



DIVISION OF THERAPY SERVICES

RESEARCH ANNUAL REPORT: FISCAL YEAR 2016

The accomplishments outlined in this report showcase the work of our dedicated and talented therapists who strive on a daily basis to contribute new knowledge to the field of rehabilitation. In fiscal year 2016, research and educational presentations were presented by fifty-six therapists at nineteen professional conferences at the state, national and international levels. Seven articles were published in peer-reviewed journals and multiple awards and special recognition received. Congratulations to our therapists an extremely successful fiscal year 2016!

Conference Presentations:

<u>Project Title</u>	<u>Staff Involvement (presenting authors underlined)</u>	<u>Type of Presentation</u>
<u>Interprofessional Simulation Conference</u> July 15-16, 2015, Chester, PA		
Description of a Collaborative Inter-Professional Model for Physical Therapy Students Using a Simulation Lab	<u>Colleen Chancer PT, MHS</u> Amy Miller PT, DPT, EdD Joe Adler PT, DPT, CCS	Platform Presentation
<u>25th World Congress of Lymphology Patient Summit</u> September 7-11, 2015; San Francisco, CA		
Risk Reduction Strategies for persons with Lymphedema	<u>Jane Kepics, PT, DPT, CLT-LANA</u>	Education session
<u>The 5th Annual Mid-Atlantic Shoulder and Elbow Society Meeting</u> September 18, 2015; Washington, DC		
Panel Discussion: Total Shoulder Replacement: How to Hit a Homerun	<u>Brian Leggin PT, DPT, OCS</u>	Panel Discussion

<u>American Society of Hand Therapists 38th Annual Meeting</u> October 8-11, 2015; Denver, Colorado		
Lateral Elbow Tendinopathy: What's Known? What's New?	<u>John Bellace, PT, MPT, CHT</u> Jane Fedorczyk, PT, PhD, CHT, ATC	Instructional Session
<u>Pennsylvania Physical Therapy Association (PPTA) Conference</u> October 24-25th, Seven Springs, PA		
Balancewear Weighted Vest Improves Outcomes in Individuals with Neurologic Disease: A Case Series	<u>Helena Esmonde, DPT</u>	Poster Presentation
Feasibility and Safety of Early Mobility of the Neurocritical Care Patient with an External Ventricular Device	<u>Joseph Borst PT, DPT</u> William Pino PT, DPT Derek Zaleski PT, DPT Marisa Hart MS, OTR/L Jesse LoBreglio OTR/L HUP Neuro Critical Care Team	Platform Presentation
Description and Outcomes of a Collaborative Inter-Professional Acute Care Simulation Lab for Physical Therapy Students	<u>Colleen Chancer PT, MHS</u> Amy Miller PT, DPT, EdD Joe Adler PT, DPT, CCS	Platform Presentation
Change Management: The Transition of the University of Pennsylvania Health System Level I Trauma Center	<u>Jane K. Oeffner, PT, DPT, MBA</u> <u>Colleen Chancler, PT, MHS</u>	Platform Presentation
<u>American Congress of Rehabilitation Medicine's 92nd Annual Conference</u> <u>Progress in Rehabilitation Research (PIRR)</u> October 25-30th, 2015; Dallas, TX		
High-force Haptic Rehabilitation Robot and Motor Outcomes in Chronic Stroke: A Case Study	<u>Carol Wamsley, PT, DPT, NCS, CBIS</u>	Poster
<u>The 12th Annual Jean Feldman Memorial Rehab Conference</u> November 6, 2015; Philadelphia, Pennsylvania		
Putting the "Fun" in Functional	<u>GSPP Dan Aaron Parkinson Therapy Team</u>	Conference Hosts

<p align="center"><u>The Philadelphia Orthopaedic and Sports Rehab Foundation</u> <u>2015 Lower Extremity Update</u> November 20-21, 2015; Philadelphia, PA</p>		
Current Concepts in the Prevention of ACL Injuries	<u>Campbell McCormack, PT, MS, SFMA, CK-FMS</u>	Education Session
Rehabilitation Following Arthroplasty of the Knee and Returning the Patient to Activities Hamstring Injuries: Prevention and Rehabilitation	<u>Marty J. Kelley, PT, DPT, OCS</u>	Education Sessions
Pathogenesis and Rehabilitation of Ankle Instability	<u>Marisa Pontillo PT, PhD, DPT, SCS</u>	Education Session
Post-op Rehab Following Hip Arthroscopy	<u>Michael Piercey, PT, DPT, OCS, CSCS</u>	Education Session
Rehabilitation of Meniscus Lesions: Is Therapy Better than Surgery? Practical Applications of Lower Extremity Outcome Measures	<u>Brian Leggin PT, DPT, OCS</u>	Education Sessions
Rehabilitation of the Arthritic Hip	<u>Molly Dang, PT, DPT, OCS</u>	Education Session
Clinical Examination of the Knee and Hip	<u>Tiffany Prince, PT, DPT, OCS</u> <u>Holly Jo Harvey, PT, DPT, OCS</u> <u>Molly Dang, PT, DPT, OCS</u> <u>Martin Kelley, PT, DPT, OCS</u> John Kelly, MD	Workshop
Clinical Examination of the Foot and Ankle	<u>Marisa Pontillo, PT, PhD, DPT, OCS</u> <u>Cheryl Cocca, PT, DPT, OCS</u> Robert Maschi, PT, PhD, SCS <u>Brian Eckenrode, PT, DPT, OCS</u> John Vasudevan, MD	Workshop
Taping Techniques for the Lower Extremity	<u>Jeffrey O'Neill, PT, DPT, OCS</u> <u>Gina Serago, PT, DPT, OCS</u> <u>William Moore, PT, DPT, OCS</u>	Workshop
Functional Exercise Progression and Evaluation for Return to Activity	<u>Campbell McCormack, PT, DPT, OCS</u> <u>Michael Piercey, PT, DPT, OCS</u> <u>Ninette Wong, PT, DPT, ATC</u>	Workshop
<p align="center"><u>21st Annual International Scientific Symposium on Improving the Quality and Value of Health Care</u> Dec 7, 2015; Orlando, Florida</p>		
Reducing Intraventricular Hemorrhage in a Level III Neonatal Intensive Care Unit	Lori Christ MD and HUP NICU team (Including <u>Meredith McElroy MOT, OTR/L</u>)	Presentation

American Physical Therapy Association's Combined Sections Meeting February 4-7, 2016; Anaheim, CA		
Description and Outcomes of a Collaborative Inter-professional Acute Care Simulation Lab for Physical Therapy Students	<u>Amy Miller PT, DPT</u> <u>Colleen Chancler PT, MHS</u> <u>Joe Adler PT, DPT, CCS</u>	Poster Presentation Education Section
A Comparison of Alternative Physical Therapy Outcome Measures to the Six Minute Walk Test Pre and Post-Lung Transplant	<u>Laura Friedman PT</u> <u>Derek Zaleski PT, DPT</u> <u>Joe Adler PT, DPT, CCS</u> <u>Jennifer Dekerlegand MPT</u>	Poster Presentation Cardiovascular and Pulmonary Section
Use of Visceral Mobilization for Pain, Urinary Frequency, and Constipation in a 20-year-old Woman	<u>Lisa Tate MSPT</u>	Poster Presentation Women's Health Section
Relationship Between Clinical and Biomechanical Testing of Core Stability in Athletes	<u>Marisa Pontillo PT, PhD, DPT, SCS</u> Dave Ebaugh PT, PhD; Clare Milner, PhD; Courtney Butowicz MS; Brian Sennett MD; Sheri Silfies PT, PhD	Platform Presentation Sports Section
Trunk Muscle Activation and Synergy Patterns During the Multifidus Lift and Prone Instability Test	<u>Won Sung PT, DPT, PhD</u> Sheri Silfies PT, PhD	Platform Presentation Orthopaedics Section
"One Day at a Time": Implementation of Patient and Caregiver Support Groups at an LTACH	<u>Jay Watson-Mote</u>	Poster Presentation Education Section
Improving the Quality of Exercise Prescription for Patients Readmitted Within 18 months after Lung Transplant	<u>Claire Child, PT, DPT, MPH, CCS</u> Gregory Carroll, SPT	Platform Presentation Cardiovascular and Pulmonary Section
Feasibility and Safety of Early Mobility of the Neurocritical Care Patient with an External Ventricular Device	<u>William Pino, PT, DPT</u> <u>Joseph Borst, PT, DPT</u>	Platform Presentation Acute Care Section
Comparison of Core Stability in Athletes with and without Shoulder Injuries	<u>Marisa Pontillo, PT, DPT, SCS;</u> David Ebaugh, PT, PhD; Clare Milner, PhD; Courtney Butowicz, MS; Brian Sennett, MD; Sheri Silfies, PT, PhD	Platform Presentation Sports Section
Oncology Section EDGE Task Force: Clinical Measures of Lower Extremity & Genital Lymphedema, Incontinence & Sexual Dysfunction	Meryl Alappattu, PT, DPT, PhD <u>Joy Cohn, PT, CLT-LANA</u> Lucinda A. Pfalzer, PT, PhD, FACSM, FAPTA	Educational Presentation to the Oncology Section

Management of Upper Extremity Injuries in the Female Athlete	Todd Ellenbecker, DPT, PT, MS, SCS, OCS Wendy Hurd, PT, PhD, SCS <u>Marisa Pontillo, PT, PhD, DPT, SCS</u> Brian Tovin, PT, DPT, MMSc, SCS, ATC	Educational Presentation to the Sports Section
<u>Pennsylvania Physical Therapy Association's Southeast District (SED)</u> <u>Fourth Annual Combined Sections Meeting</u> April 2, 2016; Philadelphia, PA		
Managing Cardiovascular and Pulmonary Disorders in Home Care and Outpatient Settings	<u>Claire Child, PT, DPT, MPH, CCS</u>	Education Session
Cervical and Thoracic Spine Differentiation	<u>Matthew Conoscenti, PT, DPT, OCS, COMT, CEEAA</u>	Education Session
<u>2016 Philadelphia Meeting: Surgery and Rehabilitation of the Hand</u> <u>20/20: A Vision for Quality in Hand Care</u> March 12-15, 2016; Philadelphia, PA		
Sagittal Band Injuries and Management-Conservative and Operative	<u>Gayle Severance MS, OT/L, CHT</u>	Education Session
Clinical Examination of the Elbow	<u>Laura Walsh MS, OT/L, CHT</u>	Education Session
Clinical Examination of the Wrist	<u>Gayle Severance MS, OT/L, CHT</u>	Education Session
Rehabilitation for Elbow Fractures and Dislocations	<u>Laura Walsh MS, OT/L, CHT</u>	Education Session
Rotator Cuff Tears: Non-Operative Management and Outcomes	<u>Marty Kelley, PT, DPT, OCS</u> <u>Brian Leggin PT, DPT, OCS</u>	Education Session
Elbow Instability-Diagnosis and Management	<u>Laura Walsh MS, OT/L, CHT</u>	Moderator
<u>Penn Medicine 2016 Advances in Throwing Symposium: Latest on Injury</u> <u>Treatment and Performance Optimization</u> March 19, 2016; Philadelphia, Pennsylvania		
Kinetic Chain: Importance and Evaluation Elbow, Prevention and Treatment of UCL Injuries (Panel Discussion)	<u>Brian Leggin PT, DPT, OCS</u>	Education Session
Debate/Case Presentation: Scapula Dyskinesia – Does it exist? How I do my shoulder evaluation? Case Based Approaches to Rotator Cuff and Labral Injuries: Surgery and Rehab (Panel Discussion)	<u>Marty J. Kelley, PT, DPT, OCS</u>	Education Session
Metrics to Assess Readiness to Play	<u>Marisa Pontillo PT, PhD, DPT, SCS</u>	Education Session

<u>American Occupational Therapy Association's Annual Conference</u> April 7-10, 2016; Chicago, Illinois		
Treatment of the Post-Stroke Patient Within the Acute Care Environment	<u>Malachy Clancy MOT, OTR/L</u> <u>Marisa Hart MS, OTR/L</u> <u>Laura Schaffner MS, OTR/L</u>	Education Session
Student to Therapist: Recommendations to Maximize the Transition Experience	<u>Meredith McElroy MOT, OTR/L</u>	Poster Presentation
Assessing Wellness Through a Quality of Life Self-Reported Scale on a Medical Oncology Unit	<u>Meredith McElroy MOT, OTR/L</u>	Poster Presentation
An Interdisciplinary Parent Education Group in a Level III Neonatal Intensive Care Unit	<u>Meredith McElroy MOT, OTR/L</u>	Poster Presentation
One Day at a Time: Implementation of Patient and Caregiver Support Groups on an LTACH	<u>Sheena Navidi, OTR/L</u>	Poster Presentation
The Power of Sleep: Sleep Hygiene for the Critically-Ill Population	<u>Sheena Navidi, OTR/L</u>	Poster Presentation
<u>6th Annual NANT Conference – All In!</u> April 15-16, 2016; Orlando, Florida		
Lessons Learned: A Trial Implementation of a New Positioning Aide in Two Critically Ill Infants	Robin Elican-Madeja, MOT, OTR/L Tiffany Hogan, MA, CCC-SLP Alexandria Reo BSN, RN <u>Jenna Rogers, PT, DPT</u> Anastasiya Ruiz, PT, MSPT, CCI	Poster Presentation
<u>APTA Annual Orthopedic Section Meeting</u> May 5-7, 2016; Atlanta, Georgia		
Lumbar Spine Movement Coordination Impairments	<u>Ejona Jeblonski, PT, DPT, COMT</u> <u>Won Sung PT, DPT, PhD</u>	Education Session
<u>PMR GSPP 2nd Annual Research Day</u> May 12, 2016; Philadelphia, Pennsylvania		
Improving the Quality of Exercise Prescription for Patients Readmitted within 18 Months after Lung Transplant	<u>Claire Child, PT, DPT, MPH, CCS</u>	Podium Presentation
Outcome Following Non-Operative Management of Rotator Cuff Tears	<u>Brian Leggin, PT, DPT, OCS</u>	Podium Presentation

Feasibility and Safety of Early Mobility of the Neurocritical Care Patient with an External Ventricular Device	<u>William Pino PT, DPT; Joseph Borst PT, DPT;</u> Derek Zaleski PT, DPT; Marisa Hart, MS, OTR/L; Jesse LoBreglio MOT, OTR/L; HUP Neuro Critical Care Team	Poster Presentation
BalanceWear Weighted Vest Improves Outcomes in Individuals with Neurologic Disease: A Case Series	<u>Helena Esmonde, PT, DPT</u>	Poster Presentation
Lessons Learned: A Trial Implementation of a New Positioning Aide in Two Critically Ill Infants	<u>Tiffany Hogan MA, CCC-SLP,</u> <u>Jenna Rogers PT, DPT</u> Robin Elican-Madeja MOT, OTR/L Anastasiya Ruiz PT, MSPT	Poster Presentation
Peri-partum Pubic Symphysis Separation: A Case Study, Review of Current Literature and Evidence Based Treatment Recommendations	<u>Lisa Sator PT, DPT, CLT</u> Rosaleen Gnoffo PT, Kate Temme MD	Poster Presentation
Use of Visceral Mobilization for Pain, Urinary Frequency, and Constipation in a 20-Year-Old Woman	Lisa Tate, MSPT <u>Lucinda Hayburn PT, DPT, WCS</u>	Poster Presentation
Gap Analysis: A Strategy to Improve the Quality of Care of Head and Neck Cancer Patients at a Cancer Center	<u>Meredith Pauly, MA, CCC-SLP;</u> Clara Granda-Cameron NP, Adjoa Mante, Debra DeMille RD	Poster Presentation
Safety of Early Mobilization for Patients with Femoral Catheters: A Collaborative and Ongoing Project between Physical Therapy and Critical Care Nursing	<u>Kyle Cunningham SPT</u> <u>Derek Zaleski PT, DPT</u> Joe Adler PT, DPT	Poster Presentation
Paradoxical Vocal Fold Motion— Importance of Proper Diagnosis and Clinical Communication: A Case Report	<u>Timothy J. Bayruns, PT, DPT, OCS, CSCS</u> <u>Patricia Scapellati MA, CCC/SLP</u>	Poster Presentation
Change in Students' Prioritized Professional Values After an 8-Week Clinical Experience	<u>Michelle Lewis PT, DPT</u> <u>Eric Folkins, PT, DPT, OCS</u> KD Ward, PT, DPT, PCS, MPH, CHES	Poster Presentation
Normative Values for the King-Devick Test for Persons 18-40 Without Recent Concussion	<u>Heather Anderson PT, NCS</u> K Angelucci; C Bush; P Byrne; G Carroll; J Schreppel; Scott Biely	Poster Presentation
Effectiveness of High Velocity Low Amplitude Thrust Manipulation on the Treatment of Symptoms Related to Temporomandibular Disorder: A Systematic Literature Review	<u>Philip Adelizzi, PT, DPT;</u> <u>Timothy Bayruns PT, OCS, CSCS;</u> James Casler PT, DPT; Melissa DeFelice, PT, DPT; Michael Drusedum PT, DPT	Poster Presentation

Evaluation of Physical and Occupational Services from Acute Hospitalization to Specialty Hospital at Rittenhouse (LTACH): Frequency and Duration of Therapy Services	<u>Aaron Thrush, PT, DPT, MPH, CCS</u>	Poster Presentation
<u>American College of Sports Medicine's Annual Meeting</u> May 31-June 7, 2016; Boston, Massachusetts		
Differences in Core Stability between Collegiate Football Players with and without Shoulder Pain	<u>Marisa Pontillo, PT, PhD, DPT, SCS</u>	Poster Presentation
<u>Focus on Progressive Supranuclear Palsy</u> June 2, 2016; Philadelphia, Pennsylvania		
Medical Professionals Question and Answer Panel	<u>Heather Cianci, PT, MS, GCS</u> <u>Joellyn Fox, PT, DPT</u> <u>Julia Wood, OTR/L</u> <u>Meredith Pauly, MA CCC-SLP</u>	Panel Discussion

Peer Reviewed Publications:

Bayruns TJ, Scapellati P. Paradoxical Vocal Fold Motion— Importance of Proper Diagnosis and Clinical Communication: A Case Report. *Orthopaedic Practice* Vol. (2015) 27;3:15, 168-170.

Sung W, Abraham M, Plastaras C, Silfies SP. Trunk motor control deficits in acute and subacute low back pain are not associated with pain or fear of movement. *Spine J*. 2015 Aug 1;15(8): 1722-82.

Silfies SP, Ebaugh D, Pontillo M, Butowicz CM. Critical review of the impact of core stability on upper extremity athletic injury and performance. *Braz J Phys Ther*. 2015 Sep-Oct;19(5):360-8.

Plastaras, C, Tsay T, Schran S, Zhang Y, Becker S, Pukenas B. Vertebral Benign Notochordal Cell Tumor (BNCT) as an Incidental Finding in Cervical Radiculitis. *PMR* 7(2015). 1198-1200.

Thigpen CA, Shaffer MA, Gaunt BW, Leggin BG, Williams GR, Wilcox RB. The American Society of Shoulder and Elbow Therapists' consensus statement on rehabilitation following arthroscopic rotator cuff repair. *J Shoulder Elbow Surg* (2016) 25, 521–535.

Adelizzi P, Casler J, DeFelice M, Drusedum M, Bayruns TJ. Effectiveness of Thrust Manipulation of the Cervical Spine for Temporomandibular Disorder: A Systematic Literature Review. *Orthopaedic Practice* (2016) Vol. 28;2:16, 110-17.

Elkassabany NM, Antosh S, Ahmed M, Nelson C, Israelite C, Badiola I, Cai LF, Williams R, Hughes C, Mariano ER, Liu J. The Risk of Falls After Total Knee Arthroplasty with the Use of a Femoral Nerve Block Versus an Adductor Canal Block: A Double-Blinded Randomized Controlled Study. *Anesth Analg*. 2016 May;122(5):1696-703.

Other Publications:

Fazzari E. A collaborative approach to wound care and lymphedema therapy: Part II. Wound Care Advisor. Sept/Oct 2015; 4(3):30-2.

Erin Fazzari, MPT, CLT, CWS, DWC, published Part II of “A Collaborative Approach to Lymphedema Therapy and Wound Care” in the September/October 2015; 4(3); 30-2, Wound Care Advisor Journal.

McElroy ME, Schaffner (Bowie) L. The Role of OT in an Interdisciplinary Oncology Group for Hospitalized Patients. OT Practice. Feb 2016; 21(2):18-20.

Book Chapters:

Betsy Grace Georgelos PT, DPT contributed a chapter titled “Vestibular Rehabilitation” in the book “Otology, Neurotology, and Skull Base Surgery: Clinical Reference Guide” edited by Doctors Theodore R. McRackan and Derald E. Brackmann.

Sarah Martyn, PT, DPT, contributed a chapter titled, “Hemophilia” in the book *Case Files in Physical Therapy Pediatrics*, edited by Eric Pelletier and published by McGraw-Hill (2015).

Anastasiya Ruiz PT, MSPT contributed a chapter “Extreme Prematurity and the Neonatal Intensive Care Unit” in the book *Case Files in Physical Therapy Pediatrics*, edited by Eric Pelletier and published by McGraw-Hill (2015).

Brian Leggin PT, DPT, OCS and Marisa Pontillo, PT, PhD, DPT, SCS, co-authored a chapter “Maximizing Return to Activity Post Cuff and Instability Surgery” in the book *Elite Techniques in Shoulder Arthroscopy: New Frontiers in Shoulder Preservation, 1st Edition*. published by Springer in 2016.

Awards, Honors and Recognition:

<u>Title of Award</u>	<u>Staff Name</u>		<u>Description of Award</u>
2015 Delaware Valley Patient Safety and Quality Award: Project Sit Up: An Interprofessional Quality Improvement Initiative to Reduce Aspiration Pneumonia	Vivek Ahya MD, <u>Randy Dubin MA, CCC-SLP, Nadine Amsterdam MA, CCC-SLP,</u> Marybeth O'Malley MSN, RN, ACNS-BC		The Delaware Valley Patient Safety and Quality award program recognizes hospitals and other providers for their achievements in advancing exceptional care and is provided at the Annual Meeting of the Delaware Valley Healthcare Council of HAP.
Awarded the APTA Acute Care Physical Therapy Writing Scholarship	Melissa A. Lesser, PT, DPT Joseph Borst, PT, DPT		This award is provided to assist therapists with the publication of a research project. This award was provided for the project for their project titled "Use of the Postural Assessment Scale for Stroke Patients in Determining Acute Care Discharge Recommendations".
Received American Board of Physical Therapy (ABPT) clinical specialization	Gina Serago PT, DPT, OCS	Orthopaedic	Honorees receive board specialization at the American Physical Therapy Association's (APTA) Combined Sections Meeting on February 4, 2016, in Anaheim, California.
	William Moore PT, DPT, OCS	Orthopaedic	
	Aaron Thrush PT, DPT, MPH, CCS	Cardiovascular and Pulmonary	
	Julie Skrzat PT, CCS	Cardiovascular and Pulmonary	
	Pia Leone PT, DPT, WCS	Women's Health	
	Francesca Savage PT, WCS	Women's Health	
	Lucinda Christian PT, DPT, WCS	Women's Health	
	Donna Schmidt PT, DPT, NCS	Neurologic	
Inducted into the Academy of Certified Brain Injury Specialists	Gregory DeAntonio, MS, OTR/L, CBIS Bridget Mehaffey, PT, DPT, CBIS Kerry Durst, PT, DPT, CBIS Teresa Melick, MS, OTR/L, CBIS Ann Morace, MSN, RN, CRRN, CBIS Jacqueline Seidler, MS CF SLP, CBIS Caitlin Simpson, PT, DPT, CBIS		Achieved Certification in Brain Injury Specialization (CBIS)

Collaborative Projects:

<u>Project Title</u>	<u>Staff Involved</u>	<u>Role in Project</u>
Lung Transplant Body Composition Study	Derek Zaleski PT, DPT	<ul style="list-style-type: none"> Assisting with data collection with the Penn Medicine Lung Transplant Team
LABAT	Joy Cohn, PT, CLT-LANA Bryan Spinelli PT, MS, OCS, CLT	<ul style="list-style-type: none"> Collaborative project with Katie Schmitz (Principal Investigator), Associate Professor in the Department of Biostatistics and Epidemiology, University of Pennsylvania
Identifying Isolation of multifidus activation with NMES using near infrared spectroscopy	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University
The Relationship Between Core Stability and Shoulder Injuries in Athletes	Marisa Pontillo PT, PhD, DPT, SCS	<ul style="list-style-type: none"> Collaborative study with Drexel University
Identifying Isolation of multifidus activation with NMES using RUSI	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University
Pain Outcomes With an Elliptical Regimen (POWER)	Scott Becker PT	<ul style="list-style-type: none"> Collaborative study with Dr. Tim Dillingham MD, Department of Physical Medicine and Rehabilitation
Analysis of muscle activation patterns in patients with aberrant movement patterns who fit a diagnosis of movement control impairments of the spine	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University
Movement precision and control in patients with low back pain	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University
Kinematic Analysis of the forward bend characteristics to predict patients with movement coordination impairments of the trunk	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University
Mechanistic validation of current clinical prediction rules for predicting success with trunk stabilization exercises	Won Sung PT, DPT, PhD	<ul style="list-style-type: none"> Collaborative study with Drexel University

Thera-Drive	Carol Wamsley, PT, DPT, NCS, CBIS	<ul style="list-style-type: none"> • Collaborative study with Dr. Michelle Johnson, Associate Professor in the Department of Rehab Medicine at the University of Pennsylvania
Neural and Motor Functional Changes in HIV and Stroke before and after Robot-Assisted Neurorehabilitation	Carol Wamsley, PT, DPT, NCS, CBIS	<ul style="list-style-type: none"> • Collaborative study with Dr. Michelle Johnson, Associate Professor in the Department of Rehab Medicine at the University of Pennsylvania
Design of an affordable gym for post stroke rehabilitation	Carol Wamsley, PT, DPT, NCS, CBIS	<ul style="list-style-type: none"> • Collaborative study with Dr. Michelle Johnson, Associate Professor in the Department of Rehab Medicine at the University of Pennsylvania
A Phase 2 Randomized, Double-Blind, Placebo-Controlled Efficacy and Safety Study of a RARγ-Specific Agonist (Palovarotene) in the Treatment of Preosseous Flare-ups in Subjects with Fibrodysplasia Ossificans Progressiva (FOP) are assessing joint range of motion as one of the outcome measures to determine the drug's efficacy in this rare patient population.	Elsa Amaral PT Sarah Martyn PT, DPT Carolyn Haggerty PT, DPT Joe Borst PT, DPT	<ul style="list-style-type: none"> • Collaborative study with Dr. Kaplan, Penn Medicine's Department of Orthopedics.
ASPIRE Study	Elsa Amaral, PT Sarah Martyn PT, DPT	<ul style="list-style-type: none"> • Assisting the Hemophilia Team collect functional outcomes data
Functional Outcome Measures for Head and Neck Patients	Meredith Pauly MA, CCC-SLP Tiffany Hogan MA, CCC-SLP	<ul style="list-style-type: none"> • Collaborative study with Dr. Steven Cannady from the Department of Otorhinolaryngology