatric Residency was presented to **Matthew W. Matovu**

CLASS OF 2013 GRADUATION

A Memorable Graduation



Class of 2013 celebrate the completion of their degree at their hooding and graduation ceremony held at Clayton Hall.

On January 11, 2014, families and friends gathered in Clayton Hall to celebrate the tremendous achievements of the 32 members of the UDPT Class of 2013.

The graduation ceremony began with a warm welcome by Dr. Binder-Macleod, chairman of the Physical Therapy department, followed by class of 2013 speakers, Danielle Cherry and Andrew Jasinski, and the class gift presentation. Other highlights included the class slide show, award and scholarship presentations, and the address to the graduating class given this year by Dr. Joseph Zeni. The same professor who taught the very first class of the UDPT curriculum, Clinical Gross Anatomy, Dr. Zeni stood two and a half years later in front of the class of 2013 to officially welcome them into the profession as Doctors of Physical Therapy. Dr. Zeni's speech was a perfect harmony of inspiration, reflection, humor, and memorable accounts from when he taught the graduating class during their first summer semester of the DPT program. After congratulating the students on their hard-earned accomplishments, he gave the class



Dr. Zeni welcomes the class to the PT profession with his inspirational speech.

of 2013 some advice to take with them into their professional careers: keep your professional priorities, maximize your learning, respect the path in life that you will take, and continue to set and pursue professional goals. His words will surely guide the graduates through their lives not only as professionals, but also as individuals.

Vice Provost Dr. James Richards, Associate Vice Provost Dr. Mary Martin, Dean Kathleen Matt, and the physical therapy faculty hooded and presented the UDPT Class of 2013. Clinical residents were also recognized and awarded certificates in recognition of their year plus of learning and hard work for the PT department. All enjoyed a recessional following the closing remarks by Dr. Binder-Macleod and the conclusion of the graduation ceremony.



The 2013 University of Delaware Physical Therapy Program Graduation was the most attended by alumni, award winners, friends, family, students, and faculty.

CLASS OF 2013 GRADUATION

Departmental Scholarships

The University of Delaware Physical Therapy Department is pleased to offer several different scholarship opportunities to our students each year. We are extremely grateful to the donors and benefactors who make this possible. Below are the highlights of the awards that we are able to offer to our students.

Cathy Doetzer Kohlenstein Scholarship

This scholarship is funded by a generous endowment recently established by the family of Cathy Doetzer Kohlenstein, to celebrate her life and to create a legacy for her three sons and future generations. Ms. Kohlenstein was a graduate of the UD MPT program, and was an outstanding clinician, clinical instructor to many UD students, and advocate for our profession. Sadly, in 2002, Cathy was taken from the world far too early after a courageous two year battle with Leukemia. This scholarship will be presented each year to a 2nd year DPT student to assist with the funding of his or her clinical education expenses. The recipient is chosen based upon his or her future professional goals, how previous and planned clinical education experiences relate to these goals, and how the funds from this generous endowment will enable or enhance their clinical education experience.



Cathy Doetzer Kohlenstein Scholarship Award winners Allison Siple and Jacob Capin are pictured after receiving the award with Cathy's family.

Charles S. Barker, Sr. Scholarship

This award is given to a second year student who has successfully balanced academics and family related responsibilities.



Jacob Holler, pictured with Dr. Binder-Macleod, is recognized for his ability to balance the rigors of the DPT program and family life.

John P. Scholz Faculty Award

This award recognizes a student that is selected by the faculty whose personal qualities are deemed to be most valuable to the Physical Therapy profession. These qualities include: initiative, cooperation, integrity, and leadership.

Chair's Award

This award recognizes a student who has made special contributions to the UD PT Program by giving of his or her time and effort to improve the program and helping the Director and the faculty to fulfill the mission of education, scholarship, and service.



Kristen Stump receives the John P. Scholz Faculty Award for her demonstration of exemplary qualities of integrity, cooperation, initiative, and leadership in the UD PT Program.



Erin Helm and Christopher Henderson receive the Chair's Award for their special contributions to the UD PT Program.

If you are interested in supporting a DPT scholarship please contact

Dr. James Cole Galloway at
jacgallo@udel.edu.

DEPARTMENT NEWS



A Shining New STAR: UDPT Moves

Memories of the 3-floor climb in the dim concrete stairwell of McKinly Lab are all but erased as faculty and students alike enter STAR Campus, the new home of UD Physical Therapy. An acronym for Science, Technology, and Advanced Research, STAR houses not only the PT classrooms, labs, and clinic, but the College of Health Sciences as well as environmental science and engineering programs.

It seems only fitting that the new campus was constructed on what was previously the Chrysler auto assembly plant, as STAR continues to hum with creation and innovation. Only now, 540 South College Avenue is producing clinicians instead of cars, and is more concerned with biomechanics than aerodynamics.

The design and architecture of the new facility seems to echo the intention of relocating the program. High ceilings, bright lights, and massive windows evoke feelings of expansion and looking to the future. “As soon as people walk into the building, they’re already thinking bigger,” says Dr. Cole Galloway,

interim chair of the physical therapy department.

In addition to the impressive size of the space, the layout of STAR allows for what Dr. Galloway refers to as “cross-pollination”, a flow of ideas between the clinic, research labs, and educational department. In this way, each component of the physical therapy program is reinforced and propelled by its counterparts.

Physical Therapy Clinic

On the first floor is the clinic, and it is clear that every detail of the space was intentional. As you approach the reception counter, you may not even no-



Second-year SPT Kelly Fladebo works with a patient in the clinic.

tice the line tiled into the floor that marks the path for 6 minute walk tests. Large treatment areas make room for new

equipment, such as a body-weight support harness mounted to an overhead track, new KinComs, and even windows!

Department Research

Sharing the ground floor with the clinic are all of the faculty research labs. Motion Analysis, Pediatric Mobility, Stroke Studies, and Spine Studies all have their own space, but their proximity to each other and to the clinic means more opportunity for collaboration.

“Innovation has to come from outside of where you work every day,” explains Dr. Galloway. “When I walk through the clinic and see stroke survivors, orthopedic patients, older adults with younger folks, the gears start turning.” Dr. Galloway goes on to say that in addition to inspiring and guiding research to seek the functional solutions patients need, working along-

side the clinic puts pressure on the research teams to act sooner rather than later. “We don’t have years. You have a stroke right now. It’s our responsibility to do better for you right now.”

It is this kind of thinking that will push the pace of the advancement of rehab science. With the DPT classes being held right upstairs, the idea is that the students will adopt this perspective in their time here, and carry it with them as they transition into their professional careers.

“The new DPT graduate should be a confused person,” remarks Dr. Galloway. The now almost seamless integration of clinical practice and scientific research should have students questioning which area they’d like to pursue, or if it is even possible to separate clinic and research.



Left: High-low tables in the plinth classroom. Right: Anatomy lab.

DEPARTMENT NEWS

Classrooms and Labs

When you ascend the large open staircase to the second floor, you find two classrooms designated to PT courses: one for traditional lectures with desks and chairs, and the other outfitted with 32 high-low treatment tables to ensure proper body mechanics.

If not for the hallmark smell, it would be difficult to identify the spacious and inviting cadaver lab. The new lab features 16 overhead moveable lighting units that can be adjusted to maximize visibility at each dissection station. An efficient ventilation system constantly exchanges air in the room while students are working.

Dr. Joseph Zeni, instructor and coordinator of the Human Anatomy course, assures that “students will no longer have to worry about pinching fingers or hurting their backs when moving the bodies, as the lab will also feature a hydraulic lift.” Touchless sinks and soap dispensers, as well as a locker room with showers, makes cleanup easier than ever. Overall, STAR creates an environment that makes learning an enjoyable and natural process.

Looking Back, Looking Forward

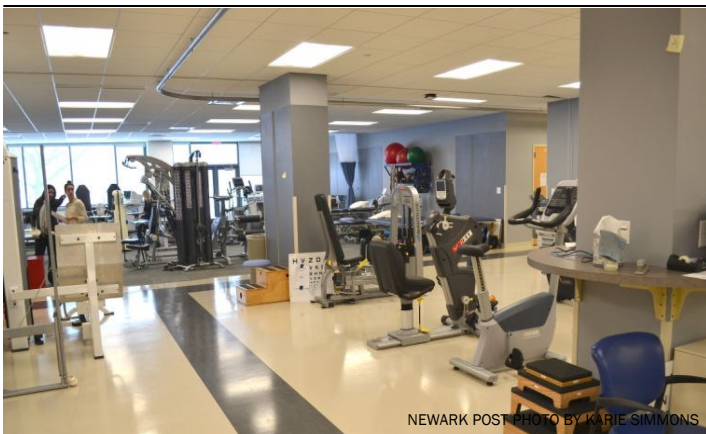
STAR Campus creates a bigger, more cohesive space for the UDPT program to grow into. One new faculty member and two professional staff members have already joined the PT fami-

ly in preparation for the incoming class of 2016. With 60 prospective DPT1s, the class of 2016 is nearly double the typical class size for the UDPT program. While the succeeding classes will enjoy all 2.5 years of their time at the beautiful STAR Campus, the faculty and students who remember McKinly Lab can take pride in not only what the program has become, but where it all began.

The University of Delaware Physical Therapy Department finally resides in an environment that contains all of its elements. Perhaps most gratifying of all, STAR reflects the quality of work being done at UDPT and sets the stage for the promising future of the program.

Interested in experiencing STAR in person? Dr. Galloway encourages the alumni to visit our new facility. “Everyone here invites all of you and your families to come by whenever you are nearby to get a tour of the state of the art labs, two high tech classrooms and a clinic you simply will not believe.” However, in the future, STAR will be able to offer more than just a tour of the facility. Galloway adds, “we look forward to holding high quality continuing education and other fun and informative alumni events.”

Written by **Andrea Kwok, SPT**
Class of 2015

Transforming the Chrysler Car Assembly Plant into a Patient Mobility Center

NEWARK POST PHOTO BY KARRIE SIMMONS

More space makes way for new equipment in the clinic.

The UD Clinical services saw their last patient in 053 McKinly Laboratory on Dec 23, 2013 and began a transformation. During the University shut down, the Clinical services staff, packed, unpacked, moved and re-moved all the equipment from McKinly lab to the new STAR site. Floors were being finished, desks installed and there was Delaware PT amid the bustling construction crew

creating a clinical site to receive patients on January 2, 2014. The push was remarkable and would never have been possible without the support of DelleDonne Associates, Bancroft Construction and Tevebaugh Architects. In order for the clinic to open the doors for the Winter Session, DPT students, and their patients, staff worked all day, every day over the vacation to get it done.

The Dean of the College of Health Sciences, Kathy Matt came in on New Year's Eve and New Year's Day to open the building and monitor the entrance so the final push could occur. Only fitting, Dean Matt was there to receive the first patient in the morning on January 2. Scott DeBoda worked in the Chrysler Plant 40 years before as an assembly-line worker while in college at UD and he was the first to walk through the doors as it transformed into a Patient care center. Scott was diagnosed with Parkinson's disease 5 years ago and was a repeat customer to the Neurologic and Older Adult clinic and as he told UD reporter Diane Kukich, “I'm in my second round of PT at UD and I've found that they're terrific at treating patients with Parkinson's. I've experienced measurable improvement, especially in strength, and I really enjoy working with the students.

We're all learning at the same time here.” It was exciting to see our patients experience our new space just a week after leaving the old basement- there were lots of open mouths and gasps from students and patients alike. This space really honors those patients who have dedicated themselves to the training of the next generation of physical therapists. Physical Therapy students remember the special patients they treated on their internships throughout their career and it takes a special kind of individual to willingly inject themselves as the patient in the student training process. This space really is a dedication to those people who have helped train us all.

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

UDPT HAPPENINGS

Tara Manal Wins American Physical Therapy Association's Lucy Blair Award



Tara Jo Manal, PT, DPT, OCS, SCS, Director of Clinical Services and Residency Training in the Department of Physical Therapy at the University of Delaware, was recognized at the American Physical Therapy Association (APTA) Conference and Exposition for her outstanding contributions to the APTA and the Physical Therapy Session. The exposition, held in Salt Lake City, Utah, from June 26-29, honored Dr. Manal with the Lucy Blair Service Award, which recognizes members who have made exceptional contributions to the association. Blair, who died in 1985, was known for qualities such as having unswerving dedication, self-sacrifice without limit, an infectious enthusiasm, strong personal and professional values, a sharp wit and sense of humor, and a genuine interest and concern for every individual she met.

Kelly Daley, clinical analyst and Director of Clinical Education and Residencies at the Johns Hopkins Hospital, says, "I echo the sentiments of many colleagues that this is an apt description of Tara Jo Manal's qualities and wide area of influence."

Dr. Manal received her DPT from Temple University, Philadelphia, and her MPT and BA in Psychology from the University of Delaware. As Director of Clinical Services and Residency Training at UD, she has made significant contributions in the areas of clinical residency and fellowship education, and has established collaborations within and outside the university community. Dr. Manal oversees highly successful residencies in orthopedics, sports, and geriatrics, and was instrumental in the partnership and development of the UD-Johns Hopkins Hospital's neurology physical therapy residency. Lynn Snyder-Mackler, Alumni Distinguished Professor of Physical Therapy, refers to Manal as "the very model of a modern clinician-educator." "Tara contributes to clinical practice, research, and the profession in tangible ways, most notably in her stewardship of the University of Delaware Physical Therapy Clinics as the premier clinical practice and 'laboratory' for NIH-funded PT research in the country," she says. "She is a credit to our University, our community, and our profession. I can't think of a better candidate for the Lucy Blair Service Award."

Manal is a member of APTA's Research, Orthopaedic, and Sports Physical Therapy sections and has held several offices within the organization, including co-chair of the PTnow.org editorial board and site reviewer for the Committee on Clinical Residency and Fellowship Program Credentialing. In an acknowledgement to receiving her award, Manal stated, "I am very honored and humbled to receive the Lucy Blair Service Award." "I have been supported by so many wonderful colleagues throughout my career and hope to honor them by emulating their professional dedication and service. I believe strongly in sustained and significant support of your professional organization. The opportunity to belong to a profession comes with obligations to contribute to the current momentum and future direction of the field; I am committed to this effort. I sincerely appreciate the support of the University of Delaware Physical Therapy faculty, staff, and students, along with my husband Kurt and children Cameron and Sidney. Contributions to the field is more rewarding than costly, however, it does steal time from family and job responsibilities and I hope those who have sacrificed along with my achievements realize that they too share in this award. Thank you so much for all your support!"

Excerpts taken from an article by Diane Kukich & input from Tara Jo Manal, PT, DPT, OCS, SCS, Director of Clinical Services

Help Support the UD Physical Therapy Program!

With your support, the Physical Therapy program will be able to provide even more resources and opportunities for our students. For example, pairs of students will have high-low tables and interactive technology to allow them to learn hands on patient care and treatment application. Your support also allows the Physical Therapy Department to increase its class size from 36 to 60, accommodating the increasing demand for Physical Therapists.

Making a gift is simple. Just visit www.udel.edu/makeagift to use our secure, online giving form. Please be sure to allocate your gift to the "Physical Therapy" in the "Other" box.

Many companies match gifts of their employees. This is a great way to double or even triple your gift! Check with your company's Human Resources Department or visit our online database at www.matchinggifts.com/ud to find out if your employer matches gifts.

UDPT HAPPENINGS

Babies Driving Cars... and Science: NSF Funds Infant Mobility Research at UDPT



Photo: UDaily

Dr. Cole Galloway, professor and Interim Chair of the University of Delaware Department of Physical Therapy, has received a three-year, \$515,000 grant from the National Science Foundation to answer some new questions about infant development in the GoBabyGo project.

From the moment a baby learns to crawl, it seems nearly impossible to keep them in one place. The playpen walls give way to an exciting new world with so much to touch and discover. The baby's interactions with the environment and with others markedly increase, as do the opportunities for learning. So how then, asks Dr. Cole Galloway, are babies with mobility impairments supposed to engage in the same kinds of learning experiences if they cannot crawl towards Mom, stumble after the pigeon looking for lunch in the park, or plop down next to daycare comrades?

"The drive for exploration through movement and mobility is a deep part of being fully human," Dr. Galloway

explains, and its importance is obvious in developing infants.

To solve this problem that he has termed "the exploration gap," Dr. Galloway launched the GoBabyGo project, studying what happens when you put babies behind the wheel of small motorized cars. So far, he has been successful in helping infants and toddlers move around in their environment, but has found that the bulkier mode of transportation has limited their ability to socialize with peers. The next step in his research will modify the driving process to focus on social development, and has received a three-year \$515,000 grant from the National Science Foundation.

The first of two methods Dr. Galloway will use to encour-

age social exploration is a two-seat car. Both infants that sit in the car will have joysticks, but only one actually controls the

movement of the vehicle. The infants share the same social and physical experiences but one will not be practicing any driving skills.

By comparing the driver to the non-driver, Dr. Galloway intends to determine whether it is the act of driving alone or the social interaction combined with driving that promotes developmental changes.

The second approach Dr. Galloway is taking to foster social growth utilizes robots to guide

the babies toward social situations. He explains that as infants begin to walk, they often will follow others, providing them with what is called social mobility.

Dr. Galloway's robots still allow the infant to drive, but will bias the child toward other individuals. Eventually, the robot guiding will be disabled, and Dr. Galloway expects that the tendency to move toward social settings will be maintained as the baby gains full autonomy. This approach will be used to study whether robot-guided mobility training can promote advanced socialization as well as driving skill.

"As with our other work, it's intricately tied to the community — what we call 'civic science,'" Galloway says. "We believe that our lab makes the biggest leaps forward for our community of kids and families when we partner with everyone involved in their lives, including their teachers, their families, their therapists, and their peers."

“ Exploration through movement is a deep part of being fully human. ”

The success of the GoBabyGo project has been featured nationwide in various media, including UDaily, NationSwell, and the New York Times. To

learn more about the GoBabyGo project and related research, or to suggest new technology or treatments that address the needs of children with mobility impairments, visit Dr. Galloway's page on the UDPT website.

Written by Andrea Kwok, SPT
Class of 2015

Sources: NationSwell, UDaily, New York Times

RESEARCH

Stuart Binder-MacLeod Aims to Advance Research Statewide with CTR-ACCEL Program

The University of Delaware is paving the way for the rapid expansion of research programs statewide. Former Chair of the DPT Program Dr. Stuart Binder-MacLeod has taken a new role as the associate vice-provost of the Delaware-CTR ACCEL program, which will help to build a solid infrastructure for clinical and translational research development in both Delaware and South Carolina.

In collaboration with the Christiana Care Health System, Nemours/A.I. duPont Hospital for Children, the Medical University of South Carolina, and the University of Delaware, the program aims to create an integrated network of clinicians, researchers, and engineers from which strong translational research programs can grow.

The Delaware-CTR ACCEL program has received a total of \$25 million in funding—\$20 million from the NIH, \$5 million from the state of Delaware, and \$3.3 million from the participating institutions. The NIH funding comes in the form of an Institutional Development Award (IDeA), granted to states with historically low NIH support for research. Delaware-CTR ACCEL was one of only four recipients of the award.

The \$25 million will help Delaware-CTR ACCEL offer pilot funding, education and mentoring services to researchers, support for developing research programs, and community outreach programs that promote the health and wellness of Delaware residents.

“By enhancing our ability to compete for large interdisciplinary grants across institutions, these programs and alliances provide the foundation for research that has tremendous potential to impact human health.” says Dean of the College of Health Sciences Kathleen Matt in an interview with UDaily.

On February 7, 2014, members of all sectors of the health science community gathered to celebrate the launch of Delaware-CTR ACCEL. The event, held in the atrium of STAR Cam-

pus, featured speakers such as Delaware governor Jack Markell, U.S. Senator Thomas Carper, and UD President Patrick Harker. In addition to its implications on research in Delaware, the speakers highlighted the potential benefits to the community, including lower health care costs and increased job opportunities.

Delaware-CTR ACCEL is recruiting researchers in all stages of their careers to create the foundation for the project. New researchers would have the opportunity to advance their ca-

reers, and senior researchers would have the opportunity to get involved with new projects and mentor early-stage researchers. By bringing together multiple health care institutions and integrating engineering with health science, Delaware-CTR ACCEL will provide the support necessary to allow clinical and translational researchers to learn, teach, and grow their programs.

Written by Andrea Kwok, SPT
Class of 2015
Sources: UDaily, PT in Motion



Left: Delaware-CTR ACCEL launch event held on Feb. 7, 2014 in STAR atrium. Right: Gov. Jack Markell and UD President Patrick Harker describe economic benefits of the program.



CHRISTIANA CARE
HEALTH SYSTEM



For more information about Delaware-CTR ACCEL, including research opportunities and upcoming events, visit <http://de-ctr.org/>

UD INTEGRATED CLINICAL EXPERIENCE UPDATES

Clinical Services & S&O/NOA Update



After 22 years of training student Physical Therapists in the basement of McKinly-the clinical training space has been upgraded. The demands of training students have steadily increased over the years and the facilities have struggled to keep up. The early days of moving desks and chairs to create a patient space for 3 hours a day patient care and a 6 to 1 – student to clinical instructor ratio-have given way to a clinic that educates students in a 2:1 mod-

el (students to CI) on procedures related to providing care while navigating the requirements of payers and federal and state guidelines. This multidimensional environment is critical to educating today's physical therapy care providers. We are continually pushed by the patient care climate to prepare students for more expansive and independent roles as they enter the workforce. The strength and diversity of our clinical services are uniquely designed to support

that mission and assist the department in graduating highly educated and clinically experienced practitioners. Our growth from 5600 sq feet to 9400 sq feet has allowed us to improve our patient care space and continuous line of sight clinical mentoring. The move to our new space on the STAR campus has and will continue to offer opportunities for our patients, students, staff, and research subjects. Both our Sports and Orthopedic Clinic (SO) and our Neurologic and Older Adult Clinic (NOA) have increased in size to accommodate the expanded class size in the DPT program. Our clinic is easier to access and has state of the art equipment to help us provide best practice care and student education. We have the amazing addition of a metal track suspended from the steel frame of the building allowing patients to be harnessed for safety while working on anything from balance and gait training to steps and agility drills. The growth in clinical research has supported the expansion from an

old LIDO machine to 4 KinCom's for burst testing and other data collection- but even those machines have become a dinosaur. We will need to transition from KinCom to Biodex over the next few years as the maintenance of these old isokinetic devices becomes prohibitive. With the help of an alumna, we have added a Biodex isokinetic machine to our new area, which of course raises the question, "What can we study next"? The possibilities in our new space are really endless and we are very thankful for this great new opportunity. We haven't even had time yet to fully reflect on what new and great things we will be doing in the near future with an expanded class size and new digs!

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

Pediatric Clinic



Over the past year the pediatric clinic has provided physical therapy services to children and their families. Services are delivered in the natural environment including the Early Learning Center, homes, playgrounds, and during commu-

nity activities. Each therapy session is filled with opportunities to play and have fun while still working on therapeutic needs. Several UD PT students have had the opportunity to complete their pediatric integrated experience in the pediatric clinic. In addition, multiple undergraduate students with an interest in physical therapy volunteer their time and help the children have fun during therapy. This year we have had the opportunity to work with an overhead body weight support harness system. This device was designed by Accudyne Systems and is currently at use in the Early Learning Center Gym. The harness system is used by several children, who need assistance for upright mobility, to play with their

peers. Typically assistive devices make moving through an obstacle course difficult, but not with the overhead harness system. Paws for People continue to join several children during therapy to offer distractions and motivation. The use of adapted Power Wheel vehicles offer another fun activity for children and their families. If you have any questions please contact us [\(302\) 831-8893](tel:3028318893)

Written by **Tracy Stoner, PT, DPT, PCS**
Pediatric Physical Therapist

DPT STUDENT NEWS

Class of 2014 Written by Jacob Holler, SPT

As our last semester on campus gets underway, we are happily settled into our new home on STAR campus. As we near the end of our time here, it is impossible not to look back over our time at UD and realize how much we have grown since starting our journey to become physical therapists. This semester we are focusing our efforts on integrating our knowledge into various pediatric settings, the evaluation and treatment on the spine, and some are taking an elective in sports as well. In addition to our classes, many of our class are completing their final integrated clinical experiences in Sports and Orthopedics, Neurological and Older Adult, or Pediatric settings.

After this semester we will leave campus to complete three full-time affiliations across the country, but not before we enjoy one last Newark spring and PT Prom! We wish all the best to the Class of 2013 as they enter the world as card-carrying physical therapists and thank them for all the guidance they provided us during their time at UDPT. We are confident that UDPT is in good hands as the class of 2015 prepares to take the reigns from us in their second year and we offer a warm welcome to the class of 2016 as they prepare for the rewarding, hectic, beautiful, crazy, and rich experience that has come to define our time here!

Jacob Holler, President UDPT
Class of 2014



Class of 2015 Written by Nicholas Rech, SPT

The class of 2015 is settling into the Spring Semester in our new home at the STAR campus. We said farewell to Mckinly but we will always carry with us the fond memories we formed there together during our first months of PT school. We are excited to take advantage of our larger classroom, new plinth lab featuring over 30 high/low tables and a spacious clinic. In addition to our classes, this semester is a new challenge for some members of our class as they begin their first Integrated Clinical Experiences (ICE's) in the Sports and Orthopedic (SO) and Neurologic and Older Adult (NOA) sections of clinic.

We would like to send a huge heart felt thanks out to the second year class for their guidance and support so far. Their selflessness and genuine desire to help us to succeed is evident especially through the new Study With a Buddy sessions (SWiBs) they initiated to help us study for Anatomy and Acute Care. We are excited to continue this new tradition for the class of 2016. We also want to thank the faculty and staff for being so welcoming and open to us as they help us navigate our way through school. It's hard to believe that in just a few short months we will be welcoming the class of 2016 and wishing the Class of 2014 good luck as they embark on their full time affiliations.

Nicholas Rech, President UDPT
Class of 2015



2013 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:

- Stretched a community member with ALS
- Volunteered for Girl Scout event "Magic of Motion"
- Volunteered for "Code Purple" (community outreach program that provides temporary housing for homeless folks in local churches when weather forecasted to be 20 degrees or below)
- Volunteered at a "Vocational Services" program at the Early Learning Center in Christiana School district to aid young adults with disabilities learn how to better assimilate into society.
- Ran in Hearts for Heroes 5k Run to benefit TBI/PTSD
- Worked with a woman with CP on a general strengthening program at the UD gym
- Worked with a man with C6 SCI during his morning routine to get him ready for work
- Worked with a man with spina bifida on a general strength and conditioning program



Students participate in the Magic of Motion and educate young girls about the profession of PT and physical well-being.



IN MEMORIAM

Remembering Dr. John Scholz, PhD, PT



John Peter Scholz, professor in the Department of Physical Therapy at the University of Delaware, passed away on Saturday, October 19, 2013, after battling cancer for more than 10 years. He had been a member of the UD faculty since 1988.

Scholz's life was celebrated at a memorial service on Thursday, October 24, at St. Thomas More Oratory on the University campus.

"It is our job from this day forward to keep John's memory alive in our minds and the minds of our future students, friends, and colleagues," said department chair Stuart Binder-Macleod at a reception following the service. "John and I worked together for 25 years. John was my friend, my colleague, and my professional moral compass. I, like all in our department, will miss him dearly."

Binder-Macleod went on to share notes he had received from former students and colleagues who could not attend the service.

One referred to him as "an integral thread in the department's history," another mentioned his "quiet, but strong, presence," and a third said he was "one of the great physical therapy scientists in the country if not the world."

One PT alum wrote in an email: "I'm glad I had the opportunity to get to know John after PT school. From time to time I hear John's words come out of my mouth when training my own Ph.D. student for presentations or thinking about defining her research questions. He had an indelible positive impact on so many."

Scholz's personal battle with cancer provided inspiration for one colleague: "He helped me navigate through my own brother's cancer and his eventual passing, and he did not even know my brother. This is such a tremendous loss to the profession, but perhaps more so to his friends and family. He was and will be a tremendous inspiration to all of us in the way he lived his life."

Scholz is remembered for refusing to give up in the face of a fatal disease and continuing to live his life to the fullest, from conducting research to taking long training rides on his bike, throughout debilitating treatments. In 2006, he cycled 100 miles in the Livestrong Philadelphia challenge, raising \$15,000 for the cause.

Scholz received his degree in physical therapy from the University of Pennsylvania, a mas-

ter's degree from the University of North Carolina at Chapel Hill, and his doctorate in experimental psychology from the University of Connecticut with an emphasis on motor control. His research focused on understanding the basic processes underlying movement coordination and on characterizing movement coordination in patients with motor dysfunction. Just a month before his death, he was the College of Health Sciences Researcher of the Month.

In 2011, Scholz was elected a Catherine Worthingham Fellow of the American Physical Therapy Association, which cited him as "a highly regarded movement scientist renowned for his ability to take complex theoretical concepts of motor control and apply them to the understanding and treatment of neurologic problems."

A physical therapy student scholarship fund has been established to honor Scholz's memory and his commitment to physical therapy education. Contributions can be sent to University of Delaware, Gifts Processing, 83 East Main St., Third Floor, Newark, DE, 19716. Make checks payable to "University of Delaware" and include on the memo line UD-Scholz Scholarship. Donations can also be made online at this website. Please note in the special instructions that the gift is in memory of Dr. John Peter Scholz.

For more information about the Scholz Scholarship, contact Cyndi Haley at chaley@udel.edu.

Article by Diane Kukich



ALUMNI WEEKEND

JUNE 6-8
2014

Schedule for UDPT Events for Alumni Weekend:

Friday, June 6

• College of Health Sciences Alumni Reception:

NEW STAR Campus 5pm–7pm

Please register if you are able to attend at www.udel.edu/alumniweekend

Saturday, June 7

• Physical Therapy Open House:

NEW STAR Campus 10am–12pm

Please register if you are able to attend at www.udel.edu/alumniweekend

• CPR Recertification & Emergency First Response Re-certification 3hrs):

NEW STAR Campus 11am–12pm / 11am–2pm

Please register if you are able to attend at http://www.udel.edu/PT/About%20Us/efr_cert_use.html

Please join us for several special events we are holding for the University of Delaware Physical Therapy Alumni during University of Delaware's Alumni Weekend this year. We have several exciting opportunities planned for you to get together with old friends, renew certifications or meet new colleagues from previous and upcoming classes. A chance to network or to reminisce in our new building, the Science, Technology, and Advanced Research Campus (STAR), which is located on the site of the former Chrysler Plant, 540 S. College Ave, Newark, DE.

We look forward to seeing our Physical Therapy Alums during 2014 University of Delaware Alumni Weekend. Please come and see our new facility and network with your colleagues and former classmates. If you have any questions regarding the Department of Physical Therapy events offered during Alumni Weekend, please contact Cyndi Haley at chaley@udel.edu.

ALUMNI UPDATES

Alumni News

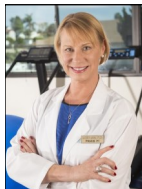
Congratulations to all of our graduates for their personal and professional accomplishments!

**Class of 1977**

Sue Cecere is working as the PT Instructional Specialist for Prince Georges County Public Schools in Maryland and VP of the Section on Pediatrics, AP-PTA. She is also the PT chair of the Maryland State Steering committee for Occupational and Physical Therapy School based programs. This year she was a presenter at the Section on Pediatrics Annual Conference held in Anaheim, CA, and the Innovations in School Based Physical Therapy at Drexel University.

**Class of 1978**

Kathryn Kassai is a women's health PT and is the owner/director of Praxis Physical Therapy in San Pedro, California. She will appear on the cover of a 12-page center spread in the LA Times on March 29, entitled, "Women's Pelvic Health". She also coauthored a book entitled "THE BATHROOM KEY: Put An End To Incontinence", which was given a Book-of-the-Year Finalist Award by the *American Library Association* in the health category!

**Class of 1983**

The Class of 1983 recently had their 30th reunion this past fall 2013!

Loraine Bonkowski Frey went on to obtain her DPT from Shenandoah University in August 2011, and has recently accepted a faculty position at Howard Community College in the Physical Therapist Assistant program.

Class of 1984

Craig Joachimowski received his OCS in 2006 and is now a Certified Hand Therapist as of June 2013.

Marjorie Werrell is president of Ergoworks Consulting, which provides injury prevention training, ergonomic analysis, and return to work programs for companies including Exxon Mobil, Library of Congress and the FDA. She celebrated the wedding of her eldest daughter this past summer.

Class of 1986

Roselle Albert is taking over as the DE representative to the Section on Pediatrics of the APTA

Class of 1987

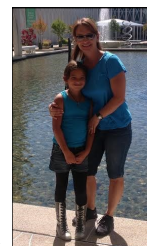
Ann Dennison was recertified for the 2nd time as an OCS in 2013. She will be speaking on Recognition, Evaluation and Management of Common Injuries of Athletes with Disabilities at the 2014 Pennsylvania Physical Therapy Association annual conference in Lancaster on November 2, 2013.

Class of 1989

Leslie Williams opened Berryville Physical Therapy and Wellness in Berryville, VA in July 2008. She completed her transitional DPT at Shenandoah University in 2010, and added a 4th son to her family on April 6, 2012.

Class of 1990

Grace (Brown) Hernandez recently changed jobs and is now the Manager of PT services at the Center for Inherited Blood Disorders, located in Orange, California. She was recently appointed The Chair of the PT Working Group for the National Hemophilia Foundation, and continues to work as a Level I hippotherapist at The Shea Center for therapeutic riding in San Juan Capistrano. She is married with 2 children, Dominic (12) and Olivia (10), and lives in Tustin, California.

**Class of 1996**

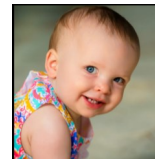
Nicki Silberman just completed her PhD in physical therapy at Nova Southeastern University.

Class of 1997

Michael Tevald is currently working as an assistant professor in the DPT program at University of Toledo. His wife Catherine (Newcomb) Tevald (a fellow UDPT '97 grad!) is working part time in acute care. Together they have 3 girls (Anna, 10, Sarah, 7, and Lilah, 4).

Class of 1999

James Poston was re-certified as an OCS in 2013. Him and his wife Dea also welcomed their daughter Adrienne in the same year!

**Class of 2002**

Stephanie (Sakai) Hernley is now NDT certified (C/NDT) as well as Neuro-IFRAH Certified. She had a baby girl named Lexi last year who will be one on March 27.

(Continued)



ALUMNI WEEKEND

JUNE 6-8
2014

Saturday, June 7 Events

Physical Therapy Open House 10 am-12 pm

The Department of Physical Therapy will host an Open House with the College of Health Sciences for their Alumni on Saturday, June 7, 2014 on the new STAR Campus from 10:00 a.m. – noon. During this time we will serve light refreshments and hold tours to include our new state of the art PT Clinic, Anatomy Laboratory and Research Laboratories. You will also have an opportunity to visit various interactive stations that will provide information for a "Healthier You", as well as visit the new research laboratories for demonstrations and hear how their research is making a difference for students, the community and the future of healthcare through teaching, research and service.

CPR 11 am-12 pm Emergency First Response 11 am-2 pm

This course is designed specifically for re-certification of those physical therapists who have previously been certified in CPR for the Professional Rescuer (infant, Child and Adult 1-person and 2-person, AED and O2 Administration) and Emergency Medical Response (CPR for the Professional Rescuer PLUS Emergency Medical Response Certification). Successful completion of both written and practical skills check is required for certification following this course. In Emergency Medical Response lab we will review and test: bleeding control and shock management, trauma victim assessment and management, airway insertion and suction, management of injuries to soft tissue and skeletal structures and management of head, neck, and back injuries. This course provides a 2 year CPR for the professional Rescuer, AED, and O2 Administration).

ALUMNI UPDATES

Abigail Douek has been working in a sports ortho clinic in Raleigh for the past 9 years but has recently decided to open up her own practice, Run Raleigh PT, which focuses on the biomechanical evaluation and treatment of runners. She has become certified in dry needling as well as IASTM.

Class of 2004

Tina (Ward) Majkrzak and husband Steve recently had their second child, Henry Christopher Majkrzak, on June 28, 2013.



Class of 2005

Dennis Treubig received his SCS in May 2013 and continues to work at Pro-HEALTH Physical Therapy in Long Island, NY. Dennis and his wife, Dana, welcomed a baby girl, Kayla Rose, on December 20, 2010.



Class of 2006

Meghan (Hajek) Swenck became a Women's Health Certified Specialist in May 2013. She had her second baby girl, Kenna Hartley, on February 7, 2014.



Kate (Gibson) Campbell received her SCS and added a family member, Claire Elizabeth Campbell, born on July 10, 2013.

Class of 2007

William Roy Thompson is currently a postdoctoral fellow at the University of North Carolina at Chapel Hill. He conducts research on how mechanical signals, such as those induced by exercise, push bone marrow stem cell differentiation towards bone cells and away from fat cells. He and wife Lindsay have 2 sons, Elliot (1) and Kellen (4).



Elizabeth Bauske received her OCS this past year and was promoted to Industrial Rehab Coordinator and Clinical EHR Specialist at her company. Her 2nd child, Kaitlyn Janel was born 4/4/13; she will be 1 soon and her son Ethan is 3.

Class of 2008

Jamie (Hartnett) Missios is working in outpatient orthopedics for Novacare Rehabilitation in Cape Cod MA, and is maintaining her CSCS. She married husband Jim in 2011, we welcomed a son Callen on 6/25/13.



Greg Cecere opened up his own cash-based outpatient practice in August called Momentum Physical Therapy, in his hometown of New Paltz, NY.



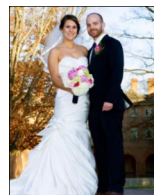
Class of 2009

Kristen Mansfield currently lives in Austin, TX and works for Select Physical Therapy. Last year she earned her Manual Therapy Certification through the Ola Grimsby Institute and is now a Certified Orthopedic Manual Therapist.

Anthony Carroll recently obtained his FAAOMPT degree and is now officially a Fellow of the American Academy of Manual Physical Therapists.

Class of 2010

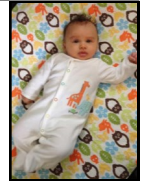
Mackenzie (Roby) Brown got married on 12/31/13 to Jake Brown. She passed her OCS in 2013 and is moving out to Maui in a few months!



Class of 2011

Brittany Patterson got married in October and completed a sports residency this past November.

Holly Whitney and husband Jonathan welcomed a beautiful daughter, Alicia Patricia Whitney, on November 2, 2013.



Griffith Randle completed an orthopedic residency in 2013 and is getting married on 4/26/14.

Leslie O'Neill completed a neurologic residency with Unity Health System and Ithaca College in 2012/13. She is currently working at Spaulding Rehabilitation Hospital in Boston on the spinal cord injury unit.

Michael Akinbola completed a sports residency in March 2013 and acquired his SCS board certification June of the same year.

Class of 2012

Nora Bachman is just finishing up a year at an outpatient orthopedic clinic and is about to start work with a pediatric outpatient facility associated with HSC Pediatric Center hospital in DC.

Connor Whitesel got married on May 26, 2013 to Allie (Gold) Whitesel.

Class of 2013

Recent UDPT graduate Danielle Cherry will begin working at Children's Specialized Hospital in Toms River, NJ and will be getting married and changing her address in a few months!

Recent UDPT graduate Megan Stewart is currently working full time at Advantage Physical Therapy, an outpatient clinic in York, PA and is also working per diem at Hanover Hospital in Hanover, PA.

Congratulations to the following UD Alumni who received American Board of Physical Therapy Specialist (ABPTS) Certifications in the year 2013:

Sports Physical Therapy

Dennis Treubig, PT, DPT, SCS, CSCS (2005)

Michael Akinbola, PT, DPT, SCS, CSCS (2011)

Kate (Gibson) Campbell, PT, DPT, SCS (2006)

Women's Health Physical Therapy

Meghan Swenck, PT, DPT, WCS (2006)

Orthopaedic Physical Therapy

Elizabeth Bauske, DPT, ATC, OCS (2007)

Mackenzie (Roby) Brown, PT, DPT, OCS (2010)

James Poston, PT, OCS, CMFT (1999) - Recertification

Ann Dennison, PT, DPT, OCS (1987) - Recertification

Residency Completion

Griffith Randle, PT, DPT (2011) - UD Orthopedics Residency Program

Kaan Celebi, PT, DPT - UD Sports Residency Program

Michael Akinbola, PT, DPT, SCS, CSCS (2011) - UD Sports Residency Program

Matthew Matovu, PT, DPT - UD Geriatric Residency Program

Brittany Patterson, PT, DPT (2011) - Sports Residency

Leslie O'Neill, PT, DPT (2011) - Neurologic Residency

Other Certifications

Kristen Mansfield, DPT (2009) - Orthopedic manual therapy certification

Anthony Carroll, PT, DPT, CSCS (2009) - Fellow of the American Academy of

Manual Physical Therapists (FAAOMPT)

Craig Joachimowski, PT, OCS, CHT (1984) - Certified hand therapist

Stephanie (Sakai) Hernley, PT, (2002) - NDT and Neuro-IFRAH certifications

Abigail Douek, PT (2002) - Dry needling and IASTM certifications

2013 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 2013 calendar year (January – December). 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 Cyndi Haley with the Physical Therapy Department at chaley@udel.edu or call 302-831-4576.



Thank You!!

Randee Allen	Barbara Dowling	Kurt & Tara Manal	Angela Smith
Emily Ardolino	Brian M. Drake	Richard A. Markel	Robert Smith
Michael Axe	Susan Effgen	Michael Martin	Janet Smith
Kevin Bailey	Amy Enriken	Patricia McGinnis	Kelly A. Smith
Kevin Baily	Wendi Evans	Wayne & Lynda S. McKilop	Beth A. Smith
John Balaban	Edward Fagan	Sandra Mishic	Thomas Smith
Katherine Ballinger	Allan G. Fanjoy	Ann Morrison	Lynn Snyder-Mackler
John Battles	Ellen Fanjoy	David M. Mukoda	Scott K. Stackhouse
Elizabeth Bauske	Virginia Fisher	Kevin & Kathy O'Connor	Megan L. Stewart
Karla A. Bell	Cole Galloway	William R. Omlor	Joseph Straight
Philip & Patricia Beutel	Xiang Gao	Carol Owens	Pammal Suresh
Stuart & Catriona Binder-Macleod	Joseph & Airelle Giordano	Kimberly Pasquale	Carol A. Swerdon
Jennifer Binkley	Adriene Greenfield	Dexter Pasternak	Melissa Taylor
Jonathan Borger	Thomas Guerin	John & Theresa M. Patane	Steven Tepper
Kevin Boring	Nicole Guishard	Barbara Pizzutillo	Michael Tevald
Kathleen Boyle	Ira & Marci Haimowitz	Micelle Prettyman	Rebecca Tinsman
James Burke	Ellen Hakim	Robert E. Priar	Charlotte Twombly
John Cali	Dennis & Cyndi Haley	Frederick & Gina Pusey	Jessi VanSwearingen
Michael Cambell	Susan Heald	Darcy Reisman	Madeline Versteeg
Carmen Campanelli	Karren Helsel-Spry	Carol L. Reister	Monique Votta
Brian R. Catania	Jane Hollingsworth	Timothy B. Rementer	Erich Weigert
Susan Cecere	Mary & Charles Ireland	John Rino	Paul Wellborn
Sung-Hwan Choi	Eric D. Jacobson	Susan Rogers	Claudia Williams
Cathy L. Ciolek	Eric E. Johnson	Jennifer Rogofsky	Lisa Wilps
Daniel E. Ciolek	Grace Keenan	Richard & Karen Roscoe	Steven L. Wolf
Melissa Cole	Julie Keppel	Michael & Joanne Rosenberg	Joseph A. Zeni
Annamaria Concannon	Rose & Alan Kipp	Richard S. Sacher	Nancy Zippe
Renee L. Corradetti	Julie Knowlmayer	Stanley Sandler	Angelo & Mary Cali Family FDN
Robert A. Corradetti	William Knowles	Laura Schmitt	Delsys Inc.
Carolyn R. Cotter	Jeffrey Konin	Wendy Schoenewald	Fidelity Charitable Gift Fund
Rebecca L. Craik	Margaret Froen	Thomas Scholz	First State Orthopaedics P.A.
Kathryn Cunningham	Elizabeth Krupinski	Elaine Scholz	Johnson & Johnson Family & Co.
Narciso & Lilia DeBorja	Stacie L. Larkin	Roy L. Schuyler, III	JPMorgan Chase Foundation
James B. DeLapp	Steven Lawrence	Myron & Lisa Schwarcz	TE Connectivity
Jean DeLeo	Joseph & Donna Laws	Carol Sheate	United Way of Delaware
Ann Dennison	Steven & Ellen Levine	Amrita Singh	
Angelo Devita	Nanette Loftus	Michael Skalla	
Heidi Devita-Grey	David Logersted	Jeane & Wayne Skoycpec	

Interested in making a donation for the 2014 year?

For all donors: If you would like to make a gift in support of our program, you may do so online by going to www.udel.edu/makeagift and please consider designating your donation to the **Physical Therapy Department**. To make a pledge, pay by credit card or mail in a check after filling out the form online. Your financial support provides many opportunities for students to benefit from a quality education. For further information, please contact www.udel.edu/makeagift or call the Office of Annual Giving on 302-831-4654.

How Can You Help Advance Physical Therapy Research?

The UDPT program is currently recruiting individuals to participate in treatment interventions funded by the National Institutes of Health.

Current research is focusing on:

Stroke

Low Back pain

Cerebral Palsy

Total Knee Replacement

Total Hip Replacement

Post-op ACL

We value your ongoing support of the UDPT department!

The UDPT program strives to produce evidence-based practice through innovative research. As alumni, I hope that you all continue to value the influence that research has on how you treat your patients

If you have patients who are willing to participate in our research and want to learn more, please contact Martha Callahan (mcall@udel.edu or 302-831-6202). Studies are free of charge and some studies offer monetary compensation for those who qualify.

FACULTY: AWARDS, DEGREES CONFERRED, GRANTS & PUBLICATIONS IN 2013

Research Faculty



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

Laboratory Overview

The main focus of Dr. Binder-Macleod's laboratory is the translation of basic science discoveries in the activation of human skeletal muscles with electrical stimulation to the rehabilitation of individuals with CNS dysfunction. Dr. Binder-Macleod's laboratory is currently involved in a number of exciting collaborations involving the improvement of walking function in individuals following a stroke and improving participation in children with cerebral palsy. Dr. Binder-Macleod's laboratory continues to attract research and product development funding from the NIH and other sources.

Publications

Awad LN, Reisman DS, Kesar TM, Binder-Macleod SA. Targeting Paretic Propulsion To Improve Post-Stroke Walking Function: A Preliminary Study. *Arch Phys Med Rehabil.* 2013 Dec 27.

Reisman D, Kesar T, Perumal R, Roos M, Rudolph K, Higginson J, Helm E, Binder-Macleod S. Time course of functional and biomechanical improvements during a gait training intervention in persons with chronic stroke. *J Neurol Phys Ther.* 2013 Dec; 37(4):159-65.

Knarr BA, Ramsay JW, Buchanan TS, Higginson JS, Binder-Macleod SA. Muscle volume as a predictor of maximum force generating ability in the plantar flexors post-stroke. *Muscle Nerve.* 2013 Dec; 48(6):971-6.
3) Needle AR, Palmer JA, Kesar TM, Binder-Macleod SA, Swanik CB. Brain regulation of muscle tone in healthy and functionally unstable ankles. *J*

Sport Rehabil. 2013 Aug; 22(3):202-11.

Chou LW, Palmer JA, Binder-Macleod S, Knight CA. Motor unit rate coding is severely impaired during forceful and fast muscular contractions in individuals post stroke. *J Neurophysiol.* 2013 Jun; 109(12):2947-54.

Knarr BA, Reisman DS, Binder-Macleod SA, Higginson JS. Understanding compensatory strategies for muscle weakness during gait by simulating activation deficits seen post-stroke. *Gait Posture.* 2013 Jun; 38(2):270-5.

Reisman DS, Binder-Macleod S, Farquhar WB. Changes in metabolic cost of transport following locomotor training poststroke. *Top Stroke Rehabil.* 2013 Mar-Apr; 20(2):161-70.

Knarr BA, Kesar TM, Reisman DS, Binder-Macleod SA, Higginson JS. Changes in the activation and function of the ankle plantar flexor muscles due to gait retraining in chronic stroke survivors. *J Neuroeng Rehabil.* 2013 Jan 31; 10:12.

Awad LN, Kesar TM, Reisman D, Binder-Macleod SA. Effects of repeated treadmill testing and electrical stimulation on post-stroke gait kinematics. *Gait Posture.* 2013 Jan; 37(1):67-71.

9) Reisman DS, Binder-Macleod S, Farquhar WB. Changes in Metabolic Cost of Transport Following Locomotor Training Post-Stroke, *Topics in Stroke Rehab,* 2013, 20(2)161-170.

Grants

Delaware-CTR. U54 GM104941 (PI: Binder-Macleod)
NIGMS \$3,484,000

The overall goal of the Delaware Clinical and Translational Research Program is increasing the clinical and translational research readiness of the participating institutions.

Role on project: PI and Program Director

2013 Awards, Degrees, Grants & Publications Continued

FastFES Neural Prosthesis for Stroke Ambulation and Rehabilitation. R44 HD065388 (PI: E. Hartman of customKynetics)
NIH/NICHD \$105,714 (sub only)
This FastTrack SBIR proposal aims to disseminate a Functional Electrical Stimulation (FES) technology for stroke ambulation and neuromotor rehabilitation.
Role on project: UD subcontract PI

Active Distributed Electrode Array Network for Electrical Stimulation Therapy. R44 HD062065 (PI: E. Hartman of customKynetics)
NIH/NICHD \$55,781 (sub only)
This FastTrack SBIR proposal aims to develop and test Active Distributed Electrode Array (ADEA) technology that offers two novel features that address problems related to network architecture and end-user programmability.
Role: UD subcontract PI

Robotic Exoskeletons, FES, and Biomechanics: Treating Movement Disorders. R01 HD038582 (PI: Binder-Macleod)
NIH/NICHD NCE
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.

FES Assisted Cycling to Improve Fitness and Strength in Children with CP R01 HD062588 (PI: Lee)
NIH/NICHD \$313,440
The objective of this project is to improve physical conditioning and general lower extremity muscle strength for adolescents with CP using FES assisted cycling.
Role: Investigator

Multicenter Career Development Program for Physical and Occupational Therapists. K12 HD055935 (PI: Mueller)
NIH/NICHD \$196,923
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.
Role: Program Director

FES to Improve Crouch Gait in CP. No number assigned (PI: Lee)
Shriners Hospital for Children \$195,788
The overall goal of this work is to prevent the typical downward spiral of walking function of individuals with CP that occurs from adolescence into adulthood; and potentially to reduce the need for surgical interventions that exacerbate weakness, have long recovery times and may or may not enhance gait function.
Role: Investigator

Presentations

Palmer JA, Binder-Macleod SA, Wright T, Reisman D. Spatiotemporal gait asymmetry, walking efficiency and speed after stroke. American Physical Therapy Association Combined Sections Meeting, San Diego, CA. 2013.

Kesar TM, Reisman D, Binder-Macleod SA. Does one session of gait rehabilitation improve post-stroke walking performance? American Physical Therapy Association Combined Sections Meeting, San Diego, CA. 2013.

Knarr BA, Reisman DS, Binder-Macleod, SA, Higginson, JS. Changes in Model-predicted muscle activation with subject-specific parameters for individuals post-stroke. Computer Methods in Biomechanics and Biomedical Engineering. Salt Lake City, Utah, 2013.

Brandis CE, Awad LN, Hsiao H, Marion MS, Kesar TM, Knarr BA, Higginson JS, Binder-Macleod SA. The effects of fatigue on post-stroke muscle force production and center of mass acceleration: A musculoskeletal simulation analysis. Computer Methods in Biomechanics and Biomedical Engineering. Salt Lake City, Utah, 2013.



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.

Laboratory Overview

Current projects in the Pediatric Mobility Lab and Design Studio include Brain-Behavior relationships in infants born preterm, Pediatric Upper Extremity Exoskeleton and 'Playskin' (Michele Lobo, PT, PhD project leader), Social Mobility During Play and Mealtimes of Young Children with Down syndrome, Babies Driving Robots and Racecars (pediatric power mobility, Sam Logan, PhD, project leader), Clinical Assessment of Pediatric Movement and Behavior using Kinect System, and Advanced Body Weight Support Development (Elena Kokkoni, project leader).

Publications

LOBO MA, GALLOWAY JC. (2013). The onset of reaching significantly impacts how infants explore both objects and their bodies. *Infant Behavior and Development*, 36: 14-2.

DUSING SC, LOBO MA, LEE HM, GALLOWAY JC. (2013). Intervention for Late Preterm in the First Weeks of Life: A Case Series Report. *Pediatric Physical Therapy*, 25(2):194-203.

HUANG HH, RAGONESI C, STONER T, PEFFLEY T, GALLOWAY JC. (in press). Modified Toy Cars for Mobility and Socialization: A Case Report of a Child with Cerebral Palsy. *Pediatric Physical Therapy*.

LOBO MA, GALLOWAY JC. (2013). Assessment and Stability of Early Learning Abilities in Preterm and Full-term Infants Across the First Two Years of Life. *Research in Developmental Disabilities*, 34(5):1721-30.

HARBOURNE R, LOBO MA, GALLOWAY JC, KARST GM. (2013). Sit happens: Does sitting development perturb reaching development, or vice versa? *Infant Behavior and Development*, 36(3): 438-50.

CHEN X, RAGONESI C, GALLOWAY JC, AGRAWAL S. (in press). Design of a Robotic Mobility System with a Modular Haptic Feedback Approach to Promote Socialization in Children. *IEEE Special Issue: Haptics in Rehabilitation and Neural Engineering*

LOBO MA, PAUL DA, MACKLEY A, MAHER J, GALLOWAY JC. (in press). Instability of delay classification and determination of early intervention eligibility in the first two years of life. *Research in Developmental Disabilities*.

Dusing SC, Lobo MA, Lee HM, GALLOWAY JC. (2013) Intervention in the first weeks of life for infants born late preterm: a case series. *Pediatric Physical Therapy*, 25(2):194-203.

Dusing SC, Izzo TA, Thacker LR, GALLOWAY JC. (in press). Postural Complexity Differs Between Infant Born Full Term and Preterm During the Development of Early Behaviors. *Early Human Development*.

Logan SW, Huang HH, Stahlin K, GALLOWAY JC. (in press). Modified ride-on car use for mobility and socialization: Single-Case Study of an infant with Down syndrome. *Pediatric Physical Therapy*.

Presentations

"Power Wheels Workshop: Build Your Own Modified Race-

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cars...Seriously!", within the APTA Section on Pediatric Annual Conference, 2013.

"I want it all! and I want it Now! Pediatric Assistive Technology that Behaves like a Kid", AACPDM Webinar 2013.

"Racecar Workshop on Early Mobility and Cognition", Munroe-Meyer Institute (Omaha) 2013.

"Moving to Learn, Learning to Move: A New Perspective on Developmental Intervention" with Regie Harbourne, Kansas Easter Seals, 2013.



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.

Laboratory Overview

Dr. Hick's lab primarily focuses on the goal of improving physical function in older adults with musculoskeletal conditions. This line of work has organically evolved to focus on two specific populations: older adults with low back pain (LBP) and older adults who have sustained a hip fracture. Ongoing projects in Dr. Hick's lab focus on understanding the course and consequence of low back pain in older adults with an eye towards developing interventions specific to this population.

Publications

Shardell M, Simonsick EM, Hicks GE, Resnick B, Ferrucci L, Magaziner J. Sensitivity Analysis for Nonignorable Missingness and Outcome Misclassification from Proxy Reports in Aging Research. *Epidemiology*. 2013 Mar;24(2):215-23. PMID:23348065

Lynch AD, Logerstedt DS, Grindem H, Eitzen I, Hicks GE, Axe MJ, Enerbretsen L, Risberg MA, Snyder-Mackler L. Consensus criteria for defining 'successful outcome' after ACL injury and reconstruction: A Delaware-Oslo ACL cohort investigation. *Br J Sports Med*. 2013 Jul 23. doi: 10.1136/bjsports-2013-092299. [Epub ahead of print] PMID: 23881894

Biely SA, Silfies SA, Smith SS, Hicks GE. Clinical Observation of Standing Trunk Movements: What do the Aberrant Movement Patterns Tell Us? *J Orthop Sports Phys Ther*. 2014 Jan 22. [Epub ahead of print] PMID: 24450372

Grants

1R01AG041202-01 (G. Hicks) 6/01/12–6/31/17 3.6 calendar (30%) NIA. Chronic Low Back Pain in Older Adults: The Role of Co-Existing Hip Impairments. The purpose of this project is to examine the impact of co-existing clinical and radiographic hip impairments on spinal pain and functional limitations in older adults with chronic low back pain. Role on Project: Principal Investigator

No number (G. Hicks) 2012-2013 Academic Year. University of Delaware, President's Diversity Initiative Award. \$40,000. Development of the ADAPT Program (Advancing Diversity in Physical Therapy). A jointly sponsored program between the Departments of Physical Therapy and Kinesiology & Applied Physiology to develop a mentoring program, undergraduate research program and a new bridge course in anatomy as a means of attracting a more diverse group of students into the College of Health Sciences and the nationally ranked doctoral program in physical therapy. Role on Project: Principal Investigator

U54 GM104941 (Binder-Macleod) 09/25/13 – 6/30/18 1.2 academic (10%) NIGMS. Delaware-CTR ACCEL. The DE-CTR will develop the infrastructure to rapidly grow and develop clinical and translational research programs within and across the partnering institutions by concurrently building on the existing strengths of each institution and

providing the key components to allow growth in strategic areas to improve the health of the citizens of Delaware, South Carolina, and the nation. Role on project: KCA 3.3 Program Co-Leader (Design, Epidemiology & Biostatistics Core)

2R01 AR048212-06 (L. Snyder-Mackler) 12/01/10–11/30/15 0.60 calendar (5%) NIAMS. Can Neuromuscular Training Alter Movement Patterns? The goal of this application is to continue to examine outcomes of specialized neuromuscular and muscle strength training that may prevent post-traumatic osteoarthritis (OA), to obtain preliminary information about who has the potential to develop early signs of OA, and develop strategies to prevent structural changes in the joints of these individuals. Role on Project: Co-Investigator

4R37 AG009901-05 (J. Magaziner) 8/1/11 - 6/30/16 0.60 calendar (5%) NIA \$4,781,737 – Direct \$7,205,844 - Total Cost. Effects of Multi-Modal Exercise Intervention Post Hip Fracture. The primary goals proposed for this study are: (1) to study some of the key mechanisms on the pathway to changes in community ambulation in response to a Multi-modal Exercise Intervention (MMEI); and (2) test, in a preliminary manner through a pilot/feasibility study of a different sample of patients, the additional benefit of adding a protein supplement following MMEI sessions to determine if there are important changes in bone, muscle, inflammation, and function. Role on Project: Co-Investigator

Presentations

Comparison of Bilateral vs. Unilateral Chronic Low Back Pain in Older Adults: Differences in Muscle Size, Impairments, and Physical Functioning. Presented at the Combined Sections Meeting of the American Physical Therapy Association, February 2014.

Award

University of Delaware College of Health Sciences Excellence in Research Award



SAMUEL LEE, PT, MPT, PhD (Delaware), Research Assistant Professor: Use of electrical stimulation to activate paralyzed or weakened muscles to improve function of individuals with central nervous system injury.

Laboratory Overview

Dr. Lee's lab is currently focused on three major projects. The first is entitled "Functional Electrical Stimulation Assisted Cycling to Improve Fitness and Strength in Children with Cerebral Palsy," and its purpose is to promote fitness, strength, and overall health with an introduction to a form of cycling exercise that could be used both for training and as recreation. The second is entitled "Functional Electrical Stimulation for Reducing Crouch Gait in Cerebral Palsy." This is a new project that will develop and clinically test a feedback controlled FES system for helping individuals with CP and crouch gait to walk more erect and more efficiently. The system and subsequent clinical testing are designed to promote physical fitness and motor learning of efficient walking patterns. Our hope is to develop the work into a larger scale clinical trial at some future time." The third project represents a new collaboration with Dr. John Jeka of Temple University. This research uses virtual reality technology to investigate sensory impairments in children with CP and how sensory impairments affect balance. This work will also use a specialized type of electrical stimulation, called stochastic resonance stimulation, to see if it can reduce sensory impairments and enhance balance.

Publications

Harrington AT, Lee SCK. Fitness and Exercise: Essential components for Health and maximizing function in individuals with cerebral palsy. Submitted to *Dev Med*, In Review.

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Abstracts in Review:

Lee SCK. FES to enhance fitness, activity and walking in cerebral palsy. An invited presentation submitted to the 7th World Congress of Biomechanics, Boston, MA, July 6-11, 2014.

Zahradka N, Behboodi A, Lenoir K, Marion MS, Wright H, Zarkou A, Torres M, Sazonov E, Lee SCK. A first look at a closed loop IMU and FSR based feedback system for delivery of functional electrical stimulation during walking. Submitted to the 7th World Congress of Biomechanics, Boston, MA, July 6-11, 2014.

Marion MS, Wright H, Barito L, Zahradka N, Sazonov E, Lee SCK, White S, Richards J. Portable wireless system for measuring joint angles in real-time.

Behboodi A, Zahradka N, Lenoir K, Marion MS, Wright H, Zarkou A, Torres M, Sazonov E, Lee SCK. A combined IMU and FSR system for detecting 7 phases of gait in real-time. Submitted to the Gait & Clinical Movement Analysis Society 2014 Annual Conference, Newark, DE, June 24-27, 2014.

Grants

2014-2016. Shriners Hospitals for Children Grant Application #290164: Sensor Fusion for Balance Control in Children with CP (3 year directs: \$543,952). PI-John Jeka, Col-Lee (15% effort) Submitted 5/15/2013.

2013-2014. Promoting Clinical and Translational Research Pilot Grant : FES-cycle training targeting post-stroke locomotor recovery. (directs: \$86,650), PI – Chris Gregory, Col/mentor – Lee.

2012-2015. Shriners Hospitals for Children Grant #71011-PHI: FES to Improve Crouch Gait in CP, PI – Lee (25% effort) (2012-2015; 4 year directs \$957,718).

2010-2015. National Institutes of Health. NICHD/NINR: R01HD062588 FES-Assisted Cycling to Improve Fitness and Strength In Children with CP. PI – Lee (50% effort). \$2,913,039 (5 year directs).

Presentations

Zarkou A, Tsepis E, Lee SCK. The effects of stochastic resonance stimulation and coordination training on postural stability and sense of effort in individuals with functional ankle instability. APTA Combined Sections Meeting, Las Vegas, NV, 2014.

Allamby M, Cherry D, Gao X, Paolantonio E, Trosch L, Lee SCK. The use of EMG biofeedback as treatment for facial paralysis secondary to Bell's Palsy. APTA Combined Sections Meeting, San Diego, CA, January 2013.



DAVID S. LOGERSTEDT, PT, PhD, (Delaware) MPT, MA, SCS, Research Assistant Professor, Interim Director of Sports Residency Program

Laboratory overview

Dr. Logerstedt's lab is investigating performance-based and patient-reported outcomes after ACL and articular cartilage injuries. His team is evaluating mechanistic outcomes after knee injuries and developing novel interventions to treat patients with knee injuries. He is working with a team of collaborators to develop web-based applications to profile patients with knee injuries.

Publications

Logerstedt D, Lynch A, Axe MJ, Snyder-Mackler L. Symmetry restoration and functional recovery before and after ACL reconstruction. *Knee Surg Sports Traumatol Arthrosc*, 21(4): 859-868, 2013. doi:10.1007/s00167-012-1929-2. PMID:22349604. PMCID: PMC3381049

Logerstedt D, Lynch A, Axe MJ, Snyder-Mackler L. Pre-operative quadriceps strength predicts IKDC2000 scores 6 months after ACL reconstruc-

tion. *The Knee*. 20(3): 208-212, 2013. doi:10.1016/j.knee.2012.07.011. PMID: 23022031. PMCID: PMC3535501

Di Stasi SL, Logerstedt D, Gardinier ES, Snyder-Mackler L. Differing Gait Patterns Between ACL-Reconstructed Athletes Who Do and Do Not Pass Return to Sport Criteria. *Am J Sports Med*. 41(6): 1310-1318, 2013 doi:10.1177/0363546513482718. PMID: 23562809

Lynch A, Logerstedt D, Grindem H, Eitzen I, Hicks GE, Axe MJ, Engebretsen L, Risberg MA, Snyder-Mackler L. Consensus criteria for defining 'successful outcome' after ACL injury/reconstruction. A Delaware-Oslo ACL Cohort Investigation. *Br J Sports Med*. doi:10.1136/bjsports-2013-092299. PMID: 23881894

White K, Logerstedt D, Snyder-Mackler L. Gait Asymmetries Persist One Year After Anterior Cruciate Ligament Reconstruction. *Ortho Journal Sports Med*. 1(2): Published online July 25, 2013. doi:10.1177/2325967113496967.

Hartigan EH, Lynch AD, Logerstedt DS, Chmielewski TL, Snyder-Mackler L. Kinesiophobia after anterior cruciate ligament rupture and reconstruction: noncopers versus potential copers. *J Orthop Sports Phys Therapy* 43(11): 821-832. doi: 10.2519/jospt.2013.4514. Epub 2013 Sep 9. PMID: 24175594

Nawasrah Z, Wellsandt E, Logerstedt D. Clinical Concepts on ACL injury, surgery, and rehabilitation. GSC home study course. 2013.

Presentations

Logerstedt DS, Lynch AD, Snyder-Mackler L. Return to sport criteria does not moderate the relationship between patient-reported knee function and return to previous activity level. Poster presentation. CSM Meeting 2013, San Diego, CA. January 22, 2013. *J Orthop Sports Phys Ther* 43(1):A134, 2013.

Akinbola M, Logerstedt D, Snyder-Mackler L, Hunter-Giordano AO. Ultimate Frisbee Injuries among Club Sports in a Collegiate Setting. Poster presentation. CSM Meeting 2013, San Diego, CA. January 22, 2013. *J Orthop Sports Phys Ther* 43(1):A126, 2013.

White K, Logerstedt D, Snyder-Mackler L. ACL Graft Type Predicts Return to Pre-Injury Activity Level. Podium presentation. ORS Meeting 2013, San Antonio, TX. January 28, 2013.

Logerstedt D, White K, Snyder-Mackler L. Comparison of different return to sport criteria after ACL reconstruction. E-poster. ISAKOS meeting 2013, Toronto, Canada. May 12-16, 2013.

Logerstedt D, Snyder-Mackler L. 6-M Timed Hop Predicts IKDC2000 Scores After ACL Injury And Rehabilitation. E-poster. ISAKOS meeting 2013, Toronto, Canada. May 12-16, 2013.

Logersedt D, Zeni J, Snyder-Mackler L. Different Recovery Groups Two Years after Total Knee Arthroplasty. Poster presentation. OARSI 2013, Philadelphia, PA, April 19, 20, 2013.

Nawasreh Z, Logerstedt D, White K, Snyder-Mackler L. Knee Biomechanical Differences between Graft Types at Six Months after ACLR. 2013ACSM Annual Meeting. Indianapolis, IN. May 30, 2013.

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SUSANNE MORTON, PT, PhD, (Washington University in St. Louis), Associate Professor: Neurophysiology of motor learning in humans; supraspinal control of human locomotion; mechanisms of impaired interlimb coordination following stroke

Laboratory overview

Current projects in the Neurophysiology and Neuromotor Behavior Labs include using non-invasive brain stimulation to enhance retention of newly learned walking patterns in non-disabled individuals and stroke survivors, effects of brain stimulation to improve rehabilitation outcomes in individuals with limb weakness caused by stroke, effects of interference on motor sequence acquisition via implicit versus explicit learning mechanisms, and generalizability of prism-induced reaching motor adaptations.

Publications

Savin DN, Tseng S, Whitall J, Morton SM. Poststroke hemiparesis impairs the rate but not magnitude of adaptation of spatial and temporal locomotor features. *Neurorehabil & Neural Repair* 27(1): 24-34, 2013.

Leira EC, Jorge RE, Coffey CS, Morton SM, Froehler MT, Davis PH, Adams HP Jr. The NIHSS supplementary motor scale: a valid tool for multidisciplinary recovery trials. *Cerebrovas Dis* 36(1): 69-73, 2013. [PMCID: In Progress]

Hussain SJ, Hanson AS, Tseng SC, Morton SM. A visuomotor adaptation including explicit knowledge and removal of postadaptation errors induced complete 24-hour retention. *J Neurophysiol* 110(4): 916-925, 2013 [PMCID: In Progress]

Musselman KE, Stoyanov CT, Marasigan R, Jenkins ME, Konczak J, Morton SM, Bastian AJ. Prevalence of ataxia in children: a systematic review. *Neurol* 82(1): 80-89, 2014. [PMCID: In Progress]

Savin DN, Morton SM, Whitall J. Generalization of improved step length symmetry from treadmill to overground walking in persons with stroke and hemiparesis. *Clin Neurophysiol* 2013 Nov 8 [Epub Ahead of Print]

Presentations

Leira EC, Coffey C, Jorge RE, Morton SM, Froehler MT, Davis PH, Adams HP. The supplementary motor scale of the NIHSS: a valid and efficient tool for multidisciplinary recovery trials. *AHA Intl Stroke Conf* 2013.



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.

Laboratory Overview

The Reisman lab continues to be busy investigating recovery from stroke. We are very excited to be in our beautiful new space on the STAR campus, with several new pieces of equipment that allow us to be even more creative in our testing and training of persons with stroke. We continue working on our grants looking at motor learning after stroke and the role of brain-derived neurotrophic factor in the process of learning and the other examining the use of step activity monitoring in combination with high intensity gait training for improving overall activity post-stroke. We are exploring exciting new collaborations with Christiana Care

Health System and hoping to begin to translate some of our research to the clinical setting.

Publications

Awad LN, Reisman DS, Kesar TM, Binder-Macleod SA. Targeting Paretic Propulsion To Improve Post-Stroke Walking Function: A Preliminary Study. *Arch Phys Med Rehabil*. 2013 Dec 27. [Epub ahead of print]

Kumar D, Swanik CB, Reisman DS, Rudolph KS. Individuals with Medial Knee Osteoarthritis show Neuromuscular Adaptation when Perturbed during Walking in spite of Functional and Structural Impairments. *J Appl Physiol*, 116(1):13-23, 2014.

Reisman DS, Kesar T, Perumal R, Roos MA, Rudolph KS, Higginson JS, Helm E, Binder-Macleod S. Time course of functional and biomechanical improvements during a gait training intervention in persons with chronic stroke. *J Neurol Phys Ther*, 37(4):159-65, 2013.

Knarr BA, Roos MA, Reisman DS. Sampling frequency impacts the measurement of walking activity after stroke. *J Rehabil Res Dev*, 50(8):1107-12, 2013.

Fulk GD, Combs SA, Danks KA, Nirider CD, Raja B, Reisman DS. Accuracy of Two Activity Monitors in Detecting Steps in People With Stroke and Traumatic Brain Injury. *Phys Ther*. 2013 Sep 19. [Epub ahead of print]

Vashista V, Agrawal N, Shaharudin S, Reisman D, Agrawal S. Force Adaptation in Human Walking With Symmetrically Applied Downward Forces on the Pelvis. *IEEE Trans Neural Syst Rehabil Eng*. Epub Mar 18, 2013.

Reisman DS, McLean H., Keller JA, Danks KA, Bastian AJ. Repeated split-belt treadmill training improves post-stroke step length asymmetry. *Neurorehabil Neural Repair*, 27:460-468, 2013.

Reisman DS, Binder-Macleod S, Farquhar WB. Changes in Metabolic Cost of Transport Following Locomotor Training Post-Stroke, *Top Stroke Rehabil*, 20:161-170, 2013.

Knarr BA, Kesar TM, Reisman DS, Binder-Macleod SA, Higginson JS. Changes in the activation and function of the ankle plantar flexor muscles due to gait retraining in chronic stroke survivors. *J Neuroeng Rehabil*. 2013 Jan 31;10:12. doi: 10.1186/1743-0003-10-12.

Presentations

Pretzer-Aboff I, Hicks G, Joseph DeRanieri DM, Reisman D. A Unique Community Group Rehabilitative Exercise and Therapy (GREAT) program for people with Parkinson's disease, 3rd World Parkinson's Congress, Montreal, Canada, October 2-4, 2013.

Vashista, V., Reisman, D.S. and Agrawal, S.K., Asymmetric Adaptation in Human Walking using the Tethered Pelvic Assist Device (TPAD), Rehabilitation Robotics (ICORR), 2013 IEEE International Conference on , June 24-26 2013.

Ressler P, Danks K, Roos M, Ciampa J, Reisman D. Using the physical activity scale for individuals with physical disability in persons with chronic stroke. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

Fulk GD, Danks K, Nirider C, Reisman D. Accuracy of body worn sensors in detecting walking activity. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

Palmer JA, Binder-Macleod SA, Wright T, Reisman D. Spatiotemporal gait asymmetry, walking efficiency and speed after stroke. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

Kesar TM, Reisman D, Binder-Macleod SA. Does one session of gait

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rehabilitation improve post-stroke walking performance? Combined Sections Meeting of the American Physical Therapy Association, January 2013.

Grants

5P20RR016472-12 and 8P20GM103446-12 Delaware INBRE sub-project: Motor Learning After Stroke, \$154,285; Funding period: 3/1/2012-2/28/2014. Principal Investigator: Darcy Reisman, Co-Investigator: Stuart Binder-Macleod.

1R21HD071042-01A1 Interventions to Improve Physical Activity after Stroke \$420,750; Funding Period: 4/1/2012-3/31/2014. Principal Investigator: Darcy Reisman, Co-Investigator: William Farquhar.



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

Laboratory Overview

Lynn Snyder-Mackler, PT, ScD, FAPTA, Alumni Distinguished Professor of Physical Therapy at the University of Delaware, has spent the past two decades developing evidence-based approaches to the rehabilitation of knee injuries. Her laboratory has developed into the premier research laboratory that is internationally recognized for the mechanistic and clinical outcomes after anterior cruciate ligament injury, knee osteoarthritis, and total knee arthroplasty. The lab is also involved with interventional clinical trials designed to optimize treatment after knee injuries. Her laboratory has collaborations with Dr. Thomas Buchanan's lab in Mechanical Engineering and Dr. May Arna Risberg's lab at Oslo University Hospital in Norway. Dr. Snyder-Mackler's accomplishments recently have been recognized with a prestigious MERIT (Method to Extend Research in Time) Award for the National Institutes of Health.

Publications

Macleod TD, Snyder-Mackler L, Buchanan TS. Differences in Neuromuscular Control and Quadriceps Morphology Between Potential Copers and Noncopers Following ACL Injury. *J Orthop Sports Phys Ther.* 2013 Nov 21. [Epub ahead of print] PubMed PMID: 24261930.

Eitzen I, Fernandes L, Nordsletten L, Snyder-Mackler L, Risberg MA. Weight-bearing asymmetries during Sit-To-Stand in patients with mild-to-moderate hip osteoarthritis. *Gait Posture.* 2014 Feb;39(2):683-8. doi: 10.1016/j.gaitpost.2013.09.010. Epub 2013 Sep 23. PubMed PMID: 24238750.

Hartigan EH, Lynch AD, Logerstedt DS, Chmielewski TL, Snyder-Mackler L. Kinesiophobia after anterior cruciate ligament rupture and reconstruction: noncopers versus potential copers. *J Orthop Sports Phys Ther.* 2013 Nov;43(11):821-32. doi: 10.2519/jospt.2013.4514. Epub 2013 Sep 9. PubMed PMID: 24175594.

Pozzi F, Snyder-Mackler L, Zeni J. Physical exercise after knee arthroplasty: a systematic review of controlled trials. *Eur J Phys Rehabil Med.* 2013 Oct 30. [Epub ahead of print] PubMed PMID: 24172642.

Zeni J Jr, Abujaber S, Flowers P, Pozzi F, Snyder-Mackler L. Biofeedback to promote movement symmetry after total knee arthroplasty: a feasibility study. *J Orthop Sports Phys Ther.* 2013 Oct;43(10):715-26. doi: 10.2519/jospt.2013.4657. Epub 2013 Aug 30. PubMed PMID: 23892267.

Lynch AD, Logerstedt DS, Grindem H, Eitzen I, Hicks GE, Axe MJ, Engbrechtsen L, Risberg MA, Snyder-Mackler L. Consensus criteria for defining

'successful outcome' after ACL injury and reconstruction: a Delaware-Oslo ACL cohort investigation. *Br J Sports Med.* 2013 Jul 23. doi: 10.1136/bjsports-2013-092299. [Epub ahead of print] PubMed PMID: 23881894; PubMed Central PMCID: PMC3900606.

MacLeod TD, Manal K, Silbernagel KG, Snyder-Mackler L, Buchanan TS. Characteristics of human knee muscle coordination during isometric contractions in a standing posture: the effect of limb task. *J Electromyogr Kinesiol.* 2013 Dec;23(6):1398-405. doi: 10.1016/j.jelekin.2013.05.004. Epub 2013 Jun 19. PubMed PMID: 23790392.

Macleod TD, Snyder-Mackler L, Axe MJ, Buchanan TS. Early regeneration determines long-term graft site morphology and function after reconstruction of the anterior cruciate ligament with semitendinosus-gracilis autograft: a case series. *Int J Sports Phys Ther.* 2013 Jun;8(3):256-68. PubMed PMID: 23772342; PubMed Central PMCID: PMC3679632.

Dobson F, Hinman RS, Roos EM, Abbott JH, Stratford P, Davis AM, Buchbinder R, Snyder-Mackler L, Henrotin Y, Thumboo J, Hansen P, Bennell KL. OARSIS recommended performance-based tests to assess physical function in people diagnosed with hip or knee osteoarthritis. *Osteoarthritis Cartilage.* 2013 Aug;21(8):1042-52. doi:10.1016/j.joca.2013.05.002. Epub 2013 May 13. PubMed PMID: 23680877.

Grindem H, Eitzen I, Snyder-Mackler L, Risberg MA. Online registration of monthly sports participation after anterior cruciate ligament injury: a reliability and validity study. *Br J Sports Med.* 2013 May 3. [Epub ahead of print] PubMed PMID: 23645830; PubMed Central PMCID: PMC3805770.

Gardinier ES, Manal K, Buchanan TS, Snyder-Mackler L. Minimum detectable change for knee joint contact force estimates using an EMG-driven model. *Gait Posture.* 2013 Sep;38(4):1051-3. doi: 10.1016/j.gaitpost.2013.03.014. Epub 2013 Apr 16. PubMed PMID: 23601782; PubMed Central PMCID: PMC3795951.

Goodstadt NM, Hunter-Giordano A, Axe MJ, Snyder-Mackler L. Functional testing to determine readiness to discontinue brace use, one year after acl reconstruction. *Int J Sports Phys Ther.* 2013 Apr;8(2):91-6. PubMed PMID: 23593546; PubMed Central PMCID: PMC3625787.

Di Stasi SL, Logerstedt D, Gardinier ES, Snyder-Mackler L. Gait patterns differ between ACL-reconstructed athletes who pass return-to-sport criteria and those who fail. *Am J Sports Med.* 2013 Jun;41(6):1310-8. doi: 10.1177/0363546513482718. Epub 2013 Apr 5. PubMed PMID: 23562809; PubMed Central PMCID: PMC3732407.

White K, Di Stasi SL, Smith AH, Snyder-Mackler L. Anterior cruciate ligament-specialized post-operative return-to-sports (ACL-SPORTS) training: a randomized control trial. *BMC Musculoskelet Disord.* 2013 Mar 23;14:108. doi: 10.1186/1471-2474-14-108. PubMed PMID: 23522373; PubMed Central PMCID: PMC3617067.

Yoshida Y, Mizner RL, Snyder-Mackler L. Association between long-term quadriceps weakness and early walking muscle co-contraction after total knee arthroplasty. *Knee.* 2013 Dec;20(6):426-31. doi: 10.1016/j.knee.2012.12.008. Epub 2013 Jan 23. PubMed PMID: 23352711; PubMed Central PMCID: PMC3692574.

Axe JM, Snyder-Mackler L, Axe MJ. The role of viscosupplementation. *Sports Med Arthrosc.* 2013 Mar;21(1):18-22. doi: 10.1097/JSA.0b013e3182673241. Review. PubMed PMID: 23314264.

McGinnis K, Snyder-Mackler L, Flowers P, Zeni J. Dynamic joint stiffness and co-contraction in subjects after total knee arthroplasty. *Clin Biomech (Bristol, Avon).* 2013 Feb;28(2):205-10. doi:

2013 Awards, Degrees, Grants & Publications Continued

0.1016/j.clinbiomech.2012.11.008. Epub 2012
Dec 5. PubMed PMID: 23219062; PubMed Central PMCID:
PMC3604158.

Marmon AR, McClelland JA, Stevens-Lapsley J, Snyder-Mackler L. Single-step test for unilateral limb ability following total knee arthroplasty. *J Orthop Sports Phys Ther.* 2013 Feb;43(2):66-73. doi: 10.2519/jospt.2013.4372. Epub 2012 Nov 16. PubMed PMID: 23160309.

Gardinier ES, Manal K, Buchanan TS, Snyder-Mackler L. Altered loading in the injured knee after ACL rupture. *J Orthop Res.* 2013 Mar;31(3):458-64. doi: 10.1002/jor.22249. Epub 2012 Oct 23. PubMed PMID: 23097309; PubMed Central PMCID:PMC3553294.

Logerstedt D, Lynch A, Axe MJ, Snyder-Mackler L. Pre-operative quadriceps strength predicts IKDC2000 scores 6 months after anterior cruciate ligament reconstruction. *Knee.* 2013 Jun;20(3):208-12. doi: 10.1016/j.knee.2012.07.011. Epub 2012 Sep 27. PubMed PMID: 23022031; PubMed Central PMCID: PMC3535501.

Grants

COBRE III (PI Buchanan)
Parent Project Number: 5P30GM103333-02 Sub-Project ID: 7793
Title: CLINICAL RESEARCH CORE
Direct Costs \$240,000/year

DE-CTR (PI Binder-Macleod) 1U54GM104941-01A1
Sub-Project ID: 5521
Title: CLINICAL RESEARCH SUPPORT AND EXPANSION PROGRAM
Direct Costs \$400,000/year

NIH R01 HD37985 (PI) 3/01/01 - 6/30/17 Dynamic Stability in the Anterior Cruciate Ligament Injured Knee

NIH 1 R01 AR048212-01A1 (PI) Can Neuromuscular Training Alter Movement Patterns? 01-Jan 2005-30 Nov 2016

P30 GM103333 01 7793 (PI) Clinical Research Core 1 AUG 2012 -31 JUL 2017 NIGMS



JOSEPH ZENI, JR., PT, PhD (Delaware), Assistant Professor: Biomechanics and improving outcomes for patients with hip and knee osteoarthritis.

Laboratory Overview

Dr. Zeni's lab has developed an innovative rehabilitation strategy to manage the persistent movement asymmetries after total knee replacement. This rehabilitation approach includes using biofeedback during functional retraining and therapeutic exercises to promote symmetry between the limbs. The results from this pilot study are promising and have recently been published in JOSPT! We are 75% through enrolling patients in our Total Hip Outcome study, which is a collaborative project between the University of Delaware and physicians from Christiana Care's Center for Advanced Joint Replacement. Dr. Zeni's lab hopes to identify the particular biomechanical and clinical impairments that affect functional outcomes and develop specific interventions that reduce these impairments and maximize function.

Publications

The validity of plantarflexor strength measures obtained through hand-held dynamometry measurements of force. Marmon AR, Pozzi F, Alnahdi AH, Zeni JA. *Int J Sports Phys Ther.* 2013 Dec;8(6):820-7.

Biofeedback to promote movement symmetry after total knee arthro-

plasty: a feasibility study. Zeni J Jr, Abujaber S, Flowers P, Pozzi F, Snyder-Mackler L. *J Orthop Sports Phys Ther.* 2013 Oct;43(10):715-26. doi: 10.2519/jospt.2013.4657. Epub 2013 Aug 30.

Evidence supports supervised physical therapy programs after TKA. Zeni J Jr. *Orthopedics.* 2013 Jul;36(7):495-6. doi: 10.3928/01477447-20130624-01. No abstract available.

Reliability and repeatability of the portable EPS-platform digital pressure-plate system. Becerro de Bengoa Vallejo R, Losa Iglesias ME, Zeni J, Thomas S. *J Am Podiatr Med Assoc.* 2013 May-Jun;103(3):197-203.

Perception and presentation of function in patients with unilateral versus bilateral knee osteoarthritis. Marmon AR, Zeni JA Jr, Snyder-Mackler L. *Arthritis Care Res (Hoboken).* 2013 Mar;65(3):406-13. doi: 10.1002/acr.21825.

Dynamic joint stiffness and co-contraction in subjects after total knee arthroplasty. McGinnis K, Snyder-Mackler L, Flowers P, Zeni J. *Clin Biomech (Bristol, Avon).* 2013 Feb;28(2):205-10. doi: 10.1016/j.clinbiomech.2012.11.008. Epub 2012 Dec 5.

Presentations

Zeni J, Abujaber S, Pozzi F. Strength and pain are related to different measures of disability in patients with hip OA. Accepted as platform presentation at APTA CSM 2014, Las Vegas, NV

Abujaber S, Zeni J. Muscle strength and pain differentially influence functional ability after total hip arthroplasty. Accepted for poster presentation at CSM 2014, Las Vegas, NV

Pozzi F, Abujaber S, Zeni J. Biomechanical asymmetries during gait in individuals before and three months after unilateral total hip arthroplasty. Poster presentation at the 37th Annual Meeting of the American Society of Biomechanics (ASB); Sept. 2013, Omaha, NE, USA

Flowers P, Snyder-Mackler L, Zeni J. Limb asymmetries during gait in patients after TKA. Platform presentation at the American Society of Biomechanics Annual Meeting. September 4-7, 2013; Omaha NE

Abujaber S, Marmon A, Zeni J. Visual feedback improves movement symmetry during sit to stand. American Society of Biomechanics Annual Meeting. September 4-7, 2013; Omaha NE

Pozzi F, Abujaber S, Flowers P, Zeni J. Lower limb strength and gait biomechanics of individuals with end-stage hip osteoarthritis. Poster presentation at the annual World Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA. Osteoarthritis and Cartilage. 2013; 21(S): S106-107.

Zeni J, Snyder-Mackler L, Axe M. Comparative effectiveness of two hyaluronic acid formulations on perceived functional performance. Poster presentation at the annual World Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA. Osteoarthritis and Cartilage 21, S300-S3012013

Abujaber S, Marmon A, Zeni J. Improvements in biomechanical symmetry are related to improved functional performance following total knee arthroplasty. OARSI Annual meeting. April 18-21, 2013; Philadelphia PA

Logerstedt D, Zeni J, Snyder-Mackler L. Different recovery groups 2 years after total knee arthroplasty. Poster presentation at the annual World

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Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA.

Grants

Principal Investigator (Scholar): K12 HD055931- Maximizing Functional and Biomechanical Outcomes after Total Knee Arthroplasty
Funded 9/1/11

Principal Investigator: University of Delaware Research Foundation Grant (UDRF) - Functional and biomechanical impairments in patients undergoing total hip arthroplasty: A longitudinal analysis
Funded 6/1/13
25,000/yr

Professional Faculty



KARLA BELL, PT, DPT, MS, OCS, GCS
Director of Clinical Education, Physical Therapist,
Assistant Professor.



ANGELA SMITH, PT, DPT, OCS, SCS, ATC, Physical Therapist,
Assistant Professor.



CATHY CIOLEK, PT, DPT, GCS, (Ithaca),
Director of Clinical Education, Assistant Professor



LAURA SCHMITT, PT, DPT, OCS, SCS, ATC, (Temple),
Director of Clinical Education, Assistant Professor



CARRIE FOELLER, PT, DScPT, CEEAA, Associate Director of the Doctorate in Physical Therapy Program, Assistant Professor



ERIC STEWART, PT, DPT, Director of Clinical Education,
Assistant Professor



AIRELLE HUNTER-GIORDANO, PT, DPT, SCS, OCS, CSCS (Delaware), Associate Director of Clinical Services, Sports and Orthopedics Residency Director, Assistant Professor.



TEONETTE VELASCO, PT, DPT, OCS,
Research Clinical Coordinator/Clinician



GRACE KEENAN ADEMSKI, PT, DPT, GCS, NCS,
Physical Therapist, Assistant Professor



ELLEN WRUBLE HAKIM, PT, DScPT, MS, CWS, FACCWS,
Director, Doctorate in Physical Therapy Program,
Associate Professor



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

2013 Awards, Degrees, Grants & Publications Continued

Professional Awards and Publications

Awards

Hunter-Giordano A. Recipient of the Lynn Wallace Clinical Education and Professional Development Award from the Sports Physical Therapy Section.

Manal, Tara Jo. American Physical Therapy Association Lucy Blair Award.

Publications

White K, DiStasi S, **Smith A**, Snyder-Mackler L. Anterior cruciate ligament- specialized post-operative return-to-sports (ACL-SPORTS) training: a randomized control trial. BMC Musculoskeletal Disorders 03/2013; 14(1):108.

Goodstadt N., **Hunter-Giordano A.**, Axe M., Snyder-Mackler L. Functional testing to determine readiness to discontinue brace use, one year after ACL reconstruction. The International Journal of Sports Physical Therapy; 8(2):96.

Presentations

Bell KA, Ciolek C, Hakim Wruble E. Innovation in Clinical Education Performance: An Algorithm for Standardized Decision-Making Interventions for Optimal Student Outcomes. Educational Leadership Conference 2013.

Beeson R, **Manal TJ, Bell KA**, Carroll A. Recognition of Chronic Exertional Compartment Syndrome: A Case Requiring Physician Referral. APTA Annual Conference 2013.

Ciolek, C, Wruble Hakim E. Analysis of Critical Incident Reports (CIR) On the Physical Therapy Clinical Performance Instrument (PT CPI) In an Entry-Level Doctor of Physical Therapy Program. Poster at APTA Annual Conference and Exposition. Salt Lake City, UT, 2013

Foeller, CS. and Cannistraci, P. "Meaningful & Mindful Inter-Professional Education (IPE) Using an Integrated Case Conference." Platform presentation. Annual joint conference of the American Interprofessional Health Collaborative and the Canadian Interprofessional Health Collaborative: Collaborating Across Borders, Transformative Change from Classroom to Practice. Vancouver, British Columbia, Canada, 2013.

Hakim, E.W., "Complexities of Care, Challenging Content, and Culture Clashes," Combined Sections Meeting of the American Physical Therapy Association, San Diego, California, January, 2013.

2013 New Hires, Professional/Staff Promotions

New Hires

Faculty:

Carrie Foeller, Assistant Professor
Susanne Morton, Associate Professor
Eric Stewart, Assistant Professor

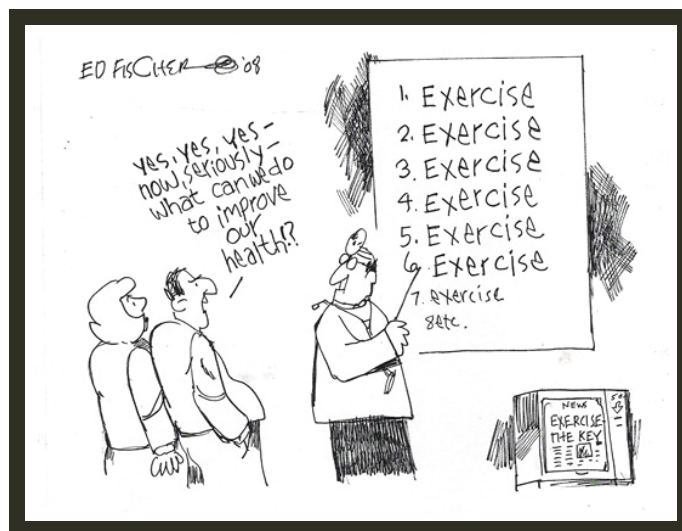
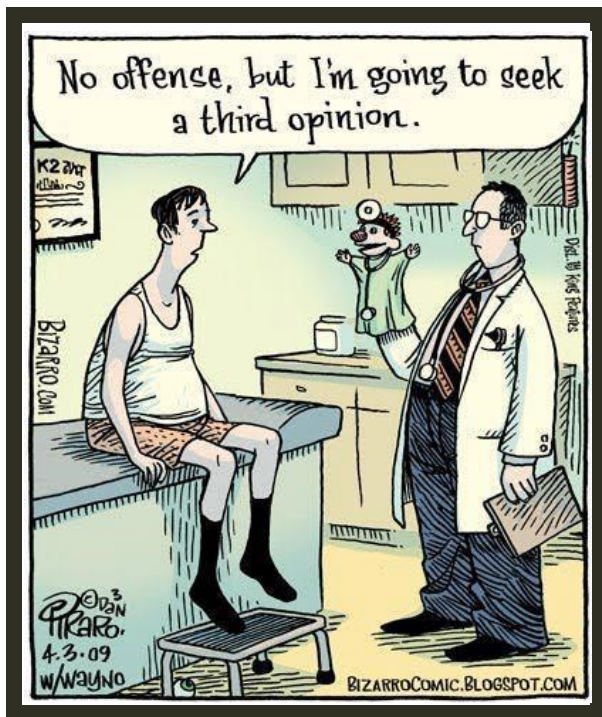
PT Clinic Residents:

Joe Mahon, Sports Resident
Brett MacLennan, Orthopedic Resident
Mike Palmer, Orthopedic Resident
Margaret French, Neuro Resident
Meghan Moore, Neuro Resident

Promotions

Faculty:

Samuel Lee, Associate Professor
Darcy Reisman, Associate Professor



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 would 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 encouraged.

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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