Division Details

Division Data Summary

Research and Training Details

<table>
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<tr>
<td>Number of Faculty</td>
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<td>Number of Research Students</td>
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<td>Number of Support Personnel</td>
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<td>Direct Annual Grant Support</td>
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<td>Peer Reviewed Publications</td>
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Clinical Activities and Training

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<tr>
<td>Number of Clinical Staff</td>
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<tr>
<td>Number of Clinical Fellows</td>
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<tr>
<td>Inpatient Encounters</td>
<td>2,765</td>
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<tr>
<td>Outpatient Encounters</td>
<td>4,291</td>
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Significant Accomplishments

Shari Wade, PhD, and Brad Kurowski, MD, MS, with Lynne Babcock-Cimpello, MD, Division of Emergency Medicine, obtained Place Outcomes and Ohio Emergency Medical Services grants to develop and test a web-based intervention to facilitate recovery after mild traumatic brain injury (TBI).

Self-Monitoring, Activity restriction and Relaxation Training (SMART) will be the first trial of an interactive psycho-educational program for youth with concussions. Kurowski, in collaboration with Michael Gittelman, MD, Division of Emergency Medicine, obtained an Ohio Emergency Medical Services grant to evaluate the impact of educating athletes on concussion prevention. Additionally, Kurowski collaborated with Catherine Quatman-Yates, PT, DPT, PhD, Division of Sports Medicine, to obtain a University of Cincinnati Research Council grant to evaluate the utility of balance testing in the evaluation of concussion.

Wade collaborated with Lindsay Riegler, speech pathologist at the Cincinnati Veterans Administration (VA) Medical Center, to obtain a VA-sponsored cultural transformation grant to adapt Wade’s web-based treatments for traumatic brain injury (TBI) for veterans. Wade has been writing grant proposals with psychologists in the United Kingdom and New Zealand to obtain funding to adapt and test her interventions for pediatric TBI with populations in those countries. These collaborations provide a rich foundation for future interdisciplinary grant proposals and publications.

Brad Kurowski is working with the Comprehensive Children’s Injury Center (CCIC) to improve the care of
children after TBI. The CCIC nominated Kurowski to direct the development of an outpatient Head Injury Clinic. Together, they have mobilized clinical and research efforts among the divisions of Sports Medicine, Physical Medicine and Rehabilitation, Neurology, Emergency Medicine, Trauma Surgery, Neurosurgery and Behavioral Medicine to improve care of children with TBIs. We have tripled our outpatient visits over the last three years, with more than 1200 visits occurring this past year. This collaboration has led to innovative interdisciplinary research work. Through collaboration with Drs. Michael Gittelman, Wendy Pomerantz, Lynn Babcock and Rich Falcone, Kurowski has successfully obtained several Ohio Department of Public Safety grants.

Our community outreach work has also developed significantly. The rapidly increasing clinical capacity, continued development of innovative interdisciplinary research projects and expansion of community outreach services for TBI will put Cincinnati Children's in an ideal position to transform the care of children after TBIs.

Division Publications

13. Rivara FP, Ennis SK, Mangione-Smith R, MacKenzie EJ, Jaffe KM. Quality of care indicators for the


Faculty, Staff, and Trainees

Faculty Members

Linda Michaud, MD, MEd, Professor
  Leadership Division Director; Aaron W. Perlman Professor; Co-Director, Cincinnati Children's Brachial Plexus Center
  Research Interests Outcomes and effectiveness of interventions after pediatric neurotrauma - birth brachial plexus palsy, brain injury.

Douglas Kinnett, MD, Associate Professor
  Leadership Director, Spasticity Management Program; Clinical Director, Cerebral Palsy Center
  Research Interests Outcomes and effectiveness of interventions for spasticity in cerebral palsy, use of electrodiagnosis in management in birth brachial plexus palsy.

Brad Kurowski, MD, MS, Instructor
  Research Interests Genetic influence on cognitive and behavioral recovery after mild pediatric traumatic brain injury.

Mary McMahon, MD, Associate Professor
  Leadership Director, Residency Training Program, UC Dept. of PM&R; Director, Medical Student Education, UC Dept. of PM&R
  Research Interests Outcomes and effectiveness of interventions in muscular dystrophy.

David Pruitt, MD, Assistant Professor
  Leadership Director, A4Rehab; Director, Pediatric Rehabilitation Medicine Fellowship
  Research Interests Functional outcomes in children with brain tumors.

Jilda Vargus-Adams, MD, MSc, Assistant Professor
  Leadership Research Director, Cerebral Palsy Center
  Research Interests Outcome measurement and effectiveness of interventions for cerebral palsy.

Shari Wade, PhD, Professor
Leadership

Director of Research

Research Interests Outcomes and effectiveness of interventions after pediatric traumatic brain injury.

Clinical Staff Members

- Lainie Holman, MD

Trainees

- Marisa Osorio, DO, PGY-6, University of Cincinnati
- Paola Mendoza, MD, PGY-5, East Carolina University
- Ashlee Brown, MD, PGY-3, University of Missouri Columbia
- Erin Swanson, MD, PGY-2, Medical College of Wisconsin
- Nathan Evanson, MD, PhD, PGY-2, University of Cincinnati
- Andrea Paulson, MD, PGY-1, University of Minnesota Medical School, Minneapolis

Division Collaboration

Orthopaedics; Orthopaedics; Orthopaedics; Plastic Surgery; Plastic Surgery; Physical Medicine and Rehabilitation

Charles Mehlman, DO, Roger Cornwall, MD, Kevin Little, MD, Kevin Yakuboff, MD, Ann Schwentker, MD, and Linda Michaud, MD


Orthopaedics; Physical Medicine and Rehabilitation

Charles Mehlman, DO and Linda Michaud, MD

Limb Reconstruction Clinic: A multi-disciplinary clinic which deals with the treatment of complications after injury and the correction of limb deformity including limb lengthening.

Emergency Medicine; Emergency Medicine; Behavioral Medicine and Psychology; Sports Medicine; Neurology; Pediatric General and Thoracic Surgery; Physical Medicine and Rehabilitation

Michael Gittelman, MD, Wendy Pomerantz, MD, Abigail Johnson, PhD, Teri McCambridge, MD, Todd Arthur, MD, Richard Falcone, MD, and Brad Kurowski, MD

Comprehensive Children’s Injury Center (CCIC) Head Injury Subcommittee: This multidisciplinary committee focused on improving the care of children with traumatic brain injuries with focus on developing a multi-disciplinary head injury clinic.

Sports Medicine; Sports Medicine; Physical Medicine and Rehabilitation

Catherine Quatman-Yates, PhD, Jason Hugentobler, MD, and Brad Kurowski, MD

Sponsor: University of Cincinnati, University Research Council (URC) Postdoctoral Fellow Research Program Grant

Title: The utility of the Balance Error Scoring System (BESS) for post-concussion evaluation in children and adolescents

Objective: To determine the utility of BESS for the evaluation of concussions in the pediatric population.

Human Genetics; Physical Medicine and Rehabilitation; Physical Medicine and Rehabilitation

Lisa Martin, PhD, Shari Wade, PhD, and Brad Kurowski, MD
**Sponsor:** NIH/NICHD/NCMRR/AAP

**Title:** Genetic Influence on Cognitive and Behavioral Recovery after Pediatric Traumatic Brain Injury

**Objective:** The goal of this project is to evaluate the association of catecholamine related polymorphisms with cognitive and behavioral recovery after pediatric traumatic brain injury. This is part of the Rehabilitation Medicine Scientist Training Program (RMSTP) K-12 grant.

**Human Genetics; Physical Medicine and Rehabilitation; Physical Medicine and Rehabilitation** » Lisa Martin, PhD, Shari Wade, PhD, and Brad Kurowski, MD

**Sponsor:** Ohio Department of Public Safety Grant

**Title:** Long-term Executive, Behavioral, and Psychosocial Functioning After Adolescent Traumatic Brain Injury: Importance of Environment, Genetics, and a Behavioral Intervention

**Objective:** Evaluate the role of and interaction among genetic and various environmental factors in long-term recovery after adolescent traumatic brain injury.

**Pediatric General and Thoracic Surgery; Physical Medicine and Rehabilitation** » Richard Falcone, MD and Brad Kurowski, MD

**Sponsor:** Ohio Department of Public Safety Grant

**Title:** Traumatic Brain Injury Symptom Screening and Resolution Prediction

**Objective:** Characterize the duration of symptoms after mild traumatic brain injury and factors that predict the trajectory of recovery.

**Hematology/Oncology; Hematology/Oncology; Physical Medicine and Rehabilitation** » John Perentesis, MD, Maryam Fouladi, MD, and David Pruitt, MD

**Neuro-Oncology Clinic:** A multi-disciplinary program providing comprehensive treatment for children with neurological tumors.

**Oncology; Physical Medicine and Rehabilitation** » Rajaram Nagarajan, MD and David Pruitt, MD

**Oncology Clinic:** A multidisciplinary program providing comprehensive treatment for children with sarcomas, leukemia and lymphoma.

**Neurology; Physical Medicine and Rehabilitation** » Marielle Kabbouche, MD and Jilda Vargus-Adams, MD

**Stroke Clinic:** A multi-disciplinary program that provides comprehensive treatment for children with stroke.

**Neurology; Neurology; Physical Medicine and Rehabilitation** » Donald Gilbert, MD, Steve Wu, MD, and Jilda Vargus-Adams, MD

Research into combined occupational therapy and transcranial magnetic stimulation for hemiparetic cerebral palsy.

**Rheumatology; Rheumatology; Physical Medicine and Rehabilitation** » Esi Morgan-Dewitt, MD, Susmita Kashikar-Zuk, MD, and Jilda Vargus-Adams, MD

A U01 grant evaluating a patient reported outcome measure for use in pediatric pain, rheumatology, and rehabilitation research.

**Orthopaedics; Physical Medicine and Rehabilitation** » James McCarthy, MD and Jilda Vargus-Adams, MD

**Orthopaedic Surgery/PM&R CP Clinic:** A multi-disciplinary clinic that provides evaluation and treatment planning for children with cerebral palsy.

**Neurology; Physical Medicine and Rehabilitation** » Brenda Wong, MD and Mary McMahon, MD
Comprehensive Neuromuscular Center: A multi-disciplinary clinic providing comprehensive treatment for children with neuromuscular disorders.

Developmental and Behavioral Pediatrics; Physical Medicine and Rehabilitation » Sonya Oppenheimer, MD and Mary McMahon, MD

Myelomeningocele Clinic: A multi-disciplinary clinic which deals with the treatment of children with myelomeningocele.

Orthopaedics; Physical Medicine and Rehabilitation » Alvin Crawford, MD and Douglas Kinnett, MD

Spine Center: A multi-disciplinary program that provides comprehensive treatment for children with congenital and acquired abnormalities of the spine.

Behavioral Medicine and Psychology; Physical Medicine and Rehabilitation » Nicolay Chertkoff Walz, PhD and Shari Wade, PhD

Dr. Walz has received mentoring from Dr. Wade and is currently co-investigator on Dr. Wade's competing continuation project examining long-term functional outcomes of early childhood TBI and her Rehabilitation Research and Training Grant for Pediatric TBI Interventions.

Neuroimaging Research Consortium; Neuroimaging Research Consortium; Physical Medicine and Rehabilitation » Weihong Yuan, PhD, Scott Holland, PhD, and Shari Wade, PhD

Completing analyses and write up of grants from the Ohio Emergency Medical Services and the UC Interdisciplinary Research Grants.

Emergency Medicine; Emergency Medicine; Emergency Medicine; Physical Medicine and Rehabilitation » Lynn Babcock, MD, Michael Gittleman, MD, Wendy Pomerantz, MD, and Shari Wade, PhD

Dr. Wade is primary mentor for Dr. Babcock's KL2 award investigating predictors of recovery from mild TBI.

Emergency Medicine; Emergency Medicine; Pediatric General and Thoracic Surgery; Physical Medicine and Rehabilitation » Michael Gittleman, MD, Wendy Pomerantz, MD, Richard Falcone, MD, and Shari Wade, PhD

Dr. Wade is part of the steering committee for the Cincinnati Children's Comprehensive Injury Center.

Bioinformatics; Physical Medicine and Rehabilitation » Keith Marsolo, PhD and Shari Wade, PhD

Dr. Marsolo is a collaborating investigator on the 5-year RRTC grant for pediatric TBI interventions.

International Adoption Center/Division of Infectious Diseases; Physical Medicine and Rehabilitation » Mary Allen Staat, MD and Shari Wade, PhD

Drs. Staat and Wade are completing the write-up of several previously completed projects including one funded by an Interdisciplinary Research grant from UC.

Grants, Contracts, and Industry Agreements

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<td>Genetic Influence on Cognitive and Behavioral Recovery After Mild Pediatric Traumatic Brain Injury</td>
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<td>K12 HD 001097</td>
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<td>Long-term Executive, Behavioral, and Psychosocial Functioning After Adolescent Traumatic Brain Injury: Importance of Environment, Genetics, and a Behavioral Intervention</td>
<td>Ohio Department of Public Safety</td>
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VARGUS-ADAMS, J
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<td>WADE, S: Effects of Cognitive Training on Attention and Neural Processing Following Pediatric TBI</td>
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**Current Year Direct** | **$1,647,792**

**Total** | **$1,647,792**