

**PROJECT 1**

FACULTY: Certo + Gorack

PROGRAM: PT

TITLE: The Mobility Score (M-Score): A Multi-Site Study Involving Short Term, Outpatient and Homecare Patients

SUMMARY: This is part of the ongoing development of the M-Score. The M-score is a functional mobility test that was developed by our very own DPT students under the guidance of Dr. Certo and Dr. Gorack. In today's healthcare world it is vastly important for clinicians to have evidence based tools that can quickly be applied for patient assessment. Students who choose this project will have the opportunity to experience testing of patients at a short term rehab facility, an outpatient facility and homecare setting, as well as the opportunity to interact with clinicians at these sites. A secondary aspect of this study will be to assess the need for modification of the test in order to include patients of a lower functional level than have typically been tested.

**PROJECT 2**

FACULTY: Felmlee

PROGRAM: P&O

TITLE: "How-to" Videos for Outcome Measures for the American Academy of Orthotists and Prosthetists (AAOP)

SUMMARY: We will be organizing and producing up to 5 videos and fact sheets for quick reference by O&P clinicians. We will be working on grant writing, submission methods, video production/script writing, outcome measure validation/vetting. These videos will be submitted to the Outcome Measures Committee at AAOP.

**PROJECT 3**

FACULTY: Gannotti

PROGRAM: PT

TITLE: Impacting Musculoskeletal Architecture in Children with Cerebral Palsy

SUMMARY: Students performed a review of the literature and developed innovative interventions with optimal dosing parameters to effect change in the musculoskeletal system of children with cerebral palsy. Institution review board documents completed to employ study of the impact of BFIT a power based exercise program on the musculoskeletal system of children with cerebral palsy.

**PROJECT 4**

FACULTY: Lee

PROGRAM: P&O

TITLE: Mobile app for empowering self-management in individuals with limb loss

SUMMARY: The mobile app that has been developed over the years will be going out for patient testing! You will assist in collecting data, working with patients who have limb loss, working on developing the app content, and analyzing the data. Opportunities for national/international presentation if interested.

**PROJECT 5**

FACULTY: Pratt

PROGRAM: PT

TITLE: Clinical Detection of Asymmetries: More than meets the Eye

SUMMARY: We will continue to investigate ways to quantify lower extremity movement impairments in the clinic. To do so we will build upon the foundation set by last year's research and explore the feasibility of using wearable sensors to identify movement deficits in both healthy individuals and those following an ACL reconstruction. By providing clinicians and patients with objective information regarding movement quality, this work will help develop patient specific training programs and improve outcomes following surgery and/or rehabilitation.

**PROJECT 6**

FACULTY: Saavedra + Bellows

PROGRAM: PT

TITLE: Targeted Training for Trunk Control and Function

SUMMARY: Imagine living your life not being able to pick up your head to interact with your environment. Our group focuses on making a difference for children who face these challenges every day. We will be working on two interrelated projects: 1) testing the effectiveness of “Targeted Training for Trunk Control” and 2) working with Biomedical Engineering students on “Customized Support Devices in Electric Cars for Children with Disabilities”. Students may also be helping refine materials for ongoing professional education regarding a segmental approach to trunk control. Participants will be children with neurologic deficits who are non-ambulatory and 1-6 years of age. These projects are hands on. Participation in data collections could occur as early as September 2017.

**PROJECT 7**

FACULTY: Saavedra + Snowdon

PROGRAM: PT

TITLE: Development of Sensory Function and Postural Control in Infants with Sensorineural Hearing

SUMMARY: At this time, there are limited data for development of postural control and sensory function of babies diagnosed with sensorineural hearing loss. This study will provide new knowledge regarding the developmental trajectory of sensory function, gross motor function and postural control of infants with hearing loss. We will be working on two concurrent data sets. 1) A cross sectional data set of 30 children (infants and toddlers 1 month-30 months of age). 2) A longitudinal data set (6 infants followed 1x per month for 6 months). Students could begin participating in data collections as early as September 2017.

**PROJECT 8**

FACULTY: Winger

PROGRAM: P&O

TITLE: The Hartford Hand Project

SUMMARY: The HH Project is now entering it’s 4<sup>th</sup> year. Each year we work as a team to identify a relevant, high-impact problem related to upper-limb prosthetics. Past projects have included: building out a customizable finger-and-hand assembly, testing user preferences for hand design, and identifying optimal Degrees of Freedom. Next year’s project can extend on previous works, or capitalize on the strengths and interests of our new team members.

**PROJECT A**

FACULTY: Lee+ Winger

PROGRAM: P&O

TITLE: Barriers to Adoption following Prosthesis Delivery

SUMMARY: The process of successfully adopting a prosthetic limb can be an arduous and frustrating process for some. Many interventions have attempted to simplify the process, however little research has been done into the reasons why individuals have difficulty during the adoption process. This study will elucidate upon those reasons, and will involve hands on work with data sources and individuals with lower limb amputations.

NAME \_\_\_\_\_

Circle Program            PT            P&O

Top Choice \_\_\_\_\_

Second Choice \_\_\_\_\_

Third Choice \_\_\_\_\_

Do not place \_\_\_\_\_