



**First row:** K. Bierbrauer, K. Crone; **Second row:** F. Mangano, T. Maugans

### Division Data Summary

#### Research and Training Details

Number of Faculty	4
Direct Annual Grant Support	\$55,000
Peer Reviewed Publications	4

#### Clinical Activities and Training

Number of Clinical Fellows	1
Outpatient Encounters	2,203

## Faculty Members

**Kerry R. Crone, MD**, Professor ; *Director of Clinical Affairs and Graduate Education in Pediatric Neurosurgery; Director, Pediatric Neurosurgery*

**Karin S. Bierbrauer, MD**, Associate Professor

**Francesco T. Mangano, DO**, Assistant Professor

**Todd Maugans, MD**, Assistant Professor Clinical

## Trainees

- **Lynn Serrano, MD**, 2007, Philadelphia College of Osteopathic Medicine

## Significant Accomplishments in FY08

### Surgical Epilepsy Program

The Surgical Epilepsy Program was implemented in 2008. This is a comprehensive initiative between Neurosurgery, Neurology, Nursing and Hospital Leadership. Under the direction of Dr. Tracy Glauser, Dr. Ki Lee, and Dr. Francesco Mangano, the Epilepsy Surgical Program is focused on improving the outcomes for Epilepsy surgery.

## Hydrocephalus Research

Dr. Francesco Mangano and Dr. Wei Hong are working collaborative on the study of Hydrocephalus in the animal model. They are working on submitting a NIH application for this research.

## Chiarii Malformation Research

Dr. Kerry Crone has a focus in the area of Chiarii Malformation. The plan is to create a foundation for patients. The goal is to meet the demand and to generate public awareness, attract and develop both professional and volunteer resources while raising funds necessary to accelerate our programs and achieve goals.

## Division Highlights

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### Dr. Karin Bierbrauer

Dr. Karin Bierbrauer is involved in the "Cool Kids" Project which involves the study of brain trauma and the effects of hypothermia on the injury. Dr. Bierbrauer is working collaboratively with the University of Pittsburgh and Dr. Hector Wong, Critical Care Medicine on this project.

### Dr. Kerry Crone

Dr. Crone has earned an international reputation for excellence in pediatric neurosurgery and is recognized as a world leader in the development of endoscopic neurosurgery. His special interests include endoscopic management of complex hydrocephalus, SMART surgery for resection of brain tumors, surgical management of Chiarii Malformation, and cranial reconstructive surgery for craniosynostosis.

### Dr. Francesco Mangano

Dr. Mangano will be working collaboratively with Dr. Glauser on improving outcomes for Epilepsy Surgery. Dr. Mangano was a clinical fellow in pediatric neurosurgery at the St. Louis Children's Hospital in St. Louis, MO. He is a member of the American College of Osteopathic Surgeons, Neurological Surgery Section, and the Ohio Osteopathic Association. His special interests include complex spinal surgery, epilepsy surgery, cerebrovascular surgery, craniofacial surgery, neuro-oncology, and neuroendoscopy.

### Dr. Todd Maugans

Dr. Maugans is focused on improving outcomes on SpinaBifida patients. He has an interest in craniofacial surgery and spinaBifida.

## Division Collaboration

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### Collaboration with Neurology

#### Collaborating Faculty: Dr. Tracy Glauser

The division collaborates with Neurology in the Surgical Epilepsy Program.

## Division Publications

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1. Levine NB, Miller MN, Crone KR. [Endoscopic resection of colloid cysts: indications, technique, and results during a 13-year period](#). *Minim Invasive Neurosurg*. 2007; 50: 313-7.
2. Neely JC, 2nd, Jones BV, Crone KR. [Spontaneous extracranial decompression of epidural hematoma](#). *Pediatr Radiol*. 2008; 38: 316-8.
3. Yuan W, Holland SK, Jones BV, Crone K, Mangano FT. [Characterization of abnormal diffusion properties of supratentorial brain tumors: a preliminary diffusion tensor imaging study](#). *J Neurosurg Pediatrics*. 2008; 1: 263-9.
4. Madera M, Crawford A, Mangano FT. [Management of severe cervical kyphosis in a patient with Larsen syndrome. Case report](#). *J Neurosurg Pediatrics*. 2008; 1: 320-4.

## Grants, Contracts, and Industry Agreements

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### Grant and Contract Awards

### Annual Direct / Project Period Direct

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Bierbrauer, K

**Cool Kids Trial**

National Institutes of Health (University of Pittsburgh)

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<b>Current Year Direct</b>	<b>\$55,000</b>
	<b>Total \$55,000</b>

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