

## **Objective**

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Seeking a Post-Doctoral Research Fellow position at the Rehabilitation Engineering Research Center on Recreational Technologies at University of Alabama-Birmingham completing research that utilizes my clinical and bioengineering skills to maximize the participation and quality of life for individuals with disabilities.

## **Education**

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Jun 2015 – Present **University of Pittsburgh**  
Pittsburgh, PA  
*Doctor of Physical Therapy (DPT) - PhD in Bioengineering Dual Program*

- 3.91/4.00 GPA (3.90/4.00 in DPT, 3.97/4.00 in PhD)
- DPT earned Apr 2018; PhD expected in summer 2021
- PhD in Biomechanics Track, Biodynamics/Rehabilitation and Human Movement Sub-Track
- Research interests include: prediction of ambulation after spinal cord injury, wearable devices, pain and mobility, wheelchair transfers, upper limb recovery after stroke

Aug 2011 – May 2015 **University of Rochester**  
Rochester, NY  
*Bachelor of Science in Biomedical Engineering, Minor in Psychology as a Social Science*

- 3.54/4.00 GPA; Dean's list 6/8 semesters; Graduated with high distinction
- Concentration in biomechanics

## **Research Experience**

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Jun 2016 – Present **Rehab Neural Engineering and Human Engineering**  
**Research Laboratories**  
Pittsburgh, PA  
*Graduate Student Researcher/ Postdoctoral Scholar (Advisor: Michael Boninger, MD)*

- Writes Matlab programs and Graphical User Interfaces to analyze biomechanics from motion capture and force plates, ultrasound images, electromyography (EMG), limb accelerations, and large databases
- Writes Python programs to complete machine learning analyses
- Recruits participants, completes appropriate documentation and storage of data, and assists in writing and modifying Internal Review Board (IRB) documents
- Assists in the design and implementation of research protocols for several studies
- Leads or assists in writing several external fellowships and grants (NIH, Department of Defense, VA)
- Presents research quarterly to lab; participates in weekly lab meetings and monthly ethics and professional development seminars
- Collaborates with researchers at the University of Maryland, University of Washington, and other Spinal Cord Injury Model Systems
- **Dissertation Project:** Determine the association between limb accelerations and impairment and use limb accelerations and psychosocial, personal, and environmental factors to predict long-term ambulatory ability after acute spinal cord injury

May – Aug 2014 **Orthopaedic Robotics Laboratory**  
Pittsburgh, PA  
*Undergraduate Student Researcher (Advisors: Richard Debski, PhD and John Fowler, MD)*

- Performed biomechanical analyses of internal fixation methods for the distal interphalangeal joint
- Performed primary mechanical testing, analysis, and writing for posters and publications

Feb – Aug 2013 **Orthopedic Biomechanics Research Group**  
Rochester, NY  
*Undergraduate Research Assistant (Advisor: Amy Lerner, PhD)*

- Assisted in gait data collection using Vicon motion capture cameras and force plates
- Wrote Matlab programs to automate the analysis of gait and MRI data used to make finite element models

## **Physical Therapy Clinical Experience**

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### *Licensed Physical Therapist Employment:*

- Sep 2018 - Present      **UPMC Rehabilitation Institute, Centers for Rehab Services**      Pittsburgh, PA
- Part-time/casual position throughout four inpatient rehabilitation units and acute care, with the most clinical time spent in the spinal cord injury inpatient rehabilitation unit

### *Clinical Internships:*

- May – Dec 2017      **Veterans Affairs (Acute Care and Outpatient)**      Pittsburgh, PA
- Full-time, three-month rotation in inpatient acute care treating a variety of units and patients, including the critical care, medical, and surgical intensive care units
  - Full-time, five-month rotation in outpatient treating orthopedic, neurological, and vestibular impairments
    - Organized and led a monthly support group for Veterans with Parkinson's Disease
- Jan – Aug 2016      **UPMC Rehabilitation Institute Inpatient Rehabilitation Units**      Pittsburgh, PA
- Full-time, five-week rotation on the stroke unit primarily treating patients with stroke and brain injury
  - Part-time, four-month rotation through spinal cord injury, traumatic brain injury, stroke, and general units
- Sep – Dec 2015      **UPMC Centers for Rehab Services**      Canonsburg, PA
- Outpatient setting for part-time clinical rotation seeing orthopedic patients

## **Teaching Experience**

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- Jun – Jul 2018, Jan – Apr 2019      **University of Pittsburgh**      Pittsburgh, PA  
*Graduate Teaching Assistant*
- Summer 2018: Assisted with the Clinical Biomechanics course in the Department of Physical Therapy by writing quiz questions, leading a class to practice biomechanics problems, and answering student questions
  - Spring 2019: Assisted with Biomechanics I: Mechanical Principles Applied to Biological Systems by creating homework problems and solutions, grading homework and laboratory assignments, leading recitations, and holding office hours
- Aug 2012 – May 2015      **University of Rochester**      Rochester, NY  
*Teaching Assistant and Tutor*
- Assisted professors in the Biomedical Engineering department with their courses by leading laboratories, grading laboratory and homework assignments, holding office hours, workshops, study groups, and review sessions, answering additional student questions, and attending weekly meetings
  - *Teaching Assistant courses:* Introduction to Biomedical Engineering, Fundamentals of Biomechanics, Biosystems and Circuits, Biomedical Statistics and Computation
  - *Courses tutored:* Introduction to Biomedical Engineering and Physics: Mechanics

## **Honors and Awards**

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- Richard Eisenberg Engineering Award (May 2015)
- Dean's Scholarship (Aug 2011-May 2015)
- BME Faculty Award for Undergraduate Service (Apr 2015)
- Alpha Eta Mu Beta, National Biomedical Engineering Honor Society Inductee (Apr 2015)
- Psi Chi, International Honor Society in Psychology Inductee (Mar 2015)
- Placed second as a member of the University of Rochester team in the Coulter College Translational Engineering Design Competition in Coral Gables, FL (Aug 2014)



## **Peer-Reviewed Journal Publications**

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### *In Press or Published:*

1. **Rigot SK**, Boninger ML, Ding D, McKernan G, Field-Fote EC, Hoffman JM, Hibbs R, Worobey LA. Towards Improving the Prediction of Functional Ambulation after Spinal Cord Injury Through the Inclusion of Limb Accelerations During Sleep and Personal Factors. *Archives of Physical Medicine and Rehabilitation*. In Press.
2. Greenhalgh M, **Rigot SK**, Eckstein S, Joseph J, Cooper R, Cooper R. A Consumer Assessment from Women Who Use Wheelchairs. *Journal of Military, Veteran, and Family Health*. In Press.
3. Worobey LA, Hibbs R, **Rigot SK**, Boninger ML, Huzinec R, Sung JH, Rice L. Intra- and Inter-Rater Reliability of Remote Assessment Using the Transfer Assessment Instrument (version 4.0). *Archives of Physical Medicine and Rehabilitation*. <https://doi.org/10.1016/j.apmr.2020.12.032>.
4. Worobey LA, **Rigot SK**, Boninger ML, Huzinec R, Sung JH, DiGiovine K, Rice LA. Concurrent Validity and Reliability of the Transfer Assessment Instrument Questionnaire (TAI-Q) as a Self-Assessment Measure. *Archives of Rehabilitation Research and Clinical Translation*. 2020:100088. <https://doi.org/10.1016/j.arct.2020.100088>.
5. Bossuyt FM, Arnet U, Cools A, **Rigot SK**, de Vries W, et al. Compensation Strategies in Response to Fatiguing Propulsion in Wheelchair Users: Implications for Shoulder Injury Risk. *American Journal of Physical Medicine and Rehabilitation*. 2020;99(2):91-98. <https://doi.org/10.1097/phm.0000000000001267>.
6. Worobey LA, Zigler CK, Huzinec R, **Rigot SK**, Sung J, Rice LA. Reliability and Validity of the Revised Transfer Assessment Instrument. *Topics in Spinal Cord Injury Rehabilitation*. 2018;24(3):217-226. <https://doi.org/10.1310/sci2403-217>.
7. **Rigot SK**, Worobey L, Boninger ML. Gait Training in Acute Spinal Cord Injury Rehabilitation-Utilization and Outcomes Among Nonambulatory Individuals: Findings From the SCIRehab Project. *Archives of Physical Medicine and Rehabilitation*. 2018;99(8):1591-1598. <https://doi.org/10.1016/j.apmr.2018.01.031>.
8. Worobey LA, **Rigot SK**, Hogaboom NS, Venus C, Boninger ML. Investigating the Efficacy of Web-Based Transfer Training on Independent Wheelchair Transfers Through Randomized Controlled Trials. *Archives of Physical Medicine and Rehabilitation*. 2018;99(1):9-16 e10. <https://doi.org/10.1016/j.apmr.2017.06.025>.
  - **Nominated for the 2019 Sidney and Elizabeth Licht award for excellence in scientific writing by the American Congress of Rehabilitation Medicine**
9. **Rigot SK**, Diaz-Garcia R, Debski RE, Fowler J. Biomechanical Analysis of Internal Fixation Methods for Distal Interphalangeal Joint Arthrodesis. *Hand*. 2016;11(2):221-226. <https://doi.org/10.1177/1558944715627211>.

### *In Review:*

10. **Rigot SK**, Worobey LA, Boninger ML, Robinson-Whelen S, Roach MJ, Heinemann AW, McKernan G. Changes in Internet Use Over Time Among Individuals with Traumatic Spinal Cord Injury. *Archives of Physical Medicine and Rehabilitation*. In Review.
11. **Rigot SK**, DiGiovine KM, Boninger ML, Hibbs R, Smith I, Worobey LA. Effectiveness of A Web-Based Direct-to-User Transfer Training Program: A Randomized Controlled Trial. *Archives of Physical Medicine and Rehabilitation*. In Review.

## **Textbook Publications**

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1. Worobey L, **Rigot SK**, Boninger M. Wheelchairs. In: Frontera WR, DeLisa JA, Gans BM, Robinson LR, Bockeneck W, Chase J, eds. *DeLisa's Physical Medicine & Rehabilitation: Principles and Practice*. 6th ed. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins Health; 2019.

### **Invited Presentations**

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1. **Rigot SK.** *Will I Walk Again? The Prognosis of Ambulation after Spinal Cord Injury.* Mary Free Bed Rehabilitation Hospital 2020 Spinal Cord Injury Symposium; Oct, 2020; Virtual.
2. **Rigot SK.** *Prognosis of Ambulatory Ability after Spinal Cord Injury.* Webinar for: Academy of Spinal Cord Injury Professionals; Nov 2019.
3. **Rigot SK.** *Prognosis of Ambulatory Ability after Spinal Cord Injury.* Physical Therapy Grand Rounds; Dec, 2018; Pittsburgh, PA.

### **Selected Conference Presentations**

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1. **Rigot SK,** Boninger ML, Worobey LA. *Changes in Internet Use Over Time Among Individuals with Traumatic Spinal Cord Injury.* Poster Presented at: 16<sup>th</sup> Annual Rehabilitation Institute Research Day 2020; Oct, 2020; Virtual.
2. **Rigot SK.** *Changes in Internet Use Over Time Among Individuals with Traumatic Spinal Cord Injury.* Platform Presented at: 2020 Academy of Spinal Cord Injury Professionals Educational Conference and Expo; Sep, 2020; Virtual.
3. **Rigot SK,** Hibbs R, Worobey LA. *Web-Based Transfer Training: Evidence and Resources for Clinicians and Wheelchair Users.* Platform Presented at: American Physical Therapy Association Combined Sections Meeting 2020; Feb, 2020; Denver, CO.
4. **Rigot SK,** Boninger ML, Hibbs R, Ding D, Worobey LA. *Relationship Between Lower Limb Movement and Ambulation After SCI.* Conference Paper Published and Platform Presented at: 35th International Seating Symposium; Mar, 2019; Pittsburgh, PA.
  - Affiliated paper also published in conference proceedings.
5. **Rigot SK,** Boninger ML, Hibbs R, Ding D, Worobey LA. *Preliminary Analysis Relating Lower Limb Movement to Ambulation in Chronic Spinal Cord Injury.* Poster Presented at: Translational Science 2019; Mar, 2019; Washington, DC. Poster also presented at:
  - Young Investigator Poster Contest in National VA Research Week; May, 2019; Pittsburgh, PA.
  - 15<sup>th</sup> Annual Rehabilitation Institute Research Day 2019; May, 2019; Pittsburgh, PA.
6. **Rigot SK,** Boninger ML, Hibbs R, Ding D, Worobey LA. *The Use of Wearable Accelerometers to Improve the Measurement of Impairment and Predict Mobility.* Poster Presented at: SCI 2020: Launching a Decade for Disruption in Spinal Cord Injury Research; Feb, 2019; Bethesda, MD.
7. Worobey LA, Rice L, Huzinec R, **Rigot SK.** *Independent Transfers: Assessment, Training and Implications of Technique.* Educational Session Presented at: 2018 Academy of Spinal Cord Injury Professionals Conference and Expo; Sep. 2018; New Orleans, LA.
8. **Rigot SK,** Worobey LA, Kenawell A, Boninger ML. *Gait Training in Acute Spinal Cord Injury Rehabilitation - Utilization and Outcomes Among Non-Ambulatory Individuals: Findings from the SCIRehab Project.* Poster Presented at: 14th Annual Rehabilitation Institute Research Day; Jun, 2018; Pittsburgh, PA.
9. **Rigot SK,** Worobey LA, Tsai C-Y, Boninger ML, Koontz A. *Biomechanical Effects of Transfer Training on Wheelchair to Toilet Transfers.* Poster Presented at: 33rd International Seating Symposium; Mar, 2017; Nashville, TN.
  - Affiliated paper also published in conference proceedings.
10. **Rigot SK,** Diaz-Garcia R, Debski RE, Fowler J. *Biomechanical Analysis of Internal Fixation Methods for Distal Interphalangeal Joint Arthrodesis.* Poster Presented at: Orthopaedic Research Society Conference; Mar, 2015; Las Vegas, NV.
11. **Rigot SK,** Diaz-Garcia R, Debski RE, Fowler J. *Biomechanical Analysis of Internal Fixation Methods for Distal Interphalangeal Joint Arthrodesis.* Poster Presented at: Biomedical Engineering Society Annual Meeting; Oct, 2014; San Antonio, TX.