Division Data Summary

Research and Training Details

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<td>Number of Faculty</td>
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Clinical Activities and Training

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Significant Publications

Division Highlights

**James J. McCarthy, MD, FAAP**

While FY11 brought significant progress toward the development of the CCHMC Cerebral Palsy interdisciplinary programs, Dr. McCarthy also began laying the foundation for the formal development of a Limb Lengthening and Reconstruction Program here at Cincinnati Children's. In addition to presenting several significant talks on the subject this year, Dr. McCarthy serves as President and Program Chair of the Limb Lengthening and Reconstruction Society (LLRS) and plans to bring their international annual conference to Cincinnati in FY2012.

**Donita Bylski-Austrow, PhD Alvin H. Crawford, MD, FACS Eric Wall, MD**

Pediatric spinal deformity research in biomechanics and mechanobiology was advanced by graduate students in Mechanical Engineering, and undergraduate students in Biology, as mentored by Orthopaedic faculty. Funding for students was provided by the University of Cincinnati's Institutional Clinical and Translational Science Award (NIH/NCRR 5UL1RR026314-03), and the UC College of Medicine's National Institute of Occupational Safety and Health Training Fellowship (NIOSH-T42). Other sources of student support were provided by UC Graduate Student Undergraduate Mentoring Program, along with the University of Cincinnati Orthopaedic Research and Education Foundation.

**Alvin H. Crawford, MD, FACS**

Alvin Crawford, MD, FACS, recognized expert in the treatment of Neurofibromatosis (NF) in children continued to expand our understanding of this complex condition. In addition to being a collaborating investigator with Dr. David Polly of the University of Minnesota, on a U.S. Department of Defense funded study on genetic links to neurofibromatosis and scoliosis, Dr. Crawford with Betty Shorry, MD of CHMC Genetics Neurofibromatosis Clinic presented an update on directions for clinical trials on spinal deformities of Neurofibromatosis to the Children's Tumor Foundation (formerly, the National Neurofibromatosis Foundation).
Dr. Crawford's presentations continue to bring international attention to the CCHMC Neurofibromatosis Clinic and this year he was honored as the M. Natarajan eponymous lecturer on Neurofibromatosis in Children at the IAOCON National Meeting in Jaipur, India, and as Visiting Professor and Surgeon at the University of Pierre and Marie Curie Hospital Armand Trosseau, Paris, France.

Faculty Members

**James McCarthy, MD**, Professor  
*Director, Pediatric Orthopaedic Surgery*

**Research Interests**

**Steven Agabegi, MD**, Assistant Professor  
*Assistant Professor*

**Research Interests** Scoliosis natural history

**Donita Bylski-Austrow, PhD**, Associate Professor  
*Director of Biomechanics Research*

**Research Interests** Spine Biomechanics

**Roger Cornwall, MD**, Assistant Professor  
*Clinical Director*  
*Co-Director, The Hand and Upper Extremity Center*

**Research Interests** Hand and Upper Extremity

**Alvin Crawford, MD**, Professor  
*Co-Director, Spine Center and Fellowship Program*

**Research Interests** Scoliosis and Neurofibromatosis

**Chitra Dahia, PhD**, Instructor  
**Research Interests**

**Mohab Foad, MD**, Associate Professor  
*Co-Director, The Hand and Upper Extremity Center*

**Research Interests**

**Viral Jain, MD**, Assistant Professor  
*Assistant Professor*

**Research Interests** Scoliosis

**Kevin Little, MD**, Assistant Professor  
*Assistant Professor*

**Research Interests** Hand and Upper Extremity

**Charles Mehman, DO, MPH**, Associate Professor  
*Director, Musculoskeletal Outcomes Research, Pediatric Orthopaedic Resident Education, Brachial Plexus and Co-Director of the Limb Reconstruction Center*

**Research Interests** Spine Bracing and Evidence-Based Medicine

**Shital Parikh, MD**, Assistant Professor  
*Assistant Professor*

**Research Interests** Sports Medicine

**Joel Sorger, MD**, Assistant Professor  
*Assistant Professor*

**Research Interests** Musculoskeletal Oncology

**Peter Sturm, MD**, Professor  
*Co-Director, The Crawford Spine Center*  
*Director, Spine Fellowship Program*

**Research Interests**

**Junichi Tamai, MD**, Assistant Professor
Director, Physician Assistant Program

Research Interests

Process Improvement

Eric Wall, MD, Professor

Director, Orthopaedic Research Program
Director, Sports Medicine Program
Director, Pediatric Orthopaedic Fellowship Program

Research Interests

Clinical Staff Members

- Lance Bolin, PA-C, Lead Physician Assistant
- Michael Hood, PA-C
- Hillary McClung, PA-C
- Hilliary McCourt, PA-C
- Sarah Ogle, PA-C
- Mary Pam Pfiester, PA-C
- Stephanie Pinkstock, PA-C
- Adriana Reinersman, PA-C

Trainees

- Rob Altenau, MD, PGY2, Bethesda North Family Practice, Cincinnati, OH
- Sudhir Belagaje, MD, PGY4, University of Cincinnati, Cincinnati, OH
- Jeff Biehn, DO, PGY4, Millcreek Community Hospital, Erie, PA
- Joe Blythe, DO, PGY3, Henry Ford Hospital Systems, Warren, MI
- Brian Camilleri, DO, PGY1, Grandview Medical Center, Dayton, OH
- Charles Chan, MD, Fellow, University of Santo Tomas, Espana, Manila, Republic of the Philippines
- Lauren Cruse, MD, PGY2, Bethesda North Family Practice, Cincinnati, OH
- Azad Dadgar, DO, PGY4, Peninsula Hospital Center, Far Rockaway, NY
- Jimmy Dang, DO, PGY4, Oklahoma State University, Tulsa, OK
- Brad Dunkin, MD, PGY4, University of Cincinnati, Cincinnati, OH
- Todd Galdes, DO, PGY3, Henry Ford Hospital Systems, Warren, MI
- James Heltlsley, DO, PGY1, Grandview Medical Center, Dayton, OH
- Maram Khabbaz, MD, PGY3, Bethesda North Family Practice, Cincinnati, OH
- Carissa Kirk, DO, PGY4, Peninsula Hospital Center, Far Rockaway, NY
- Megan Kramerer, MD, PGY2, Bethesda North Family Practice, Cincinnati, OH
- Sarat Kunapuli, DO, PGY4, Ingham Regional Medical Center, Lansing, MI
- Kevin Little, MD, Fellow, University of Cincinnati, Cincinnati, OH
- Hongbo Liu, MD, Fellow, Peking Union Medical College Hospital, Beijing, China
- John Mangelson, MD, PGY2, University of Cincinnati, Cincinnati, OH
- Megan May, MD, Fellow, Northwestern University Feinberg School of Medicine, Chicago, IL
- Farzad Mazloomi, MD, PGY2, Bethesda North Family Practice, Cincinnati, OH
- Adam Metzler, MD, PGY4, University of Cincinnati, Cincinnati, OH
- David Myer, MD, PGY2, University of Cincinnati, Cincinnati, OH
- Nicole Nemeth, MD, PGY4, University of Cincinnati, Cincinnati, OH
- Ryan Pettit, MD, PGY2, Bethesda North Family Practice, Cincinnati, OH
- Paul Pipitone, DO, PGY4, Peninsula Hospital Center, Far Rockaway, NY
- Chris Pomeroy, MD, PGY2, University of Cincinnati, Cincinnati, OH
- Michael Priola, DO, Fellow, Riverside County Regional Med Center, Moreno Valley, CA
- Abhishek Ray, MBBS, MS, Fellow, Jipmer, Pondicherry, India and MGM Medical College & MYH, Indore/Madya Pradesh, India
Significant Accomplishments

**New Centers for Cerebral Palsy, Spine Treatment**

The Division of Pediatric Orthopaedic Surgery celebrated the successful recruitment of our division director and professor of pediatric orthopaedic surgery, James McCarthy, MD, from the University of Wisconsin School of Medicine and Rehabilitation in Madison. McCarthy was awarded the Alvin H. Crawford Chair in Pediatric Orthopaedics and has made significant progress toward development of the Cerebral Palsy Center, in collaboration with Jilda Vargus-Adams, MD, and the Division of Physical Medicine and Rehabilitation. Our much anticipated, state-of-the-art motion analysis laboratory will significantly improve the impact we can make in the study of and treatment for those struggling with the challenges of cerebral palsy and other conditions that can affect musculoskeletal function.

Orthopaedics was also strengthened by the addition of Peter Sturm, MD, who joined us from the Shriners Hospital for Children in Chicago, to direct the Alvin H. Crawford Spine Center at Cincinnati Children’s. Sturm, professor of pediatric orthopaedic surgery, was awarded the Alvin H. Crawford Chair of Spine Surgery and along with codirector Alvin Crawford, MD, is developing a global center of basic science and clinical investigation directed at improving outcomes for those impacted by a wide variety of conditions affecting the spine.

**Clinical Trial of HemiBridge Spine Clip**

The division of Pediatric Orthopaedic Surgery was excited to conclude negotiations and execute a clinical trial agreement with SpineForm, LLC, in addition to receiving IRB approval, thereby authorizing Cincinnati Children’s to begin patient enrollment in the FDA-approved study of the HemiBridge Spine Clip. The clip, developed by Eric Wall, MD, and our orthopaedic biomechanics research team, is the first vertebral stapling device to receive an investigational device exemption (IDE) from the US Food and Drug Administration. The study will utilize a minimally invasive, nonfusion surgical technique and the HemiBridge Clip to redirect spine growth, which could potentially revolutionize the treatment of scoliosis.

**Orthopaedic Surgery Efforts Recognized**

The Division of Pediatric Orthopaedic Surgery continues to lead the field in podium and poster presentations at annual meetings of the Pediatric Orthopedic Society of North America (POSNA) and the American Academy of Orthopaedic Surgeons (AAOS), and for the second consecutive year, the division was ranked among the top five pediatric orthopaedic programs in the country by *U.S. News & World Report* magazine.

**Division Publications**

2. Agabegi SS, Iorio TE, Wilson JD, Fischgrund JS. Juvenile xanthogranuloma in an adult lumbar spine: a


42. Roach JW, Mehlan CT, Sanders JO. "Does the outcome of adolescent idiopathic scoliosis surgery justify the rising cost of the procedures?". *J Pediatr Orthop.* 2011; 31:S77-80.

43. Serhan H, Hammerberg K, O'Neil M, Sturm P, Mardjetko S, Crawford A. Intraoperative techniques to reduce the potential of set-screw loosening in long spinal constructs: a static and fatigue


Grants, Contracts, and Industry Agreements

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