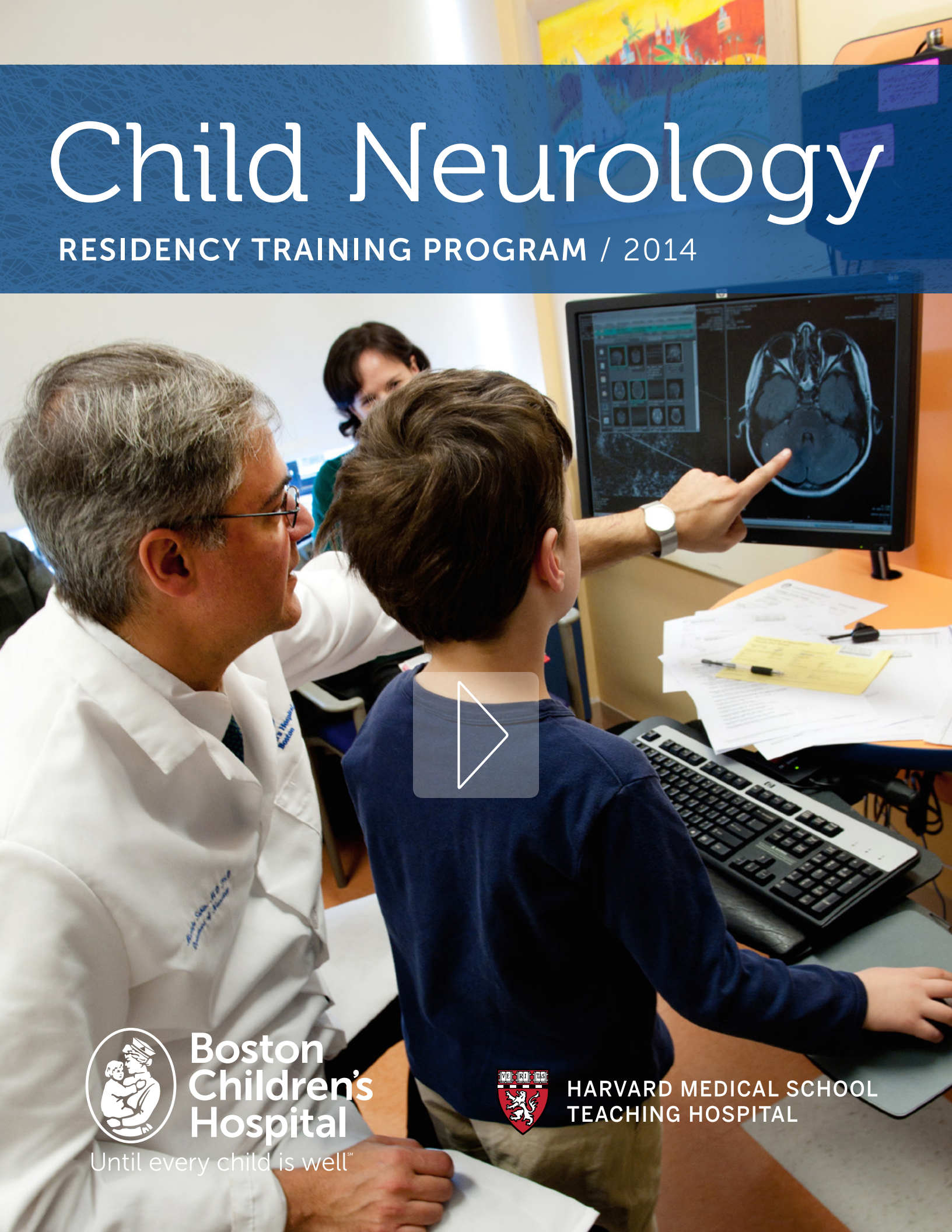
Child Neurology

RESIDENCY TRAINING PROGRAM / 2014



Boston Children's Hospital

Until every child is well℠

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

2014 CHILD NEUROLOGY RESIDENCY TRAINING PROGRAM

Welcome

Are you ready to be a future leader in child neurology? If so, all of us at the Child Neurology Residency Training Program at Boston Children's Hospital look forward to meeting you.

As the pediatric teaching hospital of Harvard Medical School, Boston Children's is committed to providing the very best clinical training in child neurology. Preparing physicians for fulfilling careers is part of our core training mission. We offer an unparalleled breadth and depth of exposure to subspecialties in child neurology, one of the world's most diverse patient populations, and unique opportunities to engage in basic, clinical and translational neuroscience.

Since its founding in 1967, the Program has grown to five residents per year and has become one of the most desired residency programs in child neurology in the United States.

Throughout this brochure, you will hear from current residents and recent graduates of the Program. We choose our residents carefully—not just on the basis of their academic credentials, but also on their human qualities. Many of our graduates report that it was the *people* who made their three years in training most worthwhile.

Please don't hesitate to reach out to either one of us if you have any questions about the Program.

Yours sincerely,

Scott Pomeroy, MD, PhD
Neurologist-in-Chief
scott.pomeroy@childrens.harvard.edu
617-355-6386

David K. Urion, MD
Residency Program Director
david.urion@childrens.harvard.edu
617-355-2711

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OVERVIEW

Breadth. Depth. Variety. Collaboration. Mentorship. Opportunity. These are a few words we hear again and again from our current and former Child Neurology residents. Each year five new residents come to Boston Children's Hospital to become the child neurologists of tomorrow.

The Child Neurology Residency Program

The three-year Child Neurology residency program at Boston Children's Hospital provides broad, rigorous medical training across an unusually varied spectrum of patients and subspecialties, applying the latest technology and digital innovations.

All residents receive strong mentorship and career planning advice, so our graduates are well-positioned to receive NIH funding and other grants and publish their work in high-impact journals.

The Department of Neurology currently accepts five new residents into its training program each year. Please check out our How to Apply section for full details on this year's application process.

Why train at Boston Children's Hospital?

- close relationships with clinical leadership
- broad and deep subspecialty training
- large, diverse patient population
- one-on-one consult rotations in intensive care units
- international rotations
- outstanding research opportunities (basic, translational, clinical)
- cutting-edge research facilities
- digital tools—personal tablet devices and a shared wiki
- interpersonal skills practice with trained actors
- collegial, family-friendly training environment

"The people I worked with were humble and gracious despite being some of the biggest names in their fields. This is a program where hard work is rewarded in spades, where opportunities to see and do are everywhere around you. It's definitely a place where any type of person can find their niche and flourish."

— **Jeff Waugh, MD, PhD,** 2012 graduate, currently a clinical fellow in neurology, Massachusetts General Hospital

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CURRICULUM

The Child Neurology curriculum is designed to hone residents' skills in a variety of settings—from the ICU to our many subspecialty clinics. Expect to see a diverse mix of cases, while learning to navigate difficult conversations. Research, travel and teaching opportunities abound.

Rotations

Rotations expose child neurology residents to all aspects of adult and child neurology. Residents work closely, sometimes one-on-one, with attending physicians while pursuing abundant research opportunities in both clinical and basic neuroscience.

Electives, chosen in the second and third year of training, allow residents to delve deeply into subspecialties of interest, caring for diverse populations of patients. During all rotations (except international rotations), residents continue to see patients in our weekly outpatient clinics.

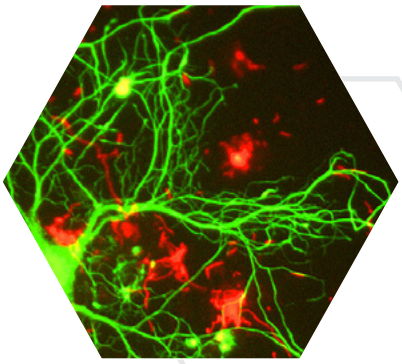
Adult Neurology Rotations

YEARS 1 & 2

To satisfy board certification requirements, each child neurology resident at Boston Children's spends 12 months on adult neurology rotations at our affiliated hospitals.

YEAR 1 Residents spend approximately nine months at the Partners Program (Massachusetts General Hospital and Brigham and Women's Hospital) and the Harvard Neurology Program (Beth Israel Deaconess Medical Center) training in the inpatient ward, Neurosurgery and adult ICU.

YEAR 2 Adult neurology training concludes on the neurology consult service in the Harvard Neurology Program.



Child Neurology Rotations

YEARS 1, 2 & 3

Child neurology clinical training is carried out entirely at Boston Children's with a breadth of inpatient and outpatient training experiences and electives in a wide variety of subspecialties.

EEG/EPILEPSY ROTATION (YEAR 1) Residents spend one month on the inpatient Epilepsy Service, gaining exposure to long-term EEG monitoring, EEG reading, epilepsy surgical planning and surgeries and sophisticated neuroimaging techniques such as SPECT and MEG scans.

INPATIENT CHILD NEUROLOGY ROTATION (YEARS 1 AND 3) In the third year, the child neurology resident acts as the chief resident of our large, active inpatient Neurology Service, working with adult neurology residents and pediatric residents assigned to neurology inpatient, epilepsy and consult rotations.

CONSULT ROTATION (YEAR 2) The consult service interfaces with almost all other services in the hospital. The second-year resident is responsible for all non-ICU neurology consults, one of the most visible and influential jobs in the Department of Neurology. The resident presents new consults and rounds on active consults with the attending child neurologist.

OUTPATIENT NEUROLOGY ROTATION (YEAR 2) Residents spend two- to three-month blocks of time evaluating and following a wide range of cases in a variety of ambulatory settings. Subspecialty clinics include learning disabilities, Rett syndrome, neurofibromatosis, tuberous sclerosis, pediatric multiple sclerosis, mitochondrial disease and many more.

ICU/CRITICAL CARE ROTATION (YEAR 2) Working closely with the attending physician in critical care neurology, residents provide rapid and comprehensive patient care in Boston Children's cardiac, medical/surgical and neonatal intensive care units, as well as the NICUs at Brigham and Women's and Beth Israel hospitals.

Electives YEARS 2 & 3

Electives span the full spectrum of experiences in child neurology. Many residents spend elective time in the EEG and electromyography (EMG) laboratories at Boston Children's Hospital and affiliated adult institutions or pursue opportunities in one of the many Boston Children's subspecialty clinics. Advanced training and research opportunities in both clinical and basic neuroscience are abundant during elective time.

Electives include:

- general pediatric neurology
- neonatal neurology
- brain malformations
- electrophysiology
- epileptology
- learning disability clinic
- neurocardiology
- neuro-epidemiology
- neuro-imaging
- neuro-oncology
- neuromuscular clinic
- neurogenetics
- neuro-intensive care
- neuropathology
- neurorehabilitation
- psychiatry

A DAY IN THE LIFE

The ICU/Critical Care Rotation

"The Critical Care Neurology Consulting Service is one of the most demanding and rewarding rotations we do during our training, working alongside senior neurology attending physicians. A typical day begins with your co-resident around 7 a.m. with pre-rounds, assessing overnight events and beginning to formulate plans for the day. Attending rounds start around 8:30 a.m., often with a review of new neuroimaging studies and visits to the most acutely ill patients. Expect to be included in management decisions, and look forward to educational pearls at the bedside.

After a flurry of late-morning note writing and checking in with ICU teams, the noon conference is a chance to grab lunch and regroup. In early afternoon, we divide up new consults and issues needing follow-up, all the while triaging patients according to acuity. Often, we need to dig deep into the literature and discuss cases with consultants as we investigate a diagnostic challenge.

The afternoon concludes with abbreviated rounds to review the day's events and make further management recommendations for our patients. While your co-resident heads home, you wrap up the late consult and make contingency plans for the night. Overnight, on home call, you may field a few calls, ask an in-house neurology resident to check on a patient and possibly make a late night trip into the hospital to aid the ICU team in assessing a patient. Before going to bed, you may find yourself taking one more look at the literature, *hoping* to find the answer for another diagnostic mystery."

— **Réjean Guerriero, DO,** former chief resident, 2014 graduate and currently a fellow in the Brain Injury Center at Boston Children's

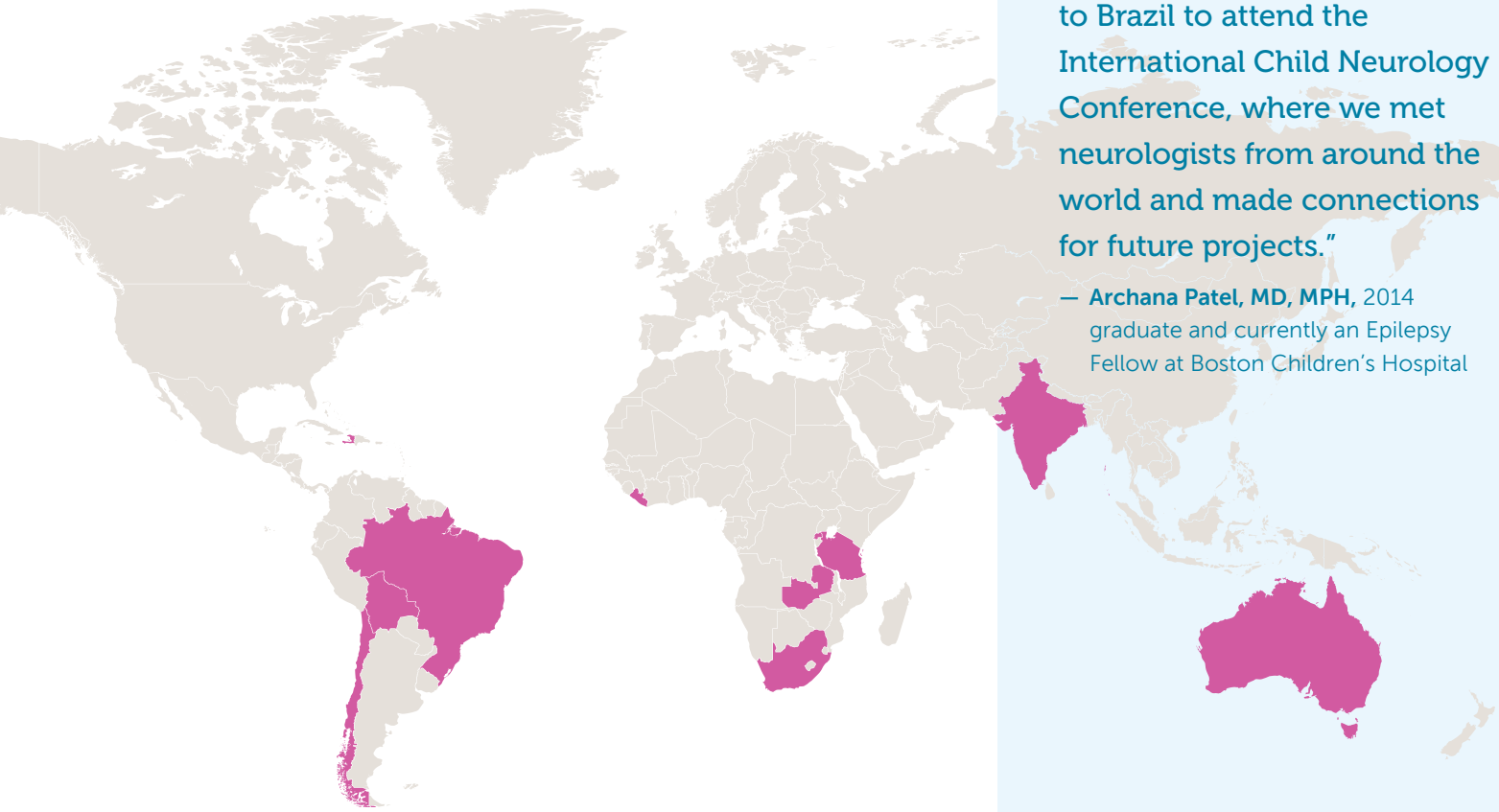
International electives

Residents interested in global child neurology have many opportunities to train, practice and conduct research projects abroad during elective time. The Residency Program has strong connections with the Global Health Pediatrics program at Boston Children's Hospital, Harvard Medical School, Harvard School of Public Health, Partners in Health and Boston Children's Hospital's affiliated adult Neurology programs.

Opportunities range from observerships to structured rotations to projects of the resident's own creation. In addition to clinical rotations and clinical research projects for residents interested in global health, we have affiliations with very strong educational programs abroad, such as neurometabolic training at Chile's National Institute of Metabolic Diseases and training in pediatric neuropathies at the Institute for Neuroscience and Muscle Research in Sydney, Australia. Boston Children's is one of just a handful of hospitals to offer this wealth and depth of international learning opportunities to its residents.

International training locations

To date, Boston Children's Neurology residents have trained in Australia, Bolivia, Brazil, Chile, Haiti, India, Liberia, Rwanda, South Africa, Tanzania and Zambia. More countries are added to this map as we forge new relationships.



"With the many connections the attendings have, you can literally go anywhere in the world you choose. I have been fortunate enough to do an epilepsy observership in Bolivia, as well as develop my own research project in Tanzania, with plans to expand into Zambia. I also travelled with several other residents to Brazil to attend the International Child Neurology Conference, where we met neurologists from around the world and made connections for future projects."

— **Archana Patel, MD, MPH,** 2014 graduate and currently an Epilepsy Fellow at Boston Children's Hospital

Research projects

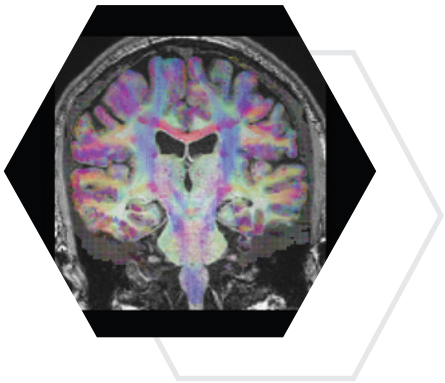
During elective time, second- and third-year residents can opt to do research projects, working alongside investigators at Boston Children's, affiliated Boston hospitals or at the Harvard and MIT Neuroscience programs. (For residents in the Neurodevelopmental Disabilities (NDD) program, six months of research time is required.)

The research program in Neurology at Boston Children's is the largest and most accomplished in a pediatric facility in the world. Across the street, Boston Children's F.M. Kirby Neurobiology Center provides virtually infinite opportunities for training in molecular and developmental neuroscience and cross-fertilization between basic research and clinical medicine.

See the Resident Publications list for examples of research projects undertaken during residency elective time.

Teaching opportunities

Child neurology residents at Boston Children's Hospital have many opportunities to hone their teaching skills. Senior residents partner with attending physicians to ensure that inpatient rounds address topics relevant to the resident members of the team and also supervise 36 to 48 fourth-year medical students, primarily from Harvard Medical School. Child neurology residents are also involved in the training of psychiatry residents and fellows in behavioral and developmental medicine. Finally, 12 to 24 physicians, often from foreign countries, participate yearly in our teaching activities, primarily as observers.



Conferences and seminars

Residents attend a rich variety of weekly conferences and inpatient rounds (daily to several times a week) as well as a monthly journal club.

"During my pediatrics residency in the Boston Combined Residency Program, I discovered a love of teaching. I plan to pursue subspecialty training in pediatric stroke and then a career that incorporates both clinical care and medical education. I chose Boston Children's Hospital because of the breadth and depth of exposure across pediatric neurology, with mentors in every aspect of clinical practice and education."

— **Miya Bernson-Leung, MD,** current third-year resident

Rehearsing challenging conversations with families

Unique to Boston Children's Hospital, Child Neurology and Neurodevelopmental Disabilities residents get hands-on practice in communication and relational skills through a curriculum supported by the hospital's Institute for Professionalism and Ethical Practice.

Working with professional actors skilled at impersonating children and families, residents can learn how to navigate challenging conversations, such as delivering a difficult diagnosis or telling a family of a critically ill newborn that things are going from bad to worse.

The curriculum is being evaluated in a pilot study, funded by the American Academy of Neurology, that will interview families having difficult conversations with residents before and after the communication training.

Being a first responder In-house night call

Unlike many other pediatric neurology residencies, residents at Boston Children's spend several rotations taking call in-house to care for neurology inpatients, and provide urgent and emergent consults overnight.

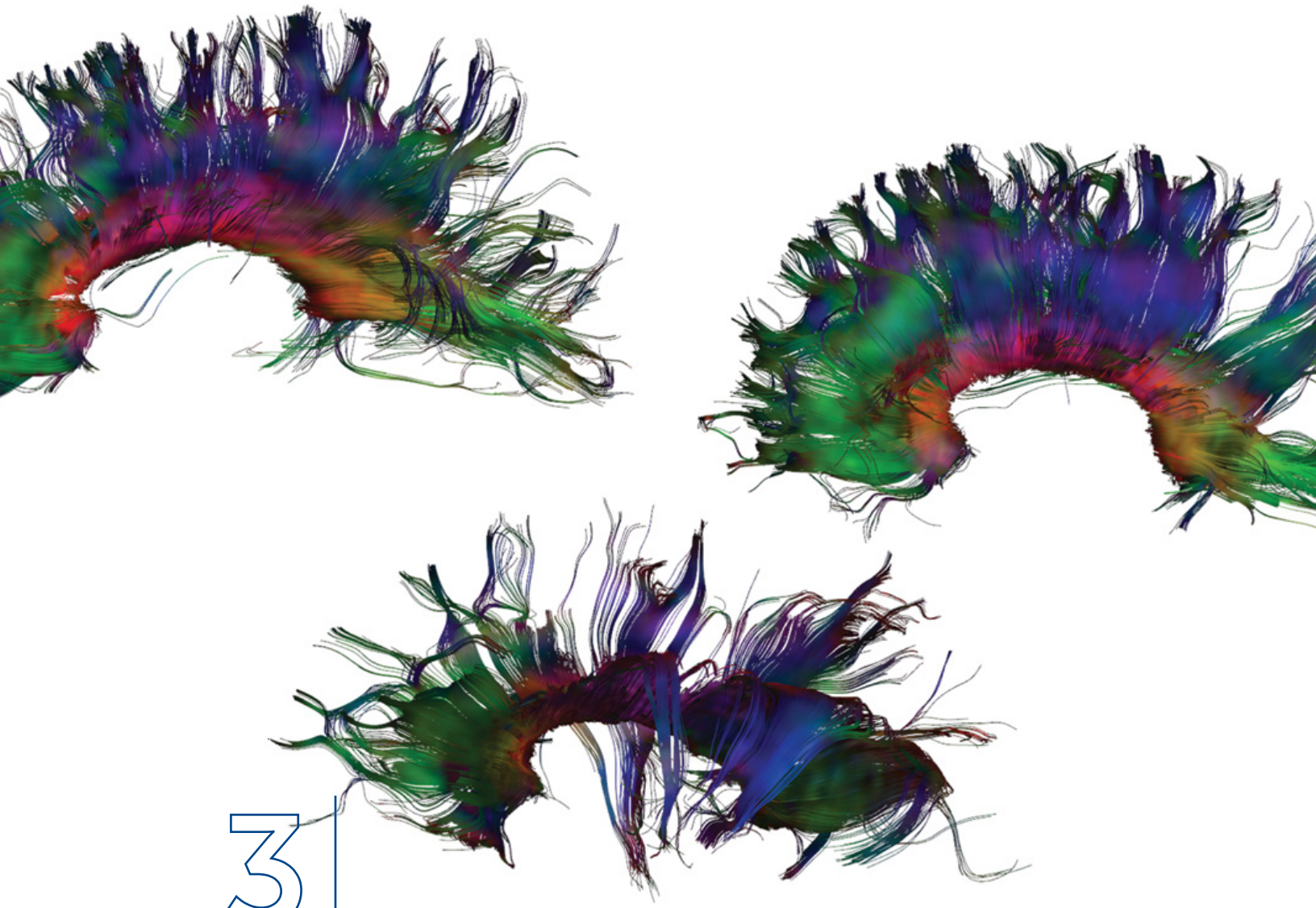
While this does mean nights in the hospital, it allows us to be our patients' first responders and to see the evolution of neurologic disease—including stroke, status epilepticus and hypoxic ischemic injury—from the moment a patient arrives in the hospital.

From an educational perspective, this system provides first-year residents with amazing one-on-one teaching from a neurology senior resident and, during our second and third years, the opportunity to direct our teaching toward fellow neurologists.

We have other rotations where we take at-home call, including rotations as the supervising resident on the neurology floor and as the consulting resident to our six intensive care units. These give us the experience and confidence to assess and manage acute neurologic problems over the phone.

We know that our call system is often a source of questions and concerns for applicants, so please feel free to ask us about it during your interview.

—**Fiona Baumer, MD,** current third-year resident



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RESEARCH OPPORTUNITIES

Spanning basic, clinical and translational investigation, the research program in Neurology at Boston Children's is the largest at a pediatric facility in the world. Other rich neuroscience opportunities are close at hand elsewhere on our campus and with collaborating institutions such as Harvard and MIT.

Neurology and neuroscience research at Boston Children's and beyond

Boston Children's offers Child Neurology residents almost limitless opportunities to engage in basic and translational neuroscience, participate in neurology clinical trials and collaborate with cognitive neuroscience investigators.

Research in the Department of Neurology

Research training is supported by R25 grants from the National Institute of Neurological Disorders and Stroke (NINDS) and the Neurological Sciences Academic Development Awards (NSADA) from the National Institutes of Health (NIH).

Neurology residents have the opportunity to participate in a wide range of clinical trials, often in collaboration with basic scientists and clinicians in other departments and institutions. (See a sampling of these trials.)

Collaborating with researchers across Boston Children's, we have access to a wide range of tools: genome editing, zebrafish drug-screening platforms, neural stem cell assays, advanced neuroimaging, proteomics and many more. Many of our residents go on to complete postdoctoral research fellowships here after completing their clinical training.

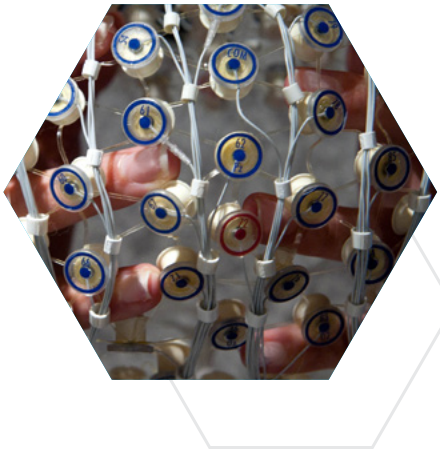
> "Boston Children's is extremely supportive and encouraging of resident research, and that's one of the reasons I chose to come here."
>
> — **Christopher J. Yuskaitis, MD, PhD,** second-year resident

Research around our campus

Just a block from the main hospital, the multidisciplinary F.M. Kirby Neurobiology Center has some 20 labs investigating all aspects of nervous system development with the goals of improving care and training the next generation of physicians and scientists in basic and translational neuroscience. See a listing of research areas.

Down the street, the Laboratories of Cognitive Neuroscience are investigating brain and cognitive development in both typically developing infants and children and those diagnosed with or at risk for various developmental disorders.

Through our NIH-funded Intellectual and Developmental Disabilities Research Center **(IDDRC)**, residents also have access to other Longwood Medical Area scientists, as well as neuroscience seminars given by visiting neuroscientists from around the world.



Research beyond Boston Children's

Next door at the Harvard Medical School's Department of Neurobiology, residents can collaborate with scientists exploring the interactions between genetics and neuronal activity. Across the Charles River in nearby Cambridge, opportunities abound to collaborate with scientists at the Massachusetts Institute of Technology. Boston Children's has regular partnerships with MIT's Department of Brain and Cognitive Science, the Broad Institute and the Picower Center for Learning and Memory.

Research support

The Neurology Department provides staff support to help residents in their research development, including preparing research proposals and study designs, and reviewing case reports and publications. Additionally, Boston Children's Clinical Research Program aids residents with grants, study protocols, case report forms, surveys, research databases, data or project management, data analysis and education in clinical research methods and practice.

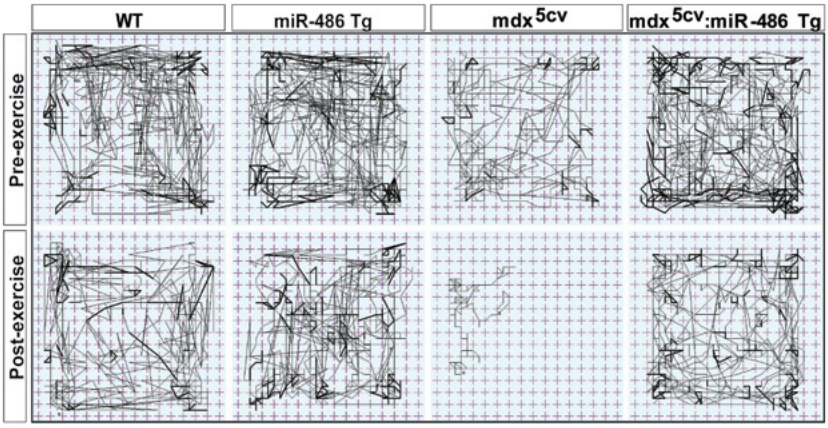
Core labs

Neurogenetics Core

Led by Elizabeth Engle, MD, this Core provides a standardized neurological disease database and bio-specimen bank for translational research, as well as clinically and/or genetically defined patients for outcome studies and trials at Boston Children's, utilizing a common IRB protocol. Phenotype data and samples are available to residents and other researchers who propose translational and clinical studies.

Neurodevelopmental Behavioral Core

Launched by the Intellectual and Developmental Disabilities Research Center (IDDRC) at Boston Children's and led by Michela Fagiolini, PhD, this Core provides novel assays for characterization of complex behaviors in mouse models of neurodevelopmental disorders. The Core's comprehensive battery of tests can assess specific social, emotional and cognitive behaviors as well as motor, auditory and visual functions. The Core also provides a means to test therapeutic interventions and assess safety. Small-animal imaging is also available.



THIS "RANDOM WALK" PLOT, GENERATED AT THE NEURODEVELOPMENTAL BEHAVIORAL CORE, CHARTS THE MOVEMENTS OF MICE WITH DUCHENNE MUSCULAR DYSTROPHY BEFORE AND AFTER EXERCISE. THE MICE AT FAR RIGHT, WHOSE GENE MUTATION WAS CORRECTED, WERE ALMOST AS ACTIVE AS NORMAL MICE.

Basic and Translational Research: A snapshot

Larry Benowitz, PhD
Brain rewiring after injury

Chinfei Chen, MD, PhD
Synaptic plasticity

Gabriel Corfas, PhD
Neuron-glia interactions

Michael Tri Do, PhD
Regulation of physiology and behavior by light

Elizabeth Engle, MD
Congenital eye movement disorders

Michela Fagiolini, MD
Experience-dependent visual plasticity, neurodevelopmental disorders

Gwenaelle Geleoc, PhD
Functional development of sensor hair cells in the inner ear

Xi He, PhD
Early nervous system development, Wnt signaling

Zhigang He, PhD, BM
Axon regeneration

Takao Hensch, PhD
Critical periods in brain development

Jeffrey Holt, PhD
Molecular basis of hearing and deafness

Gabriel Kreiman, PhD, MSc
Computations in the brain and the functional architecture of neuronal circuits

Scott Pomeroy, MD, PhD
Molecular and cellular biology of brain tumors

Paul Rosenberg, MD, PhD
Mechanisms of brain injury, sleep regulation, glutamate transport

Mustafa Sahin, MD, PhD
Axon development and neurologic disease

Thomas Schwarz, PhD
Neurotransmitter secretion, membrane trafficking, synapse development, axonal transport, Parkinson's disease

Steen, Judith, PhD
Neurodegenerative diseases, proteomics and bioinformatics

Stevens, Beth, PhD
Neuron-glia signaling, synapse development, plasticity

Hisashi Umemori, MD, PhD
Wiring the functional brain

Joseph Volpe, MD
Brain injury in premature infants

Clifford Woolf, MB, BCh, PhD
Pain, formation of neural circuits, regeneration

Clinical Research: A sampling of current studies

Boston Children's is a focal point for neurology research. We are a member site in two NIH consortia for clinical trials, NeuroNEXT and NIH StrokeNet. Below is just a selection of some of our other current studies.

Genetics of severe early onset epilepsies

This long-term study, led by Annapurna Poduri, MD, seeks to identify genetic alterations that cause severe early-onset epilepsies, focusing on epileptic encephalopathies and Ohtahara syndrome in particular, with the goal of improving diagnosis and treatment.

Advanced seizure tracking and warning systems

Seizures frequently are not identified by patients and families. This trial, led by Tobias Loddenkemper, MD, tests novel, portable epilepsy monitoring sensors and tools that can detect seizures by means of autonomic nervous system features, patient movement and other vital signs and parameters. The devices allow for rescue measures and tracking of less severe seizures and treatment responses, and may help patients gain better control over seizures.

Rett syndrome

Boston Children's Hospital is the first hospital in the nation to implement a clinical trial seeking to treat the underlying cause of Rett syndrome. Led by Walter Kaufmann, MD, director of the Rett Syndrome Program, the trial is testing rhIGF-1 (mecasermin), an injectable growth factor that is already FDA-approved for treating primary IGF-1 deficiency. As Rett syndrome is an autism spectrum disorder (ASD), the results may have implications for other developmental disorders.

Autism spectrum disorder with epileptiform activity

This study, led by Sarah Spence, MD, PhD, is examining the effect of valproate on epileptiform EEG discharges in children with ASD to determine whether this medication might reduce discharge counts or improve behavior, particularly aggression, attention and externalizing behaviors.

Down syndrome

Walter Kaufmann, MD, with Nicole Baumer, MD, who recently completed her Neurodevelopmental Disabilities residency, are conducting the first randomized controlled trial of behavioral therapy in children with Down syndrome, using Applied Behavioral Analysis (ABA). The use of behavioral interventions for improving not only problem behaviors but also cognitive and adaptive functioning may be useful in developing new diagnostic and therapeutic strategies for this patient group.

Tuberous sclerosis complex (TSC)

The Multi-Disciplinary Tuberous Sclerosis Program at Boston Children's, led by Mustafa Sahin, MD, PhD, is currently conducting a clinical trial of the mTOR inhibitor everolimus (Afinitor®, Novartis Pharmaceuticals). The trial is testing whether the drug reduces learning deficits and autistic symptoms in children with TSC.

Duchenne muscular dystrophy

The Neuromuscular Program at Boston Children's, led by Basil Darras, MD, is conducting a Phase III study of Ataluren (PTC124) in the hope that the drug will restore production of dystrophin in children with DMD. A related study is investigating electrical impedance myography and ultrasound as biomarkers of DMD.

Spinal muscular atrophy

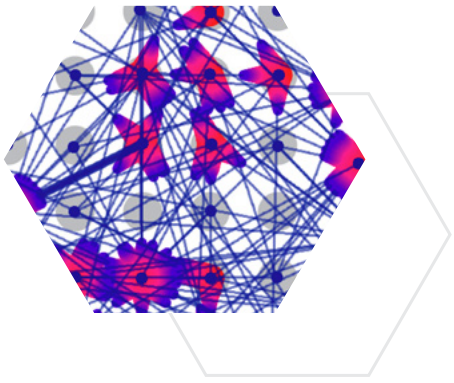
The Spinal Muscular Atrophy Program is part of Phase I and II trials testing the safety and tolerability of ISIS-smnRx as a potential treatment for all types of SMA. The drug works by altering the splicing of the SMN2 gene, leading to the increased production of fully functional SMN protein. The SMA Program also has an ongoing natural history study and is collecting specimens for a biorepository.

Neonatal seizures

Janet Soul, MD, of Boston Children's Fetal-Neonatal Neurology Program, is conducting a clinical trial directed at controlling neonatal seizures with bumetanide. Bumetanide is a diuretic that investigators at Boston Children's and Massachusetts General Hospital have shown to lower chloride levels in the newborn brain, making neurons more responsive to GABA activation.

Neurofibromatosis and pediatric brain tumors

Nicole Ullrich, MD, PhD, Director of Neuro-Oncology, is a founding member of a national collaborative group currently conducting a series of clinical trials in patients with neurofibromatosis. Trials currently recruiting are testing the MEK inhibitor PD-0325901 and Cabozantinib in neurofibromatosis type 1 (NF-1) and bevacizumab in NF-2. Ullrich is also national study chair for a randomized, placebo-controlled trial of modafinil to reverse cognitive deficits in survivors of pediatric brain tumors. Sponsored by the Children's Oncology Group, the study is using a computerized neurocognitive battery to assess the treatment intervention.



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CURRENT RESIDENTS AND LEADERSHIP

Colleagues, advisors, lifelong friends. That's how our residents describe each other and the Child Neurology faculty—many of whom were residents at Boston Children's themselves.

"The people here are wonderful, supportive and passionate about their work."

First-Year Residents

1. **Bhooma Aravamuthan, MD, DPhil**
   Michigan State University, BS, Biochemistry, BS Physiology, Specialization in Bioethics; University of Oxford, DPhil, Neuroscience; Washington University in St. Louis, MD; St. Louis Children's Hospital Residency in Pediatrics
2. **Jessica Chao, MD**
   Harvard College, AB Neurobiology; University of Vermont College of Medicine, MD; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center
3. **Ervin Johnson III, MD, PhD**
   University of California-Davis, BS Neurobiology, Physiology, and Behavior; University of California-San Francisco, MD-PhD Neuroscience; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center
4. **Audrey Nath, MD, PhD**
   Rice University, BS Bioengineering, BA Cognitive Sciences; University of Texas Medical School at Houston, MD, PhD in Neuroscience; University of Texas Health Science Center at San Antonio, Pediatrics Residency
5. **Kellen Winden, MD, PhD**
   University of California-San Diego, BS Biology (Animal Physiology and Neuroscience); University of California-Los Angeles, MD and PhD in Neuroscience; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center

Second-Year Residents

6. **Viviana Benitez, MD**
   Washington University in St. Louis, BA in Philosophy-Neuroscience-Psychology; Mount Sinai School of Medicine, MD; Mount Sinai Hospital-Kravis Children's Hospital, Pediatrics Residency
7. **Dana Harrar, MD, PhD**
   Johns Hopkins University, BA Biology; Harvard University, PhD Neurobiology; Vanderbilt University, MD; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center
8. **Anuj Jayakar, MD**
   Georgetown University, BS; Georgetown University School of Medicine, MD; Miami Children's Hospital Pediatric Residency
9. **Samata Singhi, MD**
   Albion College, BA with Honors in Economics and Management and Chemistry; London School of Economics and Political Science, M.Sc in International Health Policy and Health Economics; Case Western School of Medicine, MD; University of Maryland Medical Center, Pediatrics Residency
10. **Christopher Yuskaitis, MD, PhD**
    University of Virginia, BA in Cognitive Science; University of Alabama at Birmingham, MD-PhD; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center

Third-Year Residents

11. **Fiona Baumer, MD**
    Stanford University, BA in Human Biology, Minor in Spanish; Harvard School of Medicine, MD; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center
12. **Kristina Julich, MD**
    Charité Universitätsmedizi (Berlin, Germany), MD; Charité Children's Hospital, Berlin, pediatrics residency
13. **Miya Bernson-Leung, MD**
    Harvard College, BA in Neurobiology; Harvard Medical School, MD; Boston Combined Residency in Pediatrics, Boston Children's Hospital/Boston Medical Center
14. **Danielle Pier, MD**
    New York University, BA Chemistry; Harvard Medical School, MD; Tufts Medical Center Floating Hospital for Children, Pediatric Residency
15. **Peter Davis, MD**
    Massachusetts Institute of Technology, BS in computer science; Warren Alpert Medical School of Brown University, MD; Children's Hospital at Montefiore, pediatric residency

Neurodevelopmental Disabilities (NDD) Resident

Jennifer Nguyen, MD
University of Southern California, BA Biological Science and Political Science; University of Illinois College of Medicine, MD; Harbor UCLA Medical Center, Pediatric Residency

"My colleagues are extremely smart, knowledgeable and great team players. The atmosphere is very collegial, making it a great place to work, learn and do research."

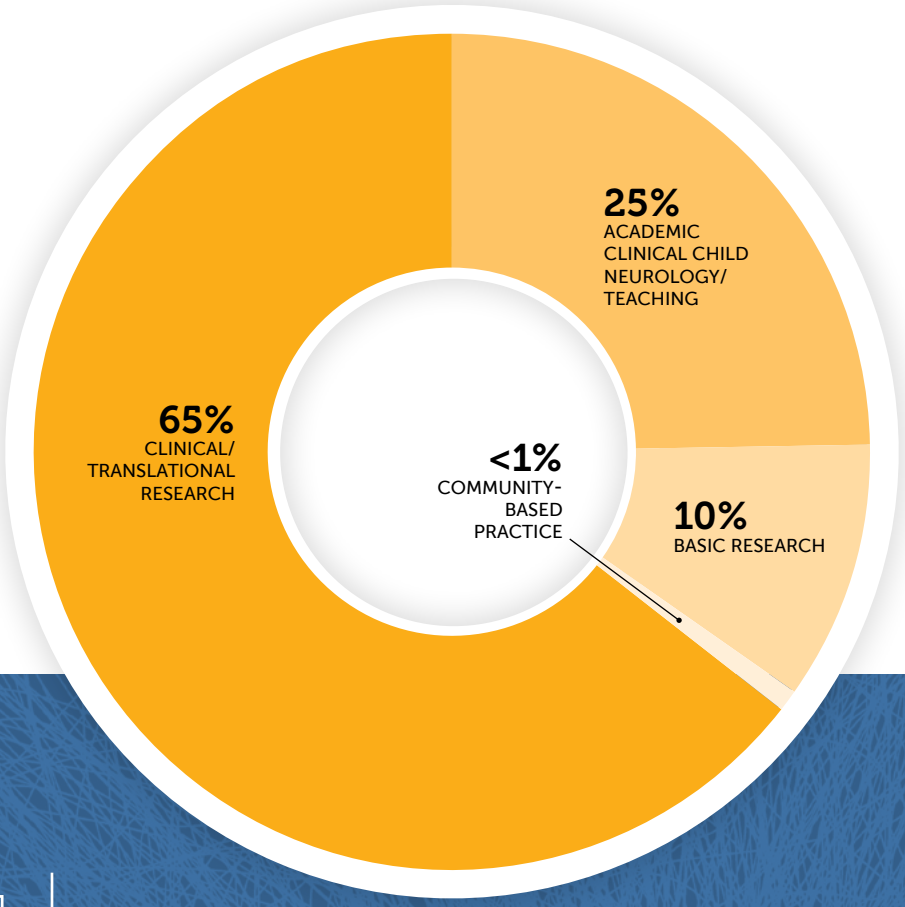
Program leadership and selection committee

See page 28 for a complete list of Neurology faculty.

1. **Scott Pomeroy, MD, PhD**
   Chief of Neurology
   Member, Resident Selection Committee
2. **Mustafa Sahin, MD, PhD**
   Chair, Resident Selection Committee
3. **David Urion, MD**
   Director of Education and the Residency Training Program
4. **Kiran Maski, MD**
   Assistant Director of the Residency Training Program
5. **Sarah Jane Spence, MD, PhD**
   Member, Resident Selection Committee
6. **Mark Gorman, MD**
   Member, Resident Selection Committee
7. **Annapurna Poduri, MD**
   Member, Resident Selection Committe

"It has been a real pleasure to work with such amazing and approachable attendings and great residents. My resident colleagues have become great lifelong friends."

Current Careers of Former Residents



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CAREER DEVELOPMENT

Whether your career goal is general clinical neurology, subspecialty research or a mix, the Child Neurology residency program provides strong support and guidance on grants, fellowships, research projects and more.

Grooming the next generation of child neurologists

"We have outstanding opportunities to work with world-class clinicians and researchers in other fields, including radiology, neuroscience and psychology, to build long-term mentoring and collaborative relationships."

Advisors

Throughout training, residents have access to advisors in the Department of Neurology who match their clinical and/or research interests. Residents typically meet with their advisors at least two times each year.

Advisors:

- develop a personal relationship with the resident
- provide career guidance, support and planning
- provide mentorship and advice about career choices
- advocate for the resident
- facilitate the resident's professional development
- serve as a resource in personal and professional decision-making

Research Career Advisory Group

In their first year, residents begin meeting with our Research Career Advisory Group to ensure that they have the breadth of expertise needed to help guide them into a research area. The group helps decide on the need for an additional research advisor and provides advice on how to get started with a project. In the second and third years, residents receive continued guidance on their research progress.

Career Sampler

Clinical and research fellowships chosen by recent graduates

- behavioral neurology
- clinical neurophysiology and epilepsy/EEG
- developmental neuropharmacology
- electromyography
- neurogenetics
- movement disorders
- neuro-oncology
- pediatric sleep

Selected Publications from Recent or Current Residents

2014

Bernson-Leung ME, Leung LY, Kumar S. Synthetic cannabis and acute ischemic stroke. J Stroke Cerebrovasc Dis 2014; 23(5): 1239-41.

Bernson-Leung ME, Mazumdar M. Journal club: pretreatment EEG in childhood absence epilepsy. Neurology 2014; 82(18): e158-60. PMCID: 4013816.

de Gusmao CM, Maski KP, Urion DK. Clinical Reasoning: A 14-year-old boy with spells of somnolence and cognitive changes. Neurology 2014; 22:82(16): e142-6.

Julich K, Sahin M. Mechanism-Based Treatment in tuberous sclerosis complex. Pediatr Neurol 2014; 50(4): 290-6.

Olson H, Shen Y, Avallone J, Sheidley BR, Pinsky R, Bergin AM, Berry GT, Duffy FH, Eksioglu Y, Harris DJ, Hisama FM, Ho E, Irons M, Jacobsen CM, James P, Kothare S, Khwaja O, **Lipton J,** Loddenkemper T, Markowitz J, Maski K, Megerian JT, Neilan E, Raffalli PC, Robbins M, Roberts A, Roe E, **Rollins C,** Sahin M, Sarco D, Schonwald A, Smith SE, Soul J, Stoler JM, Takeoka M, Tan WH, Torres AR, **Tsai P,** Urion DK, Weissman L, Wolff R, Wu BL, Miller DT, Poduri A. Copy number variation plays an important role in clinical epilepsy. Ann Neurol 2014 Jun; 75(6): 943-58.

Pier DB, Nunes FP, Plotkin SR, Stemmer-Rachamimov AO, Kim JC, Shih HA, Brastianos P, Lin AE. Turner syndrome and meningioma: Support for a possible increased risk of neoplasia in Turner syndrome. Eur J Med Genet 2014; 57(6): 269-74.

Singhi S, Jacobs H, Gladstein J. Pediatric headache: where have we been and where do we need to be. Headache 2014; 54(5): 817-29.

2013

Elibol MZ, **Waugh J,** Scharf JM, Neumeyer AM. Behavioral pediatric neurology. In: Sims K, Peters JM, Musolino P, Ward MZ, editors. Handbook of Pediatric Neurology. Philadelphia: Lippincott Williams & Wilkins; 2013.

Epi4K Consortium, Epilepsy Phenome/ Genome Project, Allen AS, Berkovic SF, Cossette P, Delanty N, Dlugos D, Eichler EE, Epstein MP, Glauser T, Goldstein DB, Han Y, Heinzen EL, Hitomi Y, Howell KB, Johnson MR, Kuzniecky R, Lowenstein DH, Lu YF, Madou MR, Marson AG, Mefford HC, Esmaeeli Nieh S, O'Brien TJ, Ottman R, Petrovski S, Poduri A, Ruzzo EK, Scheffer IE, Sherr EH, **Yuskaitis CJ,** Abou-Khalil B, Alldredge BK, Bautista JF, Berkovic SF, Boro A, Cascino GD, Consalvo D, Crumrine P, Devinsky O, Dlugos D, Epstein MP, Fiol M, Fountain NB, French J, Friedman D, Geller EB, Glauser T, Glynn S, Haut SR, Hayward J, Helmers SL, Joshi S, Kanner A, Kirsch HE, Knowlton RC, Kossoff EH, Kuperman R, Kuzniecky R, Lowenstein DH, McGuire SM, Motika PV, Novotny EJ, Ottman R, Paolicchi JM, Parent JM, Park K, Poduri A, Scheffer IE, Shellhaas RA, Sherr EH, Shih JJ, Singh R, Sirven J, Smith MC, Sullivan J, Lin Thio L, Venkat A, Vining EP, Von Allmen GK, Weisenberg JL, Widdess-Walsh P, Winawer MR. De novo mutations in epileptic encephalopathies. Nature 2013; 501(7466): 217-21. PMCID: 3773011.

Guerriero RM, Musolino PL, Tasker RC. Neurologic critical care. In: Sims K, Peters JM, Musolino P, Ward MZ, editors. Handbook of Pediatric Neurology. Philadelphia: Lippincott Williams & Wilkins; 2013.

Jacob FD, **Ho ES,** Martinez-Ojeda M, Darras BT, Khwaja OS. Case of infantile onset spinocerebellar ataxia type 5. J Child Neurol 2013; 28(10): 1292-5.

Poduri A, Heinzen EL, Chitsazzadeh V, Lasorsa FM, Elhosary PC, LaCoursiere CM, Martin E, **Yuskaitis CJ,** Hill RS, Atabay KD, Barry B, Partlow JN, Bashiri FA, Zeidan RM, Elmalik SA, Kabiraj MM, Kothare S, Stodberg T, McTague A, Kurian MA, Scheffer IE, Barkovich AJ, Palmieri F, Salih MA, Walsh CA. SLC25A22 is a novel gene for migrating partial seizures in infancy. Ann Neurol 2013; 74(6): 873-82.

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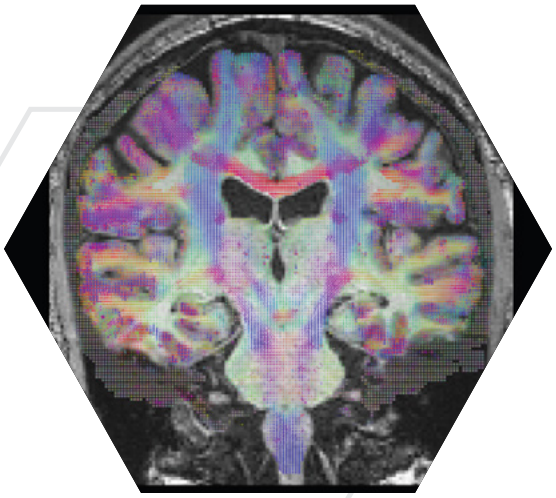
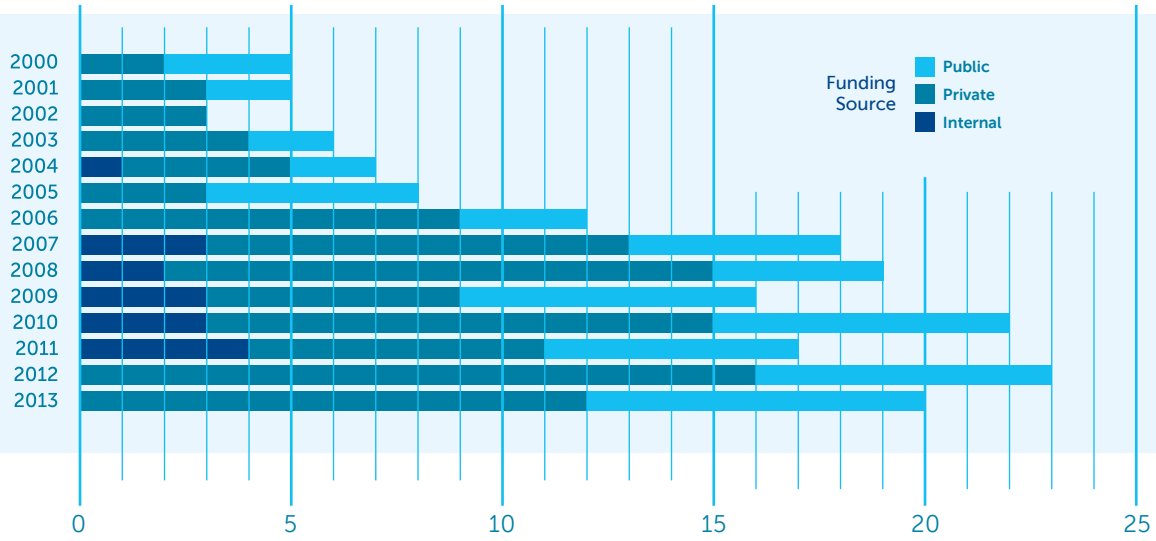


Grants Awarded

(number per year)



2012

Akhondi-Asl A, Hans A, Scherrer B, **Peters JM,** Warfield SK. Whole brain group network analysis using network bias and variance parameters. Proc IEEE Int Symp Biomed Imaging 2012:1511-4.

de Gusmao CM, Ortega MR, Wallace DM. Status epilepticus associated with dalfampridine in a patient with multiple sclerosis. The Journal of Neuropsychiatry and Cli Neurosci 2012; 24(4): E47-8.

Fernandez IS, **Peters JM,** Hadjiloizou S, Prabhu SP, Zarowski M, Stannard KM, Takeoka M, Rotenberg A, Kothare SV, Loddenkemper T. Clinical staging and electroencephalographic evolution of continuous spikes and waves during sleep. Epilepsia 2012; 53(7): 1185-95.

Gazda HT, Preti M, Sheen MR, O'Donohue MF, Vlachos A, Davies SM, Kattamis A, Doherty L, Landowski M, Buros C, Ghazvinian R, Sieff CA, Newburger PE, Niewiadomska E, Matysiak M, Glader B, Atsidaftos E, **Lipton JM,** Gleizes PE, Beggs AH. Frameshift mutation in p53 regulator RPL26 is associated with multiple physical abnormalities and a specific pre-ribosomal RNA processing defect in diamond-blackfan anemia. Hum Mutat 2012; 33(7): 1037-44.

Guerriero RM, Proctor MR, Mannix R, Meehan WP, 3rd. Epidemiology, trends, assessment and management of sport-related concussion in United States high schools. Curr Opin Pediatr 2012; 24(6): 696-701.

Kelly TG, Madhavan VL, **Peters JM,** Kazacos KR, Silvera VM. Spinal cord involvement in a child with raccoon roundworm (Baylisascaris procyonis) meningoencephalitis. Pediatr Radiol 2012; 42(3): 369-73.

Peters JM, Madhavan VL, Kazacos KR, Husson RN, Dangoudoubiyam S, Soul JS. Good outcome with early empiric treatment of neural larva migrans due to Baylisascaris procyonis. Pediatrics 2012; 129(3): e806-11.

Peters JM, Sahin M, Vogel-Farley VK, Jeste SS, Nelson CA, 3rd, Gregas MC, Prabhu SP, Scherrer B, Warfield SK. Loss of white matter microstructural integrity is associated with adverse neurological outcome in tuberous sclerosis complex. Acad Radiol 2012; 19(1): 17-25. PMCID: 3343770.

Peters JM, Tomas-Fernandez M, van Putten MJ, Loddenkemper T. Behavioral measures and EEG monitoring using the Brain Symmetry Index during the Wada test in children. Epilepsy Behav 2012; 23(3): 247-53.

Ross SE, McCord AE, Jung C, Atan D, Mok SI, Hemberg M, Kim TK, Salogiannis J, Hu L, Cohen S, Lin Y, **Harrar D,** McInnes RR, Greenberg ME. Bhlhb5 and Prdm8 form a repressor complex involved in neuronal circuit assembly. Neuron 2012; 73(2): 292-303. PMCID: 3269007.

Sanchez Fernandez I, Hadjiloizou S, Eksioglu Y, **Peters JM,** Takeoka M, Tas E, Abdelmoumen I, Rotenberg A, Kothare SV, Riviello JJ, Jr., Loddenkemper T. Short-term response of sleep-potentiated spiking to high-dose diazepam in electric status epilepticus during sleep. Pediatr Neurol 2012; 46(5): 312-8.

Sanchez Fernandez I, Loddenkemper T, **Peters JM,** Kothare SV. Electrical status epilepticus in sleep: clinical presentation and pathophysiology. Pediatr Neurol 2012; 47(6): 390-410.

Sanchez Fernandez I, Takeoka M, Tas E, **Peters JM,** Prabhu SP, Stannard KM, Gregas M, Eksioglu Y, Rotenberg A, Riviello JJ, Jr., Kothare SV, Loddenkemper T. Early thalamic lesions in patients with sleep-potentiated epileptiform activity. Neurology 2012:78(22): 1721-7. PMCID: 3359583.

Taquet M, Scherrer B, Commowick O, **Peters J,** Sahin M, Macq B, Warfield SK. Registration and analysis of white matter group differences with a multi-fiber model. Med Image Comput Comput Assist Interv 2012; 15(Pt 3): 313-20.

6

LIFE IN BOSTON

Boston is a medical paradise like no other, with three major medical schools and some two dozen hospitals. It's also a fun place to live, with interesting people and unmatched cultural and recreational offerings.

It boasts world-class museums, theater and music—the Longwood Medical Area even has its own orchestra. It's also a legendery sports town where Red Sox, Patriots, Celtics and Bruins players pay frequent visits to Boston Children's patients.

Hiking and biking in the Berkshires of Western Massachusetts, skiing in New Hampshire or Vermont, touring the mansions of Newport, Rhode Island, exploring the rugged coast of Maine or relaxing on the beaches of Cape Cod are all within a couple of hour's drive.

Work/life supports

Many of our residents are juggling work and family responsibilities. A variety of programs are available to help.

Office of Clinician Support (OCS)

The OCS provides a safe, confidential place to talk for anyone who does clinical work with patients, including trainees. The program assists clinicians with any problem they may be having, whether it be work-related or personal. The OCS is staffed by mental health clinicians familiar with working in the hospital environment and is available seven days a week.
617-355-6705

The Longwood Work/Life Liaison

This Harvard Medical School office provides information, resources, referrals, educational programs and support to those combining work lives with family needs.

Employee Lactation Support Program

This program provides support, information and lounges for nursing mothers.
617-355-0005

Employee Assistance Program (EAP)

Confidential services are available 24/365 from our EAP provider, KGA.

Child Care

Boston Children's Hospital Child Care Center
Located at 21 Autumn Street, a short walk from Boston Children's Hospital, the Center is staffed by teachers trained in Child Development and Early Childhood Education and provides care to 42 children 3 months through 5 years old. **617-355-6006**

Bright Horizons Family Center at Landmark
Located in the Landmark Building on the corner of Brookline Ave. and the Fenway. **617-450-0790**

Parents in a Pinch
If your regular child care provider falls through, Parents in a Pinch will provide in-home care in the day or evening, 7 days a week.
617-739-5437, ext. 2

Parenthood and residency

"At certain points in one's life, there are definites. Upon entering medical school, I definitely knew my path lay in pediatrics.

After completing my pediatrics residency, I was given the opportunity to pursue Neurodevelopmental Disabilities (NDD) residency training at Boston Children's Hospital. I also knew that motherhood was a definite I wanted to pursue, but the question was, when?

A balance needed to be reached between this desire and my NDD residency training. Midway in my training, reality struck, and following the birth of my first child, I received the same excellent support I received in my educational pursuits. I have been blessed with a department that is truly cognizant of life experiences and focused on the overall education and life support of its trainees.

In addition to child care offerings, the faculty has been very flexible with my clinic times and desire to be a part of my children's lives."

— **Elizabeth Barkoudah, MD,** 2011 graduate and a neurologist with the Neuromuscular and Cerebral Palsy Programs at Boston Children's

The Harvard Housing Office

The Harvard Housing Office offers listings of apartments, condominiums, houses and rooms for rent or sale, information on finding a roommate, lists of local, short-term accommodations, lists of movers and self-storage facilities and more. The office also offers "affordable" apartments at the Trilogy, 170 Brookline Avenue, near the Longwood Medical Area. For more information, visit **huhousing.harvard.edu** or call **617-496-7827.**

Lease Guarantee Program

Boston Children's Hospital has implemented this program for all residents and fellows who are paid through the hospital to help ease the pressure of the high cost of housing in the Boston area. If a landlord requires advance payment of the last month's rent and/or a security deposit, the hospital will guarantee payment according to the lease guaranty procedure. In return, the resident or fellow agrees to reimburse Boston Children's for any payment the hospital makes. For more information, call the HR Employee Service Center at **617-355-7780**.

Other sources of housing information:
- Craig's List
- MIT European Club

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BEST CHILDREN'S HOSPITALS
U.S.News & WORLD REPORT
NEUROLOGY & NEUROSURGERY
2014-15

ABOUT BOSTON CHILDREN'S HOSPITAL

Located in the heart of the roughly 20-square-block Longwood Medical Area, Boston Children's Hospital is the top-ranked pediatric hospital in the United States by *U.S. News & World Report* and consistently ranks #1 in Neurology and Neurosurgery.

At a glance

Founded in 1869, Boston Children's is now a 395-bed comprehensive center for pediatric and adolescent health care. Our child neurologists also practice in six satellite locations in the Boston suburbs.

Boston Children's is the primary pediatric program of Harvard Medical School and home to the world's largest research enterprise based at a pediatric medical center.

The hospital has received four Gold Beacon Awards for Critical Care Excellence, has been named a Leapfrog Group Top Children's Hospital for safety and quality, and was named one of *Hospital and Health Network's* "Most Wired" hospitals for information technology.

Patients

- 24,758 bedded discharges
- 580,418 outpatient visits
- 58,588 Emergency Department visits
- 26,920 surgical procedures
- are seen in 249 specialized clinical programs

FY2013

395 beds, including:

- >100 ICU (cardiac, NICU, multidisciplinary)
- 8 clinical research

Faculty and staff

- 357 full-time physicians and dentists, 139 part-time
- 426 residents, clinical fellows and interns
- 1,254 active medical and dental staff
- 1,580 full-time nurses
- > 1,600 scientific staff, including 7 members of the National Academy of Sciences, 13 members of the Institute of Medicine and 14 members of the Howard Hughes Medical Institute

FY2012

A brief history of Neurology at Boston Children's

1920–1952 The very roots of child neurology began at Boston Children's Hospital with the appointment of Dr. Bronson Crothers to lead the newly established Neurology Service. In 1929, "Ward 9" in the newly created Bader Building opened as the first dedicated space for child neurology at a U.S. children's hospital. In the 1930s and 1940s, Dr. Crothers made landmark contributions into the causes, classification and management of cerebral palsy.

1944 Dr. William Lennox developed the Seizure Unit, the first comprehensive pediatric epilepsy unit in the world. Since its founding, the program has remained at the forefront of pediatric epilepsy under Drs. Cesare Lombroso and Gregory Holmes and today under the leadership of Dr. Philip Pearl.

1952–1962 Dr. Randolph Byers assumed the leadership of Neurology. Among his ground-breaking accomplishments, he was the first to link environmental lead exposure to long-term cognitive and learning disorders in children. His studies on kernicterus, spinal muscular atrophy, inflammatory disorders of the central nervous system and other pediatric neurological disorders form the basis for much of our clinical understanding today.

1962–1990 An independent Department of Neurology—the first devoted to children in the U.S.—was established at Boston Children's Hospital and Harvard Medical School. In 1963, Dr. Charles Barlow became the Department Chief, establishing a program in basic neuroscience and what is now called the NIH-sponsored Intellectual and Developmental Disabilities Research Center (IDDRC) at the hospital. Dr. Barlow's accomplishments also included contributions to the understanding of headache in children.

1990–2005 Dr. Joseph Volpe was appointed Neurologist-in-Chief in 1990. During his tenure, the size and scope of the Child Neurology Residency Training Program grew substantially, and Dr. Basil Darras became the Training Program Director. Dr. Volpe fostered the development of subspecialty clinical programs, with particular emphasis on Fetal/Neonatal Neurology and recruited 20 new faculty.

2005–present Dr. Scott Pomeroy succeeded Dr. Volpe as Bronson Crothers Professor and Neurologist-in-Chief in 2005. His tenure has been marked by continued growth of the Boston Children's Hospital Neurology Residency Training Program, a commitment to translational neuroscience, growing support of high-quality clinical neuroscience research and the development of several exciting new subspecialty clinical programs.

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FACULTY

Our very large clinical and research faculty guarantees that if you have a question, someone is here to answer it. Many of our faculty did their own Child Neurology residency at Boston Children's Hospital.

Child Neurology faculty at Boston Children's Hospital

Chiefs/Directors

Scott Pomeroy, MD, PhD
Neurologist-in-Chief

Basil Darras, MD
Associate Neurologist-in-Chief

Phillip Pearl, MD
Director, Division of Epilepsy

Senior Clinical Faculty

Phillip Pearl, MD
David Coulter, MD
✦ Elizabeth Engle, MD
Michael J. Rivkin, MD
Robert Tasker, MD
✦ David K. Urion, MD
Joseph Volpe, MD

Clinical Faculty

Norberto Alvarez, MD
Irina Anselm, MD
✦ Elizabeth Barkoudah, MD
✦ Nicole Baumer, MD, Med
✦ Leslie Benson, MD
Ann Marie Bergin, MD
✦ Jeffrey Bolton, MD
Catherine Chapman, MD
Paul Chervin, MD
Michel Fayad, MD
Emily Gertsch, MD, MPH
Partha Ghosh, MBBS
✦ Mark Gorman, MD
Jennifer Hanowell, DO
Chellamani Harini, MD
Karameh Hawash-Keummerle, MD
✦ Jamie Heath, MD
Walter Kaufmann, MD
Kush Kapur, PhD
Umakanth Khatwa, MD
Lauren Kondev-LaFortune, MD
Kerri LaRovere, MD
Alyssa Lebel, MD
Laura Lehman, MD
✦ April Levin, MD
Mark H. Libenson, MD
✦ Jonathan Lipton, MD
✦ Tobias Loddenkemper, MD
Mamon Maiteh, MD
✦ Kiran Maski (Prasad), MD
✦ Maitreyi Mazumdar, MD, MPH, MSc
✦ J. Thomas Megerian, MD, PhD
Anna Minster, MD
✦ Heather Olson, MD
Sharon Parnes, MD
✦ Jurriaan Peters, MD
✦ Anna Pinto, MD, PHD
✦ Annapurna Poduri, MD, MPH
Peter Raffalli, MD
Michael Robbins, MD
Shenandoah Robinson, MD
Eugene J. Roe, MD
✦ Caitlin Rollins, MD
Cynthia Rooney, MD
Paul Rosenberg, MD, PhD
✦ Alexander Rotenberg, MD, PhD
✦ Mustafa Sahin, MD, PhD
✦ Arnold Sansevere, MD
✦ Janet Soul, MD
Sarah Spence, MD
Masanori (Max) Takeoka, MD
Kinga Tomczak, MD
✦ Nicole Ullrich, MD, PhD
✦ Jeff Waugh, MD, PhD
Robert R. Wolff, MD

Research Faculty

Clifford Woolf, MB, BCh, PhD
Director, F.M. Kirby
Neurobiology Center
David Bellinger, PhD
Chinfei Chen, MD, PhD
Gabriel Corfas, PhD
Michael Costigan, PhD
Frank Duffy, MD
✦ Elizabeth Engle, MD
Michela Fagiolini, PhD
Xi He, PhD
Zhigang He, PhD
Takao Hensch, PhD
Robin Kleiman, PhD
Alan Leviton, MD
Scott Pomeroy, MD, PhD
Paul Rosenberg, MD, PhD
✦ Alexander Rotenberg, MD, PhD
✦ Mustafa Sahin, MD, PhD
Thomas Schwarz, PhD
Judith Jebanathirajah Steen, PhD
Beth Stevens, PhD
Margaret (Tam) Thompson, PhD
Michael Tri H. Do, PhD
Hisashi Umemori, MD, PhD
Joseph Volpe, MD
Xinjun Zhang, PhD

✦ Did their Child Neurology residency at Boston Children's

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HOW TO APPLY

The Department of Neurology currently accepts five new Child Neurology residents into its training program each year. You can come here just for Child Neurology training, or apply to do your Pediatrics Residency here as well.

Application procedure

Incoming residents can apply for two types of positions:

A Combined Neurology and Pediatrics Residency

Also known as the **Categorical Program,** this position includes a two-year General Pediatrics residency and a three-year Child Neurology residency at Boston Children's Hospital.

The General Pediatrics residency is done through the Boston Combined Residency Program at Boston Children's Hospital/Boston Medical Center (BCRP). *Note: If you choose this option, you must apply separately to the BCRP (see below).*

A Child Neurology Residency only

Also known as an **Advanced Position,** this option is for residents seeking general pediatric residency training at another hospital.

We typically have three categorical and two advanced slots in each year. In the fall of 2014, we will review applications for both categorical positions that begin general pediatrics in the BCRP in 2015, and for advanced training slots for the residency class that will start in July 2017.

Entry requirements

Applicants must have completed one of the following: two years of training in pediatrics, postgraduate year 1 (PGY-1) training in internal medicine plus one residency year (PGY-2) in pediatrics, or one year of training in pediatrics plus one year of neuroscience research.

We feel strongly that applicants need two prior years of clinical training before their Child Neurology training, given its very significant inpatient and intensive care unit demands. We will only consider a third option—one year of clinical training with a year of research—under very special circumstances.

Matching

New this year, matching will be done through the Electronic Residency Application Service (ERAS).

The Child Neurology match will be simultaneous with the match for the General Pediatrics residency. Up to three of our five Child Neurology residency positions will be filled by applicants who simultaneously matched in General Pediatrics at Boston Children's Hospital. Two or more slots are available to applicants who match elsewhere for their pediatric training.

We encourage applicants to apply for both types of positions, to keep all options open:

Combined Neurology and Pediatrics Residency
(up to three positions)

Apply to the **Categorical** (aka "Dummy" Categorical) Program. This match is for two years of general pediatrics in the Boston Combined Residency Program in Pediatrics at Boston Children's Hospital/Boston Medical Center and three years of Child Neurology at Boston Children's.

You will still need to apply separately to the Boston Combined Residency Program.

Child Neurology Residency only
(two or more positions)

Apply to the **Advanced Placement** program for three years of Child Neurology only.

Your completed application will be forwarded to the Child Neurology Residency Selection Committee for review.

For specific questions, please contact David K. Urion, MD, the Residency Program Director. **david.urion@childrens.harvard.edu**

You may also arrange a time to speak with Dr. Urion by calling Stephanie Hansbury at **617-355-7819**.

Interviews

Approximately 40 candidates will be invited to Boston for an interview by the Resident Selection Committee and will have opportunities to meet with several clinical and research faculty as well as current neurology residents. The day will include a brief orientation session, a series of interviews, lunch, a tour of the facilities and a dinner with our neurology residents.

If you are coming for an interview, we will try to arrange for you to meet with clinicians or researchers in your area of interest. For MD/PhD applicants, we can arrange additional sessions to discuss research and fellowship opportunities in the Boston area as well as meetings with scientists in specific fields of interest.

For applicants to the Combined Neurology and Pediatrics Residency, we can help arrange for back-to-back interview days to include both programs.

Interview dates

December, 2014

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18*	19	20
21	22	23	24	25	26	27
28	29	30	31			

January, 2015

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8**	9	10
11	12	13	14	15*	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

* MD/PhD interviews will be conducted on Dec. 18 and Jan. 15.
** NDD Program interviews will be conducted on Jan. 8.

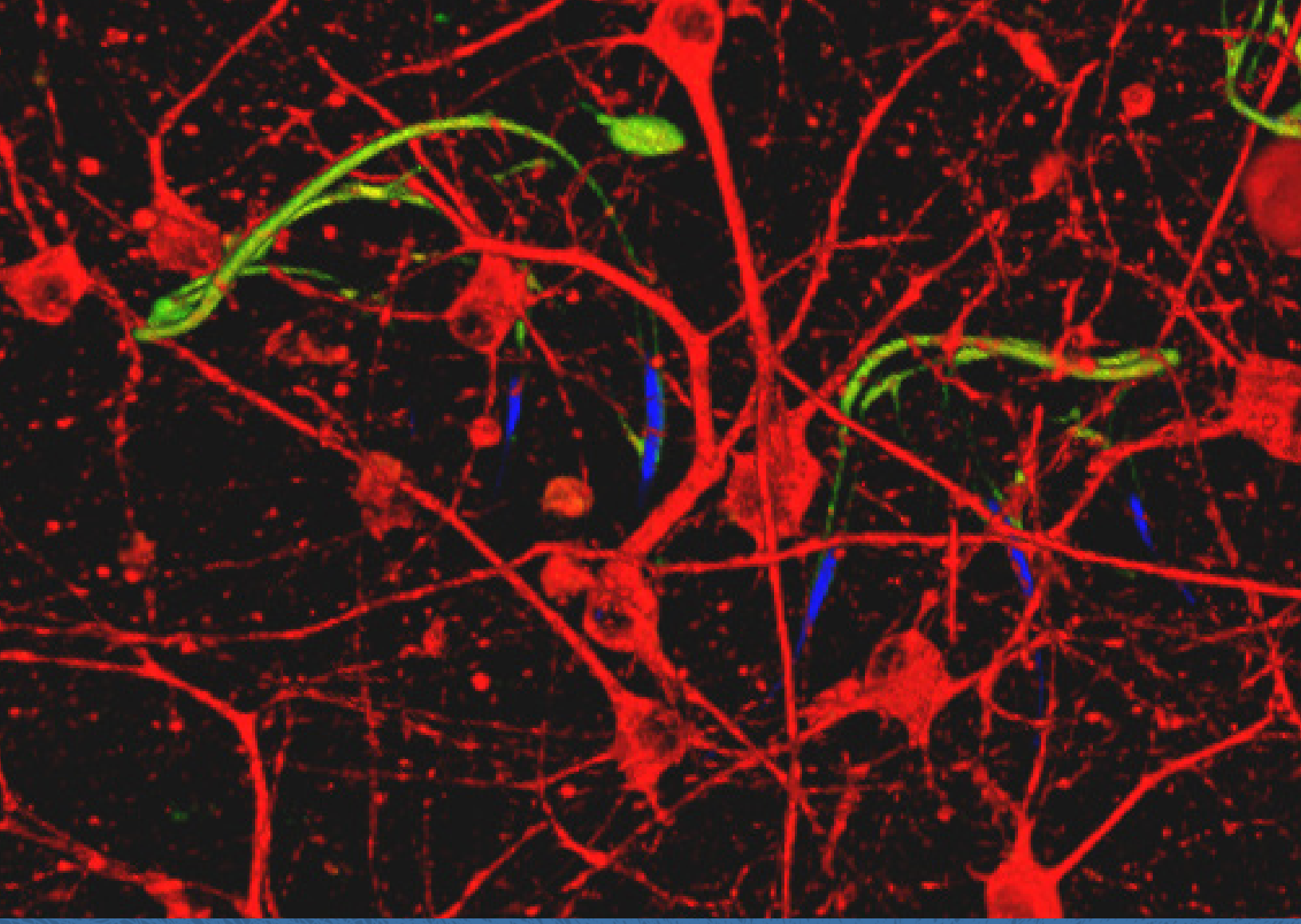
Questions? Contact Stephanie Hansbury at
stephanie.hansbury@childrens.harvard.edu or **617-355-7819**

"I was delighted by the ease with which the conversation flowed during my interviews.

We chatted about my interests, opportunities available to residents and future developments in the department. I was particularly impressed by the fact that we were treated as future colleagues and not simply interviewees.

During lunch, we were able to meet many members of the faculty and ask questions in a relaxed and informal manner. Even after my interview, Dr. Sahin and Dr. Urion were always available via phone or email. I thought this spoke volumes about how invested they were in their residents."

—Samata Singhi, MD, second-year resident



CHILD NEUROLOGY RESIDENCY TRAINING PROGRAM / 2014

Boston Children's Hospital
Until every child is well™

HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL