Division Details

Division Data Summary

<table>
<thead>
<tr>
<th>Research and Training Details</th>
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<tbody>
<tr>
<td>Number of Faculty</td>
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<td>Number of Joint Appointment Faculty</td>
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<tr>
<td>Number of Research Fellows</td>
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<tr>
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<tr>
<td>Peer Reviewed Publications</td>
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<th>Clinical Activities and Training</th>
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Significant Accomplishments

During the past year, the surgical epilepsy program, led by Francesco Mangano, DO, has grown and published peer reviewed articles on improved pre-surgical evaluations and outcomes. Additional research, funded by the National Institute of Neurological Disorders and Stroke, focuses on advanced MR imaging in the field of hydrocephalus, for which Mangano and Weihong Yuan, PhD, Division of Radiology, are co-investigators.

Charles Stevenson, MD, leads our brain tumor program, which offers state-of-the-art surgical and medical treatment as well as several innovative clinical trials. The multi-disciplinary neuro-oncology program at Cincinnati Children’s was selected as a member institution of the Pediatric Brain Tumor Consortium, a national research organization committed to the rapid development of novel therapies for children with brain tumors. Stevenson and colleagues in the Fetal Care Program also continue to perform *in utero* repair of myelomeningocele defects, with good success rates. Multiple fetal myelomeningocele repairs have been performed at Cincinnati Children’s, making it one of the few children’s hospitals in the country capable of offering this advanced surgical treatment to families.

Karin Bierbrauer, MD, is continuing to collaborate with other institutions to further our understanding of complex injuries and diseases that affect children in unique ways. Bierbrauer was co-principal investigator for the national, multi-site, NIH-sponsored Cool Kids trial to determine whether cooling body temperature after severe head injury would improve outcomes. She is now the site principal investigator for a national registry to study children with Chiari malformations and syringomyelia, an accumulation of fluid in the spinal cord. Bierbrauer continues research in the area of the tethered spinal cord, and has published and presented at national Neurosurgery.
meetings. Her recently published paper looks at the outcomes, benefits and risks of the surgery most often performed for this condition.

Ellen Air, MD, has teamed up with the palliative care team to offer additional options for the treatment of chronic cancer pain. Air is also leading the way to understand cortical spreading depressions in childhood trauma. Cortical spreading depressions are waves of low frequency electrical activity that can occur in the brain after injury, and have been shown in adults to correlate with poor outcome. Understanding this phenomenon is key to targeting therapies to improve outcome following traumatic brain injury in children.

Kenneth Campbell, PhD, Division of Developmental Biology, has recently joined us as the Robert and Sarah McLaurin Chair of Pediatric Neurosurgery Research. Campbell’s work focuses on the molecular genetic mechanisms that control normal brain development and thus has relevance to congenital birth defects in the CNS. His role will be to help foster basic and translational research in the division as well as to provide research opportunities for neurosurgical residents and fellows. Recruitment of basic scientists to collaborate and synergize with the clinical faculty is currently underway to achieve this goal.

Division Publications


Faculty, Staff, and Trainees

Faculty Members
Kerry R. Crone, MD, Professor
Karin S. Bierbrauer, MD, Associate Professor
Francesco T. Mangano, DO, Associate Professor

Leadership
Charles Stevenson, MD, Acting Director Pediatric Neurosurgery

Joint Appointment Faculty Members
Ellen Air, MD, Assistant Professor (Neurosurgery )
Kennth Campbell, PhD, Professor (Developmental Biology and Neurosurgery)

Clinical Staff Members
- Diane Baudendistel, MSN, RN, CFNP
- Brian Crowley, MSN, RN, CFNP
- Grace Deyo, MSN, RN, CPNP
- Cristina Carone, PA-C, MSPA
- Lynn Olberding, MSN, RN, CPNP
- Michelle Haimowitz, MSN, RN, CPNP
- Candace Sturm, MSN, RN, CPNP

Trainees
- Artur Szmczak, MD, Fellow, 2011, University of Western Ontario,Canada PGY6
- Scott Phillips, MD, Resident, 2011, Henry Ford Hospital PGY6
- Victor Chang, MD, Resident, 2011, Henry Ford Hospital PGY6
- Abbas Bahari, MD, Resident, 2012, Henry Ford Hospital PGY6
- Carlos Casas, MD, Resident, 2012, Henry Ford Hospital PGY6
- Sanjay Patra, MD, Resident, 2012, Henry Ford Hospital PGY6
- Cyrus King, MD, Resident, 2012, University of Cincinnati, PGY5
- Mark Magner, MD, Resident, 2011, University of Cincinnati, PGY5
- Ben Bixenmann, MD Resident, 2011, University Of Cincinnati PGY5
- Katie Myers, MD Resident, 2012, University of Cincinnati PGY1
- Yair Gozel, MD Resident, 2012, University of Cincinnati PGY1
- Steven Gogela, MD Resident, 2012, University of Cincinnati PGY1

Grants, Contracts, and Industry Agreements

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<td>Longitudinal DTI Study in Children Treated for Congenital Hydrocephalus</td>
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