

Baylor College of Medicine

Location: 6701 Fannin Street, Suite 1280, Houston, TX 77030

<https://www.bcm.edu/departments/physical-medicine-and-rehabilitation>

RREMS Mentors: Sruthi Thomas MD, PhD- Assistant Professor; Michele Seymour MD, PhD- Assistant Professor

Research Areas:

Dr. Thomas and Dr. Seymour have active research projects across the field of pediatric rehabilitation medicine. Topic areas include neurosurgical tone management, paroxysmal sympathetic hyperactivity (PSH), Rett syndrome, assessment of receptive language in those with expressive language difficulties, and inpatient rehabilitation outcomes. Dr. Thomas is PI on a clinical trial investigating the effects of intrathecal baclofen, rhizotomy, and deep brain stimulation on dystonia in cerebral palsy (CP). She is also establishing a prospective observational study of PSH. Dr. Seymour is validating a new tool to assess receptive language in those with motoric impairment that would impede expressive communication. Dr. Seymour is also working with our inpatient rehabilitation unit director to assess outcomes for various conditions, including CP and brain injury. Both mentors would work with a RREMS student to craft a project in one of these topic areas that could be completed in 8 weeks. The goal would be poster or oral presentation as well as an eventual publication.

Additional Info: Dr. Thomas is a graduate of the RMSTP program and Dr. Seymour is in the applicant track of RMSTP. Texas Children's has one of the country's largest pediatric rehabilitation departments and also has some of the largest cohorts of patients for cerebral palsy and pediatric brain injury in the country. Our partnered departments (neurology, neurosurgery, orthopedics) are all ranked in the top 10 according to USNWR. Texas Children's has 2 fellowship positions for pediatric rehabilitation.

Columbia University Medical Center

Location: 180 Fort Washington, Suite 1-199, New York, NY 10032

<https://www.columbiadoctors.org/specialties/rehabilitation-regenerative-medicine>

RREMS Mentor: Scott Barbuto, MD, Assistant Professor

Research Areas:

- Eyeblink conditioning in spinocerebellar ataxia. Determination as potential biomarker of disease progression.
- Friedreich's ataxia and exercise- determine improvements of aerobic exercise + omaveloxlone in FRDA.

Corewell Health

Location: Corewell Hospital Taylor – PMR, 10000 Telegraph Rd., Taylor, MI 48180

<https://corewellhealth.org/graduate-medical-education/southeast-michigan/residencies/taylor/physical-medicine-and-rehabilitation>

RREMS Mentor: P. Tyler Roskos, PhD, Director of Research, Director of Neuropsychology Services, Associate Clinical Professor, Physical Medicine and Rehabilitation

Research Areas: We conduct clinical research studies in several areas relevant to PM&R, including:

1. Factors affecting outcomes from inpatient rehab for TBI, stroke, and orthopedic injuries
2. Intervention approaches for rehab conditions and co-morbidities
3. Cognitive and behavioral correlates of outcomes in TBI and stroke
4. Pharmacotherapies used in a rehab setting/rehab indications
5. Social determinants of health that are related to rehab care

Additional Info: The faculty in our department mentor residents and other medical students on research projects and are also active in training graduate students from Wayne State in clinical and research settings.

Johns Hopkins University School of Medicine

Location: 600 N. Wolfe Street, Phipps 198, Baltimore, MD 21287

<https://www.hopkinsmedicine.org/physical-medicine-rehabilitation>

RREMS Mentors:

- Preeti Raghavan, MD, Professor of Physical Medicine and Rehabilitation
- Ryan Roemmich, PhD, Associate Professor of Physical Medicine and Rehabilitation
- Stephen Wegener, MA, PhD, Professor of Physical Medicine and Rehabilitation
- Stacy Suskauer, MD, Professor of Physical Medicine and Rehabilitation
- Jan Stenum, PhD, Assistant Professor of Physical Medicine and Rehabilitation

Research Areas:

- Artificial intelligence in rehabilitation
- Pediatric concussion
- Rehabilitation psychology
- Neurorehabilitation
- Stroke recovery
- Gait and motor assessment
- Three-dimensional motion capture

Mass General Brigham/Spaulding Rehabilitation

Location: 300 First Ave, Charlestown, MA 02129

<https://spauldingrehab.org/>

RREMS Mentors:

- Daniel H. Daneshvar, MD, PhD; Associate Professor of PM&R
- Shanti Pinto, MD, MSCS; Assistant Professor of PM&R

Research Areas:

- HealthSpan and recovery following injury
- Cardiovascular Health or Autonomic Nervous System Dysfunction after Traumatic Brain Injury

Ohio State University

Location: 480 Medica Center Drive, Columbus OH 43210

<https://medicine.osu.edu/departments/physical-medicine-rehabilitation>

RREMS Mentors:

- Ceren Yazar-Fisher, PhD, Associate Professor, Vice Chair of Research
- Jennifer Bogner, PhD, Professor, Director of OSU TBI Model System
- Lise Worthen-Chaudhari, PhD, Assistant Professor
- Cynthia Beaulieu, PhD, Associate Professor

Research Areas: The Department of Physical Medicine and Rehabilitation at The Ohio State University offers a diverse range of research opportunities ideal for a summer externship. Faculty are engaged in cutting-edge investigations into neurorehabilitation, musculoskeletal disorders, spasticity management, and brain injury and spina cord injury recovery. Ongoing projects integrate clinical trials, functional outcome assessments, and rehabilitation technologies such as neuromodulation, cognitive behavioral therapy, nutrition, and dance. These efforts align with RREMS goals by offering hands-on exposure to translational research that directly impacts patient care in rehabilitation medicine.

Penn State Health

Location: 500 University Drive, Hershey, PA 17033

<https://www.pennstatehealth.org/locations/penn-state-health-physical-medicine-rehabilitation>

RREMS Mentors:

- Prateek Grover, MD PhD MHA, Associate Professor of PM&R, Penn State College of Medicine
- Anne Martin, Associate Professor of Mechanical Engineering, Penn State University
- Thiru Annaswamy, MD, Professor and Chair, Penn State University

Research Areas:

TITLE: Exoskeletons for Inpatient SCI Rehabilitation - Core Implementation elements

BRIEF DESCRIPTION: This is a mixed-methods pilot study to understand adoption, utilization, and protocol refinement that includes interviews, biomechanical analysis, and outcomes data analysis

LEARNER OPPORTUNITIES: qualitative methods, lower limb biomechanics, EHR based data utilization, manuscript writing

Other projects:

- Translation to practice Mr. MAPP (Mixed Reality System for Managing Phantom Pain): Usability assessment of updated system.
- Clinical validation of VIRTEPEX (Virtual remote telephysical examination system).
- Systematic review of clinical severity classification of lumbar spinal stenosis.

Shirley Ryan AbilityLab/ Northwestern University

Location: 355 E. Erie St, Chicago, IL 60611

<https://www.sralab.org/>

RREMS Mentors:

Multiple mentorship opportunities available based on clinical or research interest area.

Research Areas: Visit the Research web page for information on current projects and mentors, <https://www.sralab.org/research>.

University of Michigan

Location: University of Michigan Dept. of PM&R, 325 E Eisenhower Pkwy, Ann Arbor, MI 48108

<https://medschool.umich.edu/departments/physical-medicine-rehabilitation>

RREMS Mentors:

- James T. Eckner, MD MS, Associate Professor
- Jonathan Lifshitz, PhD, Professor
- Katharine Seagly, PhD, Associate Professor
- Jane Huggins, PhD, Associate Professor
- Edward A. Hurvitz, MD, Professor
- Mark Peterson, PhD, Professor
- Daniel Whibley, PhD, Assistant Professor
- Nitin B. Jain, MD MSPH, Professor
- Ravi Prakash, PhD, Assistant Professor
- Chan Gao, MD, PhD, Associate Professor

Research Areas:

Concussion (Eckner/Lifshitz/Seagly): In collaboration with the Michigan Concussion Center, there are opportunities for students to participate in a number of research projects addressing concussion prevention, assessment, management, and outcomes. Projects may involve systematic literature reviews, collection and/or analysis of clinical data, bench research lab activities, and/or results dissemination. There may be additional opportunities to participate in clinical shadowing, baseline concussion testing in athletes, and other tasks/events.

Brain-Computer Interface (Huggins): There are opportunities for students to participate in two research projects

relating to brain-computer interfaces (BCIs): one project involving data analysis and manuscript preparation for a survey of BCI researchers regarding how research participants are described and what factors are considered relevant to BCI effectiveness and another project involving preparation of materials for a simplified BCI calibration method and pilot testing of the method with people with advanced ALS or with congenital disabilities.

Adults with Lifespan Disability (Hurvitz, Peterson, Whibley): In collaboration with the Adults with Lifespan Disability Group, there are opportunities for students to participate in a number of ongoing research projects, as well as potential new ones, evaluating a number of outcomes in adults with pediatric-onset disabilities (e.g., sleep, pain, renal disease, cardiovascular health, grip strength, fractures, and mental health).

Musculoskeletal Sports Medicine (Jain, Prakash): Under mentorship from a team of investigators with expertise in sports medicine, physiatry, genetics, statistics, and data analytics, there are opportunities for students to participate in research projects addressing various aspects of musculoskeletal medicine/shoulder pain (including epidemiology, genetics, clinical trials, and public policy).

Spinal Cord Injury (Gao): There are opportunities for students to participate in research that aims to elucidate the pathological osteogenic mechanisms of spinal cord injury-induced heterotopic ossification using a novel in vitro co-culture of macrophages and muscle/tendon-derived stem cells. The intern will gain experience in cell culture, in situ staining, and protein blotting, contributing data toward a peer-reviewed publication.

Additional Info: Most students will work with a team of clinicians and researchers rather than a single mentor. Opportunities for clinical observation are also available.

University of Minnesota

Location: 420 Delaware St SE, MMC 297, Minneapolis, MN 55455

<https://med.umn.edu/rehabmedicine>

Research Mentor: Kimberley Monden, PhD, Associate Professor

Research Areas: Psychological care for SCI, outcome based rehab, MN SCI model systems

University of Missouri

Location: 1030 Hitt Street, Columbia, MO 65202

<https://medicine.missouri.edu/departments/physical-medicine-and-rehabilitation>

<https://www.n-mlabs.com>

RREMS Mentor:

W. David Arnold, MD, Executive Director, NextGen Precision Health, Professor Department of PM&R, University of Missouri

Research Areas: Translational neuromuscular physiology in the context of health, aging, and disease

University of Pennsylvania, Perelman School of Medicine

Location: 1800 Lombard St, 1st Fl, Dept. of PM&R, Philadelphia, PA 19146

<https://www.pennmedicine.org/departments-and-centers/physical-medicine-and-rehabilitation>

RREMS Mentors:

- Timothy Dillingham, MD, MS
- Roy Hamilton, MD
- Michelle Johnson, PhD
- Liliana Pezzin, PhD, JD
- Kelly Sloane, MD
- Randel Swanson, DO, PhD
- Quinn Tate, MD
- Flavia Vitale, PhD
- Kimberly Waddell, PhD, MSCI, OTR/L
- Yejia Zhang, MD, PhD

Research Areas: We have a variety of research opportunities given the diverse research of our research faculty. More information can be found on our PI website:

University of Pittsburgh

Location: 3471 5th Avenue, Suite 910, Pittsburgh, PA 15213

<https://www.rehabmedicine.pitt.edu/medical-students>

RREMS Mentors: Please see website for details. Multiple PIs are available. Please also see https://www.rehabmedicine.pitt.edu/sites/default/files/2025-09/PIT_Med_Student_brochure_25_L1.pdf

Research Areas: Please see website for details. Multiple projects are available. Please also see https://www.rehabmedicine.pitt.edu/sites/default/files/2025-09/PIT_Med_Student_brochure_25_L1.pdf

University of Southern California

Location: 1540 Alcazar St, Los Angeles, California 90033

<https://pt.usc.edu>

RREMS Mentors:

Kristan Leech, PhD, DPT, PT, Assistant Professor

Research Areas: The student will have the opportunity to participate in an NIH-funded project that seeks to understand the association between apathy and restricted mobility post-stroke. Their primary effort will be focused on the community mobility of adults with chronic stroke, specifically collecting and analyzing real-world community mobility data using a step activity monitor, GPS, and a subjective measure. In addition to the

student's project, they will gain exposure to other methods of rehabilitation research, including cognitive testing, metabolic data collection, effort-based decision-making tasks, qualitative interviews, and MRI data collection.

Additional Info: The student will gain experience with data collection and processing procedures, study organization and data management, basic data analysis, and preparation of findings for dissemination. They will receive mentorship from clinical scientists and have the opportunity to work with participants with chronic stroke.

University of Texas Health Science Center Houston, McGovern Medical School

Location: 1133 John Freemand Blvd., Suite J1L 285A, Houston, TX 77030

<https://med.uth.edu/pmr/>

RREMS Mentors:

- Argyrios Stampas, MD, MS - Professor, principal investigator, physiatrist
- Claire Shackleton, PhD - Postdoctoral Fellow

Research Areas: This short-term project would allow a medical student to contribute to the Opioid and SCI Outcomes study by focusing on early clinical factors associated with opioid administration within the first 24 hours after spinal cord injury (SCI). Using existing trauma registry and EMR data, the student will perform a descriptive and exploratory analysis examining how patient, injury, and treatment characteristics influence opioid dose category (low/medium/high).

This sub-analysis will strengthen the overall parent study by characterizing real-world prescribing patterns and potential clinical decision-making factors related to opioid use in acute SCI.

Additional Info: UTHealth Houston and TIRR Memorial Hermann offer a rich, collaborative research environment within one of the nation's leading rehabilitation hospitals. Students will have the opportunity to work alongside clinician-scientists and postdoctoral fellows in the Department of Physical Medicine & Rehabilitation, engaging in ongoing projects focused on spinal cord injury recovery, pain and autonomic dysfunction, and neuromodulation therapies.

Students will gain hands-on experience in data collection, REDCap database management, and basic statistical analysis, while also learning about study design, patient engagement, and scientific dissemination. The site fosters individualized mentorship and encourages students to develop and present an abstract for the AAP Annual Meeting.