

## Advance Neuroscience Program

### Neuro-Oncology



All kids really want to do is be kids. They want to play, and learn and laugh. Here at Cook Children's, that's what we want too. That's why we've grown to become one of the largest pediatric neuro-oncology programs in the Southwest. A neuro cancer diagnosis can be the start of a scary journey. Our neuro-oncology team is here to help each child we treat overcome as many obstacles as possible, and to make a difference every step along the way.

Our distinguished neuro-oncology team is highly regarded for their active role in national and international clinical research trials and relentless pursuit of seeking cures. When you place your child in our care, you know that he or she is in the capable hands of some of the finest neuro-oncology specialists in the country, if not the world. These men and women are dedicated experts in the care and treatment of tumors in the brain, brainstem, optic tract and spine, as well as neurofibromatosis, vascular malformations, dermoid lesions and more.

You can learn more about the accomplishments, advancements and successes that the Cook Children's Neuro-Oncology team has achieved, and how they are helping children now, and in the future in our Neuro-Oncology Program annual report.

#### Cancers of the central nervous system

Cancers of the central nervous system (CNS) are the most frequent type of solid tumors in children and rank second only to the leukemias as the most common malignant cancers in children. They account for approximately 20 percent of all pediatric cancers, with 2,500-3,000 children diagnosed in the U.S. each year. As for the vast majority of childhood cancers, the cause of CNS tumors is not known. Despite progress in successful therapy for all types of childhood cancers in the past decades, they remain the leading cause of cancer death in children, teens and young adults.

#### Conditions we treat

We treat a variety of tumors, malignant and nonmalignant, vascular conditions and lesions found throughout the CNS, many of which are extremely complex. Some of the conditions we treat include, but are not limited to:

- Brain tumors, including astrocytomas and other low-grade gliomas
- Brainstem tumors
- Craniopharyngioma
- Ependymoma
- Germinoma
- High-grade glioma
- Medulloblastoma
- Neurofibromatosis
- Oligodendroglioma
- Optic tract tumors
- Plexiform neurofibromas
- Spinal cord tumors

#### Our approach

At Cook Children's, the optimal treatments for CNS neoplasms are developed by an integrated team of specialists as part of a comprehensive neuro-oncology program. Along with access to leading-edge clinical trials, the team uses the best-available neurosurgical and radiotherapeutic techniques and equipment, as well as proper chemotherapy regimens.

#### Center of attention

You can trust that your child will be surrounded by the best specialists available, all working together to ensure one thing: that your child has the best outcomes possible. Your child's neuro-oncologist, neurologist, neurosurgeons, radiation oncologist, endocrinologist, hematology and oncology specialists and experienced neuro-oncology nurse are there every step of the way, from diagnosis to treatment, and beyond.

As an important member of your child's care, you'll meet with the team on a regular basis to discuss progress, concerns and address any questions you or your child may have.



Cook Children's former patient, Austin Roberts, is extremely grateful for the care she received through Cook Children's Neuro-Oncology program.

Because cancer and cancer treatment can impact your child's mental and physical capabilities, and your family's financial and emotional well-being, the team will most likely include one or more of the following:

- Audiology
- Child Life specialist
- Clinical therapists
- Life After Cancer Program specialist
- Neuropsychology
- Neurorehabilitation
- Nursing
- Pastoral Care
- Physical, speech and occupational therapists
- Social Services
- Transitional care

#### Our Neuro-Oncology team

Our Neuro-Oncology team treats children with cancer or tumors of the central nervous system and spine.



#### Jeffrey C. Murray, MD Medical Director, Neuro-Oncology

Education: Baylor College of Medicine, Houston  
Residency: Texas Children's Hospital  
Fellowship: Texas Children's Hospital  
Board Certification: Pediatrics and Pediatric Hematology/Oncology  
Languages: English



#### David Donahue, MD Neurosurgery

Education: University of Tennessee College of Medicine, Memphis, Tennessee  
Residency: Baptist Memorial Hospital, Memphis, TN - General Surgery;  
University of Tennessee - Neurosurgery; Children's Memorial Hospital, Chicago - Pediatrics  
Fellowship: Pediatric Neurosurgery - University of Tennessee; Semmes-Murphey Clinic, St. Jude Children's; Research Hospital and LeBonheur Children's Hospital  
Board Certification: Pediatric Neurosurgery and Neurosurgery  
Languages: English



#### John Honeycutt, MD Medical Director, Neurosurgery; Medical Director, Neuro-Trauma; Co-director of the Jane and John Justin Neurosciences Center at Cook Children's

Education: University of Arkansas Medical Center  
Residency: University of Oklahoma  
Fellowship: University of Tennessee  
Languages: English



#### Richard Roberts, MD Neurosurgery

Education: Louisiana State University Medical School  
Residency: Children's Hospital, New Orleans, LA (Pediatric Neurosurgery)  
Fellowship: Children's Hospital of Philadelphia  
Languages: English



#### Jeffery McGlothlin, MD Neurology

Education: University of Texas Southwestern Medical Center at Dallas  
Residency: Baylor College of Medicine, Houston  
Fellowship: Baylor College of Medicine, Houston  
Board Certification: Pediatrics and Neurology with special qualifications in Child Neurology  
Languages: English



#### Joel W. Steelman, MD Endocrinology

Education: Texas A&M Health Science Center, College Station TX  
Residency: Keesler USAF Medical Center, Biloxi, MS  
Fellowship: University of Colorado Health Science Center, Denver, CO  
Board Certification: General Pediatrics, Pediatric Endocrinology  
Languages: English



#### Beth Colaluca, Ph.D. Neuropsychologist

#### Researching for answers

Advances in diagnosing and treating children and young people with brain, spine and nervous system tumors are happening at what feels like warp speed. As a result newer neurosurgical technologies, radiation therapy approaches, chemotherapy strategies and the interaction of these amazing breakthroughs are leading to better and better outcomes for children, teens and young adults--and ultimately, their families. Within research, there is now an exploding understanding of childhood brain tumors at the molecular level that will soon translate to even more novel management approaches for some key neoplasms.

Here at Cook Children's, our neuro-oncology specialists have earned their place at the forefront of amazing breakthroughs. We are actively involved in national and international research programs and clinical trials and our scientific submissions and conference presentations have earned the respect of our peers and organizations around the globe.

Cook Children's Neuro-Oncology Program is currently participating in several clinical, biology and epidemiology trials in partnership with a number of renowned research organizations, including the Children's Oncology Group (COG) and Texas-Oklahoma Pediatric Neuro-Oncology Consortium (TOPNOC).

#### Clinical trials:

Efficacy of Carboplatin Administered Concomitantly with Radiation and Isoretinoin as a Pro-Apoptotic Agent in Other Than Average Risk Medulloblastoma/PNET ACNS0332	Jeffrey C. Murray M.D.
Patient Care Evaluation Study of Institutional Brain Tumors	Jeffrey C. Murray M.D.
A Phase III Randomized Trial for the Treatment of Newly Diagnosed Supratentorial PNET and High Risk Medulloblastoma in Children <36 months old with Intensive Induction Chemotherapy with Methotrexate Followed by Consolidation with Stem Cell Rescue vs. the Same Therapy without Methotrexate ACNS0334	Jeffrey C. Murray M.D.
TOPNOC 001-08: A Phase 2 Study of Valproic Acid and Radiation, followed by Maintenance Valproic Acid and Bevacizumab in Children with Newly Diagnosed High-Grade Gliomas or Brainstem Gliomas	Jeffrey C. Murray M.D.
Treatment of Atypical Teratoid/Rhabdoid Tumors (AT/RT) of the Central Nervous System with Surgery, Intensive Chemotherapy, and 3-D Conformal Radiation ACNS0333	Jeffrey C. Murray M.D.
Phase III Randomized Trial of Post-Radiation Chemotherapy in Patients with Newly Diagnosed Ependymoma Ages 1 to 21 Years ACNS0831	Jeffrey C. Murray M.D.
H6650, Texas Children's Cancer Center and Hematology Service Tissue Bank	Jeffrey C. Murray M.D.
Temozolomide with Irinotecan versus Temozolomide, Irinotecan plus Bevacizumab (NSC# 704865, BB-IND# 7921) for Recurrent/Refractory Medulloblastoma/CNS PNET of Childhood, A COG Randomized Phase II Screening Trial	Jeffrey C. Murray M.D.
A Randomized Phase II/III Study of Vorinostat (IND# 71976) and Local Irradiation OR Temozolomide and Local Irradiation OR Bevacizumab (IND# 7921) and Local Irradiation Followed by Maintenance Bevacizumab and Temozolomide in Children with Newly Diagnosed High-Grade Gliomas	Jeffrey C. Murray M.D.
A Study Evaluating Limited Target Volume Boost Irradiation and Reduced Dose Craniostereotaxic Radiotherapy (18.00Gy) and Chemotherapy in Children with Newly Diagnosed Standard Risk Medulloblastoma: A Phase III Double Randomized Trial ACNS0331	Jeffrey C. Murray M.D.
A COG Protocol for Collecting and Banking Pediatric Brain Tumor Research Specimens-COG ACNS02B3	Jeffrey C. Murray M.D.