



DIVISION OF THERAPY SERVICES

ANNUAL SCHOLARLY REPORT: FISCAL YEAR 2017

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 2017, research and educational presentations were presented by over sixty therapists at twenty professional conferences at the state, national and international levels. Eight articles were published in peer-reviewed journals and multiple awards and special recognition received. Congratulations to our therapists on an extremely successful fiscal year 2017!

Conference Presentations:

<u>Title</u>	<u>Staff Involvement (presenting authors underlined)</u>	<u>Description</u>
<u>The IV STEP Conference July 14-19, 2016; Columbus, OH</u>		
High-force Haptic Rehabilitation Robot and Motor Outcomes in Chronic Stroke: A Case Study	<u>Carol Ann Wamsley, PT, DPT, BS, NCS, CBIS</u> Roshan Rai, MS Nicholas Vivio, MS Michelle J. Johnson, PhD	Poster Presentation
<u>12th International National Lymphedema Network Conference August 31-September 4, 2016; Dallas, TX</u>		
Phlebolympheidema & Wound Care: The Benefits of an Interdisciplinary Approach-A Patient Case Series	<u>Erin Fazzari, MPT, CLT, CWS, DWC</u> Brittany Chervino, PT, DPT, CLT-LANA, WCC	Education Session

<u>The 6th Annual Mid-Atlantic Shoulder and Elbow Society Meeting</u>		
September 9, 2016; Washington, DC		
Panel Discussion: Proximal Humerus Fractures: To Operate or Not, That is the Question	<u>Brian Leggin, PT, DPT, OCS</u>	Panel Discussion
Panel Discussion: 45-Year Old Male with Irreparable Cuff-No way he's getting a reverse, or is he? Let's Talk.	<u>Martin J. Kelley, PT, DPT, OCS</u>	Panel Discussion
<u>4th World Parkinson Congress</u>		
September 20-23, 2016; Portland, OR		
Functional Movement Disorders and the Role of Physical Therapy	<u>Joellyn Fox, PT, DPT</u> <u>Heather Cianci, PT, MS, GCS</u>	Poster Presentation
Artisans with Parkinson's: The Power of Art and Creativity in Managing Parkinson's Disease	<u>Joellyn Fox, PT, DPT</u> <u>Heather Cianci, PT, MS, GCS</u>	Poster Presentation
Mindfulness Interventions for Management of Anxiety to Improve Daily Function in Parkinson's Disease	<u>Julia Wood, MOT, OTR/L</u>	Poster Presentation
<u>Pennsylvania Occupational Therapy Association (POTA)</u>		
<u>Conference</u>		
October 14-15, 2016; Lancaster, PA		
Can Occupational Therapists Utilize the BIMS to Effectively Screen for Cognitive Deficits in Short-Term SNF Residents?	<u>Megan Link, MS, OTR/L, MBA</u> <u>Abigail Darin, MS, OTR/L</u> <u>Brittany Jemmoua, MS, OTR/L, CCLS</u>	Education Session
Implementation of a Self-Care Initiative on an Inpatient Psychiatric Unit	<u>Gina Daniels, MS, OTR/L</u> Tori Snyder, OTS Heather Martz, OTS Marion Conneen, MS, OTR/L	Poster Presentation
Splinting's Impact on Spasticity and Function	<u>Tami Levengood, OTD, OTR/L, MSCS</u> Tara Babe, OTR/L	Poster Presentation
<u>The 13th Annual Jean Feldman Memorial Rehab Conference</u>		
October 28, 2016; Mt. Laurel, NJ		
Non-Motor Symptoms and Effective Management through Rehabilitative Therapy	<u>GSPP Dan Aaron Parkinson Therapy Team</u>	Conference Hosts and Speakers

<u>Pennsylvania Physical Therapy Association (PPTA) Conference</u> October 28-30, 2016; Lancaster, PA		
Lumbar Radicular Complaints Confused with Patella Tendinopathy	Frank Angiolillo, PT, OCS, Cert MDT Timothy Bayruns, PT, DPT, OCS, CSCS <u>Cheryl Cocca, PT, DPT, OCS</u> Paul Howard, PT, DPT, PhD, OCS, Cert MDT Carl Pitts, PT, DPT	Poster Presentation
Duration From Stroke Onset to Rehabilitation Admission: Impact on Discharge and Cognitive Functional Independence Measures	<u>Carol Wamsley, PT, DPT, BS, NCS, CBIS</u> Jennifer Dekerlegand, MPT, CHRC	Platform Presentation
Improving the Quality of Exercise Prescription for Patients Readmitted within 18 Months after Lung Transplant	<u>Claire Child, PT, DPT, MHS, CCS</u> Gregory Carroll, SPT	Platform Presentation
<u>American Society for Reconstructive Transplantation (ASRT)</u> November 4-7, 2016; Chicago, IL		
Reconstructive Transplantation	Gayle Severance, MS, OT/L, CHT	Moderated therapy forum and panel discussion
<u>APTAs of Maryland, DC, and Delaware Annual Conference</u> November 5-6, 2016; College Park, MD		
Using Innovative and Creative Treatment Strategies for Parkinson's Disease	Heather Cianci, PT, MS, GCS	Education Session
<u>American Speech Hearing Association Annual Convention</u> November 17-19, 2016; Philadelphia, PA		
Communication With the Non-Vocal Patient in the Intensive Care Unit (ICU)	<u>Randy Dubin, MA, CCC-SLP</u> <u>Melissa Ferdas, MA, CCC-SLP</u>	Poster Presentation
A Case Study of Fixed Epiglottis & Dysphagia Associated with Bilateral GPi DBS	<u>Meredith Pauly, MA, CCC-SLP</u> <u>Tiffany Hogan, MA, CCC-SLP</u> Meredith Spindler, MD	Poster Presentation

<p align="center"><u>The Philadelphia Orthopaedic and Sports Rehab Foundation</u> <u>2016 Shoulder and Elbow Update</u> November 18-19, 2016; Philadelphia, PA</p>		
<p>Rehabilitation of Atraumatic Instability and Considerations following Capsulolabral Repair Rehabilitation of Shoulder Girdle Fractures Non-operative Rehabilitation of Rotator Cuff Disease: Can We “Cure” our Patients? Clinical Examination of the Shoulder</p>	<p align="center"><u>Brian Leggin, PT, DPT, OCS</u></p>	<p align="center">Education Sessions and Workshops</p>
<p>Rehabilitation Following Conventional and Reverse Shoulder Arthroplasty Rehabilitation Following Rotator Cuff Repair-When Should We Start, What Should We Do?</p>	<p align="center"><u>Martin J. Kelley, PT, DPT, OCS</u></p>	<p align="center">Education Sessions</p>
<p>A New Approach to the Management of Epicondylitis</p>	<p align="center"><u>John Bellace, PT, CHT</u></p>	<p align="center">Education Session</p>
<p>Clinical Exam of the Elbow</p>	<p align="center"><u>Wendy McCoy, PT, CHT</u> <u>Laura Walsh, MS, OTD, OT/L, CHT</u> <u>Gayle Severance, MS, OT/L, CHT</u> <u>Jennifer Frazer, MHS, OTR/L</u></p>	<p align="center">Workshop</p>
<p>Manual Techniques for the Shoulder and Elbow</p>	<p align="center"><u>Martin Kelley, PT, DPT, OCS</u> <u>Karen Havlicsek, PTA</u> <u>Ninette Wong, PT, DPT</u> <u>Michael Denny, PT</u> <u>Michael Piercey, PT, DPT, OCS, Cert. MDT,</u> <u>CMP, CSCS</u></p>	<p align="center">Workshop</p>
<p>Complex Elbow Problems: Mobilization Techniques and Treatment Options</p>	<p align="center"><u>Wendy McCoy, PT, CHT</u></p>	<p align="center">Workshop</p>
<p align="center"><u>American Association for Hand Surgery Conference</u> January 10-14, 2017; Waikoloa, HI</p>		
<p align="center">Recalcitrant Tennis Elbow</p>	<p align="center"><u>Gayle K. Severance, MS, OT/L, CHT</u></p>	<p align="center">Education Session</p>

<p align="center"><u>American Physical Therapy Association's Combined Sections Meeting</u> February 14-18, 2017; San Antonio, TX</p>		
<p>Change, Change, Change - Leadership and Management in Action!</p>	<p align="center"><u>Colleen Chancler, PT, MHS, PhD</u> Jane Oeffner, PT, DPT, MBA</p>	<p align="center">Education Session Health Policy and Administration Section</p>
<p>From Gameday to Postseason: Shoulder Injuries in Football Along the Continuum</p>	<p align="center"><u>Marty Huegel, PT, MSc</u> Michael Moser, MD <u>Marisa Pontillo, PT, DPT, PhD, SCS</u> Giorgio Zeppieri, PT, SCS, CSCS</p>	<p align="center">Education Session Sports Section</p>
<p>Complex Cases in Women's and Men's Health</p>	<p align="center">Valerie Bobb, PT, DPT, WCS, ATC Sandra Gallagher, PT, WCS Sandra Gallagher, PT, WCS Rosaleen Gnoffo, PT Lori Mize, PT, DPT, WCS Pamela Morrison, PT, MS, DPT, BCB-PMD, I <u>Lisa Sator PT, DPT, CLT, WCS</u> Sara Sauder, PT, DPT</p>	<p align="center">Education Session Women's Health Section</p>
<p>Co-occurrence of Temporomandibular Disorder and Pelvic Pain</p>	<p align="center"><u>Timothy Bayruns, PT, DPT, OCS, CSCS</u> <u>Lisa Tate, MSPT, WCS, CLT</u> Lucinda Hayburn, PT, DPT, WCS, CLT Jennifer Dekerlegand, MPT, CHRC</p>	<p align="center">Platform Presentation Women's Health Section</p>
<p>Residency Outcomes: How Do They Compare?</p>	<p align="center"><u>William Moore, PT, DPT, OCS</u> <u>Won Sung, PT, DPT, PhD</u></p>	<p align="center">Platform Presentation Education Section</p>
<p>Functional Outcomes of Hospitalized Patients Awaiting Liver Transplant</p>	<p align="center"><u>Melanie Quintans, PT, DPT</u> Jennifer Dekerlegand, MPT, CHRC</p>	<p align="center">Platform Presentation Acute Care Section</p>
<p>Lumbar Spine Stiffness Changes and Muscle Activation During the Prone Instability Test</p>	<p align="center"><u>Won Sung, PT, DPT, PhD</u> David Ebaugh, PT, PhD, G.E. Hicks, Scott Stackhouse PT, PhD, S. Smith, P. Wattananon, Sherie. P. Silfies PT, PhD</p>	<p align="center">Poster Presentation Orthopaedic Section</p>
<p>Duration from Stroke Onset to Rehabilitation Admission: Impact on Discharge and Cognitive Functional Independence Measures</p>	<p align="center"><u>Carol Ann Wamsley, PT, DPT, BS, NCS, CBIS</u> Jennifer Dekerlegand, MPT, CHRC</p>	<p align="center">Poster Presentation Neurology Section</p>

Outcomes of Early Mobility in Patients with an External Ventricular Device	<u>Bill Pino, PT, DPT</u> <u>Joseph Borst, PT, DPT</u>	Poster Presentation Acute Care Section
Clinical Presentation of Men with Pelvic Pain	<u>Lisa Tate, MSPT, WCS, CLT</u>	Poster Presentation Women's Health Section
<u>43rd Philadelphia Hand Symposium</u> March 3-7, 2017; Philadelphia, PA		
Wound Care; Tendon Transfers; Examination of the Wrist	<u>Gayle K. Severance, MS, OT/L, CHT</u>	Education sessions
<u>American Occupational Therapy Association's Annual Conference</u> March 30-April 2, 2017; Philadelphia, PA		
Comprehensive Parent and Care Provider Collaboration for Developmentally Appropriate, Family-Centered Care in a Level III Neonatal Intensive Care Unit	<u>Meredith Antanavage, MOT, OTR/L</u> <u>Penn Medicine NICU Team Members</u>	Poster Presentation
The Role of Occupational Therapy in an Interdisciplinary Protocol to Reduce Intraventricular Hemorrhage on a Level III Neonatal Intensive Care Unit	<u>Meredith Antanavage, MOT, OTR/L</u>	Poster Presentation
Integrating Mindfulness Strategies into Occupational Therapy for Parkinson's Disease	<u>Julia Wood, MOT, OTR/L</u>	Poster Presentation
<u>Penn Medicine Adult ECMO Conference</u> March 31-April 1, 2017; Philadelphia, PA		
ECMO Rehabilitation: Is it Possible?	<u>Joseph Adler, PT, DPT, CCS</u>	Education Session
<u>Pennsylvania Physical Therapy Association Southeastern District</u> <u>Mini Combined Sections Meeting</u> April 1, 2017: Philadelphia, PA		
Pelvic Floor Dysfunction in the Gynecological and Genitourinary Cancer Populations: Implications for the Physical Therapist	<u>Pia Leone, PT, DPT, WCS</u> <u>Brandi Johnson, PT, DPT, CLT-LANA</u> <u>Lisa Sator, PT, DPT, CLT, WCS</u>	Education Session

<u>7th Annual NANT Conference</u> April 7-8, 2017; Phoenix, AZ		
Comparison of Therapy Recommendations to Actual Services Received After Discharge from the Intensive Care Nursery	<u>Robin Elican Madeja, MOT, OTR/L</u> <u>Tiffany Hogan, MA, CCC-SLP</u> <u>Jenna Rogers, PT, DPT</u> Anastasiya Ruiz, PT, MSPT, CCI	Poster Presentation
A Case Series: Benefits of Therapy Services Co-treating Medically Complex Infants in the Intensive Care Nursery	<u>Robin Elican Madeja, MOT, OTR/L</u> <u>Tiffany Hogan, MA, CCC-SLP</u> <u>Jenna Rogers, PT, DPT</u> Anastasiya Ruiz, PT, MSPT, CCI	Poster Presentation
<u>Abramson Cancer Center Palliative Care Conference</u> May 3, 2017; Philadelphia, PA		
Management of Cancer Related Fatigue	<u>Sarena Banas, PT, DPT, CLT-LANA</u> <u>Melinda Gross, PT, DPT, CLT</u> <u>Lisa Sator, PT, DPT, CLT, WCS</u>	Education Session
<u>Penn Medicine PMR - GSPP 3rd Annual Research Day</u> June 8, 2017; Philadelphia, Pennsylvania		
Duration from Stroke Onset to Rehabilitation Admission: Impact on Discharge and Cognitive Functional Independence Measures	<u>Carol Wamsley, PT, DPT, BS, NCS, CBIS</u> Jennifer Dekerlegand, MPT, CHRC	Podium Presentation
Communication with the Non-Vocal Patient in the Intensive Care Unit (ICU)	<u>Randy Dubin, MA, CCC-SLP</u> <u>Melissa Ferdas, MA, CCC-SLP</u> Rebecca Trotta, PhD, RN Mary Walton, MSN, MBE, RN Robin Hermann, MSN, RN, CCRP	Poster Presentation
Co-Occurrence of Temporomandibular Disorder and Pelvic Pain	<u>Timothy Bayruns, PT, DPT, OCS, CSCS</u> Lisa Tate, MSPT, WCS, CLT Lucinda Hayburn, PT, DPT, WCS, CLT Jennifer Dekerlegand, MPT, CHRC	Poster Presentation
Lumbar Radicular Complaints Confused as Patella Tendinopathy: A Case Study	Frank Angiolillo, PT, OCS, Cert MDT <u>Timothy J. Bayruns, PT, DPT, OCS, CSCS</u> Cheryl Cocca, PT, DPT, OCS Paul Howard, PT, DPT, PhD, OCS, Cert MDT Carl Pitts, PT, DPT, MEd	Poster Presentation

Enhanced SAIL Program: Evaluation of an Evidence-Based Fall Prevention Program for Community Dwelling Elders	<u>Joseph Muniak, MS, OTD, OTR/L</u> Laurie Swan, PhD, DPT, PT, CEEAA; Catherine Verrier Piersol, PhD, OTR/L	Poster Presentation
Benefits of Therapy Co-treatment for Medically Complex Infants in the Intensive Care Nursery	Robin Elican Madeja, MOT, OTR/L Tiffany Hogan, MA, CCC-SLP <u>Jenna Rogers, PT, DPT</u> Anastasiya Ruiz, PT, MSPT, CCI	Poster Presentation
Comparison of Therapy Recommendations to Actual Services Received after Discharge from the Intensive Care Nursery	Robin Elican Madeja, MOT, OTR/L Tiffany Hogan, MA, CCC-SLP Jenna Rogers, PT, DPT <u>Anastasiya Ruiz, PT, MSPT, CCI</u>	Poster Presentation
Body Weight Supported Treadmill Training for a Patient with Lewy Body Dementia and a Transtibial Amputation	<u>Christopher Gorrell, PT, DPT</u>	Poster Presentation
Exploring the Influence of Clinical Experience On Students' Prioritization of Core Values	<u>Shelly Lewis, PT, DPT</u>	Poster Presentation
Functional Outcomes of Hospitalized Patients Awaiting Liver Transplant	<u>Melanie Quintans, PT, DPT</u>	Poster Presentation
A Case Study of Fixed Epiglottis & Dysphagia Associated with Bilateral Gpi DBS	<u>Meredith Pauly, MA, CCC-SLP</u> <u>Tiffany Hogan, MA, CCC-SLP</u>	Poster Presentation
Use of the Brief-BESTest to Assess Balance Impairment and Target Balance Interventions for People with Subacute Stroke: A Pilot Study	<u>Eric Johns, PT, DPT</u> <u>Carol Wamsley, PT, DPT, BS, NCS, CBIS</u> <u>Anne Whiting, PT, DPT, GCS, CBIS</u>	Poster Presentation
Vestibular Physical Therapy Examination-To Treat, Treat and/or Refer or Refer: A Case Study	<u>Sabrina Mele, PT, DPT</u>	Poster Presentation
A Company-Wide Initiative to Improve Screening for Vision Impairment	<u>Tami Levensgood, OTD, OTR/L, MSCS</u>	Poster Presentation
Individuals with Low Back Pain Utilize Different Motor Control Strategies to Achieve Spinal Stiffness During the Prone Instability Test Compared to Individuals without Low Back Pain	<u>Won Sung, PT, DPT, PhD</u>	Poster Presentation
Lumbar Stabilizing Muscle Activation is Delayed, Is of Greater Magnitude, and Extinguishes Later in Patients with Movement Coordination Impairment Related Low Back Pain Compared to Healthy Control Participants	<u>Won Sung, PT, DPT, PhD</u>	Poster Presentation

Peer Reviewed Publications:

Butler K, Schweickert WD. Early goal-directed mobilisation in the intensive care unit is feasible and safe, and increases both the level and duration of activity [commentary]. *J Physiother*. 2016 Oct;62(4):225.

Wamsley CA, Rai R, Johnson MJ. (2017) High-force Haptic Rehabilitation Robot and Motor Outcomes in Chronic Stroke. *Int J Clin Case Stud*. 3: 115.

Pauly M, Hogan T, Spindler M. Dysphagia in a Patient with Cervical Dystonia. *Dysphagia*. (2017) 32: 583.

Granda-Cameron C, Pauly M, DeMille D, Mante A, Null S, Malkowski J, Hogan T, Lane J, Geiger G, Newman J, Lynch MP. Gap analysis: a strategy to improve the quality of care of head and neck cancer patients. *Journal of Community and Supportive Oncology*. 2017;15(1):28-36.

Wattananon P, Intawachirarat N, Cannella M, Sung W, Silfies SP. Reduced instantaneous center of rotation movement in patients with low back pain. *Eur Spine J*. 2017 Mar 31

Moyer M, Young B, Borst J, Pino W, Hart M, LoBreglio J, Zaleski D, Leonor I, Kung D, Smith M, Zager E, Grady S, Kumar M. Implementation of an Early Mobility Pathway in Neurointensive Care Unit Patients with External Ventricular Devices. *J Neurosci Nurs*. 2017 Apr;49(2):102-107.

McCombie RP, Antanavage ME. Transitioning from Occupational Therapy Student to Practicing Occupational Therapist: First Year of Employment. *Occup Ther Health Care*. 2017 Apr;31(2):126-142.

Lesser M, Borst J, Dekerlegand J. Use of the Postural Assessment Scale for Stroke Patients in Determining Acute Care Discharge Recommendations. *Journal of Acute Care Physical Therapy*. 2017 Apr;8(3):79-85.

Awards, Honors and Recognition:

<u>Title of Award</u>	<u>Staff Name</u>		<u>Description of Award</u>
2016 Philadelphia Area Clinical Education Consortium Scholarship	Diana Duda, PT, DPT, MSCS		This scholarship provides financial support for a therapist to attend the APTA Educational Leadership Conference in October 7-9th, 2016 in Phoenix, Arizona.
Awarded the Cystic Fibrosis Foundation Grant	Colleen Chanler, PT, MHS, PhD Anita Shah, PT Rob Dekerlegand, PT, PhD, CCS		The Hospital of the University of Pennsylvania was awarded a grant from the Cystic Fibrosis Foundation providing financial support for the integration of a physical therapist into the Adult Cystic Fibrosis clinic at Penn Medicine.
Achieved American Board of Physical Therapy (ABPT) clinical specialization	Elsa Amaral, PT, DPT, OCS	Orthopaedic	Honorees receive board specialization at the American Physical Therapy Association's (APTA) Combined Sections Meeting on February 14, 2017, in San Antonio, TX.
	William Moore, PT, DPT, OCS	Orthopaedic	
	Michael O'Hara, PT, DPT, OCS	Orthopaedic	
	Anne Whiting, PT, DPT, GCS, CBIS	Geriatric	
	Lisa Tate, MSPT, WCS, CLT	Women's Health	
	Lisa Sator, PT, DPT, CLT, WCS	Women's Health	
	Amy Shah, PT, DPT, WCS	Women's Health	
	Shannon Marriner, PT, DPT, NCS, MBA	Neurologic	
Elena Newland, PT, DPT, NCS	Neurologic		
2017 James Tucker Excellence in Clinical Practice and Teaching Award	Timothy J. Bayruns, PT, DPT, OCS, CSCS		This award recognizes outstanding clinicians and clinical teachers that have made significant contributions to the practice of Physical Therapy on behalf of the New Jersey APTA Chapter.
Achieved Occupational Therapy Board Certification in Physical Rehabilitation	Malachy Clancy, MOT, OTR/L, BCPR		Board specialization is awarded from the American Occupational Therapy Association in one of four practice areas.

<p>Achieved Doctor of Philosophy Degrees (Ph.D.)</p>	<p>Colleen Chancler PT, MHS, Ph.D. <i>Director, Acute Therapy Services, HUP Seton Hall University School of Health and Medical Sciences, Doctor of Philosophy, Health Sciences</i></p> <p>Marisa Pontillo PT, DPT, Ph.D., SCS <i>Sports Team Leader Drexel University, Doctor of Philosophy, Physical Therapy and Rehabilitation Sciences, Concentration: Biomechanics</i></p> <p>Won Sung PT, DPT, Ph.D. <i>Spine Team Leader Drexel University, Doctor of Philosophy, Rehabilitation Science: Concentration- Biomechanics</i></p>	
<p>Achieved Clinical Doctorates</p>	<p>Tami Levengood, OTD, OTR/L, MSCS <i>Occupational Therapy Team Leader Philadelphia University, Occupational Therapy Doctorate, Occupational Therapy/Therapist</i></p> <p>Joseph Muniak MS, OTD, OTR/L <i>Director of Inpatient Therapy, Rittenhouse Thomas Jefferson University, Doctorate of Occupational Therapy, Occupational Therapy/Therapist</i></p> <p>Laura Walsh MS, OTD, OT/L, CHT <i>Program Manager, Hand Philadelphia University Occupational Therapy Doctorate, Occupational Therapy/Therapist</i></p>	

Collaborative Research Projects:

<u>Project Title</u>	<u>Staff Involved</u>	<u>Collaborators</u>
Frailty and Predicting Unplanned Lung Transplant Readmissions	Derek Zaleski, PT, DPT	<ul style="list-style-type: none"> • Penn Medicine Lung Transplant Team
Use of the “My Penn Transplant Coach” App in Transplant Candidates and Recipients: A Prospective Feasibility Study	Derek Zaleski, PT, DPT Sarah Daly, PTA	<ul style="list-style-type: none"> • Penn Medicine Lung Transplant Team
The Arthroscopic Rotator Cuff (ARC) Trial	Marisa Pontillo, PT, DPT, PhD, SCS	<ul style="list-style-type: none"> • Dr. John Kelly (Principal Investigator), Professor of Clinical Orthopaedic Surgery, Penn Medicine
Identifying Isolation of Multifidus Activation with NMES Using Near Infrared Spectroscopy	Won Sung, PT, DPT, PhD	<ul style="list-style-type: none"> • Drexel University Faculty
The Relationship Between Core Stability and Shoulder Injuries in Athletes	Marisa Pontillo, PT, DPT, PhD, SCS	<ul style="list-style-type: none"> • Drexel University Faculty
Identifying Isolation of Multifidus Activation with NMES Using RUSI	Won Sung, PT, DPT, PhD	<ul style="list-style-type: none"> • Drexel University Faculty
Pain Outcomes With an Elliptical Regimen (POWER)	Scott Becker, PT	<ul style="list-style-type: none"> • Dr. Tim Dillingham, Department of Physical Medicine and Rehabilitation, Penn Medicine
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"> • Drexel University Faculty
Movement Precision and Control in Patients with Low Back Pain	Won Sung, PT, DPT, PhD	<ul style="list-style-type: none"> • Drexel University Faculty
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"> • Drexel University Faculty
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"> • Drexel University Faculty
Thera-Drive	Carol Ann Wamsley, PT, DPT, BS, NCS, CBIS	<ul style="list-style-type: none"> • Dr. Michelle Johnson, Department of Physical Medicine and Rehabilitation, Penn Medicine

Neural and Motor Functional Changes in HIV and Stroke Before and After Robot-Assisted Neurorehabilitation	Carol Ann Wamsley, PT, DPT, BS, NCS, CBIS	<ul style="list-style-type: none"> • Dr. Michelle Johnson, Department of Physical Medicine and Rehabilitation, Penn Medicine
Design of an Affordable Gym for Post Stroke Rehabilitation	Carol Ann Wamsley, PT, DPT, BS, NCS, CBIS	<ul style="list-style-type: none"> • Dr. Michelle Johnson, Department of Physical Medicine and Rehabilitation, Penn Medicine
A Phase 2 Randomized, Double-Blind, Placebo-Controlled Efficacy and Safety Study of a RARy-Specific Agonist (Palovarotene) in the Treatment of Preosseous Flare-ups in Subjects with Fibrodysplasia Ossificans Progressiva (FOP)	Elsa Amaral, PT, DPT, OCS Sarah Martyn, PT, DPT, NCS Carolyn Haggerty, PT, DPT Joe Borst, PT, DPT Claire Marine, PT, DPT Kaila Roberson, PT, DPT	<ul style="list-style-type: none"> • Dr. Kaplan, Department of Orthopaedics, Penn Medicine
ASPIRE Study	Elsa Amaral, PT, DPT, OCS Sarah Martyn, PT, DPT, NCS	<ul style="list-style-type: none"> • Penn Medicine Hemophilia Team
PROWALKS Study: Promoting Recovery Optimization with WALKing Exercise after Stroke	Sarah Martyn, PT, DPT, NCS Shannon Marriner, PT, DPT, NCS, MBA Joe Borst, PT, DPT	<ul style="list-style-type: none"> • Dr. Scott Kasner, Professor of Neurology, Stroke Division, Penn Medicine and Dr. Darcy Reisman, Professor of Physical Therapy, University of Delaware
Defining Components of Physical Therapy Achieving Maximum Function after Total Knee Replacement (TKR)	Christopher Runkle, PT, DPT, CSCS	<ul style="list-style-type: none"> • Dr. Carol Oatis, Professor of Physical Therapy, Arcadia University
A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of ACE-083 in Patients with Facioscapulohumeral Muscular Dystrophy	Brandi Johnson, PT, DPT, CLT-LANA Joy Cohn, PT, CLT-LANA	<ul style="list-style-type: none"> • Dr. Lauren Elman, Department of Neurology, Penn Medicine
A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of ACE-083 in Patients with Charcot-Marie-Tooth Disease Types 1 and X	Kyle Cunningham, PT, DPT	<ul style="list-style-type: none"> • Dr. Colin Quinn, Department of Neurology, Penn Medicine
Functional Outcome Measures for Head and Neck Patients	Meredith Pauly, MA, CCC-SLP Tiffany Hogan, MA, CCC-SLP	<ul style="list-style-type: none"> • Dr. Steven Cannady, Department of Otorhinolaryngology, Penn Medicine
Reliability and Validity of a New Clinical Measurement of Shoulder Function: The Functional Arm and Shoulder Test	Dan Safford, PT, DPT, MAT, CSCS Various outpatient clinicians	<ul style="list-style-type: none"> • Dr. Phil McClure, Professor of Physical Therapy at Arcadia University

National Orthopedic Physical Therapy Outcomes Database, Knee Pilot Project	Michele Strauss, PT, DPT, OCS, CSCS Carlotta Jones, PT Albert Park, PT, DPT	<ul style="list-style-type: none"> American Physical Therapy Association's Orthopedic Section
Cancer-Related Fatigue Clinical Practice Guidelines Work Group	Joy Cohn, PT, CLT-LANA	<ul style="list-style-type: none"> American Physical Therapy Association's Oncology Section