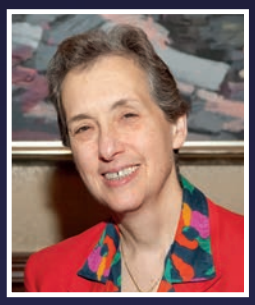
Fall/Annual Meeting 2017 | Volume 25, No. 3

# CONNECTIONS

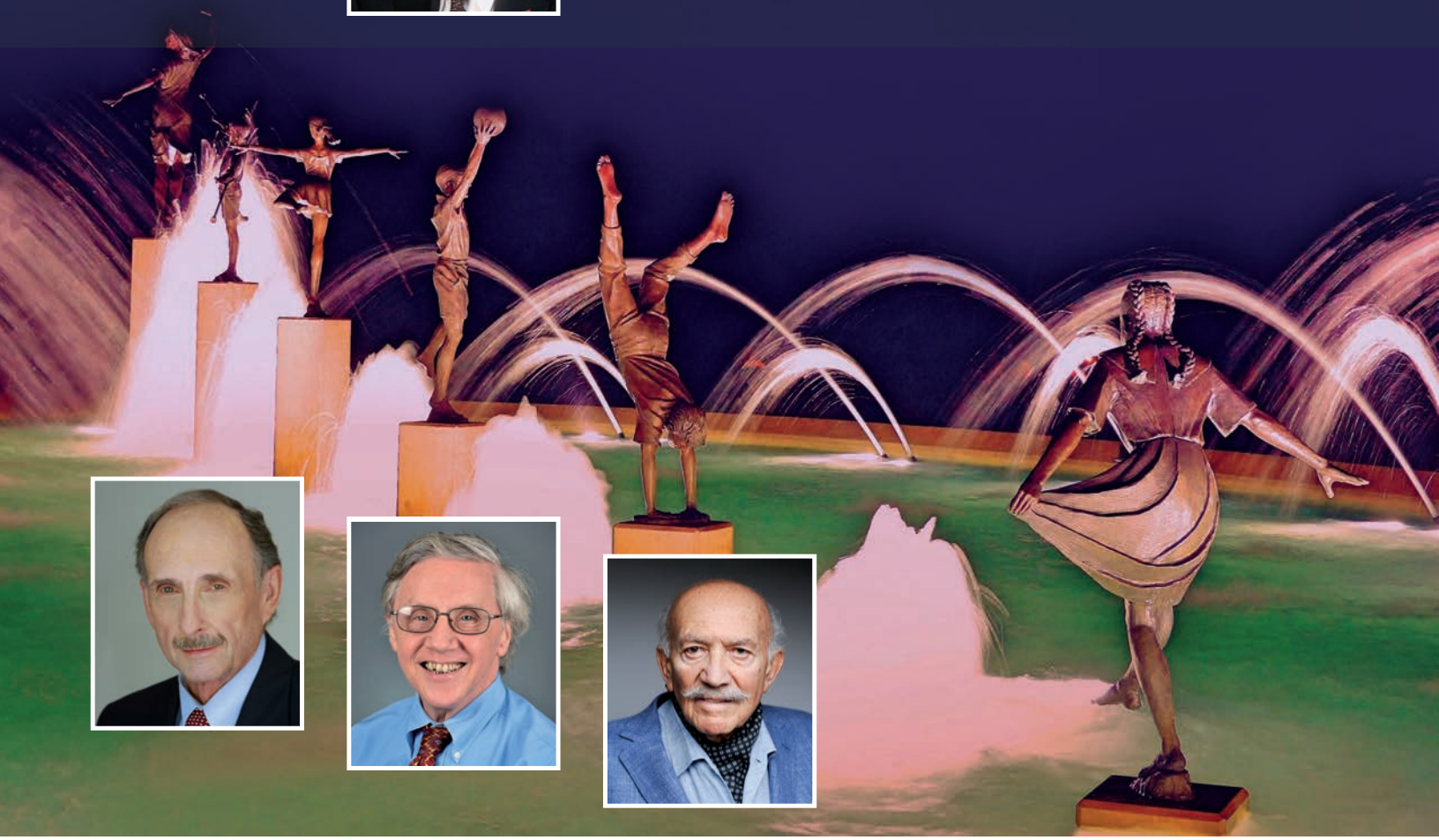
CHILD NEUROLOGY SOCIETY

Bringing CNS Members Together to Make Children's Lives Better



Forty-Sixth
CNS ANNUAL MEETING

Kansas City, MO • October 4-7, 2017



Roger Larson, CAE
Executive Director

# KW, KC, and the Future of CN

My favorite video clip posted on the CNS website "Careers – Getting In" section features this year's Philip R. Dodge Young Investigator Awardee, Audrey Brumback, explaining how she ended up in San Francisco for peds neurology training: "The thing that really struck me about the UCSF program was the kickass women!" she exclaimed, looking straight into the camera (In my head, I could hear her late father, Roger, erupting in laughter.)

"At most of the other programs," she continues, "it was a lot of people who looked like my dad; it was, you know a bunch of middle-aged white men." (Now, I could see him jumping to his feet and doing a little dance in sheer, giddy delight). But, when she came to UCSF, Audrey noted, there "was just this amazing cadre of women who were totally kicking ass in their careers and had families and seemed like nice people – Donna Ferriero, Audrey Foster-Barber, Yvonne Wu, Heather Fullerton – and I just thought, 'this is who I need to be around at this phase of my career. I'll be starting a family at some point, and these are the people who are actually going to be able to provide mentorship and be role models at this phase in my life.'"

"Kickass Women" (henceforward, "KW").

"Her words, not mine," as Melissa McCarthy would say, playing Sean Spicer on *Saturday Night Live*. Because on my own? I couldn't bring myself to type or say it aloud, certainly not in a boldfaced title. You see, unlike Audrey, I'm neither young, nor a woman. Nor did I, like her, spend my formative years in Oklahoma and Texas. I come from Minnesota where, as Garrison Keillor could tell you, we just don't talk like that; the Lutherans won't let us.

And then there was Isabelle Rapin, who I intended to reference in my letter. Isabelle would not approve. Of "KW" spelled out, I mean. Oh, she would more than merely "approve" of Audrey, herself; and she would be passionately interested in learning more about her autism research. But "KW"? Not so much.

One of my favorite Isabelle stories, shared last May when she passed away, came from a past-CNS President who remembers observing her at the 1997 meeting in Phoenix, reading the profile Rob Rust had written on her for the "Women in Neurology" Archives display, and hearing her exclaim in that inimitably commanding Isabellian cadence, "I…am…not…venerable!"

But, of course, she was. Because, if she wasn't, who this side of Maria Montessori was? If she took umbrage at "venerable," I shudder to think what she might have made of the more colloquial "KW."

Well, times have changed. Twenty years ago, the ratio of female to male CNS members was 1:3. Today it's a near dead-even 1:1. Where women make up only 23% of Emeritus Members today (consistent with the 1:3 ratio in 1997), they account for 47 percent of Active Members. Fully 69 percent of Junior Members – residents in training – are women. Contrast that with the photo on page 5 showing "All the Young Dudes" at the Wash U training program in 1987.

That sea change in gender parity/dominance will be dramatically evident, indeed, its directional movement almost mimicked, in our meeting in the heartland this year. All four Emeritus Members honored at the Wednesday evening Legacy Reception are men (each of them unquestionably venerable): Dave Coulter, Abe Chutorian, Don Shields, and Ken Swaiman. Fast forward to Saturday morning, however, and you'll find all but one presenter at the three breakfast seminars, Hower Award Lecture, and Pediatric Neuro-oncology symposium are women (a 14:1 ratio, for those keeping score).

But before ending with Saturday's programming, let's pause for a moment to look at Friday, noting that all four recipients of the CNS Outstanding Junior Member Award are women (Ka Ye Clara Chan, Hsaio-Tuan Chao, Rachel Goldstein Hirschberger, Carla Watson), as are both recipients of this year's CNF Shields and PERF research grants (Melissa Walker and Tracy Gertler), the Bhuwan Garg High School Neuroscience Award (Lauren Singer), and the aforementioned 2017 Phillip R. Dodge Young

*continued on page 27*

CHILDREN OF THE TRAILS

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FALL/ANNUAL MEETING 2017




Child Neurology Society
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Managing Editor: Roger Larson, CAE

*Published Quarterly*

# CONNECTING WITH COLLEAGUES

# Q&A with Outgoing President, Kenneth Mack

By Daniel J. Bonthius, MD, PhD | *CNS Connections* Editor

*Ken Mack receives traditional CNS President's gavel in 2015 from his predecessor, Nina Schor*

**QUESTION** | ***What is the best thing about being President of the CNS?***

Being President of the Child Neurology Society has been a joyful experience. I most appreciated the opportunity of working with the wonderful people within the Society. Our colleagues in the front, Roger Larson, Sue Hussman, Emily McConnell, and Kathy Pavel are dedicated individuals to our professional society, and are organized, responsive and provide a long-term sense of continuity and mission for us. I have also been fortunate to be around some amazing colleagues. I thank all the contributions of Phil Pearl, Renee Shellhaas, Peter Kang, Mary Zupanc, Bruce Cohen, and Jon Mink, who formed the Executive Committee. I thank the many Committee Chairs and Committee Members who put in many hours throughout the year for our Society, and I thank my friend and colleague, Marc Patterson, for being Chair of the Program Committee and producing two really excellent meetings in Vancouver and Kansas City.

**QUESTION** | ***What is the most difficult aspect of being President?***

My biggest frustration was not having enough time to devote to all of the deserving issues. I think that the CNS is powered in large part by physician voluntarism, often carved out from already full schedules. There is not enough time in one day to do all the things that we want to help advance our field. That said, the CNS has been an efficient and effective professional organization for many decades, due in large part to the volunteer efforts of our many colleagues.

**QUESTION** | ***What is your proudest accomplishment, as President of the CNS?***

I am most proud of our efforts to engage with junior members about our Society. Our Society is 2000-members strong; about 75 percent of all the child neurologists in the US and Canada belong to our society, and those figures have remained stable over the last 30 years. Going forward, it will be important for us to engage with our trainees, so that they will appreciate the camaraderie and understand the full benefits of being a member of our organization.

**QUESTION** | ***What are the biggest challenges facing the field of child neurology?***

Fifty years ago, there were fewer neurology meetings available to the practicing neurologist. Now, one could literally go to a medical meeting every day of the year if one were so inclined. Our annual meeting is competing with the meetings of many other organizations for decreasing amounts of time and money that our physicians can devote to these meetings. It is important that we continue to provide the highest-quality, cutting-edge meeting experience. Additionally, it is important to emphasize the one unique thing that we offer, which is that we are the only professional organization that advocates for the profession of child neurology. Our mission is to support the profession of child neurology. There is no other organization that puts that to the forefront of their efforts, as we do.

**QUESTION** | ***In what way is the CNS most valuable to its members?***

When most people think of the CNS, they think of concrete items of value, such as access to the annual meetings and our truly outstanding and highly-regarded journal, the *Annals of Neurology*. But there are other benefits that are sometimes less obvious. We have an increasing presence on the web, with access to MOC exams and opportunities for CME credit. There are wonderful opportunities to network and to support the advancement of our career goals within the society. We collaborate with other organizations such as the American Academy of Neurology, The American Academy of Pediatrics and American Board of Psychiatry and Neurology. I hope that our members feel that the CNS is their professional and intellectual home.

*"In his element": delivering lecture on pediatric migraine at 2016 Presidential Symposium*

**QUESTION** | ***What actions could we child neurologists take to most improve our field? And what actions could we take to most improve the CNS?***

I encourage child neurologists to continue to be active in our organization through committee work, serving as an officer, or by attending the annual meetings and interacting with colleagues. These person-to-person interactions are what make our meeting and our Society special. That's why we call our newsletter *Connections*.

**QUESTION** | ***What advice would you give to a medical student who is interested in a career in child neurology?***

For years, I have been involved with special interest groups in neurology for medical students. I really enjoy the inquisitiveness, wonder, and thoughtfulness that medical students have as they enter their career choices. Medical students are at a stage in their lives where they are open to changes, as well they should be. Although some students make the commitment to child neurology early, others take a fair amount of time. I encourage early trainees to get involved as early as possible in their professional

*"All the Young Dudes"; Wash U, 1987. (Front row, l-r): Kel Yamada, Steve Leber, Gary Clark; (Back row, l-r): Jeff Neil, Scott Pomeroy, Ken Mack, Jan Mathisen*

organizations, such as the Child Neurology Society or International Child Neurology Association. I encourage them to meet and work with as many members of our field as possible. We each perform our jobs in subtly unique ways, and it's nice to get that experience of observing what is the best from everyone's practice.

**QUESTION** | ***Any additional closing thoughts?***

I thank the Child Neurology Society for allowing me the opportunity to be President. If I am being entirely honest, it is not the President who leads the Society, but rather a team of many involved child neurologists who move us forward. Thanks to the many wonderful people who are part of this team; we are in great shape going forward in the future.

**QUESTION** | ***What will you do with your free time, when you're not President anymore?***

I recently became a grandfather, and that is an incredibly joyful and uplifting experience. I look forward to spending more time reading Dr. Seuss and less time reading medical journals.

*Current CNS Board (L-R): Jonathan Mink, Peter Kang, Kenneth Mack, Gary Clark, Phillip Pearl, Mary Zupanc, Bruce Cohen, Renée Shellhaas*

# CONNECTING WITH COLLEAGUES
## Child Neurology Society New Members

### Active Membership

Beal, Jules
Boelman, Cyrus
Bolo Dias, Mireya
Brown, Patrick
Canton, Juan Carlos
Copeland, Sarah
Dlamini Nomazula
Fernandez, Romeo
Frazier, Cherise
Ginns, Edward
Glykys, Joseph
Gossett, Daniel
Gurbani, Suresh
Habetz, Kenneth
Harmelink, Matthew
Hasbani, Daphne
Heath, Christine
Heinan, Kristen
Iskander, Raafat
Jacob, Cimy
Jiang, Mei
Jonas, Rinat
Kaulas, Himanshu
Mahmood, Naznin
Olm-Shipman, Casey
Shafrir, Yuval
Shahani, Dave
Tang-Wai, Richard
Tangredi, Christine
Tomko, Stuart
Zinn, Matthias

### Junior Membership

Agner, Shannon
Akiyama, Lisa
Alhadid, Kenda
Amin, Hitha
Armstrong, Amy
Barton, Chris
Bieber, David
Bhalla, Sonam
Bunker, Anna
Caffarelli, Kathleen
Castri, Paola
Chan, Ka Ye Clara
Chen, Wei-Liang
Chiu, Michelle
Cook, Robin
Cristancho, Ana
Daba, Mebratu
De La Torre, Alejandro
DiSano, Michael
Donatelli, Stephanie
Elkhatib, Stacey
Elrick, Matthew
Fong, Susan
Franks, Alexis
Fraser, Stuart
Freedman, Stuart
Gervelis, Whitney
Goldberg, Tamar
Goldstein Hirschberger, Rachel
Golvil Dalela, Tuhina
Gomez Jimenez, Andres
Gottlieb-Smith, Rachel
Gurcharran, Kevin
Hisamoto, Yoshimi
Hoang, LeAnn
Hong, Annie
Johnson-Kerner, Bethany
Karakas, Cemal
Kaur, Harsheen
Keith, Louisa
Kielian, Agnieszka
Klein, Hannah
Klotz, Jenna
Koshy, Shiney
Lewy, Rodolfo
Machie, Michelle
Mahdi, Jasia
Majmudar, Bittu
Malikishvili, Ana
Morris, Cynthia
Nunez, Denise
Parikh, Neel
Patterson, Rachel
Pimentel, Norianne
Popova, Valentina
Pourdeyhimi, Roxanne
Purohit, Reega
Reyes, Irma
Rogers, Amanda
Shao, Diane
Shukla, Vijeta
Simmons, Roxanne
Smith, Amena
Smith, Clay
Sorgeloos, Aliesje
Starnes, Donnie
Strelzik, Jeffrey
Strong, Eric
Swafford, Collin
Thomas, Julian
Torkhi, Harlori
Treat, Lauren
Triplett, Regina
Trowbridge, Sara
Tsuboyama, Melissa
Tunc, Emine
Viamonte, Manuel
Watson, Carla
Welch, Wiliam
Wietstock, Sharon
Win, Jessica
Wing, Sarah
Wolfe, Kathy
Worden, Lila

### Affiliate Membership

Andrade, Andrea
Jung, Da Eun
Meffert, Cassie
Morgan, Keith
Nichol, Kathryn
Torne, Krupa

### Medical Student Membership

Arellano, Janetta
Bhagat, Dhristie
Buttle, Sarah
Campbell, Peter
Didomenico, Laura
Elias, Rita
Evans, Danyelle
Evans, Rachel
Fields, Cheryl
Hyland, Allison
Kesav, Natasha
Kirkpatrick, Laura
Kukla, Renata
Lambeth, Aimee
Lawlor, Patrick
Leupold, Bradley
Martin, Kristen
McGowan, Bridget
Najjar, Midi
Patel, Ami
Segal, Bradley
Stone, Dana
Vaidyanathan, Vaishnavi
Wellman, Hannah
Williams, Justin
Wood, Alexandra

## CNS Featured in *USA Today* Supplement

Thanks to a generous invitation from Greenwich Pharmaceuticals, Inc, the Child Neurology Society and the American Epilepsy Society were able to run full-page "info-ads" in a September 8 *USA Today* supplement, *Future of Neurological Health*. Produced by MediaPlanet for *USA Today*, the supplement was distributed in select markets (Dallas, Los Angeles, New York, North Central Florida and Pittsburgh/Cleveland). Consistent with the supplement's focus on epilepsy, the CNS "info-ad" highlighted the CNS John M. "Jack" Pellock Resident Seminar on Epilepsy. The 2nd Annual Pellock Seminar will be held on Tuesday and Wednesday preceding the CNS Annual Meeting in Kansas City; 60 PGY5 residents nominated by their training directors will attend the seminar and take advantage of registration fee waivers to attend the full CNS Annual Meeting.

# Welcome to KC!

***Four Days, Four Great Ways to...***

**K**eep in touch with old friends

**C**onnect with new research, products and trends

## 1 Welcome Reception

**Wednesday, October 4 | 6:00-8:00 PM**
Exhibit Hall A

Children's Mercy

*Financial support provided by 2017 CNS Annual Meeting host institution, Mercy Children's Hospital (overlooking the Sheraton Crown Center)*

## 2 Legacy Reception

**Wednesday, October 4 | 8:15-10:00 PM**
Atlanta/New York Ballroom

***Following up on last year's first Legacy Reception, we'll sit down to a post-Welcome Reception ceremony***

- Drinks, Dessert, and a Standing ovation for all those gathered who attended their first CNS meeting 25 or more years ago (before 1992)
- Presentation of three awards to venerable CNS members for lifetime contributions
- **Arnold P. Gold Foundation Humanism in Medicine Award: David Coulter, MD**
  Introduced by Richard Young, MD
- **Roger & Mary Brumback Lifetime Achievement Award Abe Chutorian, MD**
  Introduced by Leonardo Garcia, MD
  **W. Donald Shields, MD**
  Introduced by Chris Giza, MD
- **Recognition of the first President of the CNS, PCN and CNF: Kenneth F. Swaiman, MD**
  Drs. Stephen Ashwal, N. Paul Rosman, Harvey Singer, Michael Painter and E. Steve Roach


## 3 Exhibit and Poster R&R
(Review and Refreshment)

**Wednesday Welcome Reception | 6:00-8:00 PM**
(exhibits only)

**Thursday Lunch | 12:30-2:00 PM**
(exhibits and posters)

**Thursday Afternoon Child Neuro Forum | 4:30-6:00 PM**
(exhibits and posters) *Supported by a grant from Biogen*

**Friday Breakfast | 7:00-8:15 AM**
(exhibits and posters)

## 4 Gala Reception

**Friday, October 6 | 7:00 PM-10:00 PM**
Exhibit Hall B

CHILD NEUROLOGY SOCIETY

MINNESOTA MEDICAL ASSOCIATION

# CNS Awards Committee Update

## The Child Neurology Society will recognize six members at the 46th Annual CNS Meeting in Kansas City, Missouri with the presentation of the following awards:

By Nigel Bamford, MD | Chair, CNS Awards Committee

### The Arnold P. Gold Foundation Humanism in Medicine Award at the Child Neurology Society

**Presented to**
**David Coulter, MD**
Wednesday evening, October 4
*Introduction by Richard Young, MD*

### CNS Roger and Mary Brumback Lifetime Achievement Awards

**Presented to**
**Abe Chutorian, MD**
Wednesday evening, October 4
*Introduction by*
*Leonardo Garcia, MD*

**Presented to**
**W. Donald Shields, MD**
Wednesday evening, October 4
*Introduction by Chris Giza, MD*

### CNS Philip R. Dodge Young Investigator Award

**Presented to**
**Audrey Brumback, MD, PhD**
(with lecture to follow)
Friday morning, October 6
*Introduction by Kevin Staley, MD*

### CNS Bernard Sachs Award

**Presented to**
**Solomon Moshé, MD**
(with lecture to follow)
Friday morning, October 6
*Introduction by*
*Karen Ballaban-Gil, MD*

### CNS Hower Award

**Presented to Nina Schor, MD, PhD**
(with lecture to follow)
Saturday morning, October 7
*Introduction by*
*Jonathan and Stanford Schor*

Those honored were selected by the CNS Awards Committee and subsequently approved by the CNS Executive Committee. The CNS Awards Committee is composed of 15 standing members plus chair (3-5 year terms) and three past Phillip R. Dodge Young Investigator Awardee members (3-year terms). The committee membership draws from a breadth and depth of seniority and experience in pediatric neurology, and the constant influx of the prior three Young Investigator Awardees provide a fresh outlook each year.

The Awards Committee meets at the CNS Annual Meeting to consider nominations for the following year's Sachs, Hower, Lifetime Achievement, and Gold Humanism in Medicine Awards submitted by members of the Child Neurology Society. All CNS members are encouraged to submit nominations (the deadline for submitting nominations for 2018 awards was September 10). Application deadline for the 2018 CNS Philip R. Dodge Young Investigator Award is April 1, 2018.

Profiles of this year's award recipients, featured on pages 16-29 and on display in the registration foyer, were written by Drs. Daniel Bonthius, Leonardo Garcia, John Mytinger, E. Steve Roach, and Raman Sankar.

## Other Awards to be given at 46th CNS Annual Meeting – ACNN Awards

*ACNN Meeting on Wednesday, October 4; announced at CNS Meeting on Friday, October 6*

### ACNN Claire Chee Excellence in Child Neurology Nursing Award

**Jennifer Boyd, RN**

### ACNN Nurse Practioner Award

**Rebecca Schultz, PhD, RN, CPNP**

### ACNN Innovative Clinical Practices Award

**Elizabeth Rende, DNP, RN, CPNP-PC**

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### Bernard J. D'Souza International Fellowship Awards

**Presented to Charles Hammond, MD, and Aye Mya Min Aye, MBBS, MMedSc, MRCPCH**
*Thursday, October 5.*
*Introduction by Jorge Vidaurre, MD, Chair, CNS International Affairs Committee*

### CNS-PCN Blue Bird Circle Training Program Director Award

**Presented to**
**Sidney M. Gospe, Jr., MD, PhD**
Friday, October 6

## CNS Bhuwan Garg High School Neuroscience Award

**Presented to Lauren Singer**
*Friday, October 6*

## CNS Outstanding Junior Member Awards

*Presented on Friday, October 6*

- **Ka Ye Clara Chan, MD**
  Loma Linda University Medical Center
- **Hsaio-Tuan Chao, MD, PhD**
  Baylor College of Medicinel
- **Rachel Goldstein Hirschberger, MD, MPH**
  Boston Children's Hospital
- **Carla Watson, MD**
  Children's Hospital of Michigan

## AAP Section on Neurology Trainee Travel Award

*Presented on Friday, October 6*
**Audie Chris Espinoza, MD**
University of Utah

## M. Richard Koenigsberger Scholarship

*Presented on Friday, October 6*
**Davut Pehlivan, MD**
Baylor College of Medicine

## Child Neurology Foundation Grants

*Presented on Friday, October 6*

- **PERF Grant:**
  **Tracy Gertler, MD, PhD**
  Lurie Children's Hospital
- **Shields Grant:**
  **Melissa Walker, MD, PhD**
  Massachusetts General Hospital

# 2017 Passport Program

# THREE GREAT PRIZES!

| PRIZE ONE | PRIZE TWO | PRIZE THREE |
|---|---|---|
| **2018 CNS Annual Meeting Package**<br>Chicago, Illinois | **2018 CNS Annual Meeting Package**<br>Chicago, Illinois | **Amazon Gift Certificate** |
| **DRAWING**<br>10:45 AM, Friday | **DRAWING**<br>8:45 AM, Saturday | **DRAWING**<br>8:45 AM, Saturday |
| • Two hotel nights in meeting hotel<br>• $500 travel voucher (provided by Child Neurology Foundation)<br>• Registration fee waiver | • Two hotel nights in meeting hotel<br>• $500 travel voucher (provided by Child Neurology Foundation)<br>• Registration fee waiver | • $100 Amazon/Kindle Gift Certificate |

## HOW IT WORKS

1. Attendees may pick up "passport" at entrance to Exhibit Hall A
2. Each of the aisles on the exhibit floor is assigned a different color sticker/stamp
3. Attendee's with ONE OR MORE stickers/stamps from each aisle will drop their completed passport off in the "Passport to Chicago" slot located in the entrance to Exhibit Hall A at the end of the day
4. Friday morning winner will receive a 2018 CNS Annual Meeting package, including two free hotel nights, airfare voucher, and registration waiver: estimated value of $1500
5. Two prizes will be awarded Saturday morning.
   - 2018 CNS Annual Meeting package, including two free hotel nights, airfare voucher, and registration waiver: estimated value of $1500
   - $100 Amazon Gift Certificate

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Please see Brief Summary of Prescribing Information on following pages.

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†Across different indications.

## IMPORTANT SAFETY INFORMATION

**WARNING: SERIOUS PSYCHIATRIC AND BEHAVIORAL REACTIONS**

- **Serious or life-threatening psychiatric and behavioral adverse reactions including aggression, hostility, irritability, anger, and homicidal ideation and threats have been reported in patients taking FYCOMPA**
- **These reactions occurred in patients with and without prior psychiatric history, prior aggressive behavior, or concomitant use of medications associated with hostility and aggression**
- **Advise patients and caregivers to contact a healthcare provider immediately if any of these reactions or changes in mood, behavior, or personality that are not typical for the patient are observed while taking FYCOMPA or after discontinuing FYCOMPA**
- **Closely monitor patients particularly during the titration period and at higher doses**
- **FYCOMPA should be reduced if these symptoms occur and should be discontinued immediately if symptoms are severe or are worsening**

### SERIOUS PSYCHIATRIC AND BEHAVIORAL REACTIONS

In the partial-onset seizures clinical trials, hostility- and aggression-related adverse reactions occurred in 12% and 20% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 6% of patients in the placebo group. These effects were dose-related and generally appeared within the first 6 weeks of treatment, although new events continued to be observed through more than 37 weeks. These effects in FYCOMPA-treated patients led to dose reduction, interruption, and discontinuation more frequently than placebo-treated patients. Homicidal ideation and/or threat have also been reported postmarketing in patients treated with FYCOMPA. The combination of alcohol and FYCOMPA significantly worsened mood and increased anger. Patients taking FYCOMPA should avoid the use of alcohol. Patients, their caregivers, and families should be informed that FYCOMPA may increase the risk of psychiatric events. Patients should be monitored during treatment and for at least one month after the last dose of FYCOMPA, and especially when taking higher doses and during the initial few weeks of drug therapy (titration period) or at other times of dose increases. Similar serious psychiatric and behavioral events were observed in the primary generalized tonic-clonic (PGTC) seizure clinical trial.

### SUICIDAL BEHAVIOR AND IDEATION

Antiepileptic drugs (AEDs), including FYCOMPA, increase the risk of suicidal thoughts or behavior in patients. Anyone considering prescribing FYCOMPA or any other AED must balance the risk of suicidal thoughts or behavior with the risk of untreated illness. Epilepsy and many other illnesses for which AEDs are prescribed are themselves associated with morbidity and mortality and an increased risk of suicidal thoughts and behavior. Patients, their caregivers, and families should be informed of the risk and advised to monitor and immediately report the emergence or worsening of depression, suicidal thoughts or behavior, thoughts about self-harm and/or any unusual changes in mood or behavior. Should suicidal thoughts and behavior emerge during treatment, consider whether the emergence of these symptoms in any given patient may be related to the illness being treated.

### DIZZINESS AND GAIT DISTURBANCE

FYCOMPA caused dose-related increases in events related to dizziness and disturbance in gait or coordination. Dizziness and vertigo were reported in 35% and 47% of patients in the partial-onset seizure trials randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 10% of placebo-treated patients. Gait disturbance related events were reported in 12% and 16% of patients in the partial-onset seizure clinical trials randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 2% of placebo-treated patients. These adverse reactions occurred mostly during the titration phase. These adverse reactions were also observed in the PGTC seizure clinical trial.

### SOMNOLENCE AND FATIGUE

FYCOMPA caused dose-dependent increases in somnolence and fatigue-related events. Somnolence was reported in 16% and 18% of patients in the partial-onset seizure trials randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 7% of placebo-treated patients. Fatigue-related events were reported in 12% and 15% of patients in the partial-onset seizure trials randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 5% of placebo-treated patients. These adverse reactions occurred mostly during the titration phase. These adverse reactions were also observed in the PGTC seizure clinical trial. Patients should be advised against engaging in hazardous activities requiring mental alertness, such as operating motor vehicles or dangerous machinery, until the effect of FYCOMPA is known.

### FALLS

Falls were reported in 5% and 10% of patients in the partial-onset seizure clinical trials randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 3% of placebo-treated patients.

### DRUG REACTION WITH EOSINOPHILIA AND SYSTEMIC SYMPTOMS (DRESS)

DRESS, also known as **multiorgan hypersensitivity**, has been reported in patients taking AEDs, including FYCOMPA. DRESS may be fatal or life-threatening. DRESS typically, although not exclusively, presents with fever, rash, lymphadenopathy, and/or facial swelling, in association with other organ system involvement. If signs or symptoms are present, immediately evaluate the patient and discontinue FYCOMPA if an alternative etiology for signs or symptoms cannot be established.

### WITHDRAWAL OF AEDs

A gradual withdrawal is generally recommended with AEDs to minimize the potential of increased seizure frequency, but if withdrawal is a response to adverse events, prompt withdrawal can be considered.

### MOST COMMON ADVERSE REACTIONS

The most common adverse reactions in patients receiving FYCOMPA (≥5% and ≥1% higher than placebo) include dizziness, somnolence, fatigue, irritability, falls, nausea, weight gain, vertigo, ataxia, headache, vomiting, contusion, abdominal pain, and anxiety.

### DRUG INTERACTIONS

FYCOMPA may decrease the efficacy of contraceptives containing levonorgestrel. Plasma levels of FYCOMPA were decreased when administered with moderate and strong CYP3A4 inducers, including, carbamazepine, phenytoin, or oxcarbazepine. Multiple dosing of FYCOMPA 12 mg per day enhanced the effects of alcohol on vigilance and alertness, and increased levels of anger, confusion, and depression. These effects may also be seen when FYCOMPA is used in combination with other CNS depressants.

### PREGNANCY AND LACTATION

Physicians are advised to recommend that pregnant patients taking FYCOMPA enroll in the North American Antiepileptic Drug (NAAED) Pregnancy Registry. Caution should be exercised when FYCOMPA is administered to pregnant or nursing women as there are no adequate data on the developmental risk associated with use in pregnant women, and no data on the presence of perampanel in human milk, the effects on the breastfed child, or the effects of the drug on milk production.

### HEPATIC AND RENAL IMPAIRMENT

Use in patients with severe hepatic or severe renal impairment is not recommended. Dosage adjustments are recommended in patients with mild or moderate hepatic impairment. Use with caution in patients with moderate renal impairment.

### DRUG ABUSE AND DEPENDENCE

FYCOMPA is a Schedule III controlled substance and has the potential to be abused and lead to drug dependence.

**REFERENCE: 1.** Data on file. Eisai Inc. Woodcliff Lake, NJ.

Please see Brief Summary of Prescribing Information on following pages.



Fycompa™ (perampanel) TABLETS 2 • 4 • 6 • 8 • 10 • 12 mg ORAL SUSPENSION 0.5 mg/mL III

Fycompa™

(perampanel) TABLETS 2 • 4 • 6 • 8 • 10 • 12 mg ORAL SUSPENSION 0,5 mg/mL CIII

**FYCOMPA® (perampanel) tablets, for oral use, CIII**
**FYCOMPA® (perampanel) oral suspension, CIII**
**Initial U.S. Approval: 2012**

**Brief Summary of Full Prescribing Information dated July 2017**

**WARNING: SERIOUS PSYCHIATRIC AND BEHAVIORAL REACTIONS**

- **Serious or life-threatening psychiatric and behavioral adverse reactions including aggression, hostility, irritability, anger, and homicidal ideation and threats have been reported in patients taking FYCOMPA.**
- **These reactions occurred in patients with and without prior psychiatric history, prior aggressive behavior, or concomitant use of medications associated with hostility and aggression.**
- **Advise patients and caregivers to contact a healthcare provider immediately if any of these reactions or changes in mood, behavior, or personality that are not typical for the patient are observed while taking FYCOMPA or after discontinuing FYCOMPA.**
- **Closely monitor patients particularly during the titration period and at higher doses**
- **FYCOMPA should be reduced if these symptoms occur and should be discontinued immediately if symptoms are severe or are worsening.**

## WARNINGS AND PRECAUTIONS

**Serious Psychiatric and Behavioral Reactions** In the controlled partial-onset seizure clinical trials, hostility- and aggression-related adverse reactions occurred in 12% and 20% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 6% of patients in the placebo group. These effects were dose-related and generally appeared within the first 6 weeks of treatment, although new events continued to be observed through more than 37 weeks. FYCOMPA-treated patients experienced more hostility- and aggression-related adverse reactions that were serious, severe, and led to dose reduction, interruption, and discontinuation more frequently than placebo-treated patients. In general, in placebo-controlled partial-onset seizure clinical trials, neuropsychiatric events were reported more frequently in patients being treated with FYCOMPA than in patients taking placebo. These events included irritability, aggression, anger, and anxiety, which occurred in 2% or greater of FYCOMPA-treated patients and twice as frequently as in placebo-treated patients. Other symptoms that occurred with FYCOMPA and were more common than with placebo included belligerence, affect lability, agitation, and physical assault. Some of these events were reported as serious and life-threatening. Homicidal ideation and/or threat were exhibited in 0.1% of 4,368 FYCOMPA-treated patients in controlled and open label trials, including non-epilepsy trials. Homicidal ideation and/or threat have also been reported postmarketing in patients treated with FYCOMPA. In the partial-onset seizure clinical trials, these events occurred in patients with and without prior psychiatric history, prior aggressive behavior, or concomitant use of medications associated with hostility and aggression. Some patients experienced worsening of their pre-existing psychiatric conditions. Patients with active psychotic disorders and unstable recurrent affective disorders were excluded from the clinical trials. The combination of alcohol and FYCOMPA significantly worsened mood and increased anger. Patients taking FYCOMPA should avoid the use of alcohol. Similar serious psychiatric and behavioral events were observed in the primary generalized tonic-clonic seizure clinical trial. In healthy volunteers taking FYCOMPA, observed psychiatric events included paranoia, euphoric mood, agitation, anger, mental status changes, and disorientation/confusional state. In the non-epilepsy trials, psychiatric events that occurred in perampanel-treated patients more often than placebo-treated patients included disorientation, delusion, and paranoia. Patients, their caregivers, and families should be informed that FYCOMPA may increase the risk of psychiatric events. Patients should be monitored during treatment and for at least 1 month after the last dose of FYCOMPA, and especially when taking higher doses and during the initial few weeks of drug therapy (titration period) or at other times of dose increases. Dose of FYCOMPA should be reduced if these symptoms occur. Permanently discontinue FYCOMPA for persistent severe or worsening psychiatric symptoms or behaviors and refer for psychiatric evaluation. **Suicidal Behavior and Ideation** Antiepileptic drugs (AEDs), including FYCOMPA, increase the risk of suicidal thoughts or behavior in patients taking these drugs for any indication. Patients treated with any AED for any indication should be monitored for the emergence or worsening of depression, suicidal thoughts or behavior, and/or any unusual changes in mood or behavior. Pooled analyses of 199 placebo-controlled clinical trials (mono- and adjunctive therapy) of 11 different AEDs showed that patients randomized to one of the AEDs had approximately twice the risk (adjusted Relative Risk 1.8, 95% CI: 1.2, 2.7) of suicidal thinking or behavior compared to patients randomized to placebo. In these trials, which had a median treatment duration of 12 weeks, the estimated incidence of suicidal behavior or ideation among 27,863 AED-treated patients was 0.43%, compared to 0.24% among 16,029 placebo-treated patients, representing an increase of approximately one case of suicidal thinking or behavior for every 530 patients treated. There were four suicides in drug-treated patients in the trials and none in placebo-treated patients, but the number is too small to allow any conclusion about drug effect on suicide. The increased risk of suicidal thoughts or behavior with AEDs was observed as early as 1 week after starting drug treatment with AEDs and persisted for the duration of treatment assessed. Because most trials included in the analysis did not extend beyond 24 weeks, the risk of suicidal thoughts or behavior beyond 24 weeks could not be assessed. The risk of suicidal thoughts or behavior was generally consistent among drugs in the data analyzed. The finding of increased risk with AEDs of varying mechanisms of action and across a range of indications suggests that the risk applies to all AEDs used for any indication. The risk did not vary substantially by age (5-100 years) in the clinical trials analyzed. Table 1 shows absolute and relative risk by indication for all evaluated AEDs.

**Table 1. Risk by indication for antiepileptic drugs in the pooled analysis**

| Indication | Placebo Patients with Events per 1000 Patients | Drug Patients with Events per 1000 Patients | Relative Risk: Incidence of Events in Drug Patients/ Incidence in Placebo Patients | Risk Difference: Additional Drug Patients with Events per 1000 Patients |
|---|---|---|---|---|
| Epilepsy | 1.0 | 3.4 | 3.5 | 2.4 |
| Psychiatric | 5.7 | 8.5 | 1.5 | 2.9 |
| Other | 1.0 | 1.8 | 1.9 | 0.9 |
| Total | 2.4 | 4.3 | 1.8 | 1.9 |

The relative risk for suicidal thoughts or behavior was higher in clinical trials for epilepsy than in clinical trials for psychiatric or other conditions, but the absolute risk differences were similar for the epilepsy and psychiatric indications. Anyone considering prescribing FYCOMPA or any other AED must balance the risk of suicidal thoughts or behavior with the risk of untreated illness. Epilepsy and many other illnesses for which AEDs are prescribed are themselves associated with morbidity and mortality and an increased risk of suicidal thoughts and behavior. Should suicidal thoughts and behavior emerge during treatment, the prescriber needs to consider whether the emergence of these symptoms in any given patient may be related to the illness being treated. **Neurologic Effects** Dizziness and Gait Disturbance FYCOMPA caused dose-related increases in events related to dizziness and disturbance in gait or coordination. In the controlled partial-onset seizure clinical trials, dizziness and vertigo were reported in 35% and 47% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 10% of placebo-treated patients. The gait disturbance related events (including ataxia, gait disturbance, balance disorder, and abnormal coordination) were reported in 12% and 16% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 2% of placebo-treated patients. Elderly patients had an increased risk of these adverse reactions compared to younger adults and pediatric patients. These adverse reactions occurred mostly during the titration phase and led to discontinuation in 3% of FYCOMPA-treated patients compared to 1% of placebo-treated patients. These adverse reactions were also observed in the primary generalized tonic-clonic seizure clinical trial. Somnolence and Fatigue FYCOMPA caused dose-dependent increases in somnolence and fatigue-related events (including fatigue, asthenia, and lethargy). In the controlled partial-onset seizure clinical trials, 16% and 18% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, reported somnolence compared to 7% of placebo patients. In the controlled partial-onset seizure clinical trials, 12% and 15% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, reported fatigue-related events compared to 5% of placebo patients. Somnolence or fatigue-related events led to discontinuation in 2% of FYCOMPA-treated patients and 0.5% of placebo-treated patients. Elderly patients had an increased risk of these adverse reactions compared to younger adults and pediatric patients. In the controlled partial-onset seizure clinical trials, these adverse reactions occurred mostly during the titration phase. These adverse reactions were also observed in the primary generalized tonic-clonic seizure clinical trial. Risk Amelioration Prescribers should advise patients against engaging in hazardous activities requiring mental alertness, such as operating motor vehicles or dangerous machinery, until the effect of FYCOMPA is known. **Falls** An increased risk of falls, in some cases leading to serious injuries including head injuries and bone fracture, occurred in patients being treated with FYCOMPA (with and without concurrent seizures). In the controlled partial-onset seizure clinical trials, falls were reported in 5% and 10% of patients randomized to receive FYCOMPA at doses of 8 mg and 12 mg per day, respectively, compared to 3% of placebo-treated patients. Falls were reported as serious and led to discontinuation more frequently in FYCOMPA-treated patients than placebo-treated patients. Elderly patients had an increased risk of falls compared to younger adults and pediatric patients. **Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS)/Multiorgan Hypersensitivity** Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS), also known as Multiorgan hypersensitivity, has been reported in patients taking antiepileptic drugs, including FYCOMPA. DRESS may be fatal or life-threatening. DRESS typically, although not exclusively, presents with fever, rash, lymphadenopathy, and/or facial swelling, in association with other organ system involvement, such as hepatitis, nephritis, hematological abnormalities, myocarditis, or myositis sometimes resembling an acute viral infection. Eosinophilia is often present. Because this disorder is variable in its expression, other organ systems not noted here may be involved. It is important to note that early manifestations of hypersensitivity, such as fever or lymphadenopathy, may be present even though rash is not evident. If such signs or symptoms are present, the patient should be evaluated immediately. FYCOMPA should be discontinued if an alternative etiology for the signs or symptoms cannot be established. **Withdrawal of Antiepileptic Drugs** There is the potential of increased seizure frequency in patients with seizure disorders when antiepileptic drugs are withdrawn abruptly. FYCOMPA has a half-life of approximately 105 hours so that even after abrupt cessation, blood levels fall gradually. In epilepsy clinical trials FYCOMPA was withdrawn without down-titration. Although a small number of patients exhibited seizures following discontinuation, the data were not sufficient to allow any recommendations regarding appropriate withdrawal regimens. A gradual withdrawal is generally recommended with antiepileptic drugs, but if withdrawal is a response to adverse events, prompt withdrawal can be considered.

## ADVERSE REACTIONS

**Clinical Trials Experience** Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice. Partial-Onset Seizures A total of 1,038 patients receiving FYCOMPA (2, 4, 8, or 12 mg once daily) constituted the safety population in the pooled analysis of the placebo-controlled trials (Studies 1, 2, and 3) in patients with partial-onset seizures. Approximately 51% of patients were female, and the mean age was 35 years. *Adverse Reactions Leading to Discontinuation* In controlled clinical trials (Studies 1, 2, and 3), the rate of discontinuation as a result of an adverse reaction was 3%, 8%, and 19% in patients randomized to receive FYCOMPA at the recommended doses of 4 mg, 8 mg, and 12 mg per day, respectively, and 5% in patients randomized to receive placebo. The adverse reactions most commonly leading to discontinuation (≥1% in the 8 mg or 12 mg FYCOMPA group and greater than placebo) were dizziness, somnolence, vertigo, aggression, anger, ataxia, blurred vision, irritability, and dysarthria. *Most Common Adverse Reactions* Table 2 gives the incidence in the controlled clinical trials (Studies 1, 2, and 3) of the adverse reactions that occurred in ≥2% of patients with partial-onset seizures in the FYCOMPA 12 mg dose group and more frequent than placebo (in order of decreasing frequency for the 12 mg dose group). The most common dose-related adverse reactions in patients receiving FYCOMPA at doses of 8 mg or 12 mg (≥4% and occurring at least 1% higher than the placebo group) included dizziness (36%), somnolence (16%), fatigue (10%), irritability (9%), falls (7%), nausea (7%), ataxia (5%), balance disorder (4%), gait disturbance (4%), vertigo (4%), and weight gain (4%). For almost every adverse reaction, rates were higher on 12 mg and more often led to dose reduction or discontinuation.

**Table 2. Adverse Reactions in Pooled Placebo-Controlled Trials in Patients with Partial-Onset Seizures (Studies 1, 2, and 3) (Reactions ≥ 2% of Patients in Highest FYCOMPA Dose (12 mg) Group and More Frequent than Placebo)**

| | Placebo n=442 % | FYCOMPA | | |
|---|---|---|---|---|
| | | 4 mg n=172 % | 8 mg n=431 % | 12 mg n=255 % |
| Dizziness | 9 | 16 | 32 | 43 |
| Somnolence | 7 | 9 | 16 | 18 |
| Headache | 11 | 11 | 11 | 13 |
| Irritability | 3 | 4 | 7 | 12 |
| Fatigue | 5 | 8 | 8 | 12 |
| Falls | 3 | 2 | 5 | 10 |
| Ataxia | 0 | 1 | 3 | 8 |
| Nausea | 5 | 3 | 6 | 8 |
| Vertigo | 1 | 4 | 3 | 5 |
| Back pain | 2 | 2 | 2 | 5 |
| Dysarthria | 0 | 1 | 3 | 4 |
| Anxiety | 1 | 2 | 3 | 4 |
| Blurred vision | 1 | 1 | 3 | 4 |
| Gait disturbance | 1 | 1 | 4 | 4 |
| Weight gain | 1 | 4 | 4 | 4 |
| Cough | 3 | 1 | 1 | 4 |
| Upper respiratory tract infection | 3 | 3 | 3 | 4 |
| Vomiting | 3 | 2 | 3 | 4 |
| Hypersomnia | 0 | 1 | 2 | 3 |
| Anger | <1 | 0 | 1 | 3 |
| Aggression | 1 | 1 | 2 | 3 |
| Balance disorder | 1 | 0 | 5 | 3 |
| Diplopia | 1 | 1 | 1 | 3 |
| Head injury | 1 | 1 | 1 | 3 |
| Hypoaesthesia | 1 | 0 | 0 | 3 |
| Pain in extremity | 1 | 0 | 2 | 3 |
| Constipation | 2 | 2 | 2 | 3 |

**Table 2. Adverse Reactions in Pooled Placebo-Controlled Trials in Patients with Partial-Onset Seizures (Studies 1, 2, and 3) (Reactions ≥ 2% of Patients in Highest FYCOMPA Dose (12 mg) Group and More Frequent than Placebo) (cont.)**

| | | | | |
|---|---|---|---|---|
| Myalgia | 2 | 1 | 1 | 3 |
| Coordination abnormal | 0 | 1 | <1 | 2 |
| Euphoric mood | 0 | 0 | <1 | 2 |
| Confusional state | <1 | 1 | 1 | 2 |
| Hyponatremia | <1 | 0 | 0 | 2 |
| Limb injury | <1 | 1 | 1 | 2 |
| Mood altered | <1 | 1 | <1 | 2 |
| Arthralgia | 1 | 0 | 3 | 2 |
| Asthenia | 1 | 1 | 2 | 2 |
| Contusion | 1 | 0 | 2 | 2 |
| Memory impairment | 1 | 0 | 1 | 2 |
| Musculoskeletal pain | 1 | 1 | 1 | 2 |
| Oropharyngeal pain | 1 | 2 | 2 | 2 |
| Paraesthesia | 1 | 0 | 1 | 2 |
| Peripheral edema | 1 | 1 | 1 | 2 |
| Skin laceration | 1 | 0 | 2 | 2 |

Primary Generalized Tonic-Clonic Seizures A total of 81 patients receiving FYCOMPA 8 mg once daily constituted the safety population in the placebo-controlled trial in patients with primary generalized tonic-clonic seizures (Study 4). Approximately 57% of patients were female, and the mean age was 27 years. In the controlled primary generalized tonic-clonic seizure clinical trial (Study 4), the adverse reaction profile was similar to that noted for the controlled partial-onset seizure clinical trials (Studies 1, 2, and 3). Table 3 gives the incidence of adverse reactions in patients receiving FYCOMPA 8 mg (≥4% and higher than in the placebo group) in Study 4. The most common adverse reactions in patients receiving FYCOMPA (≥10% and greater than placebo) were dizziness (32%), fatigue (15%), headache (12%), somnolence (11%), and irritability (11%). The adverse reactions most commonly leading to discontinuation in patients receiving FYCOMPA 8 mg (≥2% and greater than placebo) were vomiting (2%) and dizziness (2%).

**Table 3. Adverse Reactions in a Placebo-Controlled Trial in Patients with Primary Generalized Tonic-Clonic Seizures (Study 4) (Reactions ≥ 4% of Patients in FYCOMPA Group and More Frequent than Placebo)**

| | Placebo n=82 % | FYCOMPA 8 mg n=81 % |
|---|---|---|
| Dizziness | 6 | 32 |
| Fatigue | 6 | 15 |
| Headache | 10 | 12 |
| Somnolence | 4 | 11 |
| Irritability | 2 | 11 |
| Vertigo | 2 | 9 |
| Vomiting | 2 | 9 |
| Weight gain | 4 | 7 |
| Contusion | 4 | 6 |
| Nausea | 5 | 6 |
| Abdominal pain | 1 | 5 |
| Anxiety | 4 | 5 |
| Urinary tract infection | 1 | 4 |
| Ligament sprain | 0 | 4 |
| Balance disorder | 1 | 4 |
| Rash | 1 | 4 |

Weight Gain Weight gain has occurred with FYCOMPA. In controlled partial-onset seizure clinical trials, FYCOMPA-treated adults gained an average of 1.1 kg (2.5 lbs) compared to an average of 0.3 kg (0.7 lbs) in placebo-treated adults with a median exposure of 19 weeks. The percentages of adults who gained at least 7% and 15% of their baseline body weight in FYCOMPA-treated patients were 9.1% and 0.9%, respectively, as compared to 4.5% and 0.2% of placebo-treated patients, respectively. Clinical monitoring of weight is recommended. Similar increases in weight were also observed in adult and pediatric patients treated with FYCOMPA in the primary generalized tonic-clonic seizure clinical trial. Elevated triglycerides Increases in triglycerides have occurred with FYCOMPA use. Comparison of Sex and Race No significant sex differences were noted in the incidence of adverse reactions. Although there were few non-Caucasian patients, no differences in the incidence of adverse reactions compared to Caucasian patients were observed. **Postmarketing Experience** The following adverse reactions have been identified during post approval use of FYCOMPA. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure. Dermatologic: Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS). Psychiatric: Acute psychosis, hallucinations, delusions, paranoia, delirium, confusional state, disorientation, memory impairment.

## DRUG INTERACTIONS

**Contraceptives** With concomitant use, FYCOMPA at a dose of 12 mg per day reduced levonorgestrel exposure by approximately 40%. Use of FYCOMPA with contraceptives containing levonorgestrel may render them less effective. Additional non-hormonal forms of contraception are recommended. **Moderate and Strong CYP3A4 Inducers** The concomitant use of known moderate and strong CYP3A4 inducers including carbamazepine, phenytoin, or oxcarbazepine with FYCOMPA decreased the plasma levels of perampanel by approximately 50-67%. The starting doses for FYCOMPA should be increased in the presence of moderate or strong CYP3A4 inducers. When these moderate or strong CYP3A4 inducers are introduced or withdrawn from a patient's treatment regimen, the patient should be closely monitored for clinical response and tolerability. Dose adjustment of FYCOMPA may be necessary. **Alcohol and Other CNS Depressants** The concomitant use of FYCOMPA and CNS depressants including alcohol may increase CNS depression. A pharmacodynamic interaction study in healthy subjects found that the effects of FYCOMPA on complex tasks such as driving ability were additive or supra-additive to the impairment effects of alcohol. Multiple dosing of FYCOMPA 12 mg per day also enhanced the effects of alcohol to interfere with vigilance and alertness, and increased levels of anger, confusion, and depression. These effects may also be seen when FYCOMPA is used in combination with other CNS depressants. Care should be taken when administering FYCOMPA with these agents. Patients should limit activity until they have experience with concomitant use of CNS depressants (e.g., benzodiazepines, narcotics, barbiturates, sedating antihistamines). Advise patients not to drive or operate machinery until they have gained sufficient experience on FYCOMPA to gauge whether it adversely affects these activities.

## USE IN SPECIFIC POPULATIONS

**Pregnancy** Pregnancy Exposure Registry There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to antiepileptic drugs (AEDs), such as FYCOMPA, during pregnancy. Encourage women who are taking FYCOMPA during pregnancy to enroll in the North American Antiepileptic Drug (NAAED) Pregnancy Registry by calling 1-888-233-2334 or visiting http://www.aedpregnancyregistry.org. Risk summary There are no adequate data on the developmental risk associated with use in pregnant women. In animal studies, perampanel induced developmental toxicity in pregnant rat and rabbit at clinically relevant doses. In the U.S. general population the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively. The background risk of major birth defects and miscarriage for the indicated population is unknown. Oral administration of perampanel (1, 3, or 10 mg/kg/day) to pregnant rats throughout organogenesis resulted in an increase in visceral abnormalities (diverticulum of the intestine) at all doses tested; maternal toxicity was observed at the mid and high doses. In a dose-ranging study at higher oral doses (10, 30, or 60 mg/kg/day), embryo lethality and reduced fetal body weight were observed at the mid and high doses tested. The lowest dose tested (1 mg/kg/day) is similar to a human dose of 8 mg per day based on body surface area (mg/m$^2$). Upon oral administration of perampanel (1, 3, or 10 mg/kg per day) to pregnant rabbits throughout organogenesis, embryo lethality was observed at the mid and high doses tested; the no-effect dose for embryo-fetal developmental toxicity in rabbit (1 mg/kg/day) is approximately 2 times a human dose of 8 mg per day based on body surface area (mg/m$^2$). Oral administration of perampanel (1, 3, or 10 mg/kg per day) to rats throughout gestation and lactation resulted in fetal and pup deaths at the mid and high doses (associated with maternal toxicity) and delayed sexual maturation in males and females at the highest dose tested. No effects were observed on measures of neurobehavioral or reproductive function in the offspring. The no-effect dose for pre- and postnatal developmental toxicity in rat (1 mg/kg/day) is similar to a human dose of 8 mg per day based on body surface area (mg/m$^2$). **Lactation** Risk summary There are no data on the presence of perampanel in human milk, the effects on the breastfed child, or the effects of the drug on milk production. Perampanel and/or its metabolites are excreted in rat milk, and are detected at concentrations higher than that in maternal plasma. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for FYCOMPA and any potential adverse effects on the breastfed child from FYCOMPA or from the underlying maternal condition. **Females and Males of Reproductive Potential** Contraception Use of FYCOMPA may reduce the efficacy of hormonal contraceptives containing levonorgestrel. Advise women taking FYCOMPA who are using a levonorgestrel-containing contraceptive to use an additional non-hormonal form of contraception while using FYCOMPA and for a month after discontinuation. **Pediatric Use** The safety and efficacy of FYCOMPA for the treatment of partial-onset seizures in pediatric patients 12 years of age and older was established by three randomized double-blind, placebo-controlled, multicenter studies, which included 72 pediatric patients between 12 and 16 years of age exposed to FYCOMPA. The safety and efficacy of FYCOMPA for the adjunctive therapy of primary generalized tonic-clonic seizures in pediatric patients 12 years of age and older was established in a single randomized double-blind, placebo-controlled, multicenter trial (n=164), which included 11 pediatric patients 12 to 16 years of age exposed to FYCOMPA; an additional 6 patients were treated with FYCOMPA in the open label extension of the study. The safety and effectiveness of FYCOMPA in pediatric patients less than 12 years of age have not been established. Juvenile Animal Data Oral administration of perampanel (1, 3, 3/10/30 mg/kg/day; high dose increased on postnatal days [PND] 28 and 56) to young rats for 12 weeks starting on PND 7 resulted in reduced body weight, reduced growth, neurobehavioral impairment (water maze performance and auditory startle habituation) at the mid and high doses, and delayed sexual maturation at the high doses. CNS signs (reduced activity, incoordination, excessive grooming/scratching), pup death, decreased hindlimb splay, and decreased hindlimb grip strength were observed at all doses. Effects on pup body weight, pup growth, hindlimb splay, impairment in the water maze performance, and auditory startle persisted after dosing was stopped. A no-effect dose for postnatal developmental toxicity was not identified in this study. Oral administration of perampanel (1, 5,5/10 mg/kg/day; high dose increased on PND 56) to juvenile dogs for 33 weeks, starting on PND 42, resulted in CNS signs (incoordination, excessive grooming/licking/scratching, spatial disorientation, and/or ataxic gait) at all doses tested. **Geriatric Use** Clinical studies of FYCOMPA did not include sufficient numbers of patients aged 65 and over to determine the safety and efficacy of FYCOMPA in the elderly population. Because of increased likelihood for adverse reactions in the elderly, dosing titration should proceed slowly in patients aged 65 years and older. **Hepatic Impairment** Use of FYCOMPA in patients with severe hepatic impairment is not recommended, and dosage adjustments are recommended in patients with mild or moderate hepatic impairment. **Renal Impairment** Dose adjustment is not required in patients with mild renal impairment. FYCOMPA should be used with caution in patients with moderate renal impairment, and slower titration may be considered. Use in patients with severe renal impairment or patients undergoing hemodialysis is not recommended.

## DRUG ABUSE AND DEPENDENCE

**Controlled Substance** FYCOMPA contains perampanel and is listed as a Schedule III controlled substance. **Abuse** Prescription drug abuse is the intentional non-therapeutic use of a drug, even once, for its rewarding psychological or physiological effects. Drug addiction, which develops after repeated drug abuse, is characterized by a strong desire to take a drug despite harmful consequences, difficulty in controlling its use, giving a higher priority to drug use than to obligations, increased tolerance, and sometimes physical withdrawal. Drug abuse and drug addiction are separate and distinct from physical dependence (for example, abuse may not be accompanied by physical dependence). Studies of human abuse potential were performed to evaluate the abuse potential of FYCOMPA (8 mg, 24 mg, and 36 mg) as compared to alprazolam C-IV (1.5 mg and 3 mg), and oral ketamine C-III (100 mg) in recreational polydrug users. Supra-therapeutic doses of FYCOMPA 24 and 36 mg produced responses for "Euphoria" that were similar to ketamine 100 mg and alprazolam 3 mg. For "High," FYCOMPA 24 mg and 36 mg produced responses comparable to ketamine 100 mg and significantly higher than both doses of alprazolam on a visual analog scale (VAS). "Drug Liking," "Overall Drug Liking," and "Take Drug Again" for FYCOMPA were each statistically lower than ketamine 100 mg. In addition, for "Bad Drug Effects," FYCOMPA 24 mg and 36 mg produced responses significantly higher than ketamine 100 mg. For "Sedation," FYCOMPA 24 and 36 mg produced responses similar to alprazolam 3 mg and higher than ketamine 100 mg. Additionally, on VAS measures related to dissociative phenomena such as "Floating," "Spaced Out," and "Detached," FYCOMPA at supra-therapeutic doses produced responses similar to ketamine 100 mg and greater than both doses of alprazolam tested. Of note, due to somnolence a number of subjects had missing data around $T_{max}$ of FYCOMPA. The above described data might represent an underestimate of FYCOMPA's effects. The duration of effects of higher doses of FYCOMPA on the majority of measures was much greater than alprazolam 3 mg and ketamine 100 mg. In this study, the incidence of euphoria following FYCOMPA administration 8 mg, 24 mg, and 36 mg was 37%, 46%, 46%, respectively, which was higher than alprazolam 3 mg (13%) but lower than ketamine 100 mg (89%). **Dependence** Physical dependence is characterized by withdrawal symptoms after abrupt discontinuation or a significant dose reduction of a drug. The potential for FYCOMPA to produce withdrawal symptoms has not been adequately evaluated.

## OVERDOSAGE

There is limited clinical experience with FYCOMPA overdose. The highest reported overdose (approximately 264 mg) was intentional. This patient experienced serious adverse reactions of altered mental status, agitation, and aggressive behavior and recovered without sequelae. In general, the adverse reactions associated with overdoses were similar to the reactions at therapeutic doses with dizziness reported most frequently. There were no reported sequelae. There is no available specific antidote to the overdose reactions of FYCOMPA. In the event of overdose, standard medical practice for the management of any overdose should be used. An adequate airway, oxygenation, and ventilation should be ensured; monitoring of cardiac rhythm and vital sign measurement is recommended. A certified poison control center should be contacted for updated information on the management of overdose with FYCOMPA. Due to its long half-life, the reactions caused by FYCOMPA could be prolonged.

# Arnold P. Gold Foundation Humanism in Medicine Award

David L. Coulter, MD

*Presented Wednesday evening, October 4*

## DAVID L. COULTER, MD

***PROFILE WRITTEN BY JOHN MYTINGER, MD***

The Child Neurology Society presents the 2017 Arnold P. Gold Foundation Humanism in Medicine Award to David L Coulter, M.D. While Dr. Coulter has made wide ranging contributions to child neurology in the areas of neurometabolic disease, epilepsy, disability education, and ethics, he is best known for his dedication to and advocacy for children with intellectual and developmental disabilities. The CNS recognizes his career long commitment to the field of Neurodevelopmental Disabilities (NDD) and his dedication to the humanistic care of children with NDD and their families. In Dr. Coulter's very first published article (*JAMA*, 1980), he pleaded for a humanistic approach to children with NDD. That dedication continues to define his career.

Dr. Coulter's 11th grade biology teacher, Mrs. Lillian Olson, sparked his interest in biology and the brain. He received his Bachelor of Science in Biology degree from the University of Notre Dame in 1969, then received his M.D. degree from the Yale School of Medicine in 1973. A clinical rotation in neurology with Dr. Gilbert Glaser at Yale convinced him that clinical neurology would be his career choice. A later elective with Dr. Peter Huttenlocher ignited his interest in child neurology.

During his pediatric residency at Duke University (1973-1975), a clinical child neurologist, Dr. Jim Renuart, instilled in him the importance of developing a personal relationship with every patient regardless of disability. Dr. Russell DeJong offered him a residency position at the University of Michigan and taught him how to become a neurologist. During this time, Dr. Coulter started and ran several free clinics for indigent children with neurological problems and also started a neurology clinic at the University's Student Health Service. Dr. Richard Allen, one of the founding members of the CNS and the division chief in Ann Arbor, became Dr. Coulter's most influential mentor. They worked closely together every day for six years. Most of Dr. Coulter's early publications were co-authored with Dr. Allen, including the first descriptions of benign neonatal sleep myoclonus and valproate-associated hyperammonemia. One of Dr. Coulter's greatest personal honors many years later was presenting Dr. Allen with the Guthrie Award for lifetime achievement in neurometabolic disease on behalf of the American Association on Intellectual and Developmental Disabilities.

Both Dr. DeJong and Dr. Allen helped him move to a position at the University of Texas Medical Branch in Galveston, where he soon achieved both promotion and tenure. His career took off after that, defined throughout by the three fellowships completed along the way, including one in Cerebral Palsy at the University of Michigan (1978), Bioethics at Harvard Medical School (1997-1998) and the Schwartz Center's Clinical Pastoral Education Fellowship at Massachusetts General Hospital (2012).

Dr. Coulter dedicated his career to the care of children with intellectual and developmental disabilities. He joined the American Association on Intellectual and Developmental Disabilities (AAIDD) in 1982 and would later become AAIDD President (2004-2005). He co-authored the 1992, 2002 and 2010 editions of the AAIDD manuals on the definition and classification of intellectual disability. He helped the U.S. Surgeon General create the 2002 report on health care for people with intellectual disability. Dr. Coulter provided free care for poor, disadvantaged and disabled children throughout his time in Texas (1981-1986) and subsequently at Boston City Hospital (1986-2000) where he was the Chief of Child Neurology. He moved to Boston Children's Hospital and Harvard Medical School in 2001,

where he continues to serve as senior staff neurologist and associate professor of neurology. Dr. Coulter served for 26 years as the neurologist for the Perkins School for the Blind and continues to serve as the neurologist for the New England Center for Children, a residential school for autism, both located in Massachusetts.

Dr. Coulter gave an invited lecture at the annual meeting of the Epilepsy Foundation of America in 1989 on "When Epilepsy is Not the Only Disability." He later edited a special issue on epilepsy in persons with intellectual disability for the AAIDD journal and published an article in *Epilepsia* (1997) on the comprehensive management of epilepsy in persons with intellectual disability. Dr. Coulter co-edited the *Journal of Religion, Disability and Health* from 1999-2010. He argued for the "spiritual valorization" of people with disabilities in his eloquent and influential AAIDD Presidential Address (reprinted in *Mental Retardation* 2006). Dr. Coulter argued that the Golden Rule applies to all persons and that people with disabilities have the same spiritual value as those who are nondisabled. Dr. Coulter cited Wolf Wolfensberger, "one of the greatest names in the field of intellectual disability", affirming that caring for patients with disabilities includes three messages: "(a) you are valuable, (b) you are as valuable as any other person, and (c) you are loved by those around you."

***Dr. Coulter cites ethical issues as one of the greatest challenges facing young physicians today, because they will have to deal with the technological advances that are outpacing our ethical ability to evaluate them.***

When NDD became a recognized subspecialty, Dr. Coulter co-founded the NDD training program at Boston Children's Hospital, now run by Dr. David Urion. Dr. Coulter won the coveted resident "Teacher of the Year" award twice (2005 and 2016). Both times he was recognized for his modeling of humanistic care of children with neurological disorders. He describes these awards as the greatest professional honors of his career.

In addition to being a prolific advocate for children with disabilities, Dr. Coulter is also an experienced ethicist and long-time member of the IRB and Ethics Committees. He wrote the chapter on "Ethical Issues in Child Neurology" for the last three editions of *Swaiman's Pediatric Neurology*. Dr. Coulter cites ethical issues as one of the greatest challenges facing young physicians today, because they will have to deal with the technological advances that are outpacing our ethical ability to evaluate them.

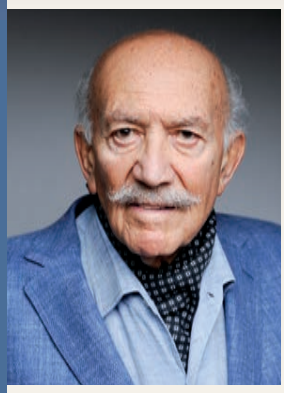
Humanism defines Dr. Coulter's entire life from the time he was a child to the present day. He wrote, "Humanists try to share with others who they are as individual human beings and to walk with them as partners on a common life journey." Furthermore, "Humanism is about having relationships with patients, children with disabilities, families, students, residents, colleagues, neighbors and everyone else." He adds that these relationships "enlivened and sustained me throughout the years." When he was an intern, Dr. Renuart showed him how to translate that passion for humanism into a lifelong medical career.

When asked many years later what he would do if he could not be a doctor, Dr. Coulter said he would become a hospital chaplain. As a clinical child neurologist at Boston Children's Hospital, Dr. Coulter continues to use his chaplaincy training to help him try to be a more compassionate and caring physician.

Dr. Coulter expresses his humanism best in his poetry. He has been writing poems since he was 10 years old. Although most of his poems were initially hidden away in notebooks, he recently published the book: *Disability, Doctoring and Patient Care: Poems from a Life in Medicine* (2017). The book reflects how Dr. Coulter has used poetry to reflect on his life choices and his career. The poems also capture the bravery he has witnessed in his patients and his gratitude for all that they have shared with him.

In receiving this award, Dr. Coulter thanks first, and above all, his wife of 35 years, Dr. Mary Cerreto, a clinical child psychologist, expert in developmental disabilities. He also thanks his late father and mother, his siblings and a fourth grade schoolteacher who instilled in him the values that would last a lifetime.

# CNS Roger and Mary Brumback Lifetime Achievement Award



Abe Chutorian, MD

*Presented Wednesday evening, October 4*

## ABE CHUTORIAN, MD

***PROFILE WRITTEN BY LEONARDO GARCIA, MD***

Dr. Abe Chutorian, then a Canadian citizen, received his M.D. degree from the University of Manitoba in 1957. Following a year of internship at the University's teaching hospital, he received his training in pediatrics at the University of Southern California's Children's Hospital in Los Angeles. Dr. Chutorian was subsequently awarded a National Institute of Health fellowship for three years. He was then recruited by Dr. Sidney Carter at Columbia University's Neurological Institute of New York to the pediatric neurology fellowship program. At the completion of his fellowship in 1963, he was invited to join the attending staff at the Neurological Institute where, from 1963 to 1990, he spent a notable career in teaching, patient care, and clinical research, along with distinguished colleagues Drs. Arnold Gold, Niels Low, James Hammill, M. Richard Koenigsberger, and others. Graduates of that program (too numerous to name) went on to distinguish themselves as leaders in their specialty.

***At a ceremonial dinner honoring his nearly 30 years of service at the Neurological Institute of New York, Dr. Sidney Carter remarked particularly on Dr. Chutorian's analytical skills, and the focus and clarity of his presentations and lectures, not least on his penchant to recognize and uncover novel clinical disorders and phenomena.***

Dr. Chutorian was considered a gifted clinician-teacher, and over the course of his career published 146 papers, chapters in textbooks, and abstracts, making annual presentations at scientific meetings of the American Academy of Neurology, the American Neurological Association, the Child Neurology Society, the Ibero-American Pediatric Neurological Society, and other national and international forums. At a ceremonial dinner honoring his nearly 30 years of service at the Neurological Institute of New York, Dr. Sidney Carter remarked particularly on Dr. Chutorian's analytical skills, and the focus and clarity of his presentations and lectures, not least on his penchant to recognize and uncover novel clinical disorders and phenomena. In recognition of these qualities, Dr. Chutorian was invited by the American Academy of Neurology to head the section of pediatric neurology for the purpose of organizing and presenting the annual pediatric neurology lectures at the scientific meetings of the society, from the late 1960's to the early 1970's.

Dr. Chutorian left Columbia in 1990 when Dr. Fred Plum recruited him to become the Director of Pediatric Neurology at Cornell Medical College and the New York Hospital. He was appointed Professor of Neurology and Pediatrics at that institution, a post which he held from 1990 to 2005. Together with Dr. Gail Solomon and Dr. Hart Peterson, additional staff was recruited and an active and productive clinical care, teaching, fellowship, and clinical research program ensued. During those years, Dr. Chutorian was also appointed Director of Neurology at the Hospital for Special Surgery, a post he held for the next eight years. He remained Director of Pediatric Neurology at that institution until 2005. At this premier orthopedic hospital, he directed a neuromuscular clinic, held regular conferences, taught orthopedic, pediatric and pediatric neurology trainees the medical and pre- and post-surgical management of children with central and peripheral neuromuscular disorders, including cerebral palsy, skeletal malformations, scoliosis, and neuromuscular disorders.In 1994, Dr. Chutorian authored a pioneering clinical research publication on the treatment of spasticity of children with botulism toxin. Since 2005, Dr. Chutorian has maintained his appointment at Cornell, and returned to Columbia as Professor of Clinical Neurology, where he participated in the teaching program and conferences.

Dr. Chutorian's clinical interests have been wide ranging, but include focused areas of interest. While his publications range anatomically from the central to the peripheral nervous system, and clinically from structural to metabolic disease, he has made multiple notable contributions to the literature on optic nerve and retinal disorders, auto- immune disorders, movement disorders, metabolic disease, and intracranial and spinal cord tumors.

Dr. Chutorian's reports of novel clinical and clinico-pathological entities include:

- A report of a new syndrome of benign familial chorea with intention tremor (1966).
- A syndrome of opsoclonus-myoclonus in association with neuroblastoma as a distinct clinical pathologic entity, and attribution of the disorder to auto-immunity, since then amply documented (1968).
- A novel post-infective generalized chorea with after-going Parkinsonism due to influenza-A, documented by sequential viral titers, and demonstration that the hyperkinesia was caused by hypersensitivity to circulating L-Dopa, documented by sequential changes in the quantity of this metabolite in the cerebrospinal fluid (1976).
- A new X-linked disorder manifest in progressive optico-acoustic degeneration and polyneuropathy (1967). Dr. Chutorian's co-author was Dr. Roger Rosenberg, then a neurology rotating resident on Dr. Chutorian's teaching service. Dr. Rosenberg attributes his subsequent interest in a career in neurological genetic disorders to his experience of this early encounter. Subsequently the molecular genetics and spectrum of the disorder have been amply established.
- A juvenile variant hexosaminidase deficiency and a separate hexosaminidase compound with a juvenile gangliosydosis phenotype (1977 and 1980)
- An extensive study of a novel neurotoxic movement disorder, juvenile Parkinsonism due to cytosine arabinoside, with demonstration of cerebrospinal fluid metabolites, PET, and MRI clinically correlated alterations, and clinical responsiveness to L-Dopa replacement (2003).
- A clinical syndrome in children consisting of benign paroxysmal torticollis, tortipelvis and retrocollis (1974).
- A report on the association of Bells Palsy with benign intracranial hypertension in several children (1977).
- A clinical pathologic syndrome mimicking polymyoclonia, with unique microscopic changes in the brain, and characterized clinically by juvenile global tremor (2007).

Among the novel clinical phenomena reported by Dr. Chutorian are:

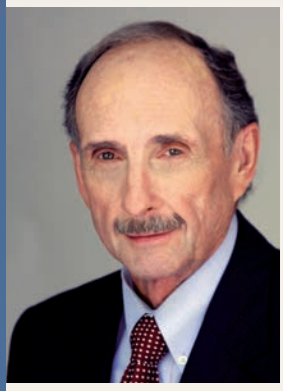
- The earliest indication that transcarbamylase deficiency is X-linked and largely lethal in males but manageable in females (1970).
- The occurrence of isolated pallanesthesia and ataxia in chronic infantile polyneuropathy (1975).
- Quantitative demonstration of an inverse relationship between cerebrospinal fluid pressure and corticosteroid dosage in children with refractory pseudotumor cerebri (1975).
- The demonstration that megalencephaly in cerebral gigantism (Sotos syndrome) is due to impaired cerebrospinal fluid reabsorption at the arachnoidal villi, demonstrated by delayed clearance of isotope at that level (1988).
- Demonstration that recurrent brainstem compression masquerades as electro-decremental seizures (1991).

Following are comments by distinguished colleagues, some of whom were former fellows.

- Dr. Douglas Nordli: Dr. Chutorian is a gifted teacher and he has influenced generations of child neurologists with his extraordinary skills.
- Dr. Leon Epstein: Among my mentors, Dr. Chutorian stood out in several important respects. He was by far the most impressive critical thinker I have met to this day. He had an uncanny ability to see novel clinical syndromes and he could determine precisely what was, and was not relevant. His papers are a joy to read. Although most fellows were initially intimidated by his intellect, almost all in the end found him to be a warm and compassionate physician and a friend with a great sense of humor.
- Dr. Kenneth Swaiman: His teaching abilities, writings, and incomparable clinical skills distinguish him as a unique pediatric neurologist and leader of the discipline.
- Dr. Darryl De Vivo: Dr. Chutorian has had a distinguished academic career as a clinician and educator, and I can think of few people who are more deserving than he for this recognition. Dr. Chutorian was part of the modern beginning of child neurology in the United States, and his contributions remain relevant to the present day.
- Dr. David Rothner: Dr. Chutorian's skills in the area of patient care were recognized early in his career. Obtaining data crucial to the diagnosis and his manner of performing the neurological examination were legendary. His ability to collate these facts into a clear, concise coherent differential diagnosis and plan of evaluation and treatment put him into a category all his own.
- Dr Michael Painter: Abe Chutorian is universally admired by child neurologists he has trained and colleagues with whom he has interacted. His commitment to education was unsurpassed, and his demand for evidenced based decisions fostered the development of critical thinking, not only in students and residents, but colleagues as well.
- Dr. Pat Crumrine: Dr. Chutorian is the quintessential child neurologist. He engaged medical students, child neurology and adult neurology residents, challenging them to think "outside of the box" and involved them in projects leading to publications in peer reviewed journals and to academic careers. He has the ability to obtain the pertinent clinical information, perform the neurological exam and develop a concise differential diagnosis in a short period of time; he was a master at this and his trainees worked to emulate these skills. As valuable as he was as an educator and mentor, he and his wife Helen played an equally important role in the lives of his trainees. They hosted lively dinners at their home for the trainees and their significant others, making certain that the residents were having a social life as well as an academic one.

For 65 years Dr. Chutorian and his wife, Helen, a retired social worker, have been devoted to each other, to their three daughters and their spouses, 10 grandchildren, and three great-grandchildren.

# CNS Roger and Mary Brumback Lifetime Achievement Award



W. Donald Shields, MD

*Presented Wednesday evening, October 4*

## W. DONALD SHIELDS, MD

***PROFILE WRITTEN BY RAMAN SANKAR, MD, PHD***

Dr. Donald Shields (Don) was born in Salt Lake City, Utah in 1941. His father was a coal miner in Utah, and was part of the broad war effort during World War II. The earliest inspiration to consider becoming a pediatric physician skilled in neurologic disorders took root during the first year of missionary service when he came across institutionalized children with severe intellectual and neurological disabilities. After graduating from the University of Utah in 1967 with a major in chemistry, he entered the College of Medicine and received his M.D. in 1971. He undertook pediatric training (1971-1973) at the Los Angeles County – University of Southern California before returning to University of Utah for training in Child Neurology. Dr. Patrick Bray had a powerful influence on Don's professional aspirations to care for children and families in a setting where the satisfaction from clinical care could be enhanced by teaching and participation in research.

In 1976, Don joined the faculty of UCLA School of Medicine, in the Division of Pediatric Neurology (founded by John Menkes), to work with Dr. Richard Schain. Only a year into his career, Dr. Schain decided to pursue a different life, and Don Shields assumed the role of Acting Chief of the Division and became the Chief of Pediatric Neurology in 1980. The 80's proved to be a remarkable period for pediatric neurology, especially pediatric epilepsy at UCLA.

Don quickly strengthened the program by adding two important faculty members: Dr. Alan Shewmon, a mathematician, concert pianist, and neurophysiologist who understood pediatric EEGs with an intuitive understanding that the tracings from developing brains needed a special approach to interpretation, and Dr. Harry Chugani, who gave added impetus to the remarkable novel developments underway with PET imaging, having studied mapping of regional glucose metabolism in the laboratories of Louis Sokoloff at the NIH. Dr. Chugani began the PET study of cortical dysplasia in infants and was able to discern significant lesions that were difficult to delineate with the 0.3 Tesla MRI available at that time.

The remarkable dynamics of interaction of those three individuals, and their partnership with Dr. Warwick Peacock, a recently arrived pediatric neurosurgeon from South Africa, resulted in the surgical treatment of infantile spasms. In those early years, Don and the team faced significant skepticism about the wisdom and ethics of those procedures. Soon, some of his most vocal critics began to adopt that approach, and gradually it has emerged as the standard at leading epilepsy centers throughout the world.

Don's other research interests involved clinical trials of anticonvulsant medications. Of the many trials he participated in, his collaboration with Dr. Roy Elterman in a compassionate study of vigabatrin for refractory infantile spasms was, perhaps, the most impactful since they resulted in the approval of vigabatrin for infantile spasms by the FDA.

Don had a powerful influence on his trainees and was an outstanding role model

for combining empathy and compassion with clinical diagnostic skills. In 1990, he was promoted to full professorship and in 1999 appointed to the Rubin Brown Distinguished Chair. His commitment to teaching resulted in his receiving the Robert C. Neerhout Faculty Teaching Award in the Department of Pediatrics, UCLA, for two consecutive years (1976-77; 1977-78). He also twice received the "Golden Hammer" teaching award of the Department of Neurology, in 1993 and again in 2009. The Sherman Mellinkoff Faculty Award recognizing dedication to the art of medicine and cultivation of the finest doctor-patient relationships is among the highest honors at UCLA; fittingly, Don was given this award in 2010.

Don was the principal investigator of the first pediatric Epilepsy Surgery Program Project, and has served in NIH review panels. He also participated in NIH workshops on pediatric epilepsy surgery and on pediatric anticonvulsant drug trials. He was elected to membership in the American Pediatric Society. He has held numerous positions in both the Child Neurology Society and the American Epilepsy Society. In 1996, he received the American Epilepsy Society's Service Award. In addition to service on numerous committees, Don also served on the CNS Board of Directors as Councillor for the West from 1994 to 1996.

*One of the most important chapters in Don's professional life has been the extraordinary leadership he provided to the Child Neurology Foundation (CNF). He assumed leadership of the CNF at a challenging time and demonstrated exceptional leadership skills in challenging the board to undertake a self-study of its goals and processes, and gently putting in place systems and processes that have produced excellent results.*

One of the most important chapters in Don's professional life has been the extraordinary leadership he provided to the Child Neurology Foundation (CNF). He assumed leadership of the CNF at a challenging time and demonstrated exceptional leadership skills in challenging the board to undertake a self-study of its goals and processes, and gently putting in place systems and processes that have produced excellent results. To quote Ms. Amy Miller, the present Executive Director: "Today, CNF is more successful than it has ever been in its 16 years. This success is directly correlated to Don's Presidency and the leadership action he took, with courage, with grace, and yes – with humility." This would come as no surprise to Don Shields' trainees, including the one who assumed leadership of the division he built in 2005.

Subsequent to his retirement, Don enjoys being a globetrotter with his wife, Ginny, and his family time with his daughter, sons and grandchildren. Moreover, he joined a country club and golfs. Current trainees at UCLA benefit from and greatly appreciate the time he spends with them in the clinic as a professor emeritus.

In 2015, the University of Utah School of Medicine recognized Don Shields with the Distinguished Alumnus Award. It is unfortunate that his mentor and inspiration at the University of Utah, Dr. Patrick Bray passed away in 2013. Don Shields has truly "done him proud."

# CNS/PCN Blue Bird Circle Training Director Award

Sidney M. Gospe, Jr, MD, PhD

*Presented Friday morning, October 6*

## SIDNEY M. GOSPE, JR, MD, PHD

***PROFILE WRITTEN BY HEIDI BLUME, MD, MPH AND JAMES OWEN, MD, PHD***

Sidney M. Gospe Jr. was born in San Francisco in 1952 into a medical family. His father was an obstetrician/gynecologist, his mother was a nurse and both of his older brothers became physicians specializing in gastroenterology and rheumatology. While San Francisco in the 1960s churned in a rich pageant, Sid quickly developed a passion for the sciences, working in a pathology lab in high school and excelling academically. His hard work and keen intellect led to acceptance to Stanford University where he received both a bachelor of science and a master's degree in the biological sciences. While at Stanford he developed an interest in the neurosciences and credits Professors David Kennedy and H. Craig Heller for introducing him to this rapidly evolving field which would become his life's work.

After graduating from Stanford in 1975, he ventured across the country to attend Duke Medical School. As an MD, PhD student drawn to complex mysteries, he was immediately fascinated by neuroanatomy and, by the end of his first semester, he knew he wanted to become a neurologist. During medical school, out of respect for his father's specialty, he tried to enjoy his Ob-Gyn rotation, but found that the singular bright spot during this time was after the delivery when he was able to care for the newborn. Pediatrics was his final required rotation and he was quickly drawn to this field. Dr. Darrell Lewis, a child neurologist at Duke, provided him with important guidance and mentorship. While at Duke, he earned a PhD in physiology and pharmacology, as well as his MD, in only six years. Following graduation from Duke, Sid completed his residency training in pediatrics and child neurology at Baylor College of Medicine, working with Marvin Fishman, Alan Percy and Dan Glaze, amongst others. Fellow residents Bill Dobyns, Huda Zoghbi and Tallie Baram added to the stimulating environment with a portion of his outpatient training occurring at the Blue Bird Circle Clinic for Pediatric Neurology at the Methodist Hospital.

Following his child neurology residency training in Texas he migrated to New York, where he was an Assistant Professor of Neurology, Pediatrics, and Pharmacology & Toxicology at the Albany Medical College for a short time before he was recruited to return "home" to the University of California at Davis in 1987. He was named the director of the Child Neurology program at UC Davis in 1989, a position he retained until his departure 11 years later, and quickly rose to become a full professor in 1997. During his 13 years at UC Davis, Sid focused his efforts on medical student and pediatric resident education. He received the Faculty Teaching Award from the UC Davis Department of Pediatrics four times, and was elected to AOA as a UC Davis Medical School faculty member in 1993. He also was able to continue his research in neurotoxicology, including important work on pyridoxine dependent epilepsy, helping to understand this disorder as a developmental neurotoxicological syndrome. He is most proud of that work (which he began in 1994 and continues with collaborators in Seattle and internationally), as well as his description of two disorders: X-linked myalgia and cramps (a dystrophinopathy phenotype) and manganese transporter deficiency.

In 2000, Sid left California to become the Chief of Child Neurology at Seattle Children's Hospital and he was appointed to the Herman and Faye Sarkowsky Endowed Chair of Child Neurology at the University of Washington. Shortly after his arrival to Seattle Children's he also became the director of the child neurology residency training program, and he maintained a leadership role in the training program until his recent retirement in the spring of 2017. When Sid arrived in Seattle there were five

attendings and one child neurology resident per year. In contrast, at the time of his retirement, the program had three categorical child neurology residents per year and over 20 pediatric neurologists practicing in a wide range of specialties. Through all the herculean efforts required to inspire and lead this change, Sid never neglected the residency program, instead treating it as the crown jewel of his section. This is demonstrated both by the evolution of the training program under his leadership as well as the tremendous quality of the trainees he shepherded through the program.

Soon after his arrival in Seattle, Sid set to work to expand the training program to two residents per year – a change which was approved in 2003. Two years later he successfully negotiated with his colleagues in Pediatrics to make one of those slots categorical, with the second slot becoming categorical in 2011. Securing both educational space and funding for additional residents for their pediatrics and adult neurology training time required devotion, diligence and finesse. Dr. Gospe not only oversaw these changes but also was closely involved in all specific facets of negotiations and planning. His wisdom and support was crucial as we successfully applied for a permanent complement increase to three residents last year. Perhaps the greatest testament to his leadership of the residency program, however, is that it has continued to thrive as he has passed off the reins: he created a sustainable structure in the midst of a time of great change in graduate medical education.

In addition to his local responsibilities, Dr. Gospe has participated in a number of national child neurology activities including work with the Professors of Child Neurology, ABPN, ABP, CNS, CNF and currently as chair of the Child Neurology Match Oversight Committee of the CNS. In addition, since 2013 he has served as the Senior Associate Editor of *Pediatric Neurology*, and as a neurology editor of *Pediatric Research* since 2015.

In all things Dr. Gospe leads by doing rather than by dictating. He met with every single applicant to the residency program over the last 17 years. He developed the resident's didactic curriculum, and actively participated by giving lectures that would become classics. Similarly, he was a constant feature in the resident's continuity clinic, a frequent attending on the inpatient service, and he continually refined the structure of the teams and duties of trainees, making sure that education always took precedence over excessive clinical duties. As head of a growing division, he certainly could have relinquished some of these responsibilities to others. However, it is clear that educating trainees is the aspect of Sid's career which gives him the greatest joy. Education was a prime consideration in any changes or faculty recruitments for the division. Outreach clinics in Alaska or remote parts of Washington State are seen as beneficial for patients, but also as opportunities for trainees. Charitable giving was solicited not only for research and clinical programs but also to provide support for educational ventures such as updating the residents' library and salary support for additional training. Sid combines this devotion with a warm and wise persona and impeccable professionalism and unquestioned integrity. In addition to more formal duties, he also would always take the time to provide quiet and unquestionable support for his residents, faculty or staff during difficult times; over and over his actions proved that he truly believes that "family comes first". He has made Seattle Children's a safe, supportive and exciting environment for trainees to explore their passions and plan their future. He truly exemplifies the sort of neurologist that any of us would aspire to be, and perhaps more importantly, that we hope our trainees become.

In the spring of 2017 Sid officially retired from his position at the University of Washington, and he is now Professor Emeritus of Neurology and Pediatrics. His former trainees recognize how lucky we were to have been in Seattle during the "Sid years." To begin the next chapter in his story, he moved from Seattle to North Carolina with Mary, his wife of 37 years, to be closer to his son, Sidney, the Third, a neuro-ophthalmologist at Duke, and his growing family. However, Sid and Mary will soon be dividing their time between North Carolina and Texas as their daughter, Jessica, a mathematics assessment specialist, and her husband are expecting twins this fall. He has marveled that he is now witnessing the magic of childhood development as a doting grandfather in a way he was unable to as busy resident and young father. Through the sharing of his gifts and the gift of his presence Dr. Sidney Gospe has left an indelible mark on our field. His patients will never forget him and those fortunate to train under Sid will continue to try to emulate him – and to pass along his lessons to their own trainees in turn.

# CNS Bernard Sachs Award

Solomon Moshé, MD

*Presented Friday morning, October 6*

## SOLOMON MOSHÉ, MD

***PROFILE WRITTEN BY JOHN MYTINGER, MD***

The Child Neurology Society presents the 2017 Bernard Sachs Award to Solomon L. Moshé, M.D. "Nico" (as he is better known) and his work are well known to all those who practice child neurology and epilepsy. He is the quintessential quadruple-threat: clinician, teacher, scientist and, nowadays administrator. He is, simply, a giant of child neurology and epilepsy whose contributions have vastly improved our ability to care for children.

Dr. Moshé received his medical degree from the National Univeristy of Athens School of Medicine (*summa cum laude*) in 1972. He immigrated from Greece to enter his U.S. pediatrics training at the University of Maryland. It was at the University of Maryland that Dr. Moshé met his closest advisor and mentor, Dr. Marvin Cornblath. Dr. Cornblath instilled in Dr. Moshé a deep appreciation for the critical role of research in medicine. This relationship led to the meeting of Dr. Cornblath's daughter, Nancy Cornblath, who Dr. Moshé would later marry. After two years in pediatrics, Dr. Moshé went on to complete three years in child neurology training at Albert Einstein in 1978, followed by a research fellowship at Albert Einstein College of Medicine in 1979. It was at Albert Einstein that Dr. Moshé would meet his most influential professional figure, the renowned developmental neurologist, Dr. Isabelle Rapin. Dr. Rapin had a profound impact on Dr. Moshé, and their relationship led him to a clinical and research career in epilepsy. Dr. Moshé's academic career progressed rapidly. He founded the Laboratory of Developmental Epilepsy and became professor in 1989. He is now the Charles Frost Chair in Neurosurgery and Neurology, and Tenured Professor of Neurology, Neuroscience, and Pediatrics at the Albert Einstein College of Medicine/Montefiore Medical Center in the Bronx, New York. He is also the Vice Chair of the Saul R. Korey Department of Neurology, Director of Child Neurology and Director of Clinical Neurophysiology.

Dr. Moshé is well know for his prolific research contributions. Since 1979 his research has focused on understanding the mechanisms underlying age and sex-related differences in epilepsy in humans and animal models. His first major focus included work in the animal model of kindling in the developing brain. Dr. Robert Ackermann was critical to this early work as he taught Dr. Moshé much of what he knows about research methodology, design and interpretation as well as effective teaching methods. Dr. Moshé's work in seizures in the developing brain was so groundbreaking that his abstracts and manuscripts on this subject were initially rejected given the absence of prior publications on the topic. He would later publish "The effects of age on the kindling phenomenon" in *Developmental Psychobiology* in 1981. This led to several more publications on this subject, including the first evidence that, although the immature brain is more prone to develop seizures and status epilepticus, neither induces the hippocampal injury often seen following seizures in adults. He then focused on understanding the mechanisms underlying age related seizure control. His work emphasized the role of subcortical circuits, including age and sex related maturational patterns of the *substantia nigra pars reticulata* in health and

disease. His laboratory has also developed and patented a novel animal model of human infantile spasms. This "multiple hit model of infantile spasms" has already yielded insight into the pathogenesis and new candidate treatments for infantile spasms. In 2017, he and six other principal investigators were awarded a $21.7 million "Center without Walls" grant for interdisciplinary research aimed at accelerating the development of disease modifying or prevention therapies for epilepsy following traumatic brain injuries, titled "The Epilepsy Bioinformatics Study for Antiepileptogenic Therapy (EpiBioS4Rx)." Dr. Moshé is also actively involved in several large multicenter studies examining the consequences of prolonged febrile seizures and absence epilepsy. He has contributed to approximately 500 original research manuscripts, reviews, chapters, books and monographs.

Dr Moshé has been the recipient of many awards, including the 1995 Jacob Javits Neuroscience Investigator Award from NINDS; the 1984 Michael Prize for Achievements in Epilepsy Research; the 1990 American Epilepsy Society Research Award; the 1999 Ambassador for Epilepsy Award from the International League Against Epilepsy; the 2005 Gloor Award from the American Clinical Neurophysiology Society; the 2007 J.E. Purkyne Honorary Medal in Biomedical Research by the Czech Academy of Sciences; the 2008 Mentor of the Year Award from Albert Einstein College of Medicine; the 2010 Global and Awareness Award from CURE, Citizens United for Research in Epilepsy; and the First 2012 Saul R. Korey Award in Translational Science and Medicine, Albert Einstein College of Medicine.

Dr. Moshé has served as President of the International League Against Epilepsy (2009-2013), the American Epilepsy Society (2000-2001), the American Clinical Neurophysiology Society (1996-1997) and the Eastern Association of EEGers (1992-1994). Of special note, during his tenure as President of ILAE, he collaborated closely with the World Health Organization governmental and non-governmental agencies to increase the access of care for people with epilepsy. He has been a recurring invited speaker both nationally and internationally. In fact, Dr. Moshé has a played a critical role in shaping the care of children around the world. His work in India is a case in point. Working with the Amrita Institute of Medical Sciences, he helped established child neurology and epilepsy programs in Kerala promoting better care through academic excellence.

***He is the quintessential quadruple-threat: clinician, teacher, scientist and, nowadays administrator. He is, simply, a giant of child neurology and epilepsy whose contributions have vastly improved our ability to care for children.***

A driving force for Dr. Moshé's choice to become a physician was his desire to be a teacher. He has been a scientific advisor to numerous child neurology residents, clinical neurophysiology residents, predoctoral students and postdoctoral fellows in medicine, but also in the arts (i.e. movies, theater, music, including opera) and sports (in his spare time he coached soccer in youth leagues). He believes that a successful physician-teacher must use every opportunity to teach as well as learn. He considers his collaborations with his colleagues at Einstein and abroad as his most successful achievements, including his long-standing partnerships with Drs. Shlomo Shinnar, Karen Ballaban-Gil and Aristea Galanopoulou, the current Director of the Laboratory of Developmental Epilepsy. He would like to thank all his colleagues for helping create an environment of mutual respect, learning and camaraderie.

Dr. Moshé lives with his wife, Nancy Cornblath Moshé, in New York. Nancy and Nico are the proud parents of Jared Moshé (an accomplished movie writer-director) and grandparents to Gus Moshé.

# CNS Philip R. Dodge Young Investigator Award

Audrey Brumback, MD, PhD

*Presented Friday morning, October 6*

## AUDREY BRUMBACK, MD, PHD

***PROFILE WRITTEN BY E. STEVE ROACH, MD***

This year's Phillip R. Dodge Young Investigator Award recipient is Audrey Brumback, MD, PhD of the University of Texas Dell Medical School in Austin, Texas. The award will support her continuing effort to define the mechanisms of corticothalamic circuit dysfunction in autism. Long-term, she envisions that these studies could lead to novel circuit-based treatments for individuals with autism.

As a National Merit Scholar, Dr. Brumback studied biochemistry at the University of Texas at Austin, graduating with honors in 1999. She then entered the University of Colorado's Medical Scientist Training Program, earning a PhD in neuroscience in 2006 and an MD two years later. She successfully defended her thesis "Thermodynamic regulation of NKCC1-mediated chloride cotransport underlies plasticity of GABAA signaling in neonatal neurons." Her thesis advisor was child neurologist Kevin Staley. Dr. Brumback next completed a one-year internship in pediatrics at the University of California San Francisco, then entered pediatric neurology residency via the neuroscience pathway. For a year she served as Chief Resident of Child Neurology at UCSF, and finished the residency in 2013.

Dr. Brumback credits her current research path to a mixture of serendipity and mentorship. She finished residency intent on continuing her research career as a post-doctoral fellow. One of her faculty mentors suggested that she work with Vikaas Sohal, a psychiatry-trained physician-scientist who studies how the prefrontal cortex influences disorders such as autism and schizophrenia. Sohal was working with a still new technique called optogenetics, which seemed like a natural fit with the patch-clamp techniques she had utilized during her PhD studies. Optogenetics involves the insertion of genes into neurons followed by the use of light to activate or inactivate the modified cells. The optogenetic technique allows levels of sensitivity and specificity that are not possible with standard electrical brain stimulation.

***When asked why she chose to specialize in child neurology, she replied, "Well, I tried to play hard to get with neurology. With each clinical rotation, I tried to imagine myself as a practitioner in that field, but my mind always veered back to the brain."***

Autism was an attractive area for study. It is common, but its pathophysiology is poorly understood. Several animal models of autism already exist. Although the brain is structurally normal in most individuals with autism, clearly there is neuronal dysfunction to be identified if one has a sensitive enough analytic tool. A number of genes have been implicated in autism, but how these genes trigger the clinical manifestations of autism is not understood. Thus began her study of convergent mechanisms of prefrontal cortical dysfunction in mouse models of autism at the UCSF Center for Integrative Neuroscience.

With characteristic diligence, Dr. Brumback set about becoming proficient at the new optogenetic technique, understanding the earlier studies related to autism, and mastering the clinical features of autism. She attended an autism "boot camp" at Cold Spring Harbor, started to seek out children with autism in clinic, and began working with her department's clinical experts. Using whole cell patch clamp electrophysiology, she documented deficient excitability of prefrontal corticothalamic neurons in three mouse models of autism (fragile X knockout, *CNTNAP2* knockout, and prenatal valproate exposure). She then performed *in vivo* calcium imaging in awake, behaving mice and observed

that these abnormal corticothalamic neurons do not activate appropriately during social interactions in autism model mice. Then, using *in vivo* optogenetic stimulation in awake, behaving mice, she observed that the social behavior of the model mice can be bi-directionally altered by optogenetic activation or inactivation of these abnormal prefrontal corticothalamic neurons. These studies laid the groundwork for the work to be supported by the Dodge Award – the use of mouse models to examine how the prefrontal corticothalamic circuit participates in autism-associated behaviors.

As the daughter of a child neurologist, one might think that Dr. Brumback's decision to enter the field would have been direct. But when asked why she chose to specialize in child neurology, she replied, "Well, I tried to play hard to get with neurology. With each clinical rotation, I tried to imagine myself as a practitioner in that field, but my mind always veered back to the brain. For OB/GYN, it was how does the fetal brain develop? For ophthalmology, it was how the retina is a window to the brain. I did my neurology clerkship at the end of the year, and after the first half day of clinic, it was obvious this was where I belonged." Later, during the first day in pediatric clinic, she thought, "I'm a pediatric neurologist. Done."

In addition to her success as a researcher and clinician, Dr. Brumback and her husband MacKenzie Howard have two adorable preschool daughters. Since 2012, she has also spent one week per year in Mexico as a volunteer for the Rotary Club's Proyecto Niño annual medical service mission. How does she manage it all? "Well, first, I have an equal partner in my husband," she explains. "And as researchers, we both have flexible schedules, which is such a gift." One suspects that balancing her work and family life also has something to do with dedication, organization, and plain hard work.

Dr. Brumback has already made substantive scientific contributions, but she has also mastered an array of research techniques that should ensure continued contributions. Equally important, she combines a passion for research with a deep-seated desire to help the individuals with autism. We could not have selected a more appropriate winner of the Phillip R. Dodge Young Investigator Award.

## From the Executive Director continued from page 2

Investigator Award Lecturer (Audrey Brumback). Isabelle will be there in spirit as longtime colleagues and friends from Einstein take the stage with Karen Ballaban-Gil introducing the 2017 Sachs Lecturer, Nico Moshé following the Dodge lecture.

Saturday's Hower Award lecture may summon echoes of that priceless Rapin-Rust moment in 1997. In much the same way that Isabelle might exclaim, "I am not venerable" 20 years ago, Nina might take exception to being called a "KW". But, of course, she is. Because, if she isn't, who, sandwiched between Isabelle Rapin and Audrey Brumback, is? After Jon Mink, Nina's colleague at the University of Rochester, brings the room to order as the new CNS President, Nina's twenty-something twin sons, Jonathan and Stanford, will introduce their mom with the kind of pride and panache befitting a true "KW". They, along with their sister, Asher, and their father, Bob, a vestibular neurophysiologist, could easily put together a compelling video, starring Nina, showing how one goes about scaling the heights of excellence and colleagues' esteem in one's field while raising a family and maintaining a remarkable work-life balance.

It would be a great companion video to the "Three Amigas" clip posted on the CNS website Careers section featuring Nina, Ann Tilton and Pat Crumrine. I've watched that clip a dozen times, each time wondering where we are going to find the next cohort of "KW" to match those three and a couple dozen others of their generation that I've had the privilege to work with over the years. Who will carry the flame? Or, more prosaically, who will chair committees, run for office, or represent the CNS as this cohort has at a marathon's worth of meetings with the AAN, ANA, AES, AUPN, AAP, RRC, ACGME, AUPN, ABPN, NINDS, UCNS and others too numerous to name? It's not as if raising families – or other, equally worthy life choices – alongside charting a career in academics/practice/research, and being actively involved in professional associations, has gotten easier. It hasn't. However much the gender balance in child neurology has shifted in women's favor, it hasn't shifted to the same degree or in the same direction when it comes to work-life balance.

The challenges ahead are real. But so are the resources needed to meet them. Starting with the fortuitous – and enviable – gender balance among CNS members. "Enviable" because, given the Society's relatively small size and correlatively communal and collaborative impulses and orientation, we as a Society are wellsuited to model for other medical societies – and, for the larger society, as well – how to address burnout, how to find a rewarding work-life balance, how to encourage, support and reward excellence in pursuit of individual meaning and collective mission for both women and men – KW and KM alike. KC seems like as good of a place as any to start taking on that challenge in earnest.

*(Postscript: Although neither earned CME credit, presented a poster, or even attended a SIG meeting, Audrey's two infant daughters have both attended CNS Annual Meetings. If that doesn't qualify them as "pre-KW," what would?)*

# CNS Hower Award

Nina F. Schor, MD, PhD

*Presented Saturday morning, October 7*

## NINA F. SCHOR, MD, PHD

***PROFILE WRITTEN BY DANIEL BONTHIUS, MD, PHD***

Nina F. Schor's father was a scientist and engineer, while her mother was a musician and actress. This juxtaposition of science and art would impact the young Nina's character, and she would spend her life at the interface between the two. A native of Bayside, Queens, Nina pursued her early education in the New York City Public School system. Her interests in science, music, and creative writing emerged in elementary school and fueled her curricular and extracurricular pursuits through her years at Benjamin N. Cardozo High School. It was in this high school that the talented young pianist had her first laboratory experience and learned how exciting and inspirational it could be to pursue scientific truths with friends and colleagues.

***Dr. Schor has mentored over 80 students and trainees at all levels. Most of them are her co-authors on her 130 peer-reviewed papers. In 2005, she received the Distinguished Neurology Teacher Award of the American Neurological Association, and in 2017, she was named a Master Mentor of the National Research Mentoring Network consortium.***

After graduating from high school at age 16, Schor headed to Yale, where, still drawn to science and the arts, she studied biochemistry and music theory. At Yale, Nina found herself at home in a laboratory of enzymology and protein chemistry – subjects to which she was drawn because of their intriguing scientific aspects and because of the elegant imagery created by the binding of a protein to its substrate. Dr. Schor graduated *cum laude* from Yale University with a B.S. degree in Molecular Biophysics and Biochemistry and as a Scholar of the House in Chemistry Research in 1975.

She next headed back to the state of New York, where she enrolled in an MD-PhD program. This time, her art was medicine, and her science was medical biochemistry. It was during medical school that Schor treated a young boy who was suffering from neuroblastoma, a form of cancer that she had never before encountered. The child's tumor compressed his spinal cord, paralyzing his legs and leaving him unable to control his bladder or bowel. Unhappy with the inadequate treatments available for this form of cancer, Schor vowed to pursue this disease. Neuroblastoma would later become the principal topic of her research. She received her PhD in 1980 from Rockefeller University after working in the laboratory of Dr. Anthony Cerami, and she received her MD in 1981 from Cornell University Medical College.

Dr. Schor pursued residency training in pediatrics at Boston Children's Hospital (1981-1983) under Dr. Mary Ellen Avery and child neurology at the Longwood Area-Harvard Neurology Program (1983-1986) under Dr. Charles Barlow. During residency, she also pursued a postdoctoral fellowship, funded by the Cancer Research Foundation of America, in the laboratory of Dr. Manfred Karnofsky at Harvard. There, she began her studies of neuroblastoma, aimed at understanding the neurobiology of this tumor and designing and testing novel strategies in preclinical models for its treatment.

Upon completion of her child neurology residency training, Dr. Schor moved to the University of Pittsburgh where, over the next 20 years, she rose through the academic and administrative ranks to ultimately become the Carol Ann Craumer Professor of Pediatric Research, Chief of the Division of Child Neurology in the Department of Pediatrics, and Associate Dean for Medical Student Research at the medical school. Dr. Schor also served as Chair of the Institutional Review Board and Animal Care and Use Committee.

At the University of Pittsburgh, Dr. Schor initiated her own research program regarding the mechanisms of neuroblastoma's chemotherapy

resistance and the role of neurotrophin receptors in neuro-oncologic and neurodegenerative disease. She has pursued these lines of research ever since, and with great success. Since 1988, her research program has been continuously funded by granting agencies, including the NIH, American Cancer Society, American Heart Association, Elsa U. Pardee Foundation, and Crosby's Fund for Pediatric Cancer Research.

As part of her research strategy, Dr. Schor attempts to juxtapose one body of knowledge with another in order to shed new light on disease biology. In particular, she asked how knowledge in child neurology and developmental neuroscience could be brought to bear in a non-child neurology field, like neuroblastoma. As an example of this strategy, she examined the role of NGF (nerve growth factor) receptors, which play a critical role in brain growth and development, in neuroblastoma. She found that NGF receptors are a double-edged sword for neuroblastoma, as their activation can be pro-survival or pro-apoptotic, depending on their concentration at the cellular surface.

In 2006, Dr. Schor left the University of Pittsburgh to become the William H. Eilinger Chair of the Department of Pediatrics, and Pediatrician-in-Chief at the University of Rochester. As Chair of the Pediatrics Department, she played a major role in the design of and fund-raising for the new Golisano Children's Hospital, which opened in 2015. In addition, she implemented an ambitious faculty development program, with faculty numbers growing from 110 to 170 under her tenure.

Throughout her career as a child neurologist, Dr. Schor has been a vital member of the Child Neurology Society, as she has made innumerable contributions and filled key leadership positions. For the CNS, she has served as Secretary/Treasurer and President, as Councilor from the East, and has served as a reviewer for the Philip R. Dodge Young Investigator and Child Neurology Foundation Research Awards. In addition, she has been a contributing member of numerous CNS committees and has frequently enhanced the quality of the CNS scientific program through the presentation of her research.

Besides the CNS, many other national organizations have utilized Dr. Schor's vision and leadership skills. Dr. Schor is currently a Director of the American Board of Psychiatry and Neurology. She has also served as President of the Professors of Child Neurology, a member of the Society for Pediatric Research and American Pediatric Society Councils, Secretary of the American Neurological Association, a member of the Scientific Program Committee of the American Academy of Neurology and the Executive Committee of AMSPDC. She has served on many NIH Study Sections and CCSG Strategy Groups. Dr. Schor has served as a reviewer for the Rosenthal and E. Mead Johnson Awards, chaired the E. Mead Johnson Award Selection Committee, and has been a member of the Steering and Selection Committees of the Pediatric Scientist Development Program for over a decade. She has been the speaker for many invited professorships across the United States.

In her laboratory, Dr. Schor has mentored over 80 students and trainees at all levels. Most of them are her co-authors on her 130 peer-reviewed papers. In 2005, she received the Distinguished Neurology Teacher Award of the American Neurological Association, and in 2017, she was named a Master Mentor of the National Research Mentoring Network consortium.

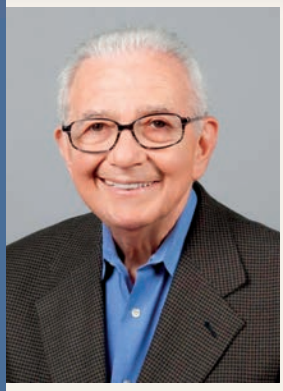
Dr. Schor's most meaningful professional relationships are those that she has formed with her students. She enjoys witnessing the intellectual, academic, and personal growth of her trainees and is thrilled when the distinction between mentor and mentee becomes blurred, as information and ideas flow equally in both directions.

Dr. Schor's "extramural" passions are playing and composing music and writing poetry. In Pittsburgh, she performed frequently as a member of the klezmer band, "The Hot Matzohs," and was President of the Y Music Society solo concert series. She studied Shenker and atonal analysis with Allan Forte, piano with Milton Kraus, and orchestral conducting at the Mannes Conservatory in Manhattan. She is a prolific contributor of poetry to the journal *Neurology*, and those who completed their Child Neurology residencies under her leadership have each received a personalized and framed example of her doggerel.

Dr. Schor and her husband, Robert (a vestibular neurophysiologist), are the proud parents of Asher (formerly known as Devra), a public interest lawyer, and twins Jonathan and Stanford, MD-PhD students at, respectively, UCSF and Stanford Schools of Medicine.

Physician, scientist, leader, poet, pianist, and humanitarian, Dr. Nina Schor is this year's recipient of the Hower Award.

# Kenneth F. Swaiman, MD — An Appreciation



Kenneth F. Swaiman, MD

*Presented Wednesday evening, October 4*

## KENNETH F. SWAIMAN, MD

***PROFILE WRITTEN BY STEPHEN ASHWAL, MD***

Dr. Kenneth F. Swaiman will be honored on Wednesday evening at the 2017 CNS Annual Meeting Legacy Reception. There will be an introduction by Don Shields, past Child Neurology Foundation President and recipient of the this year's Roger and Mary Brumback Lifetime Achivement Award, remarks on Ken's contributions to the CNS by Paul Rosman, to the Professors of Child Neurology (PCN) by Harvey Singer, to the Child Neurology Foundation (CNF) by Mike Painter, to the founding of the journal *Pediatric Neurology* by Steve Roach, and to the standard textbook in the field, *Swaiman's Pediatric Neurology: Principles and Principals and Practice* by Steve Ashwal. Steve will also talk about Ken's teaching contributions. Ken Mack, CNS President, will conclude the 'formal' part of the program, photographs will be taken and a reception will follow.

***"Ken Swaiman's vision years ago resulted in much of the infrastructure of our profession that today we at times take for granted. These achievements constitute an enduring legacy of his vision and resolution."***
***E. Steve Roach, MD***

Ken was born (1931) and raised in the Twin Cities. His Lithuanian father was conscripted into the Czar's Army, later deserted, made his way to Liverpool, then Grand Rapids, Michigan and eventually to Saint Paul, Minnesota. He became a barber, building on skills he had learned in Lithuania. Ken's mother was also born in Lithuania and came to the United States as a toddler. She received two years of business school education and spent her married years as a homemaker. Ken has one younger sister, Lois.

Ken received his education at the University of Minnesota, including a degree in Liberal Arts (Magna Cum Laude, 1952), Science (1953), a nd Medicine (1955). He then went on to a rotating internship at the Minneapolis General Hospital (1955-56) and a pediatric and chief residency at the University of Minnesota Hospitals (1956-58). This experience was followed by a two year tour of duty as Chief of Pediatrics at the US Army Hospital (Ft. McPherson, GA). He returned to Minnesota where he was a NIH sponsored 'Special Fellow in Pediatric Neurology' (1960-63) under the mentorship of Dr. A.B. Baker, one of the pioneers in American Neurology and founder of the American Academy of Neurology (AAN, 1948). Ken received board certifications from the American Board of Pediatrics (1960), the American Board of Psychiatry and Neurology (1966) and the American Board of Psychiatry and Neurology, with Special Competence in Child Neurology (1969).

Ken joined the Pediatric and the Neurology faculties at the U of M (1963) and within a decade became a full Professor in both departments, Director of the Pediatric Neurology Training Program and Director, Division of Pediatric Neurology (1972) which was one of the first such medical schools to have a separate Child Neurology division. Ken served in this capacity until 1998, and it was during this period that he was responsible for training over 80 child neurologists. He also took on more administrative responsibilities and from 1994 to 1996 served as Interim Head of the Department of Neurology.

During his career, spanning over 50 years, Ken belonged to 20 professional organizations, held leadership positions in key child neurology organizations including the CNS (First President 1972-1973), International Child Neurology Association (Executive Committee 1970-1979), Professors of Child Neurology (First President 1978-80) and the Child Neurology Foundation (First President 2000-2003). Ken has been on many NIH Study Sections and has very willingly shared his knowledge nationally and internationally as a visiting professor giving over 50 special lectures throughout the United States and in many countries. He has served on approximately 15 editorial boards of the major scientific journals in child neurology, pediatrics and neurology.

During his training, he became interested in GABA metabolism. His initial studies in the developing rabbit brain examined the interrelationships between glycolytic and oxidative metabolism and the excitatory amino acids with a long-standing colleague, Dr. Jerrold Milstein and later studies on phenylalanine metabolism with a trainee and later colleague, Dr. Bernard Lemieux. He also was involved in metabolic abnormalities seen in different pediatric neuromuscular conditions as well as the effects of malnutrition on the developing brain. Ken published on wide variety of clinical subjects including diseases associated with acid maltase deficiency (with William Kennedy, who later described 'Kennedy's disease', and HR Sauls), and sea blue histiocytosis and its association with posterior column disease (with Bhuwan Garg and Larry Lockman, who Ken trained and who had illustrious careers). Later in his career Ken was involved in a series of studies of iron and other metals on cerebral energetics using neuronal and glial tissue culture techniques with Dr. VL Machen.

Ken has received many awards throughout his career with the three most prestigious being the Hower award, the highest award given by the CNS, the Founder's Award at the 25th anniversary CNS meeting (1996), and The AAN Lifetime Achievement Award for Neurologic Education (2005).

Ken's long term interest in teaching was always in the forefront of his thoughts and in part led to the organizations he worked to found. He felt that the specialty was not organized in a reasonable manner and through the years became instrumental in the formation of the CNS, PCN, CNF, *Pediatric Neurology: Principles and Practice, and the journal, Pediatric Neurology*. As stated by Paul Rosman, "More than any other modern day neurologist, Ken Swaiman has led the way in establishing the field of child neurology. He has served as the most lustrous academic beacon for our field, showing the way in clinical care, teaching, research and scholarship and, in that way, bettering the lives of tens of thousands of children with neurological disorders". These comments are also echoed by Steve Roach: "Ken Swaiman's vision years ago resulted in much of the infrastructure of our profession that today we at times take for granted. These achievements constitute an enduring legacy of his vision and resolution."

## Child Neurology Society

There are several landmarks that preceded the formation of the CNS; these include the founding of the first neurological association in the United States (American Neurological Association, 1874); the first national professional society for physicians (American Academy of Pediatrics, 1930); the largest American neurological society (AAN, 1948); the first specialty board for professionals who care for children (American Board of Pediatrics, 1933); and, finally the first specialty board devoted to those who care for individuals with neurological and psychiatric disorders (American Board of Psychiatry and Neurology, 1934). Another 34 years elapsed before child neurology was recognized as a distinctive neurology subspecialty (American Board of Psychiatry and Neurology, with Special Competence in Child Neurology, 1968). Following this important milestone, Ken, having long recognized the uniqueness of child neurology, gathered together a small group of senior pediatric neurologists in the Midwest, and founded the CNS (1972). The first meeting was held that year at the University of Michigan with an initial enrollment of 228 members. Incorporation of the society, creation of by-laws, development of an Executive Board, hiring of administrative staff, coupled with the expansion of training programs resulted in a greater number of individuals becoming child neurologists, which has increased the number of society members to more than 2000.

*Child Neurology Foundation Executive Director, Amy Miller with CNF's first President, Ken Swaiman*

## Professors of Child Neurology

The Association of University Professors of Neurology (AUPN), one the principal organizations involved in the training of neurologists, held its first meeting in 1968 to address issues related to the training of neurologists, legislative and workforce issues, research funding, and served as a liaison with many organizations and societies. More recently, the AUPN has addressed other major

issues including development of the match programs and the national neurology self-assessment resident examinations.

Realizing the importance of having a parallel organization for academic child neurologists, Ken founded the PCN with the help of Bruce Berg in 1978, and served as its first President. The PCN meets annually at the CNS meeting and currently has 135 members. As noted by Gary Clark on the PCN website, the PCN serves many roles, including the support of training programs, program directors, program coordinators and residents as well as serving as the interface with multiple other organizations (CNS, ACGME, neurology RRC, ABPN, and the UCNS). As noted by Harvey Singer: "The PCN is an organization with the primary goal of supporting and enhancing the training of residents/ fellows and their Program Directors. During his tenure, Ken was a tireless advocate for improving the quality of education, the advancement of the field, and the means by which to increase the knowledge and capability of pediatric neurologists."

## Child Neurology Foundation

Ken founded the CNF in 2001 as he saw the resposibility to support the outreach of child neurologists and support of families and children with neurological disorders. As noted by Mike Painter, "Ken was the Foundation's first president and was instrumental in securing the resources to start the Researcher in Training Award and the Scientific Award. Such was the trust in the future of the Foundation that significant industry support was obtained through Ken's and Roy Elterman's efforts even before there were Bylaws for the contributors to review. When we look at the subsequent funding success of the recipient s of these awards and their accomplishments that trust was well justified." More recently, the CNF has redirected its efforts to focus on the needs of the families and children and has conducted unique symposia at the annual CNS meeting involving child neurologists and families.


*Longtime friend, Paul Rosman and Ken Swaiman share a laugh at the 25th Annual CNS Meeting in 1996.*

*First CNS Executive Committee (l-r): John Menkes, Isabelle Rapin, Gerald Fenichel, Ken Swaiman, Richard Allen, Manuel Gomez, James Schwartz*

## *'Pediatric Neurology: Principles and Practice'*

The first textbook solely devoted to the entire field of child neurology appeared in 1845 (Ludwig Mauthner). Over the ensuing century, additional monographs were written by Bernard Sachs (1895), James Taylor (1905), Martin Theimich and Julius Zappert (1910), Ludwig Bruns (1912), George Peritz (1912), Bronson Crothers (1926), and Frank Ford (1937). For a variety of reasons, comprehensive texts devoted to the field did not appear until that of John Menkes (1974), the first edition of the book by Ken Swaiman and Frank Wright (1975), and then the monograph by Jean Aicardi (1992). The genesis of the Swaiman and Wright book began in 1971 when an executive editor at C.V. Mosby called Ken and said that he had read papers from a University of Minnesota Continuing Medical Course and was interested in discussing publishing a book. This was a year before the first Child Neurology Society meeting and thus before the formal organization of pediatric neurologists. Ken and Frank began this project, immediately facing the challenge of delineating the field. At that time, the importance of neurochemistry and genetics was being emphasized, there were questions as to whether learning disabilities or autism were legitimate components of child neurology, and recruiting authors for various chapters was difficult because the discipline's subspecialties were in their infancy or under- or undeveloped. The first edition preface is instructive and stated, "We have aspired to create a well-illustrated book that stresses the mainstays of modern pediatric neurology – the staggering array of neuromuscular and metabolic diseases described in the past 30 years, the relationship of embryology to congenital malformations, the growing number of recognized

but yet unexplained degenerative diseases of childhood, and higher cortical function as related to learning capabilities of the child."

The book by Ken and Frank, *The Practice of Pediatric Neurology*, and the subsequent 1982 edition were internationally well received. Ken then became sole editor of the next edition (1989) when the title changed to *Pediatric Neurology: Principles* and Practice with subsequent editions published in in 1994, 1999, 2006, 2012 and 2017. As the book grew in size and coverage, additional editors joined Ken: Steve Ashwal (1999), Donna Ferriero (2006), Nina Schor (2012), and Andrea Gropman, Richard Finkel, Phillip Pearl and Michael Shevell (all in 2017). The growth of the discipline is documented by the fact that the number of pages and chapters has grown greatly: from 40 chapters/1,082 pages in 1975 to 170 chapters/3,500 pages in 2017, with the most recent edition being published in the form of and extended synopsis in print and as a downloadable unabridged version.

## The Journal *'Pediatric Neurology'*

Although there were several journals that covered neurological disorders, it was in 1951 that the first issue of *Neurology* (AAN) appeared. In 1975 the American Neurological Association founded the *Annals of Neurology*. Shortly thereafter and with a certain degree of debate and controversy, the CNS became co-sponsors of the *Annals*, with all society members getting a subscription as part of their dues. Ken describes in substantial detail the discussions and process that led to his decision to develop a journal solely devoted to child neurology and within several years (1985), *Pediatric Neurology* first appeared (Swaiman, *Pediatr Neurol*. 2009;41:81-2). The journal has grown remarkably, receives many contributions from all over the world and has a high impact factor. Ken continued as

*The Original CNS "Power Couple": Ken Swaiman and Phyllis Sher.*

*Although in good health himself, the years take their toll. Ken has been saddened by the loss of many friends the past few years, including two pictured with him here: Bruce Berg and Yukio Fukuyama.*

Editor-in-Chief 2012, then and turned over this position the following year to Steve Roach, who continues to meet the needs of child neurologists world-wide.

## Trainees

During his tenure at the University of Minnesota, Ken trained over 80 individuals in child neurology. He has said that contact with the residents was one of his prime motivating forces for beginning the organizations and entities as described above and that the role of teacher and mentor is the most important responsibility that a faculty member can have. His trainees came from all over the world and he took advantage of this by accepting invitations to return to the home countries of many of his trainees to provide continuing education in child neurology. Beginning in 1972, Ken served as a board examiner for the American Board of Psychiatry and Neurology. However, when his two volume textbook was published, he later decided to 'retire' from being an examiner because candidates had studied his text in preparation for the examination and he noticed that the adult and child neurology candidates usually blanched when they saw his name tag; he wanted to spare them the anxiety that interfered with their concentration on the oral examination.

Ken and his wife, Dr. Phyllis Sher, alternate their residences between Minneapolis and Tucson. Phyllis is a pediatric neurologist who taught at the University of Minnesota Medical School for many years and at the University of Arizona as well. She recently has returned to her artistic background and is an accomplished painter. Ken continues to be involved in child neurology. He participated as an editor as well as a co-writer of a number of chapters in the newly published sixth edition of the reference text. He also continues to serve as Editor of the disease section of the Child Neurology Foundation website.

# *The Next Generation has Arrived*

More than 150 residents and 20 medical students will be among the 1,000 attendees in Kansas City for the 46th Annual CNS Meeting. Included in these numbers are more than 20 young researchers participating in the NIH-supported Child Neurologist Career Development Program (CNCDP) retreat, and the 60 PGY5 residents enrolled in the 2nd Annual John. M. "Jack" Pellock Resident Seminar on Epilepsy scheduled on the front end of the meeting.

The four Outstanding Junior members pictured below, as well as the AAP Neurology Section Travel Awardee and M. Richard Koenigsberger Scholarship recipient are among the 31 residents presenting as first/primary author of a scientific poster. The two Bernard D'Souza International Fellowship Awardees will also be presenting posters representing their research and ongoing practice in Ghana and Myanmar.

***Review hours for engaging these and other young child neurologists in conversation about their research is scheduled on Thursday (12:30-2:00 PM and 4:30-6:00 PM) and Friday (7:00-8:15 AM). Posters are also viewable on-line before, during and after the annual meeting; refer to the CNS website or meeting app to for link to the display site.***

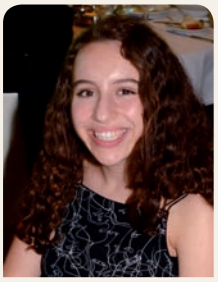
### Bernard D'Souza International Fellowship Award

Charles Hammond, MD
Ghana

### Bernard D'Souza International Fellowship Award

Aye Mya Min Aye, MBBS, MMedSc, MRCPCH
Myanmar

### CNS Bhuwan Garg High School Neuroscience Award



Lauren Singer

### AAP Section on Neurology Trainee Travel Award

Audie Chris Espinoza, MD
University of Utah

### M. Richard Koenigsberger Scholarship

Davut Pehlivan, MD
Baylor College of Medicine

## CNS Outstanding Junior Member Awards

Ka Ye Clara Chan, MD
Loma Linda Univesity Medical Center

Hsaio-Tuan Chao, MD, PhD
Baylor College of Medicine

Rachel Goldstein Hirschberger, MD, MPH
Boston Children's Hospital

Carla Watson, MD
Children's Hospital of Michigan

# Schedule at a Glance

## All meetings/sessions at Sheraton Crown Center

### MONDAY, OCTOBER 2, 2017

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 7:00 AM | 5:00 PM | CNDCP Registration | Chouteau Foyer |
| 8:00 AM | 5:00 PM | CNCDP Retreat | Chouteau A/B |

### TUESDAY, OCTOBER 3, 2017

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 7:00 AM | 12:00 PM | CNCDP Registration | Chouteau Foyer |
| 8:00 AM | 4:30 PM | CNS Executive Committee Meeting | Board Room |
| 8:00 AM | 6:00 PM | CNS Connections Courtyard | Terrace |
| 8:00 AM | 6:00 PM | CNS Connections Corridor | Corridor |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #1 | Northrup |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #2 | Fremont |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #3 | Benton A |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #4 | Benton B |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #5 | Van Horn A |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #6 | Van Horn B |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #7 | Van Horn C |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #8 | Chouteau A |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #9 | Chouteau B |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #10 | Empire A |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #11 | Empire B |
| 8:00 AM | 12:00 PM | CNCDP Mentoring/Interviews #12 | Empire C |
| 1:00 PM | 5:00 PM | CNCDP Study Group | Benton AB |
| 1:00 PM | 6:00 PM | Press Room | TBD |
| 2:00 PM | 6:00 PM | Speaker Ready | Grand/Ballroom Office |
| 2:00 PM | | Podcast/Videocast Room | Van Horn A |
| 2:00 PM | 6:00 PM | CNS Registration | Exhibit Hall A Prefunction |
| 4:00 PM | 6:00 PM | ACNN Board Meeting | Presidents (Westin) |
| 5:00 PM | 8:00 PM | CNF Executive Board Meeting | Board Room |
| 6:00 PM | 8:00 PM | ACNN Reception | Liberty (Westin) |
| 6:00 PM | 9:00 PM | Pellock Seminar Reception & Dinner | Empire |

### WEDNESDAY, OCTOBER 4, 2017

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 6:00 AM | 7:30 PM | Speaker Ready | Grand/Ballroom Office |
| 6:00 AM | | Podcast/Videocast Room | Van Horn A |
| 6:00 AM | 6:00 PM | CNS Registration | Exhibit Hall A Prefunction |
| 7:00 AM | 6:00 PM | CNS Connections Courtyard | Terrace |
| 7:00 AM | 6:00 PM | CNS Corridor | Corridor |
| 7:45 AM | 5:00 PM | Symposium I: NDC Leukodystrophies | San Francisco/Chicago |
| 8:00 AM | 10:00 PM | Press Room | TBD |
| 8:00 AM | 5:00 PM | Pellock Seminar – General Session | Empire B |
| 8:00 AM | 5:00 PM | Pellock Seminar – Concurrent Session #1 | Empire A |
| 8:00 AM | 5:00 PM | Pellock Seminar – Concurrent Session #2 | Empire C |

SESSIONS highlighted in maroon are offered for CME credit as part of the CNS Scientific Program. Satellite sessions are accredited through independent CME providers, not the CNS.

## EXHIBITS & POSTER REVIEW

### EXHIBIT HALL A

**WEDNESDAY:**
**6:00 PM-8:00 PM**
Welcome Reception
(Exhibit booths open; no posters)

**THURSDAY:**
**11:30 AM-6:00 PM**
Exhibits & Posters
Lunch served
12:30-2:00 PM
Wine & Cheese Reception:
4:30-6:00 PM

**FRIDAY:**
**7:00 AM-10:30 AM**
Breakfast served
7:00-8:15 AM

# Schedule at a Glance

SESSIONS highlighted in maroon are offered for CME credit as part of the CNS Scientific Program. Satellite sessions are accredited through independent CME providers, not the CNS.

## All meetings/sessions at Sheraton Crown Center

| | | | |
|---|---|---|---|
| 8:00 AM | 5:00 PM | Pellock Seminar – Concurrent Session #3 | Chouteau A |
| 8:00 AM | 5:00 PM | Pellock Seminar – Concurrent Session #4 | Chouteau B |
| 8:00 AM | 4:30 PM | ACNN Meeting | Liberty (Westin) |
| 8:00 AM | 5:00 PM | International Pediatric Stroke IPSS | Benton |
| 9:00 AM | 2:00 PM | Program Coordinators of Child Neurology | Van Horn C |
| 11:45 AM | 1:30 PM | ACNN Lunch, Awards, Annual Business Meeting and Networking Opportunity | Shawnee/Mission (Westin) |
| 12:00 PM | 1:30 PM | PCN Board Meeting | Fremont |
| 2:00 PM | 5:00 PM | PCN Member Meeting | Gillham |
| 6:00 PM | 8:00 PM | Exhibits & Posters Review | Exhibit Hall A |
| 6:00 PM | 8:00 PM | Opening/Welcome Reception | Exhibit Hall A |
| 8:15 PM | 9:30 PM | Pediatric Critical Care – ICU EEG Monitoring SIG | Empire |
| 8:15 PM | 10:00 PM | Legacy Reception | Atlanta/New York |
| 8:15 PM | 10:00 PM | Movement Disorders SIG | Exhibit Hall B |

### THURSDAY, OCTOBER 5, 2017

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 6:00 AM | 6:00 PM | Speaker Ready | Grand/Ballroom Office |
| 6:00 AM | 6:00 PM | Podcast/Videocast Room | Van Horn A |
| 6:00 AM | 6:00 PM | CNS Registration | Exhibit Hall A Prefunction |
| 6:15 AM | 7:00 AM | Continental Breakfast | Pre-Function Space |
| 7:00 AM | 6:00 PM | CNS Connections Courtyard | Terrace |
| 7:00 AM | 6:00 PM | CNS Connections Corridor | Corridor |
| 7:00 AM | 8:15 AM | Breakfast Seminar 1: Update on Paroxysmal Movement Disorders | Atlanta/New York |
| 7:00 AM | 8:15 AM | Breakfast Seminar 2: Sex: Why this Biological Variable is Relevant to the Child Neurologist | San Francisco/Chicago |
| 7:00 AM | 8:15 AM | Breakfast Seminar 3: How to Get Started in Child Neurology Research at any Point in your Career | Empire |
| 7:00 AM | 8:30 AM | Pediatric Neurology Journal | Chouteau |
| 8:00 AM | 10:00 PM | Press Room | TBD |
| 9:00 AM | 4:30 PM | Program Coordinators of Child Neurology | Van Horn C |
| 9:00 AM | 12:00 PM | Symposium II: Presidential Symposium: Practice Issues in Child Neurology | Grand Ballroom |
| 11:30 AM | 6:00 PM | Exhibits & Poster Review | Exhibit Hall A |
| 12:00 PM | 12:30 PM | CNS Business Meeting | Grand Ballroom |
| 12:00 PM | 1:00 PM | ACNN working lunch | Shawnee/Mission (Westin) |
| 12:30 PM | 1:45 PM | Humanism in Medicine Luncheon/Workshop (Gold Foundation) | Chouteau A/B |
| 12:30 PM | 2:00 PM | Lunch (with Exhibits & Poster Review) | Exhibit Hall A |
| 12:30 PM | 2:00 PM | Neurodevelopmental Disabilities SIG | Empire A |
| 12:30 PM | 2:00 PM | Finance Committee Meeting | Fremont |
| 12:30 PM | 2:00 PM | Ethics Committee Meeting | Benton A |

## EXHIBITS & POSTER REVIEW

### EXHIBIT HALL A

**WEDNESDAY:**
**6:00 PM-8:00 PM**
Welcome Reception
(Exhibit booths open; no posters)

**THURSDAY:**
**11:30 AM-6:00 PM**
Exhibits & Posters
Lunch served
12:30-2:00 PM
Wine & Cheese Reception:
4:30-6:00 PM

**FRIDAY:**
**7:00 AM-10:30 AM**
Breakfast served
7:00-8:15 AM

| | | | |
|---|---|---|---|
| 12:30 PM | 2:00 PM | Practice Committee Meeting | Benton B |
| 12:30 PM | 2:00 PM | Executive Committee Meeting | Board Room |
| 1:00 PM | 3:30 PM | ACNN Presentations | Liberty (Westin) |
| 2:00 PM | 4:15 PM | Symposium 3: Global Health Scientific Symposium: Disparities in Neurological Care around the World. Avenues for Intervention | Exhibit Hall B |
| 3:00 PM | 6:00 PM | CNF Corporate Advisory Committee (CAB) | Chouteau |
| 4:30 PM | 6:00 PM | Child Neuro News Break Poster Review (Wine & Cheese Reception) | Exhibit Hall A |
| 4:45 PM | 6:15 PM | Education SIG | Empire |
| 6:30 PM | 9:00 PM | Satellite Symposium – Narcolepsy (Voxmedia/Jazz Pharma) | Atlanta |

## FRIDAY, OCTOBER 6, 2017

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 6:00 AM | 5:00 PM | Speaker Ready | Grand/Ballroom Office |
| 6:00 AM | 6:00 PM | Podcast/Videocast Room | Van Horn A |
| 6:00 AM | 6:00 PM | CNS Registration | Exhibit Hall A Prefunction |
| 7:00 AM | 10:30 AM | Exhibits & Posters | Exhibit Hall A |
| 7:00 AM | 8:15 AM | Continental Breakfast | Exhibit Hall A |
| 7:00 AM | 8:30 AM | Journal of Child Neurology | Chouteau |
| 7:00 AM | 8:15 AM | Mini Satellite Session #1 (Greenwich Biosciences) | Empire B |
| 8:00 AM | 10:00 PM | Press Room | TBD |
| 8:30 AM | 10:15 AM | Platform Session I | San Francisco/Chicago |
| 8:30 AM | 10:15 AM | Platform Session II | Atlanta/New York |
| 9:00 AM | 2:00 PM | ACNN Meeting | Liberty (Westin) |
| 11:00 AM | 11:30 AM | Philip R. Dodge Young Investigator Award Lecture: Audrey Brumback, MD, PhD | Grand Ballroom |
| 11:30 AM | 12:15 PM | Bernard Sachs Lecture: Solomon Moshé, MD | Grand Ballroom |
| 12:00 PM | 1:00 PM | ACNN working lunch/SIG meeting | Shawnee/Mission (Westin) |
| 12:30 PM | 2:00 PM | Lunch | |
| 12:30 PM | 2:00 PM | Executive Board Meeting | Board Room |
| 12:30 PM | 1:30 PM | Neonatal Neurology SIG | Chouteau |
| 12:30 PM | 2:00 PM | Awards Committee Meeting | Fremont |
| 12:30 PM | 2:00 PM | International Affairs Committee Meeting | Benton A |
| 12:30 PM | 2:00 PM | Traumatic Brain Injury SIG | Benton B |
| 12:30 PM | 2:00 PM | Headache SIG | Empire A |
| 12:30 PM | 1:30 PM | Product Theater #7 (BioMarin Pharmaceuticals) | Gillham |
| 12:30 PM | 1:30 PM | Product Theater #8 (Sunovion) | Gillham |
| 12:30 PM | 1:45 PM | Mini Satellite Session #2 (Biogen) | Empire B |
| 12:45 PM | 2:00 PM | Neurohospitalist SIG | Northrup |
| 12:45 PM | 2:00 PM | Neurodevelopmental/Neurogenetics SIG | Grand Ballroom |
| 2:15 PM | 4:30 PM | Symposium IV: Conversion Disorders and Pyschogenic Non-Epileptic Seizures | Grand Ballroom |
| 2:30 PM | 4:30 PM | CNF Business Meeting Room | Northrup |
| 4:45 PM | 6:00 PM | International Relations SIG | Chouteau |
| 4:45 PM | 6:00 PM | Junior Member Seminar 1: Finding a Residency | Empire A |
| 4:45 PM | 6:00 PM | Junior Member Seminar 2: Finding a Fellowship | Empire c |

# Schedule at a Glance

| | | | |
|---|---|---|---|
| 4:45 PM | 6:00 PM | Junior Member Seminar 3: Getting Your First Job | Empire B |
| 4:45 PM | 6:00 PM | Archives Committee Meeting | Benton A |
| 6:00 PM | 6:45 PM | Scientific Program Committee | Board Room |
| 6:30 PM | 10:00 PM | Closing Gala Reception | Exhibit Hall B |
| 10:00 PM | 11:59 PM | After the party dance party | Exhibit Hall B |

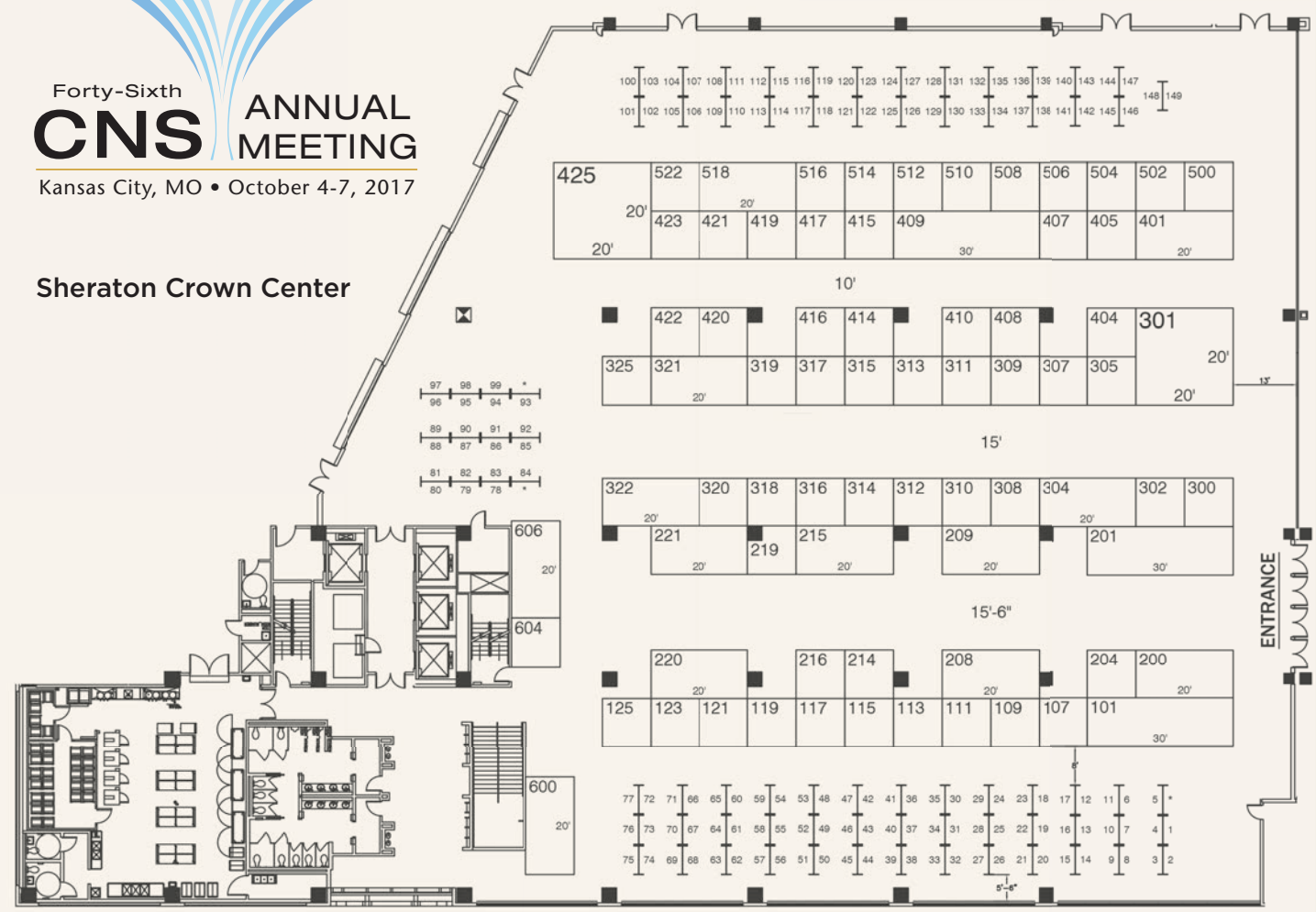
**SATURDAY, OCTOBER 7, 2017**

| *Start* | *End* | *SIG/COMM* | *Room Assigned* |
|---|---|---|---|
| 6:00 AM | 12:00 PM | Speaker Ready | Grand/Ballroom Office |
| 6:00 AM | 12:00 PM | Podcast/Videocast Room | Van Horn A |
| 6:00 AM | 12:00 PM | Press Room | TBD |
| 6:00 AM | 12:00 PM | CNS Registration | Exhibit Hall A Prefunction |
| 6:30 AM | 7:00 AM | Continental Breakfast | Grand Ballroom Pre Function |
| 7:00 AM | 8:15 AM | Breakfast Seminar 4: Newborn Screening Consideration for Spinal Muscular Atrophy | San Francisco/Chicago |
| 7:00 AM | 8:15 AM | Breakfast Seminar 5: The Comprehensive Evaluation of Mitochondrial Myopathies | Atlanta/New York |
| 7:00 AM | 8:15 AM | Breakfast Seminar 6: Diagnosing Dravet Syndrome – What's the Rush? | Empire |
| 8:15 AM | 8:45 AM | Break | Grand Ballroom Pre Function |
| 8:45 AM | 9:30 AM | Hower Award Lecture: Nina Schor, MD, PhD | Grand Ballroom |
| 9:45 AM | 12:00 PM | Symposium V: Pediatric Neuro – Oncology – Whats the New Routine in 2017? | Grand Ballroom |
| 12:15 PM | 5:00 PM | Biomedical Writing Workshop | Chouteau B |
| 1:00 PM | 4:30 PM | CNF Symposium 6: SUDEP | Empire |

# Exhibits and Posters

Forty-Sixth
CNS ANNUAL MEETING
Kansas City, MO • October 4-7, 2017

Sheraton Crown Center




## Advocate Children's Hospital (#405)

Part of Advocate Health Care, Advocate Children's Hospital is the largest network provider of pediatric services in Illinois and among top 10 in US with 2 campuses in Chicagoland with 400+ pediatricians & 275+ pediatric subspecialists. Through a holistic approach, ACH combines the country's most respected medical talent with exceptional care.

## Alternating Hemiplegia of Childhood Foundation (#407)

Our mission is to find the cause(s) of AHC, develop effective treatments and ultimately find a cure, while providing support to the families and children with AHC by funding research to accomplish these goals. Secondarily, we strive to promote proper diagnosis, educate health care professionals, the public and related organizations.

## Ambry Genetics (#410)

Since 1999, our mission has remained focused on understanding disease better so cures can come faster. Through our ongoing research, we give health care providers clearer information so they can accurately guide patient care. We will not stop until human disease is understood.

### American Board of Psychiatry & Neurology (#404)

The American Board of Psychiatry and Neurology serves the public interest and the professions of psychiatry and neurology by promoting excellence in practice through its certification and maintenance of certification processes.

### Association for Creatine Deficiencies (#318)

The Association for Creatine Deficiencies is committed to providing patient, family and public education to advocate for early intervention through newborn screening, and to promote and fund medical research for treatments and cures for cerebral creatine deficiency syndromes.

### Association of Child Neurology Nurses (#604)

The Association of Child Neurology Nurses is an international non-profit organization of nurses and other health care professionals who promote excellence in child neurology nursing practice. The ACNN provides educational opportunities at national and regional conferences, nursing excellence awards, research support, newsletters, and online membership contacts for networking. Additional information and how to join can be found at www.acnn.org.

### Athena Diagnostics (#415)

Athena Diagnostics empowers people to take action to improve health outcomes. Derived from the world's largest database of clinical lab results, our diagnostic insights reveal new avenues to identify and treat disease, inspire healthy behaviors and improve health care management. We serve half of the physicians and hospitals in the United States. QuestDiagnostics.com.

SPONSOR

### AveXis, Inc. (#220)

AveXis is a clinical-stage gene therapy company developing treatments for patients suffering from rare and life-threatening neurological genetic diseases. The company's initial proprietary gene therapy candidate, AVXS-101, is in an ongoing Phase 1 clinical trial for the treatment of SMA Type 1. For additional information, please visit www.avexis.com.

### Batten Disease Support and Research Association (#319)

BDSRA is dedicated to funding research for treatments and cures, providing family support services, advancing education, raising awareness, and advocating for legislative action. Founded by parents seeking to build a network around Batten disease, BDSRA is now the largest support and research organization dedicated to Batten disease in North America.

### Baylor Genetics (#414)

Baylor Genetics has been helping healthcare providers solve the most complex cases for over 35 years with our unmatched genetic talent, deep patient data sets and advanced technology.

SPONSOR

### Biogen (#320, 321)

Through cutting-edge science, Biogen discovers, develops and delivers to patients worldwide therapies for the treatment of neurodegenerative and rare diseases.

### BioMarin Pharmaceutical, Inc. (#208, 209)

BioMarin develops and commercializes innovative biopharmaceuticals for serious diseases and medical conditions. Approved products include the first and only medications for PKU and LEMS, and the first and only enzyme replacement therapies for MPS I, MPS VI and Morquio A syndrome. Visit www.biomarin.com to learn more.

### Carle (#508)

Carle Physician Group, a 400+ physician multispecialty group in Champaign-Urbana, is part of a not-for-profit integrated network of healthcare services that includes Carle Foundation Hospital, a 393-bed Magnet® Level I Trauma Center with Level III perinatal services, and clinics located in 19 communities throughout Illinois.

SPONSOR

### Child Neurology Foundation (#216)

Child Neurology Foundation is a national non-profit serving as a collaborative center of education and support for children and families living with neurologic conditions. CNF is governed by a Board of Directors; majority of which are CNS-members. Learn more at: www.childneurologyfoundation.org; Twitter@Child_Neurology; Facebook@CNFoundation; Instagram@childneurologyfoundation; LinkedIn@Child Neurology Foundation

### Children's Health (#311)

As a health care system, the Children's Health mission is to make life better for children, from daily wellness and primary care to specialty visits and critical care, with more than 30 locations and 1,000 physicians committed to this mission.

## Children's Healthcare of Atlanta (#107)

Children's Healthcare of Atlanta is one of the largest pediatric healthcare systems in the country, treating more than 1 million patients annually. In addition to being recognized by *U.S. News & World Report* as a top pediatric hospital, Children's has been listed as one of Fortune Magazine's 100 best places to work for 12 consecutive years.

## Children's Hospital Colorado (#408)

The Neuroscience Institute at Children's Hospital Colorado is ranked among the best in the nation for neurology and neurosurgery by *U.S. News & World Report*. Our program is recognized across the country and around the world for our care of babies, kids and young adults with all types of neurological disorders. Visit childrenscolorado.org/neuro.

## Children's Hospital of Wisconsin (#516)

Children's Hospital of Wisconsin's Neurosciences Center is the largest pediatric neurosciences center in the state of Wisconsin and ranks among the nation's best by *U.S. News & World Report*. The center combines excellent clinical care for children with innovative research, while advancing the development of pediatric neurological treatment options.

SPONSOR

## Children's Mercy Hospital Kansas City (#325)

Children's Mercy Kansas City is an independent, non-profit, 354-bed pediatric health system, serving half a million patients each year from across the country. Children's Mercy is ranked by *U.S. News & World Report* as one of "America's Best Children's Hospitals". For more information visit www.childrens.mercy.org.

Children's Mercy KANSAS CITY

## CombiMatrix (#307)

CombiMatrix is a clinical diagnostic laboratory specializing in cytogenomic testing for prenatal diagnosis, miscarriage analysis, and pediatric developmental disorders. As a full-scale cytogenetic and cytogenomic laboratory, CombiMatrix offers chromosomal microarray analysis, standard and customized FISH, and high resolution karyotyping to help clinicians better care for their patients.

## Dayton Children's Hospital (#423)

Dayton Children's is a free-standing children's hospital in Dayton, Ohio. For nearly 50 years, our focus remains steadfast – we exist because every child deserves a great children's hospital close to home. The hospital is affiliated with Wright State University School of Medicine. Please visit www.childrensdayton.org for additional information.

## Dravet Syndrome Foundation (#109)

The mission of the Dravet Syndrome Foundation is to aggressively raise research funds for Dravet syndrome and related epilepsies; to increase awareness of these catastrophic conditions; and to provide support to affected individuals and families.

SPONSOR

## Eisai Inc. (#201)

As the U.S. pharmaceutical subsidiary of Tokyo-based Eisai Co., Ltd., we are a fully integrated pharmaceutical business with discovery, clinical, and marketing capabilities. Our key areas of commercial focus include oncology and neurology (dementia-related diseases and neurodegenerative diseases). To learn more about Eisai Inc., please visit us at www.eisai.com/US.

Eisai

## Electrical Geodesics, Inc. (#113)

Visualize brain electrical activity overlaid on MRI using dense array EEG (dEEG) and electrical source imaging (ESI). Several published studies have investigated the use of dEEG and ESI for epilepsy presurgical planning. Visit EGI's booth to learn more.

## Elsevier, Inc. (#125)

Elsevier is a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals, empowering them to make better decisions, and deliver better care.

## GeneDx (#204)

GeneDx, an OPKO Health Company, offers diagnostic testing for hereditary cancers, cardiac, mitochondrial, and neurological disorders, prenatal diagnostics, and other rare disorders. Whole exome sequencing, microarray-based testing, targeted variant testing, and prenatal diagnostic services are also available. Visit www.genedx.com for more information.

## Global Genes (#419)

Global Genes is a rare disease education and advocacy organization with global reach to the rare community of patients, caregivers, advocates, and key stakeholders. We build awareness, educate the global community, and provide critical connections and resources that equip advocates to become activists for their disease.

SPONSOR

## Greenwich Biosciences (#322)

We are a world leader in the field of cannabinoid science. Our focus is to research, develop, and commercialize cannabinoid molecules as novel pharmaceutical therapies. Our lead product candidate, Epidiolex (CBD), is in trials in Dravet Syndrome, Lennox-Gastaut Syndrome, seizures associated with Tuberous Sclerosis Complex, and Infantile Spasms.

GREENWICH BIOSCIENCES

## Hayes Locums (#115)

Hayes Locums provides physician search services, both temporary and permanent placement, to healthcare institutions across the United States. We work with more than 35 physician specialties and have a network of physicians who are interested in locum tenens assignments, as well as permanent placement. We pride ourselves on providing these services with the utmost of integrity, which our physicians and clients have grown to trust.

### Invitae (#312)

Invitae, a genetic information company, is aggregating the world's genetic tests into a single service with better quality, faster turnaround time, and lower price than most single-gene tests today. Our mission is to bring genetic information into mainstream medical practice to improve the quality of healthcare for billions of people.

### Ipsen Biopharmaceuticals (#600)

Ipsen Biopharmaceuticals, Inc. is a US affiliate of Ipsen SA, an emerging global biotech company. At Ipsen Biopharmaceuticals, we are focused on developing and providing access to therapies across our core therapeutic areas: oncology, neurology and rare diseases. For information on Ipsen in North America, please visit www.ipsenus.com or www.ipsen.ca.

### Jett Foundation (#518)

Jett Foundation's booth will provide pediatric neurologists and clinicians with information on standard of care, clinical trials, and approved treatments in Duchenne muscular dystrophy. Jett Foundation is a leading US advocacy organization that serves the Duchenne community through a myriad of educational services, advocacy initiatives, and direct-s ervice-programs.

### Joe DiMaggio Children's Hospital at Memorial (#123)

Joe DiMaggio Children's Hospital has grown since 1992 to be the leading children's hospital in Broward and Palm Beach Counties, with 226 beds, an 84-bed Level II and III NICU, 30-bed PICU and 12-bed ICU. South Florida's high quality of life includes year-round summer weather and no state income tax.

### Jumo Medikidz & 4 Paws for Ability (#304)

Jumo produces award-winning health content for children across 50 countries in 30 languages. Their signature comic book line uses Medikidz – animated superheroes – to explain medical conditions to children. jumoHealth.com; 4 Paws for Ability is a nonprofit organization whose mission is to place quality service dogs with children with disabilities and educates the public regarding use of service dogs in public places.

### Le Bonheur Children's Hospital Neuroscience Institute (#111)

The Neuroscience Institute at Le Bonheur Children's Hospital in Memphis, TN is one of the nation's best pediatric neuroscience programs. Recognized by *U.S. News & World Report* as one of the top twenty programs, Le Bonheur has the most advanced technology, clinical expertise and state-of-the-art facilities of any pediatric neurology program.

### Leukodystrophy Consortium (#504)

We represent an alliance of: clinicians, scientists and patient advocacy groups that leverage resources to incrementally improve Leukodystrophy patient quality of life. We display: patient centered standards of care; centers of excellence; new born screening and diagnostics; available treatments and interventions; translational research; and the discovery of novel genetic variations.

### LivaNova (#215)

LivaNova PLC is a global medical technology company built on nearly five decades of experience and a commitment to improve the lives of patients worldwide. LivaNova's advanced technologies and breakthrough treatments provide meaningful solutions for patients, healthcare professionals and healthcare systems across three business franchises: Cardiac Surgery, Neuromodulation and Cardiac Rhythm Management. LivaNova PLC is proud to sponsor CNS and advance the wellbeing of those living with epilepsy.

### Lundbeck (#101)

Lundbeck, a global pharmaceutical company based in Denmark and founded in 1915, strives for global leadership in psychiatry and neurology by improving the lives of patients. One of the world's leading companies specializing in brain disorders, Lundbeck is focused on innovating treatments for depression, schizophrenia, Parkinson's disease and Alzheimer's disease.

SPONSOR

### Mallinckrodt Pharmaceuticals (#200, 316)

Mallinckrodt is a global business that develops, manufactures, markets and distributes specialty pharmaceutical and biopharmaceutical products and therapies. Areas of focus include autoimmune and rare diseases in specialty areas such as neurology. To learn more, visit www.Acthar.com.


### Mayo Medical Laboratories (#506)

Mayo Medical Laboratories (MML) is a global reference laboratory operating within Mayo Clinic's Department of Laboratory Medicine and Pathology. MML supports neurology practices through comprehensive testing services with specialization in autoimmune, biochemical, and genetic testing. Learn more at MayoMedicalLaboratories.com/neurology.

### Medtronic (#510)

ONE COMPANY, ONE MISSION. Written in 1960, our Mission dictates that our first and foremost priority is to contribute to human welfare. Over a half-century later, the Mission continues to serve as our ethical framework and inspirational goal for our employees around the world. It guides our day-to-day work and reminds us that; our efforts are transforming the lives of millions of people each year.

### MNG Laboratories (#401)

MNG Laboratories is a leading provider of neurogenetic testing specializing in cellular energetics defects, muscular dystrophies, epilepsy, intellectual disabilities and cardiomyopathy. With over 15 years of globally recognized diagnostic experience, we deliver answers that make a difference for clinicians and their families.

### Monroe Carell Jr. Children's Hospital at Vanderbilt (#417)

Monroe Carell Jr. Children's Hospital at Vanderbilt provides comprehensive care for children with neurological disorders from the Southwest USA and beyond. The Divisions of Pediatric Neurology and Neurosurgery offer many multidisciplinary clinics as well as active research and training programs to ensure the best outcomes for our patients.

### National Institute of Neurological Disorders and Stroke (NINDS) (#314)

The National Institute of Neurological Disorders and Stroke (NINDS) (www.ninds.nih.gov), part of the National Institutes of Health (NIH), provides free publications for patients and their families on neurological disorders and information about available research funding. NINDS staff members and printed material will be available at the meeting.

### National Organization for Rare Disorders (#121)

NORD, a 501(c)(3) organization, is a patient advocacy organization dedicated to individuals with rare diseases and the organizations that serve them. NORD, along with its more than 260 patient organization members, is committed to the identification, treatment, and cure of rare disorders through programs of education, advocacy, research, and patient services.

### Nationwide Children's Hospital (#606)

The Neurosciences Center at Nationwide Children's is home to leading expertise in pediatric neurological disorders. Unique areas of focus include stroke, intracranial hypertension, spinal muscular atrophy and muscular dystrophy—including groundbreaking clinical and translational research in neuromuscular disorders. Nationwide Children's is ranked in the top 10 for NIH funding among free-standing children's hospitals.

### NGLY1.org (#315)

Our nonprofit organization's mission is to eliminate the challenges of the rare disease N-glycanase Deficiency (NGLY1) through research, awareness and patient support. NGLY1 causes global developmental delays, seizures, movement disorders, and lack of tears along with other symptoms. We educate the scientific and medical populations to improve diagnosis, understanding, and treatment.

### Novartis Pharmaceuticals (#313)

At Novartis, our mission is to discover new ways to improve and extend people's lives. We use science-based innovation to address some of society's most challenging health care issues. We discover and develop breakthrough treatments and find new ways to deliver them to as many people as possible.

### Pairnomix (#522)

Pairnomix, a personalized genetic evaluations company, is committed to helping people living with rare diseases understand the genetic cause of their condition and explore potential treatment options. Pairnomix' initial focus is on advancing research for people living with epilepsy and other disorders of the Central Nervous System.

### Parent Project Muscular Dystrophy/Decode Duchenne (#309)

Parent Project Muscular Dystrophy's mission is to end Duchenne. We accelerate research, raise our voices in Washington, demand optimal care for all young men, and educate the global community. Decode Duchenne provides free genetic testing and counseling to people with Duchenne or Becker muscular dystrophy who have been unable to access genetic testing.

### Parents of Infants and Children with Kernicterus, Inc. (#310)

Parents of Infants and Children with Kernicterus, Inc. (pic-K) is a parent-run non profit dedicated to prevention and treatment of kernicterus. We support families and seek to brighten the futures of those affected by kernicterus.

### PreventionGenetics (#119)

Founded in 2004 and located in Marshfield, Wisconsin, PreventionGenetics is a CLIA and ISO 15189:2012 accredited clinical DNA testing laboratory. PreventionGenetics provides patients with sequencing and deletion/duplication tests for nearly all clinically relevant genes. These tests include our powerful and comprehensive whole exome sequencing test, PGxome™.

### Progeny Genetics (#302)

Progeny simplifies the process of managing family history, assessing risk and determining treatment options for your patients. With Progeny's new features such as integrated risk models along with the ability to auto generate letters, reports and notes, you will spend more time with patients and less time on data entry. www.progenygenetics.com

SPONSOR

### PTC Therapeutics, Inc. (#409, 420)

PTC Therapeutics is a biopharmaceutical company bringing new scientific approaches to discovering and developing medicines for people living with rare and neglected diseases. Our first area of focus is Duchenne muscular dystrophy. We know that every day matters, and we are committed to making a difference for families affected by Duchenne.

PTC THERAPEUTICS™
Translating Science • Transforming Lives

### Recordati Rare Diseases (#500)

Recordati Rare Diseases is a biopharmaceutical company committed to providing urgently needed therapies to people living with rare diseases in the US. We strive to reduce the impact of these devastating diseases. Our experienced team works with rare disease communities to increase awareness, improve diagnosis, and ensure access to effective treatments.

### Retrophin (#308)

Retrophin is a biopharmaceutical company dedicated to delivering life-changing therapies to people living with rare diseases who have few, if any, treatment options.

### RosmanSearch, Inc. (#317)

RosmanSearch is a Neurosurgery, Neurology and APP recruitment firm. We place quality providers with quality practices nationwide. We are the only search firm with dedicated teams specializing in neuroscience. Our mission is to be the best, the most expert, and the one that is known for quality – every time!

### Sanofi Genzyme (#422)

Sanofi Genzyme is the specialty care global business unit of Sanofi focused on rare disease. We help people with debilitating and complex conditions that are often difficult to diagnose and treat. We are dedicated to discovering and advancing new therapies, providing hope to patients and their families around the world.

SPONSOR

### Sarepta Therapeutics (#425)

Sarepta Therapeutics is a U.S. commercial-stage biopharmaceutical company focused on the discovery and development of unique RNA-targeted therapeutics for the treatment of rare neuromuscular diseases. Sarepta is working to rapidly advance its exon-skipping platform for the development of treatments for Duchenne muscular dystrophy and is proud to support the CNS 46th Annual Meeting. To learn more about Sarepta, please visit www.sarepta.com.

SAREPTA THERAPEUTICS

### St. Louis Children's Hospital/ Washington University (#502)

St. Louis Children's Hospital combines cutting-edge medicine, experience and compassion to provide nationally-recognized pediatric care. Specialists at Children's Hospital care for over 275,000 patients annually and offer comprehensive services in every pediatric and surgical specialty. Our top-rated physicians serve as faculty at Washington University School of Medicine, ranked among the best medical schools and one of the country's top recipients in research grants.

### The Sturge-Weber Foundation (#416)

The SWF supports and guides those living with Sturge-Weber syndrome as well as their families, healthcare providers and related circles of influence. We do this via a website www.sturge-weber.org, myriad patient support materials (digital and print), conferences and local forums, a Clinical Care Network of over 25 facilities, SWS International Registry and International Research Network.

SPONSOR

### Sunovion (#301, 305)

Sunovion is a global biopharmaceutical company focused on the innovative application of science and medicine to help people with serious medical conditions. Sunovion's spirit of innovation is driven by the conviction that scientific excellence paired with meaningful advocacy and relevant education can improve lives.

sunovion

### Texas Children's Hospital (#300)

Texas Children's Hospital is committed to creating a healthier future for children throughout the global community by leading in patient care, education and research. Consistently ranked among the top children's hospitals in the nation, Texas Children's has garnered widespread recognition for its expertise and breakthroughs in pediatric health.

### Thisbe and Noah Scott Foundation, Inc. (#219)

The mission of the Thisbe and Noah Scott Foundation (TNSF) is to save lives by promoting research, awareness and support for children and families affected by pediatric neuromuscular diseases. TNSF is in its sixth year of research with Harvard into the investigation of Brown- Vialetto-Van Laere (BVVL).

### Tourette Association of America (#421)

The Tourette Association of America is the only nationwide organization dedicated to making life better for all individuals affected by Tourette and Tic Disorders. The Association works to raise awareness, fund research and provide on-going support. For more information on Tourette and Tic Disorders, call 1-888-4-TOURET, visit www.tourette.org.

### Tuberous Sclerosis Alliance (#117)

The TS Alliance is dedicated to finding a cure for tuberous sclerosis complex (TSC), while improving the lives of those affected. TSC causes non-malignant tumors to form primarily in the brain, eyes, heart, kidneys, lungs, and skin. It is also the leading genetic cause of both epilepsy and autism.

### Ultragenyx Pharmaceutical (#512)

Ultragenyx is a clinical-stage biopharmaceutical company committed to bringing to market novel products for the treatment of rare and ultra-rare diseases, with a focus on serious, debilitating genetic diseases. Founded in 2010, the company has rapidly built a diverse portfolio of product candidates with the potential to address diseases for which the unmet medical need is high, the biology for treatment is clear, and for which there are no approved therapies.

### United Mitochondrial Disease Foundation (UMDF) (#514)

The Mission of The United Mitochondrial Disease Foundation (UMDF), founded in 1996, is to promote research and education for the diagnosis, treatment and cure of mitochondrial disorders and to provide support to affected individuals and families. Visit www.umdf.org or email info@umdf.org for more information.

### University of Chicago Genetic Services Laboratories (#214)

The University of Chicago Genetic Services Laboratories offers cutting-edge CLIA- and CAP-certified clinical DNA diagnostic services. Our molecular diagnostic laboratory test menu includes whole exome sequencing, as well as testing for a wide variety of neurological disorders including ataxia, epilepsy, intellectual disability, neuromuscular disorders, and brain malformations.

### Upsher-Smith Laboratories, Inc. (#221)

Upsher-Smith Laboratories, Inc. is a family-owned, privately-held pharmaceutical company. We strive to be a trusted source for quality, affordable generic and branded medications that measurably improve lives. Known for our industry relationships and consistent supply, we aspire to deliver value for our customers and the healthcare system at large. For more information, visit www.upsher-smith.com.

Gary Clark, MD
President, PCN

# Letter from the PCN President

More than half of all physicians in the United States report symptoms of burnout, with neurologists showing a higher-than-average burnout rate among the different medical specialties. Burnout makes us less effective as physicians, patient advocates, and family members. The American Board of Psychiatry and Neurology (ABPN) and the American Academy of Neurology (AAN) have directed significant resources to supporting further studies exploring the context, causes and remedies related to this problem, mindful of the serious consequences of further delay in understanding this significant challenge to the future viability and desirability of pursuing careers in medicine in general, and neurology in particular.

***Given the large body of evidence suggesting burnout begins in residency, it strikes me that the PCN is uniquely situated and morally compelled to be part of the solution... supporting further studies exploring the context, causes and remedies related to this problem, mindful of the serious consequences of further delay in understanding this significant challenge to the future viability and desirability of pursuing careers in medicine in general, and neurology in particular.***

Burnout begins in medical school, but far more noticably – and accountably – in residency. There are many tools available to gauge burnout symptoms and risk factors. For example: I think of myself as an upbeat, optimistic person, but when taking the Mayo Clinic Well Being assessment, I scored at high risk for burnout and registered suicidal risks as well. This was not expected, but when reviewing the questions, I began to see where some of the problems take root and grow. We care deeply about our patients, our profession, and our future, but feel less and less empowered to make a difference in many of those areas. The very same passion that drew us into this field and motivates us to excel and seek or be sought after to take on training and leadership responsibilities and positions may well be the same essential propellent pushing us over the edge, making us most vulnerable to burnout. Once burned out, how do we then mentor effectively or advocate for change? And if we don't, who will? How well will we recruit for new colleagues or mentor them toward career paths like ours geared toward leadership when more than half of us are burned out?

In this year's Wednesday afternoon PCN meeting, my colleague at Baylor and fellow member of the PCN Board, Tim Lotze will recap his attendance at a recent ABPN meeting on Neurologist burnout, surveying the various risks, assessments and suggested interventions for this major problem. Given the large body of evidence suggesting this problem begins in residency, it strikes me that the PCN is uniquely situated and morally compelled to be part of the solution.

NOTE: Ken Mack's Thursday morning Presidential Symposium on "Practice Issues in Child Neurology" will lead off with Neil Bussis, from the University of Pittsburgh, talking about "Burnout in Child Neurology." I hope to see you all there and hope to follow up on this and the PCN meeting in conversation in Kansas City and on the PCN Connect workspace thereafter.

# CONNECTING WITH PARTNERS
## Child Neurology Foundation

William Trescher, MD
President, CNF

# Dear Colleagues and Partners:

As we settle into the second half of 2017, the Child Neurology Foundation continues to establish symbiotic partnerships across the child neurology community, including child neurologists, adult neurologists, allied health professionals, advocacy organizations, patients, and their caregivers.

Transition of care has been a challenge across all medical specialties, but is of particular importance in child neurology, where a high proportion of individuals under our care remain dependent on their parents and other caregivers into adulthood. We know that a smooth transition is complex. Collaboration between clinicians, patients, caregivers, and support from disorder specific advocacy groups is critical in achieving optimal outcomes.

CNF's Transition of Care program is our largest and most diverse program, focused on support of youth, families, and child neurology teams in the medical transition from pediatric to adult health care systems. In accordance with CNF's mission to serve as a collaborative center of education and support for children and caregivers living with neurologic conditions, we recently convened the Transitions Project Advisory Committee (TPAC), led by Dr. Larry Brown. This group, with representation from Child Neurology Society, American Academy of Neurology, American Academy of Pediatrics, American Epilepsy Society, Association of Child Neurology Nurses, and other partners, works to implement the endorsed 8 Common Principles outlined in the 2016 consensus statement on transitions. Most recently, TPAC has developed neurology-specific clinical tools to help child neurologists facilitate the process of transition to adult care. Stop by CNF's booth at the CNS Annual Meeting to view these tools, and our new educational video series on transitions, or visit www.childneurologyfoundation.org/transitions.

***CNF's Transition of Care program is our largest and most diverse program, focused on support of youth, families, and child neurology teams in the medical transition from pediatric to adult health care systems.***

Also at the CNS Annual Meeting on October 7, CNF will be sponsoring our third annual symposium titled, "Sudden Unexpected Death in Epilepsy (SUDEP) Awareness". The symposium aspires to move beyond medical science and illuminate the perspectives of parents and advocacy groups specific to SUDEP – a difficult and complex condition. The symposium will feature outcomes from CNS membership survey and caregivers' survey regarding current practices of disclosing the risk of SUDEP.

In the past year, CNF welcomed 6 new Board members, and thanked our colleagues whose terms had come to a close after many collective years of service. I'd personally like to thank the 2016-2017 CNF Board of Directors: Ann Tilton, MD, W. Donald Shields, MD, Shafali Spurling Jeste, MD, Amy Waldman, MD, Sandra Cushner Weinstein, LCSW, PT, Shaun Hussain, MD, John Hutchins, JD, Tom Langan, MD, Stephen Peters, Scott Pomeroy, MD, Sue Yudovin, MSN, Mary Zupanc, MD, Ken Mack, MD, Johnathan Mink, MD, Roger Larson, CAE, and Amy Brin Miller, MSN, MA.

On behalf of the CNF Board of Directors, we are confident that our ongoing programs and initiatives are valuable to the child neurology community; especially the CNS membership.

Current and new CNF initiatives that I feel would be of interest to you include:

- Family Support and Empowerment Program (FSEP)
- A Respite Care Notebook
  CNF Partners listserv with over 850 subscribers, featuring Pathways, our monthly eNewsletter, and weekly editions of *Opportunities & Announcements*
  Educational materials for patients, parents and caregivers on the website and webinars
- To learn more about CNF programs, visit: www.childneurologyfoundation.org/programs

In addition to the active work of the board members, the staff of the CNF staff is critical to the success of the mission. Amy Brin Miller, the Executive Director, provides outstanding leadership for the organization and she has been instrumental to our success. This year, she was joined by Stephanie Mucha, Director of Collaborative Programs and Initiatives, and Allyson Eyermann, Executive Administrative Assistant.

My term as CNF President concludes in October. It has been a great privilege to serve. Ann Tilton, MD will be the next CNF President. Thank you for your support.

# Family Support & Empowerment Program
Child Neurology Foundation

## A new service for your patients and their families from the Child Neurology Foundation

The Child Neurology Foundation (CNF) Family Support and Empowerment Program (FSEP) offers families a free, direct connection with an experienced, compassionate Peer Support Specialist to help navigate the journey of disease diagnosis, treatment, and management for a child living with neurologic condition.

**How Can CNF's Peer Support Specialists Help Your Patients?**

As a health care provider, you can provide comprehensive, family-centered care for your patients and families. Think of FSEP as a partner in achieving family-centered care and as a trusted resource.

**FSEP's Peer Support Specialists can help answer the emotional or lifestyle questions your families may have related to their child's neurologic diagnosis such as:**

- Does anyone know what I'm going through?
- How do I manage when there seems to be no answers or no good answers?
- How do I balance the needs of my other children?
- How do I explain this to family & friends?
- Now what?

Peer Support Specialists offer support born from their own life experiences and have received comprehensive training about the needs of the child neurology community. Since early 2017, FSEP has reached* families from 24 states and 26 countries, let us help your patients, too.

**Please consider offering FSEP support services to your patients & families.**

Contact us at **info@childneurologyfoundation.org** to receive free FSEP notecards for your office.

Child Neurology FOUNDATION
Creating a Community of Support

Connect with a FSEP Peer Support Specialist online
**www.childneurologyfoundation.org/FSEP**

* as of June 2017

# CONNECTING WITH PARTNERS
## Child Neurology Foundation Grants

Melissa "Missy" Walker, MD, PhD

## 2017 Shields Science Grant

**MELISSA "MISSY" WALKER, MD, PHD**

**MASSACHUSETTS GENERAL HOSPITAL**

### Research Abstract

Mitochondria are the energy-producing compartments found in almost every cell. Mitochondrial dysfunction causes a group of often devastating multisystem genetic disorders. Neurologic disease, including epilepsy, developmental delay, hearing loss, vision loss, neuropathy, and myopathy is a common feature of mitochondrial disease. While individual disorders are rare, mitochondrial diseases as a group are estimated to affect 1 in 5,000 live births. Because mutations in over 1200 different genes can cause mitochondrial disorders with many different symptoms, diagnosing these diseases is very difficult; there is no single diagnostic test of mitochondrial function. Currently used techniques require invasive biopsy procedures and highly technical procedures which are performed and interpreted only at select centers. The resultant complexity in diagnosis poses a significant impediment to patient care and research. Patients report significant stress and increased medical costs resulting from what is often a protracted diagnostic odyssey. Uncertainty in diagnosis additionally limits our ability to develop and test therapies for a group of potentially devastating diseases for which no certified treatment currently exists. A cell-based assay of mitochondrial function that can be performed using tissue obtained by relatively non-invasive techniques at any standard clinical laboratory is therefore needed. We hypothesize that blood cells obtained from a routine peripheral venous blood draw can be subjected to metabolic stresses to identify patients with mitochondrial dysfunction. The support provided by the Child Neurology Foundation Shields Grant will enable my studies of response to metabolic stress in blood cells from patients and healthy controls. Based on observed differences, I aim to development an assay that can be of a simple, broadly implementable readout of this response that can be used to diagnose mitochondrial disease in any standard clinical laboratory.

## Winner of 2017 PERF Infrastructure/Registry Grant Announced

**The Pediatric Epilepsy Research Foundation** is proud to announce the 2017 winners of the **"PERF Grant for Infrastructure/Registry Research"**.

• **Dr. Laurie Douglass**, Boston Medical Center in Massachusetts. A $200,000 two-grant was awarded for her project, "Validation of a Highly Effective Screening Tool Adapted for Spanish Speaking Parents of Children and Youth at High Risk for Epilepsy and Seizures to Improve Early Diagnosis and Access to Care".

• **Dr. Renée Shellhaas**, University of Michigan, Ann Arbor. A $218,000 two-year grant was awarded for her project, "Neonatal Seizure Registry II – Spasm Prediction After SyMptomatic neonatal seizures (NSR II - SPASM)".

• **Dr. Zachary Grinspan**, Weill Cornell College of Medicine, New York. A $500,000 two-year grant was awarded for his project, "A Learning Healthcare System for Pediatric Epilepsy".

***Have a project proposal you think might qualify for the 2018 award?***
This competitive grant is offered by PERF yearly. Letters of inter for 2018 are due **November 30, 2017**. For more information, click: www.pediatricepilepsyresearchfoundation.org."

Tracy Gertler, MD, PhD

# 2017 Pediatric Epilepsy Research Foundation (PERF) Grant: *Role of Interneurons in KCNT1-associated Epilepsy*


## TRACY GERTLER, MD PHD

## LURIE CHILDREN'S HOSPITAL



### Research Abstract

Epileptic encephalopathies (EEs) are severe, infantile-onset epilepsies characterized by drug-resistant, pleomorphic seizures and early developmental arrest. Malignant migrating partial epilepsy of infancy (MMPEI) is a type of EE with a uniquely strong genotype-phenotype association. Gain-of-function missense mutations in KCNT1, the gene encoding a sodium-activated potassium channel called Slack, are identified in ~40% of MMPEI patients. There are no approved treatments for MMPEI, but quinidine, an FDA-approved anti-arrhythmic drug and known KCNT1 channel modulator, exerts anticonvulsant effects in MMPEI, whereas conventional anticonvulsants routinely fail. These findings suggest that targeting hyperactive KCNT1 channels has direct therapeutic value, wherein its use is singularly indicated in patients with an identified KCNT1 mutation.

Seizures in MMPEI are pathognomonic, as focal and independent hypersychronous neuronal discharges evidence dysfunctional neocortical microcircuits. The hippocampus has been multiply implicated in MMPEI as a region of abnormal pathology in post-mortem analyses, and represents an experimentally-tractable microcircuit within which the precise anatomical location and neuronal identity in which KCNT1 is expressed is unknown. This proposal puts forth that if the target ion channel complement and pathophysiologic neuronal activity in MMPEI can be more precisely ascertained, there is an opportunity for therapeutic targeting of KCNT1.

As a pediatric neurologist with previous training in neurophysiology, the CNF PERF grant represents for me an opportunity to both participate in refining the means by which precise anticonvulsant therapies for genetic epilepsy are identified, and to reengage in the basic neuroscience community focused on ion channel pathophysiology.


Child Neurology FOUNDATION
Creating a Community of Support

**Our Mission:**
To serve as a collaborative center of education and support for children and caregivers living with neurologic conditions.

**Our Vision:**
We envision a world in which all children affected by neurologic conditions reach their full potential.

# CONNECTING WITH PARTNERS
## Association of Child Neurology Nurses

Maureen Sheehan, CPNP
President, Assocation of Child Neurology Nurses

# Dear colleagues,

As this will be my final letter to you as president of ACNN I want to review some of ACNN's accomplishments over the past two years and welcome the incoming ACNN president, Tara Pezzutto of Nemours Children's Hospital.

### Closer ties with CNS

ACNN is now contracting with Bill Cranford, the accountant who also serves as CNS accountant. This has made our financial workflow more efficient and freed up the ACNN treasurer to work on policy and procedure issues in the future.

Began weekly phone calls between myself and Sue Hussman, Executive Director, ACNN (Associate Director of CNS). These have been incredibly helpful in keeping our two organizations informed of each other's activities. Extra benefit: I now count Sue among my friends and mentors!

*All ACNN committees have working groups on CONNECT with libraries for minutes, discussions, and projects in process and completed. Rumor has it ACNN Members use CONNECT more often than CNS members!*

Introduced online donations for the Elizabeth Hobdell Nursing Research Fund, which significantly increased CNS and ACNN members' annual donations to this fund. Don't forget to donate this year in honor of your nursing colleagues.

### ACNN Annual Meeting Improvements

Established an Annual Meeting Planning Committee, which meets via conference call every other week beginning as soon as we return home from the meeting. Membership includes the ACNN President, representatives from the hosting location, and someone from the previous meeting's Planning Committee.

Increased number of abstracts submitted for annual meeting.

Grouping annual meeting presentations by theme. This has been very popular with our attendees and promoted lots of lively discussion as we compare and contrast approaches to common and not-so-common childhood neurological disorders. Increased the number of CEU hours available at the meeting in response to a request from the ACNN membership.

Annual meeting now includes "working" lunches on Thursday and Friday. To promote networking we have lunch at tables designated by region on Thursday. On Friday, lunch is devoted to SIGs, where we review best practices, welcome nurses new to child neurology, share the triumphs and tribulations of child neurology nursing.

### Connections

ACNN is now part of Connect. All of our committees have working groups on CONNECT with libraries for minutes, discussions, and projects in process and completed. Rumor has it ACNN Members use CONNECT more often than CNS members!

Outreach to other nursing organizations has begun. This year's annual meeting keynote speaker is a former president of the AANP. Both incoming ACNN President, Tara Pezzutto, NP and I have spoken at regional and national AANP, NAPNAP, and AAN Meetings over the past 2 years. Making these connections stronger will be a focus of the incoming president.

Sue Yudovin, ACNN BOD member, is also on the board of CNF, a first for ACNN. We are now in regular communication with CNF and able to distribute news of their initiatives to the ACNN Membership.

ACNN
ASSOCIATION OF CHILD NEUROLOGY NURSES

## Initiation of Project-Oriented Committees

**Membership:** new member welcome packet, both hard and electronic versions being developed

**Research:** updated guidelines for the Hobdell Research Grant with a focus on funding projects in their earliest stages as they develop their submissions to their IRBs and begin the first phases of their research

**Awards:** nomination process made exclusively electronic. Updates of applications and scoring rubrics completed for next year's nominating process.

**ACNN Regional Meeting Guide:** through the hard work of Jo Ellen Lee at Nationwide and Jennifer Coffman (incoming ACNN board member), the ACNN now has a comprehensive guide online with advice on how to host a successful ACNN regional meeting. Nationwide and Colorado Children's have led the way in ACNN regional meetings. Please support your nursing colleagues in hosting a regional meeting, an effective way to serve child neurology nursing, your patients, and community.

**Caregiver Resources Guide:** with the support of Eisai and the tireless work of Rhonda Werner, at Children's Hospital Wisconsin, and this committee, the Caregiver's Resource Guide will be available for download from the ACNN website while we are in Kansas City. Important information for families about childhood neurological disorders in 1-2 page handouts, Spanish edition coming in 2018.

**Policies and Procedures Committee:** brand new and made up of past ACNN presidents, this committee reviewed, updated and improved all current ACNN policies and then wrote some new ones. Transparency was our theme. Guidelines for judging nominees for awards will now be clear to all. We have a new and robust Conflict of Interest Policy. This committee was initially started as an ad hoc, one time only venture. The ACNN BOD has decided to make it an ongoing committee that will review the by-laws every 3 years and all policies and procedures at 3 year intervals. A big shout out to this committee's members: Jennifer Boyd, Toronto Sick Children's, this year's Claire Chee Award recipient and the person who has in her electronic files every ACNN policy ever written, Kathy O'Hara, VCU, and Ruth Shinnar, Montefiore Medical Center, who stepped up and helped me out when I was pulled in a million different directions.

THANK YOU, CNS, for all your support the past two years; really, really could not have done this without you!

Jennifer Boyd, RN, BScN, MHSc, CNN(C), MSCN

# Association of Child Neurology Nurses Claire Chee Nursing Excellence Award

The Association of Child Neurology Nurses (ACNN) is pleased to award the 2017 Claire Chee Nursing Excellence Award to Jennifer Boyd, RN, BScN, MHSc, CNN(C), MSCN. Jennifer has been a nurse at Toronto's Hospital for Sick Children since 1996, where she specializes in the care of children with neuromuscular diseases, new onset seizures, infantile spasms, and multiple sclerosis.

Jennifer is described by Maureen Sheehan, her nominator, as "unflappable and supremely organized," with a vision about how things should be done and the drive to go ahead and achieve them. She was a previous president of the Association of Child Neurology Nurses and currently serves on the Policies and Procedures committee. Over the years, Jennifer has also been a Director for ACNN, as well as the Chair of the Communications Committee and the head of the conference planning committee. In addition to all of these accomplishments, Jennifer has maintained electronic copies of all things related to ACNN for the past 15 years and continues to be a driving force within the organization.

Her accomplishments are vast, encompassing research, superb clinical care and teaching. Jennifer has a passion for improving the quality of care provided to her patients and has created an Epilepsy Checklist to be used by teens and parents, as well as developing clinical practice guidelines for the care of children with Guillain-Barre Syndrome, Myasthenia Gravis and Infantile Spasms. Jennifer also created guidelines for the neuromuscular clinic for delivering bad news to families and she developed and implemented the first Pediatric Multiple Sclerosis Clinic at her institution.

Research is an integral part of Jennifer's role and she has been involved in research ranging from a new drug for spinal muscular atrophy to ACTH vs prednisolone for the treatment of Infantile Spasms. Jennifer has been a lead or co-author on numerous articles including neurological assessment for nurses, caring for patients with muscular dystrophy and an overview of pediatric and developmental disorders. She has authored or co-authored numerous research articles as well, focusing primarily on Infantile Spasms and Multiple Sclerosis, as well as single handedly writing an article on supporting families when delivering bad news.

***Research is an integral part of Jennifer's role and she has been involved in research ranging from a new drug for spinal muscular atrophy to ACTH vs prednisolone for the treatment of Infantile Spasms.***

Since 1995, Jennifer has presented locally, nationally and internationally over 50 times. Ms. Sheehan noted that when ACNN needs a speaker to present, Jennifer is often asked to step in, as her topics are well received and her speaking style is polished with informative content. She is an Adjunct Lecturer at the University of Toronto, mentors students, engages in peer review activities, and is a board trustee for the Multiple Sclerosis Nurses International Certification Board.

While her list of accomplishments is remarkable, it is her care for her patients and their families and dedication to improving their outcomes that drives Jennifer to do all that she does. It is clear from her impressive resume and the glowing tribute provided that Jennifer an outstanding exemplar of nursing and highly deserving of the 2017 ACNN Claire Chee Nursing Excellence Award.

Rebecca Schultz, PhD, RN, CPNP

# Association of Child Neurology Nurses 2017 Nurse Practitioner Excellence Award

Rebecca Schultz, PhD, RN, CPNP is the awardee of the 2017 Association of Child Neurology Nurses Nurse Practitioner Excellence Award. Becky has worked since 2001 as a Nurse Practitioner at the Blue Bird Clinic for Pediatric Neurology and she is also an Assistant Professor in the Department of Pediatrics and Neurology at Baylor College of Medicine. Additionally, she serves as Adjunct Faculty at Texas Woman's University College of Nursing.

She was nominated by her physician colleagues, Drs. Robert Zeller and Imad Jarjour, who describe Becky as someone who has contributed greatly to the profession of child neurology nursing, providing outstanding patient care, excellent patient and family teaching and commitment to the education of future nurses. Becky is described as humble, but her physician colleagues have no doubt that her nursing care has improved the lives of thousands of children with neurological disorders.

The topic of transitioning patient care from adolescence to adulthood was the center of her doctoral work, leading to both research activities and publications on the topic. Other research activities have focused on epilepsy, natural history and treatment trials for patients with Rett Syndrome. Additionally, Becky has been involved in research on new treatments for epilepsy in children, investigating the tolerability and safety of the vagus nerve stimulator and epilepsy surgery outcomes.

*The topic of transitioning patient care from adolescence to adulthood was the center of her doctoral work, leading to both research activities and publications on the topic.*

Becky has presented locally, nationally and internationally on topics such as advancing education in nursing toward a PhD, Rett Syndrome, transition in care from adolescent to adulthood, the ketogenic diet, and seizures and treatment options. She is a prolific writer, with over 75 publications and book chapters to her name. Her recent book chapters have addressed epilepsy treatment with the ketogenic diet and vagus nerve stimulator, and she has published UpToDate information on Rett Syndrome.

Professionally, Becky is very active in the Association of Child Neurology Nurses, where she serves as the Chair of the Caregiver Education Committee for the Child Neurology Transition Project Advisory Committee. She is also active in the American Academy of Neurology Epilepsy Quality Measure Development Work Group. Becky serves on the Professional Advisory Boards of the National Epilepsy Foundation of America, as well as the Chronic Illness/Disability Transition Conference, and she is a Bioethics Committee Member at Texas Children's Hospital.

It is clear that her colleagues think highly of Becky. The Association of Child Neurology Nurses is impressed by her accomplishments in nursing and is honored to present the Nursing Excellence Award to Rebecca Schultz in 2017.

Elizabeth Rende, DNP, RN, CPNP-PC

# Association of Child Neurology Nurses Innovative Practice Award

The 2017 Association of Child Neurology Nurses Innovative Practice Award recipient is Elizabeth Rende, DNP, RN, CPNP-PC. Dr. Rende created the Migraine Action Plan for the prevention and treatment of headaches in schools.

Dr. Rende developed the Migraine Action Plan (MAP) when she recognized that children with headaches in school were not being promptly assessed or treated, resulting in school absences and excessive pain on the part of the child whose distress may be dismissed by teachers. The primary aim of creating the MAP is to individualize each child's headache plan for school. It specifies the child's medication usage, fluid intake, rest period and when to notify parents for pickup. Each plan is reviewed and signed by the health care provider, parent, school nurse and school principal.

The use of the MAP has extended to states bordering North Carolina, where Dr. Rende works. It has been incorporated into the electronic medical record at Duke Medical Center and any provider who works within the system can use it for their patients. Dr. Rende has presented the MAP at a national school nursing conference and she has been contacted by schools in the Midwest to discuss using it within their school systems. Pediatricians within the Duke Medical System are beginning to complete the MAP with their patients during well child visits.

*Dr. Rende developed the Migraine Action Plan (MAP) when she recognized that children with headaches in school were not being promptly assessed or treated, resulting in school absences and excessive pain on the part of the child whose distress may be dismissed by teachers.*

Parents whose children who have used the MAP in school have felt that their child was more confident about the plan to initiate headache treatment and it has resulted in a quicker response from the school nurse. Teachers have also been more willing to allow their student with a MAP to leave class to seek treatment. Since headaches should be addressed promptly after onset, the use of the MAP has lessened the severity of headaches in many children, allowing them to return to class after a short rest period in the nurse's office.

Supportive letters from Dr. Klaus Werner and Dr. Mohamad Mikati were provided with Dr. Rende's application for the Innovative Practice Award. Dr. Mikati commented that "(Dr. Rende) has been creative in adopting the unique and novel Migraine Action Plan approach which started with her research, her practice, and since then has been taken to the local, regional and currently to the national level in multiple states." Both physicians enthusiastically endorse the MAP as an inventive solution to a persistent problem.

It is clear from the material submitted by Dr. Rende that her innovation has led to improvement for both patients and schools, and that she is highly deserving of the Innovative Practice Award from ACNN.

CONNECTING WITH PARTNERS

# Program Coordinators of Child Neurology

## Dear Friends

We are excited to welcome all of the Child Neurology and Neurodevelopmental Disabilities Residency Program Coordinators from across the U.S. that are joining us at the 4th Annual Program Coordinators of Child Neurology (PCCN) conference. This year ranks as our highest attendance to date since our conference began in 2014.

The two-day conference will include content such as the ACGME self-study process, program management in the NAS-era, recruitment, management and organization of GME requirements as well as professional development. The conference is focused on Child Neurology, and much of the content will be tailored to the Child Neurology program requirements. In addition, on October 5th, the 2nd annual combined Education Special Interest Group (SIG) for Program Directors and Program Coordinators will take place. This session was highly regarded last year by attendees as a great collaborative forum for Graduate Medical Education (GME).

With the continued support of the Professors of Child Neurology (PCN), our coordinator group continues to evolve and we are working to develop a structure within the CNS/PCN. The program coordinator has the potential to enhance the management of, and compliance of, residency programs, but we know from our recent studies that most program coordinators receive less than adequate protected time, and turnover is high. Therefore, a goal of our coordinator group is to provide support that will assist coordinators through their learning curve, and potentially help decrease the frustration that may lead to turnover. This annual conference provides the opportunity for coordinators to share best practices and tools from other coordinators across the country. We hope to provide opportunities during our conference this year to discuss ways that we as a group can move forward, and help to improve different aspects of our GME environment, not only within the CNS, but also at the institution and national level.

We are thrilled to have so many coordinators join in this year and look forward to networking and another great conference!

**Program Coordinators of Child Neurology**
Front Row (from left to right): Kellie Shaw, Julie Campbell, Cathy Winter, Julie LaBare, Ginny Tosney-Trask, Joy Kimmell. Back Row (from left to right): Raquel Gallegos, Kelley Hyatt, Adam Finney, Terri Feist, Megan Poeschl, Rachel Laws. (Photo taken by Suzanne Shaff in Vancouver, BC)

# CONNECTING WITH YOUR FUTURE
# Personnel Registry

CNS PERSONNEL REGISTRY

## ALABAMA

*See ad below.*

CNS PERSONNEL REGISTRY

## ARIZONA

### PEDIATRIC NEUROSURGEON

You deserve the best by practicing with one of the best!

Banner Health and Cardon Children's Medical Center, Arizona

Banner Health, Banner Children's Specialists and Cardon Children's Medical Center is seeking an Employed Board Certified/ Board Eligible Pediatric Neurosurgeon to join a growing program in the East Valley of Phoenix, AZ. Cardon Children's Medical Center is a comprehensive children's hospital that serves greater Phoenix, the state of Arizona and beyond! The Banner Children's Subspecialty Group located on the same campus as Cardon Children's Medical Center supports a growing population of state-wide referrals.

Join our collegial team of two Pediatric Neurosurgeons, one Nurse Practitioner and full support staff. Pediatric Neurosurgery training/experience is required, qualified candidate must be Board Certified/ Board Eligible. Services provided include inpatient, outpatient surgical care for acute and chronic neurosurgical conditions. Work schedule is Monday through Friday with shared call of 1:4 Additional income opportunities available with optional added call. Our state-of-the-art facility features 206 beds, specially trained nurses and doctors and family-centered care.

Other benefits offered at our children's medical center include:

- An expanded Neonatal Intensive Care Unit from 65 beds to 86 beds
- Six pediatric operating rooms featuring 25 private, child-friendly pre- and post-op areas
- An expanded Pediatric Emergency Department, increasing from 15 to 26 beds
- Outpatient Treatment Center includes 16 beds that can serve as overflow for Emergency
- Department during peak evening hours
- Dedicated Pediatric Radiology Department
- Dedicated Pediatric Rehabilitation unit
- Dedicated pediatric cancer and blood disorder unit
- Dedicated Pediatric Intensive Care Unit, with shelled space for future PICU expansion

Benefits for families include:

- Separate treatment rooms on every floor
- Private patient rooms with ample space for patient and family members, including private baths

Seeking **Pediatric Neurologist**
for Huntsville Hospital for Women & Children

Women & Children
HUNTSVILLE HOSPITAL

This practice primarily treats seizures, headaches, developmental delays, CP and muscle issues. The office has Baclofen pump, Botox, EEG, EMG/NCV study and EMU monitoring capabilities. The hired physician should expect 50–60 referrals a week, 15–18 patients daily, 7 on/7 off call schedule. This is an employed position, offering a very competitive compensation package with base salary plus worked RVUs, productivity and quality incentives. Teaching opportunities are available through UAB.

Huntsville Hospital for Women and Children is a stand-alone facility dedicated to caring for women, infants, children and adolescents. With an average of 5,000 births a year and 10,000 admissions annually, Pediatric subspecialties, a 16-bed Pediatric ER, 40-bed Pediatric inpatient facility, a Pediatric Intensive Care Unit and a St. Jude Children's Research Hospital Affiliate Clinic, Huntsville Hospital for Women & Children is one of a kind in the region. The hospital also has in-house anesthesia department, 20 LDR rooms, an OB/GYN ED, Maternal Fetal Medicine program, an Antepartum unit, an Adult ICU and a Level III NICU.

Competitive salaries and excellent benefits

- Health, life, vision, dental, disability insurance
- 401(k)
- Annual CME allowance
- Professional liability insurance and assistance with mandatory hospital credentialing and state licensing, and reimbursement of associated fees

For more information contact **Suzanne LeCroix**
**(256) 265-9639 | suzanne.lecroix@hhsys.org**

**Huntsville, AL**

Huntsville is situated in the fastest growing major metropolitan area in Alabama with the highest per capita income in the southeast. With a population of 386,661 in the metro area, Huntsville is a high-tech, family oriented, multi-cultural community with excellent schools, dining and entertainment. It is nestled at the foothills of the Appalachian Mountains with an abundance of indoor and outdoor activities.

- *Named one of the top 30 fastest growing major metros in the country* – U.S. Census
- *Top 10 Places for Innovation* – USA Today
- *Named one of the Top 50 Best Places to Raise Children in the U.S.* — Business Week
- *Ranked in World's Top Ten Smartest Cities* — Forbes Magazine

**hhwomenandchildren.org**

- Family lounges, dietary stations and laundry rooms for family use
- Interactive play/family spaces
- Unique interior design that emulates nature scenes and individual houses at the entrance to every room
- Forever Young Zone, a multipurpose auditorium/performance space, designed by Steve Young's Forever Young Foundation

Banner Health offers excellent compensation plus incentives, relocation and recruitment incentives, paid malpractice, Paid CME plus allowance and outstanding benefits that provide security for you and your family. Please submit your CV to: doctors@bannerhealth.com For questions, please call Pam Disney, Sourcing strategist: 602-747-4397. Visit our website at: www.bannerhealth.com

As an equal opportunity and affirmative action employer, Banner Health recognizes the power of a diverse community and encourages applications from individuals with varied experiences and backgrounds. Banner Health is an EEO/AA - M/W/D/V Employer. Please, no agency solicitations. Banner Health never asks for banking information during the application process.

**CONTACT:**
**Email: doctors@bannerhealth.com**
**Website: http://www.bannerhealth.com**

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## PEDIATRIC NEUROLOGY AND EPILEPTOLOGY

BANNER HEALTH A LEADING HEALTH CARE SYSTEM IN ARIZONA

Banner Health, an integrated and top-ranked health care system, is seeking two BC/BE Child Neurologists to join our pediatric neurology practice at two major sites within the greater Phoenix area.

General Peds Neurology: We are seeking candidates with general neurology interests, to include headaches, seizure disorders and EEG reading, neuromuscular disorders, and neonatal development. This is an opportunity to work alongside four board-certified pediatric neurologists in a team-oriented environment with a full complement of pediatric physicians covering 27 different specialties.

Pediatric Epileptologist: Join a growing pediatric neurology program in the greater Phoenix area. Ideal candidate will have experience in developing or the desire to develop a pediatric epilepsy program to include specialized outpatient seizure coverage and assist with building an EMU. Experience in EMU practice is highly desirable. Candidates must be Board Certified Pediatric Neurology by the ABPN and have completed a Clinical Neurophysiology or Epilepsy fellowship.

Cardon Children's Medical Center (CCMC), located in Mesa, is a 248-bed facility providing comprehensive specialized pediatric medical and surgical services including a 24-bed PICU with specialized services for specific childhood diseases. Providing 24/7 in-house comprehensive family-centered care, this child-friendly atmosphere provides critical inpatient services for infants, children and adolescents. Additional outpatient services are available on the CCMC campus, including our Child Neurology group that has plans to establish an epilepsy center. Mesa is a large suburb of Phoenix with easy access to two airports, the college community surrounding Arizona State University, shopping and dining in Scottsdale, professional baseball/Spring Training, and hiking, biking and many more outdoor activities!

Banner Thunderbird Medical Center (BTMC) is located in the West Valley of Phoenix in Glendale, Arizona. BTMC is 555-bed facility with a 40-bed inpatient pediatric ward, a 35 bed NICU, and a 17 bed PICU. BTMC is currently ranked as one of the top hospitals in the Phoenix metropolitan area by *U.S. News & World Report* and is a recipient of the prestigious "Best of the West" award from Westmarc in recognition of the hospital's contributions to the region. Part of our Peds Neurology team practices from the BTMC campus. Glendale and the West Valley are growing areas offering excellent suburban neighborhoods, professional sports, hiking and boating, and magnificent sunsets!

Banner Health is one of the largest non-profit healthcare systems in the country with twenty-eight hospitals, to include the University of Arizona academic hospitals in Tucson and Phoenix, six long term care centers and an array of other services, including family clinics, home care services and home medical equipment, in six Western and Midwestern states. Our physicians work in highly integrated and innovative environments. Banner promotes a collaborative team-oriented workplaces and clinical settings that focus on providing excellent patient care.

Banner Health offers attractive compensation plus incentives, paid malpractice, paid CME plus allowance and outstanding benefits that provide security for you and your family.

**Please submit your CV to: doctors@bannerhealth.com For questions, please call Pam Disney, Sourcing Strategist: 602-747-4397. Visit our website at: www.bannerhealth.com**

As an equal opportunity and affirmative action employer, Banner Health recognizes the power of a diverse community and encourages applications from individuals with varied experiences and backgrounds. Banner Health is an EEO/AA – M/W/D/V Employer. Please, no agency solicitations. Banner Health never asks for banking information during the application process.

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## CLINICAL FACULTY: Pediatric Neurologist

Banner University Medical Center Tucson (BUMCT)

The Division of Neurology at the University of Arizona and Banner University Medical Group is recruiting a Board Certified/Board Eligible Pediatric Neurologist to join our multidisciplinary team including neurology, neurosurgery, nursing, neuroradiology, emergency medicine and rehabilitation services.

Our 479-bed hospital is located at the University of Arizona Health Sciences at the University of Arizona in Tucson, Arizona. BUMCT is nationally recognized for providing exceptional patient care, teaching new health care professionals, and conducting groundbreaking research through the physician-scientists of the

## ARIZONA continued

University of Arizona College of Medicine. BUMCT is certified as a Primary Stroke Center (with active plans underway for Comprehensive Stroke Center Certification) and is designated as the only Level I trauma center in Southern Arizona. The qualified candidate will receive a faculty appointment with the University of Arizona commensurate with their credentials.

Features of this position include:

- Shared call coverage
- Training/supervision of fellows, residents and medical students

Will be expected to see patients in both the ambulatory and inpatient setting

- Average patient load: 45 patients/week plus inpatient consults

Banner Health and the University of Arizona Health Network have come together to form Banner University Medicine, a health system anchored in Phoenix and Tucson that makes the highest level of care accessible to Arizona residents. At the heart of this merger is academic medicine – research, teaching, and patient care across three academic medical centers.

Banner University Medicines Total Compensation package includes:

- Salary base plus incentives
- Relocation assistance
- Paid malpractice
- Paid CME plus allowance
- Excellent benefit package options that provide security for you and your family with 401k retirement plan with 4% match after one year of service

**Please submit your CV for immediate consideration, to: doctors@bannerhealth.com**
**For questions, please call Tiffany Lewis, Sourcing Strategist, at: 602-747-4578. Visit our website at: www.bannerdocs.com**

As an equal opportunity and affirmative action employer, Banner University Medical Group (BUMG) recognizes the power of a diverse community and encourages applications from individuals with varied experiences and backgrounds. BUMG is an EEO/AA – M/W/D/V Employer.

CNS PERSONNEL REGISTRY

## CALIFORNIA

*See ads below.*

### Pediatric Neurology & Epilepsy Openings in the Heart of California

We're seeking BC/BE Child Neurologists as well as specialists with additional fellowship training in Clinical Neurophysiology for the growing team at Valley Children's Healthcare (formerly Children's Hospital Central California), one of the nation's 10 largest free-standing children's hospitals. Situated in the center of one of California's most stunning geographic areas, Valley Children's treats more inpatient cases than any pediatric hospital north of San Diego, making it the second largest children's hospital in the state.

These are exciting opportunities to join a team of amazing physicians who provide incredible care in a warm, welcoming environment while enjoying interesting, challenging cases. At Valley Children's main campus, you'll love working at a stunning,


### Associate or Full Professor (HS Clin, Clin X, Adjunct, In-Residence) Department of Neurosciences - Division Chief of Child Neurology

The Department of Neurosciences (http://neurosciences.ucsd.edu ) at the University of California San Diego is committed to academic excellence and diversity within the faculty, staff, and student body and seek an outstanding Neurologist or Neuroscientist for the Division Chief of Child Neurology at UCSD/Rady Children's Hospital San Diego.

The successful candidate must have an MD and be board certified in Neurology with a specialty in Child Neurology. Successful candidates must also demonstrate excellent communication skills and have a distinguished research program and be clinically active.

Salary is commensurate with qualifications and based on University of California pay scales. Review of applications will begin July 12, 2017 and continue until the position is filled.

**Associate or Full Professor (Tenured)**
Appointment will be at the Associate or Full Professor rank. Series will include 50% Ladder Rank and 50% In-Residence with qualified candidates with secured extramural funding.
Applications must be submitted through the University of California San Diego's Academic Personnel RECRUIT system at:
**http://apptrkr.com/1032505**

**Associate or Full Professor (non-Tenured)**
Applications must be submitted through the University of California San Diego's Academic Personnel RECRUIT system at:
**http://apptrkr.com/1032400**

*The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to gender, race, color, religion, sex, national origin, disability, age or protected Veterans status.*

**To apply, please visit: http://apptrkr.com/1032400**

state-of-the-art, 358-bed facility that sits on a 50-acre campus on the idyllic bluffs of the San Joaquin River, with the Sierra Nevada Mountains as your backdrop. A Magnet Nursing facility, Valley Children's offers an excellent support staff along with a busy, growing practice that offers excellent compensation package.

Additional practice opportunities are available at the specialty care center in Modesto, located just over 90 miles northwest of the main hospital and 90 miles from San Francisco.

Situated very near the center of the state, you'll enjoy an exceptional quality of life. Residents have the unparalleled opportunity to live within one to three hours of the magnificent Pacific coast, the mountains and the San Francisco, San Jose and Los Angeles metropolitan areas. Sonoma and Napa counties and Lake Tahoe all are within a four-drive. Outdoor enthusiasts will enjoy living in the only city in the nation to have not just one, but three National Parks (Yosemite, King's Canyon and Sequoia) right in your own backyard. Whether you prefer the snow, the sun or the sand, it's all within your reach. And with so much varied geography, you'll also find hiking and biking trails, kayaking, fishing, local wineries, farm stands and festivals, gourmet cuisine, and that's only the tip of the iceberg. Another perk: The area is very affordable, and it boasts award-winning schools, making it the perfect choice for families.

**If you're looking for an opportunity that offers a fantastic lifestyle both inside and outside of work, this is it! For complete details and confidential consideration, please contact Glenda Smith, Principal, Pediatric Search Partners, at glenda@pediatricsearchpartners.com, or by phone at (877)440-3832.**

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**Child Neurologist**

*Leading the future of health care.*

At The Permanente Medical Group Inc. (TPMG), we take exceptional care of our patients and our physicians. With the stability of more than 60 years serving Northern California, our progressive organization can offer you a solid career along with balanced scheduling options, comprehensive administrative support, state-of-the-art resources, and more.

Additionally, our large multi-specialty group practice offers a unique program that places patient care decisions completely in the hands of physicians. There's no need to manage authorizations, billing, paperwork or staffing.

CHILD NEUROLOGIST – Oakland, CA

The Permanente Medical Group, Inc. is seeking a 7th BC/BE Child Neurologist to join our team of 6 Pediatric Neurologists. We have a vibrant practice that houses a neurohospitalist service and outpatient clinics at multiple medical centers in the Central Bay Area, including San Francisco, Oakland, Walnut Creek, Hayward and Santa Rosa. The Division of Neurology is part of a larger Pediatric Department with divisions of critical care, neonatology, oncology-hematology, gastroenterology, surgery, neurosurgery, orthopedics, otolaryngology, urology, ophthalmology, hospitalists, cardiology, rheumatology, rehabilitation, infectious disease, nephrology, general pediatrics and pulmonology. In addition, we have an independent Pediatric Residency Training program.

TPMG offers a competitive salary and an unsurpassed pension plan and benefits

## Department of Neurology, UC San Francisco
## Assistant or Associate Professor of Neurology


The Department of Neurology is seeking an Assistant or Associate Professor of Neurology in the Clinical X series to join the Neuro-Intensive Care Nursery service and further develop the program for neurologic care of premature infants at UCSF. Responsibilities will include providing direct patient care of infants with neurologic disease in the Intensive Care Nursery; assessment of children in the Neonatal Neurology Follow-up Program; participation in research; and supervision of house-staff and students. Teaching responsibilities include didactic and informal teaching on clinical rounds.

Applicants are expected to be outstanding clinician-scholars with an emphasis on research. The position will require significant ongoing effort in research towards the promotion of brain health in premature newborns. Ideal candidates will demonstrate clinical and research expertise in brain injury after preterm birth, including neuromonitoring, neuroimaging, and the assessment of neurodevelopmental outcomes after prematurity. Demonstration of expertise through dissemination of scholarly activity, prior research publications, and presentation at national and international meetings is essential.

Applicants must possess a medical license, be Board certified in Neurology with a special certification in Child Neurology, and have at least four years of teaching and research experience (this can include teaching and research during residency and fellowships). Expertise in neonatal neurology is required, and Fellowship training in Neonatal Neurology and a Master's Degree or equivalent level training in Clinical Research methodology are expected. Ideal candidates will bring both clinical and research expertise in the areas of brain injury after preterm birth and the assessment of neurodevelopmental outcomes of prematurity.

Annual salary range for this position is $125,000 - $150,000.

Please apply online at **http://apptrkr.com/1035927** with a statement of interest, CV and two letters of reference.

*UCSF seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence. UCSF is an Affirmative Action/Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status.*

## CALIFORNIA continued

package that includes health, life, malpractice and disability insurance. The San Francisco Bay Area is a beautiful place to live with easy access to the Pacific Ocean, San Francisco bay, the Coastal and Sierra Nevada mountains, Napa Valley, Monterey, and the California Central Valley.

**For immediate consideration, please forward your CV and cover letter to:**

**Judy Padilla, Physician Recruiter - Judy.G.Padilla@kp.org**

**Phone: (800) 777-4912 or Fax: (510) 625-5487**

We are an EOE/AA/M/F/D/V Employer. VEVRAA Federal Contractor

http://physiciancareers-ncal.kp.org

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### Full Time Pediatric Neurologist for Large Public Health and Hospital System in Silicon Valley

*Better Health For All*

Santa Clara Valley Medical Center (SCVMC), a large public teaching hospital, affiliated with Stanford University School of Medicine, in San Jose CA, is seeking a full-time BC/BE pediatric neurologist to join our dynamic Department of Pediatrics.

We offer the unparalleled opportunity to gain the long-term personal and professional satisfaction of serving our patients and the public, while teaching the next generation of health care providers, in one of the best places to live in the United States.

*About the organization*

Santa Clara Valley Health and Hospital System (SCVHHS) is the second-largest County-owned health and hospital system in California and is committed to improving the health of the 1.8 million people of Santa Clara County. As an integrated health care system, SCVHHS includes a 574-bed central hospital, Santa Clara Valley Medical Center, a large primary care network comprised of 10 health centers throughout the County (including our newest center in downtown San Jose, which opened in 2016), a broad-range of specialty services, a large behavioral health department, public health, EMS, and Valley Health Plan.

SCVMC itself hosts five residency training programs and partners with Stanford University Medical Center for the training of residents and fellows in many Stanford-based specialties, including pediatrics. SCVMC also features a Level 1 Trauma Center, Burn Center, Primary Stroke Center, and a CARF-accredited Rehabilitation Center. Owing to its geographic location and specialty offerings, SCVMC not only serves the County, but also the larger region.

*About the community*

SCVMC is located in San Jose, California in the heart of Silicon Valley, offering a diverse choice of cultural, recreational, and lifestyle opportunities. Our physicians live in a range of communities, including urban (e.g., San Francisco), university (e.g., Palo Alto), high tech (e.g., many cities of Silicon Valley), mountain (e.g., Los Gatos), beach (e.g. Santa Cruz), and rural/agricultural (e.g., Gilroy). Situated in one of the most desirable regions of the country only 45 minutes from the Monterey Bay and three hours from the Sierra Nevada our physicians enjoy a very high quality of life.

*About the Department of Pediatrics*

Our Department of Pediatrics has a busy 40-bed Pediatric Ward, 12-bed PICU, 40-bed level IV NICU, 170,000 outpatient visits per year, and is a key training site for Stanford medical students and pediatrics residents. Physicians who join our Department of Pediatrics are pleased to find a very collegial work environment, with robust specialty and ancillary support and an integrated electronic health record (Epic).

*About the position*

The ideal candidate will be competent in the treatment of epilepsy and interpreting pediatric EEGs. The ability to treat sleep disorders is also desirable.

*About compensation and benefits*

We offer competitive compensation, generous comprehensive benefit package (including 53 days of leave per year), paid malpractice, vibrant professional environment, opportunity for career growth, and the opportunity to serve a multicultural patient population and the community. SCVMC is an Equal Opportunity employer.

**If you are interested in joining a practice with unparalleled personal and professional advantages, then please submit your letter of interest and CV to Roya Rousta at roya.rousta@hhs.sccgov.org.**

CNS PERSONNEL REGISTRY

## CONNECTICUT

### Academic Pediatric Neurology Children's Medical Center

The Division of Neurology at Connecticut Childrens Medical Center is seeking a full time Epilepsy/Electrophysiology trained, board certified/board eligible pediatric neurologist to join our team. Clinical and basic research interests are encouraged and supported.

Responsibilities include: EMU service in rotation with two experienced epileptologists; inpatient rotation and calls shared with eight neurologists; outpatient clinics.

Connecticut Children's Medical Center (Level 1 Trauma Center) is a nationally recognized 187 bed not-for-profit childrens hospital serving as the primary teaching hospital for the Department of Pediatrics at the University of Connecticut School of Medicine. The primary academic appointment is in Pediatrics with adjunct appointment in Neurology.

Connecticut Childrens is the only free-standing childrens hospital in Connecticut that offers comprehensive, world-class health care to children. Connecticut Children's Specialty Group, Inc. is a 170+ physician, multi-specialty pediatric group (medical & surgical), which is a subsidiary of Connecticut Children's Medical Center. The Division of Neurology and Rehabilitation has eight pediatric neurologists, an APRN and one physiatrist with 6.5 FTE.

The position offers a competitive salary & full benefits package. The greater Hartford area has many interesting and diverse communities, with many outstanding public and private school options. We are perfectly situated near Boston, New York, the beaches of Long Island Sound and the of New England.

**Interested candidates please forward your CV to:**
**Gyula Acsadi MD, PhD**
**Division Chief**
**Gacsadi@connecticutchildrens.org**
**Phone: (860) 837-7500**

Connecticut Childrens is an Equal Opportunity Affirmative Action Employer.

# FLORIDA

## Pediatric Neurology Palm Beach, FL

Joe DiMaggio Children's Hospital is seeking an experienced pediatric neurologist to work out of the newly constructed Palm Beach pediatric multispecialty clinic located in Lake Worth, FL. Physician should be BE/BC in neurology with special qualification in child neurology and have a minimum of three years experience. Though not required, those with additional sub-specialty fellowship training in clinical neurophysiology, epilepsy, movement disorders or stroke are encouraged to apply. Research initiatives will be fully and actively supported through the Office of Human Research, though this is not a requirement of the position.

The physician will join six other employed pediatric neurologists and may be eligible to start before the mid-2018 clinic opening.

With plans to open in mid-2018, the 30,000-square-foot newly constructed Joe DiMaggio Children's Hospital Pediatric Specialty Center - Wellington will be home to offices for a variety of pediatric specialists offering services to local patients in need of additional specialists. Services offered will include, but are not limited to, orthopaedics (sports medicine and surgery), neurology, otolaryngology, general surgery, endocrinology and pulmonology. Physicians will be part of the hospital-employed Memorial Physician Group at Joe DiMaggio Children's Hospital.

This is a full-time employed position with the multispecialty Memorial Physician Group. The position offers competitive benefits and a compensation package that is commensurate with training and experience. Professional malpractice and medical liability are covered under sovereign immunity.

*About Joe DiMaggio Children's Hospital*

Joe DiMaggio Children's Hospital opened in 1992 and has grown to be the leading children's hospital in Broward and Palm Beach counties. With 232 beds, an 84-bed Level II and III NICU, 30-bed PICU and 12-bed intermediate care unit, Joe DiMaggio Children's Hospital combines leading-edge clinical excellence with a child- and family-friendly environment that emphasizes the Power of Play. Joe DiMaggio Children's Hospital offers a comprehensive range of healthcare services delivered with kindness, dedication and compassion.

*About South Florida*

South Florida offers a dynamic urban/suburban lifestyle with an abundance of cultural and recreational amenities, miles of beautiful beaches, top-rated golf courses, zoos and wildlife refuges, a vibrant arts community, museums and world-class dining. South Florida's high quality of life including year-round summer weather, exciting multiculturalism and no state income tax attracts new residents from all over the country and around the world.

**To submit your CV for consideration, please visit memorialphysician.com. Additional information about Joe DiMaggio Children's Hospital can be found at jdch.com.**

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## Pediatric Neurology with Developmental Interest or Developmental & Behavioral Pediatrics

Joe DiMaggio Children's Hospital is seeking a developmental and behavioral pediatrician or a pediatric neurologist with special interest in developmental pediatrics to join its team of specialists. The ideal candidate will be either BE/BC after having completed a developmental and behavioral pediatrics fellowship or be BE/BC in pediatric neurology and have additional behavioral/developmental training and interest. Areas of expertise should include, but are not limited to, autism spectrum disorder, neurogenetic disorders, developmental delays, and related disorders.

Joe DiMaggio Children's Hospital employs an interdisciplinary team of subspecialists along with pediatric-trained psychologists, speech/language pathologists, occupational therapists, physical therapists, dieticians and social workers. Clinical research initiatives will be fully supported by the Office of Human Research.

This is a full-time employed position with the multispecialty Memorial Physician Group. The position offers a competitive benefits and compensation package that is commensurate with training and experience. Professional malpractice and medical liability are covered under sovereign immunity.

*About Joe DiMaggio Children's Hospital*

Joe DiMaggio Children's Hospital opened in 1992 and has grown to be the leading children's hospital in Broward and Palm Beach counties. With 226 beds, a 84-bed Level II and III NICU, 30-bed PICU and 12-bed intermediate care unit, Joe DiMaggio Children's Hospital combines leading-edge clinical excellence with a child- and family-friendly environment that emphasizes the Power of Play. Joe DiMaggio Children's Hospital offers a comprehensive range of healthcare services delivered with kindness, dedication and compassion.

*About South Florida*

South Florida offers a dynamic urban/suburban lifestyle with an abundance of cultural and recreational amenities, miles of beautiful beaches, top-rated golf courses, zoos and wildlife refuges, a vibrant arts community, museums and world-class dining. South Florida's high quality of life including year-round summer weather, exciting multiculturalism and no state income tax attracts new residents from all over the country and around the world.

**To submit your CV for consideration, please visit memorialphysician.com. Additional information about Joe DiMaggio Children's Hospital can be found at jdch.com.**

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## Pediatric Neurologist, Lakeland, Florida

Nemours is seeking a fifth Child Neurologist to join our team. This is a full-time, employed position based at a partner hospital site in Lakeland, Florida.

Physician candidates must be eligible for unrestricted Florida license, have completed a Pediatric Neurology fellowship, and be board-certified or board-eligible in Pediatric Neurology. Call will be for pediatric neurology service only with no adult call. There are opportunities to develop epilepsy, headache or other programmatic interests. The physician recruited for this position will participate in educational and teaching programs at the main hospital in south Orlando.

**Interested candidates should send their formal CVs to:**
**Richard Finkel, MD**
**Division Chief, Pediatric Neurology**
**Nemours Children's Hospital**
**richard.finkel@nemours.org**

Nemours is an internationally recognized, multi-site pediatric health care system that is built upon a centralized, efficient and collaborative infrastructure committed to improving the health of all children. The mission of Nemours is to improve the health and health care of children by seeking new

## FLORIDA continued

approaches to the prevention, diagnosis and treatment of childhood diseases and to educate the next generation of leaders in children's health.

The new Nemours Children's Hospital is located in Lake Nona Medical City in Orlando, Florida, and opened for patient care on October 22, 2012. This 630,000-square-foot, 100-bed facility combines state-of-the-art inpatient and outpatient facilities for the evaluation and management of infants and children with complex medical conditions, including children with cancer. It serves as a regional referral facility with academic ties to the University of Central Florida College of Medicine and the Sanford-Burnham Medical Research Institute.

Located in Orlando, Florida, Nemours Children's Hospital is the newest addition to the Nemours integrated health care system. Our 100-bed pediatric hospital also features the area's only 24-hour Emergency Department designed just for kids and outpatient pediatric clinics, including several specialties previously unavailable in the region. A hospital designed by families for families, Nemours Children's Hospital blends the healing power of nature with the latest in health care innovation to deliver world-class care to the children of Central Florida and beyond. In keeping with our goal of bringing Nemours care into the communities we serve, we also provide specialty outpatient care in several clinics located throughout the region.

As one of the nation's leading pediatric health care systems, Nemours is committed to providing all children with their best chance to grow up healthy. We offer integrated, family-centered care to more than 280,000 children each year in our pediatric hospitals, specialty clinics and primary care practices in Delaware, Florida, Maryland, New Jersey and Pennsylvania. Nemours strives to ensure a healthier tomorrow for all children even those who may never enter our doors through our world-changing research, education and advocacy efforts. At Nemours, our Associates help us deliver on the promise we make to every family we have the privilege of serving: to treat their child as if they were our own.

As an equal opportunity employer, Nemours focuses on the best-qualified applicants for our openings.

**For more information or to submit CV online, please visit http://careers.nemours.org/jobs/138988**

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### Child Neurology in St. Petersburg, FL: Johns Hopkins All Children's Hospital

Johns Hopkins All Children's Hospital in St. Petersburg, Florida seeks several additional child neurologists due to the continued expansion of our program. This is an employed position with All Children's Specialty Physicians, a growing group practice that includes more than 200 physicians in over 30 specialties. We are recruiting for our main campus in St. Petersburg as well as our new North Port, FL location. North Port is located just 45 minutes from both Fort Myers and Sarasota. Port Charlotte is less than 10 miles away.

As members of the Johns Hopkins All Children's Institute for Brain Protection Sciences, our pediatric neurologists also draw upon the expertise of specialists in neurosurgery, neuroimaging, neuro-oncology and neuropathology as needed. This new multidisciplinary institute unites clinicians, researchers and educators in a comprehensive program to promote optimal neurodevelopment early in life and provide state-of-the-art care for children with injuries or illness that can affect the brain.

Johns Hopkins All Children's Hospital is a free-standing 259-bed teaching hospital, ranked as a *U.S. News & World Report Best* Children's Hospital in 6 pediatric specialties. As one of the world's leading health care systems, we stand at the forefront of discovery, leading innovative research to cure and prevent childhood diseases while training the next generation of pediatric experts.

We offer a competitive salary and benefits package including medical malpractice insurance with tail insurance, relocation assistance, paid vacation, paid time and expenses for CME, 403(B) retirement plan, pension plan, short and long-term disability coverage and life insurance and health benefits.

The Tampa-St. Petersburg area offers year-round sunshine, abundant cultural and recreational activities, national sports venues, excellent schools and an affordable cost of living. We are centrally located to many of Florida's amenities, only minutes from beautiful gulf beaches, 90 minutes from Orlando and four hours from Miami.

**To learn details, please contact:**
**Joe Bogan**
**President**
**Providence Healthcare Group**
**817-424-1010 (direct)**
**jbogan@provdoc.com**

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### University of Florida Pediatric Neurology Faculty Position

The Division of Pediatric Neurology at the University of Florida College of Medicine in Gainesville, Florida seeks to expand its diverse ranks, which currently consist of six faculty members. The division has an active scholarly footprint and hosts an expanding array of highly regarded subspecialty clinical programs. With respect to education, the division hosts a robust child neurology residency program, and the faculty also contribute regularly to the teaching of pediatric residents, adult neurology residents, and medical students. Division staffing also includes four extenders and a registered nurse.

Subspecialty areas that we would like to expand include neurodevelopmental disabilities, movement disorders, neonatal neurology, neuro-immunology, epilepsy, neurocutaneous disorders, headaches, and general neurology. Early to mid-career pediatric neurologists are encouraged to apply, and opportunities to support research-oriented faculty are available.

We have again been ranked in the top 50 nationwide for Pediatric Neurology and Neurosurgery by the *U.S. News and World Report* survey of Best Children's Hospitals. The Department of Pediatrics and Shands Children's Hospital comprise the premier academic medical center for children in northern Florida. The university hosts a broad range of NIH-funded investigators, with a strong institutional commitment to mentoring early career faculty. There is an abundance of research opportunities.

Gainesville, Florida is a classic college town, with numerous cultural offerings, abundant housing options, easy commutes, and outstanding school districts. The area is known for its natural beauty, with many springs, lakes, and rivers. The climate encourages outdoor activities such as swimming, boating, fishing, bicycling, and camping.

**Inquiries may be sent to Peter B. Kang, MD, Chief, Division of Pediatric Neurology, pbkang@ufl.edu.**

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**Pediatric Neurology – Hollywood, FL**

Joe DiMaggio Children's Hospital is seeking an experienced pediatric neurologist to join seven other employed pediatric neurologists. Physician should be BE/BC in neurology with special qualification in child neurology and have a minimum of three years experience. Though not required, those with additional sub-specialty fellowship training in clinical neurophysiology, epilepsy, movement disorders or stroke are encouraged to apply. Research initiatives will be fully and actively supported through the Office of Human Research, though this is not a requirement of the position.

This is a full-time employed position with the multispecialty Memorial Physician Group. The position offers competitive benefits and a compensation package that is commensurate with training and experience. Professional malpractice and medical liability are covered under sovereign immunity.

*About Joe DiMaggio Children's Hospital*

Joe DiMaggio Children's Hospital opened in 1992 and has grown to be the leading children's hospital in Broward and Palm Beach counties. With 232 beds, an 84-bed Level II and III NICU, 30-bed PICU and 12-bed intermediate care unit, Joe DiMaggio Children's Hospital combines leading-edge clinical excellence with a child- and family-friendly environment that emphasizes the Power of Play. Joe DiMaggio Children's Hospital offers a comprehensive range of healthcare services delivered with kindness, dedication and compassion.

*About South Florida*

South Florida offers a dynamic urban/suburban lifestyle with an abundance of cultural and recreational amenities, miles of beautiful beaches, top-rated golf courses, zoos and wildlife refuges, a vibrant arts community, museums and world-class dining. South Florida's high quality of life including year-round summer weather, exciting multiculturalism and no state income tax attracts new residents from all over the country and around the world.

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**Division Chief – Child Neurology Johns Hopkins All Children's Hospital in St. Petersburg, Florida**

Johns Hopkins All Children's Hospital in St. Petersburg, Florida seeks a division chief to lead our pediatric neurology program that was just recognized as a Top 50 Children's Neurology & Neurosurgery Program by *U.S. News & World Report* (2017-2018 edition). We seek an experienced and innovative leader who is willing to guide our well established but expanding program to the next level. The ideal candidate will be a strong clinician/academician who is interested in incorporating both into his/her practice. You will work within a dynamic academic environment located on an expanding clinical campus in St. Petersburg. As members of the Johns Hopkins All Children's Institute for Brain Protection Sciences, our pediatric neurologists also draw upon the expertise of specialists in neurosurgery, neuroimaging, neuro-oncology and neuropathology as needed. This new multidisciplinary institute unites clinicians, researchers and educators in a comprehensive program to promote optimal neurodevelopment early in life and provide state-of-the-art care for children with injuries or illness that can affect the brain.

Johns Hopkins All Children's Hospital is a free-standing 259-bed teaching hospital in St. Petersburg, Florida. As one of the world's leading health care systems, we stand at the forefront of discovery, leading innovative research to cure and prevent childhood diseases while training the next generation of pediatric experts. Our institution is very committed to supporting candidates with interest or experience in basic science, clinical and/or translational research. Qualified candidates may be eligible for an academic appointment at Johns Hopkins University School of Medicine (academic rank is open and commensurate with experience).

We offer a competitive salary and benefits package including medical malpractice insurance with tail insurance, relocation assistance, paid vacation, paid time and expenses for CME, 403(B) retirement plan, pension plan, short and long-term disability coverage, life insurance and health benefits.

The Tampa-St. Petersburg area offers year-round sunshine, abundant cultural and recreational activities, national sports venues, excellent schools and an affordable cost of living. We are centrally located to many of Florida's amenities, only minutes from beautiful gulf beaches, 90 minutes from Orlando and four hours from Miami.

**To confidentially learn more, please contact:**
**Joe Bogan, President**
**Providence Healthcare Group**
**817-424-1010 (direct dial)**
**jbogan@provdoc.com**

CNS PERSONNEL REGISTRY

## ILLINOIS

**Assistant Professor/Associate Professor**

SIU Medicine in Springfield, Illinois is seeking an Assistant/Associate Professor of Clinical Pediatrics. This is an exciting time to be a part of this distinguished and growing program. The position offers a dual appointment in Pediatrics and Neurology and candidates with specialty interests in headache, epilepsy, neuromuscular disorders, acute care neurology and developmental disorders are welcome. The Pediatric and Neurology programs at SIU Medicine deliver state of the art full service pediatric and neurological care and perform the entire spectrum of procedures.

As a member of the Departments of Pediatrics and Neurology at SIU Medicine, the incumbent will represent each Department in a manner to enhance its patient care, educational, and research mission. This position reports to the Chair of Pediatrics. SIU serves a far-ranging patient population through its National Pediatric Myoclonus Organization, which cares for the largest patient population of opsoclonus-myoclonus in North America.

SIU School of Medicine has received national recognition for innovation in medical education and offers a welcoming environment for dedicated clinicians who love to teach. SIU is affiliated with Childrens Hospital, which is a tertiary referral center for central and southern Illinois with a trauma-certified PICU and 40-bed level III NICU. In addition, there will be participation in inpatient care at local hospitals and outpatient activities of child neurology including area clinics.

Highlights of the position include:

- Developing a 100% pediatric neurology practice. Clinical service is 80% and 20% is teaching/research/quality initiatives.
- Working closely with highly respected, fellowship-trained pediatric subspecialists.

## ILLINOIS continued

- Collaborating with faculty nationally recognized for innovative medical education, cutting-edge research and quality healthcare.
- Teaching, mentoring, and providing training for medical students and residents.
- A highly competitive salary, excellent benefits package and University funded malpractice plan.
- Great work/life balance in Springfield, IL, a Top Places to Live community.
- Family oriented neighborhoods, excellent schools, affordable housing and abundance of cultural and recreational activities.
- Easy access to metropolitan amenities in Chicago, Indianapolis and St. Louis.

Qualifications: Must have a MD or DO degree and be board eligible/board certified in Pediatric Neurology. Licensed or eligible for licensure to practice medicine in the state of Illinois. J-1 and H-1B visa sponsorship available.

For full consideration: A letter of interest and curriculum vitae should be directed to the executive search firm:

**Jordan Search Consultants c/o Matt Jordan by email, mjordan@jordansc.com; by phone, (314) 299-7222; or by mail to Jordan Search Consultants, 113 Church Street, OFallon, MO 63366.**

Southern Illinois University School of Medicine is an EEO/AA/M/F/Vets/Disabled employer

CNS PERSONNEL REGISTRY

## INDIANA

### Neonatal Neurology – Riley Hospital for Children at Indiana University Health

The Department of Neurology/Division of Child Neurology at Indiana University School of Medicine and Indiana University Health Physicians is seeking a candidate for a full-time position at an assistant or associate professor level with a focus in neonatal neurocritical care. The position is a joint faculty appointment in the departments of Neurology and Pediatrics.

Opportunity Details:

- The primary focus of this position is to serve as a neonatal neurocritical care consultant for our level IV neonatal intensive care unit (NICU) at Riley Hospital for Children.
- The NICU currently has 60 beds, all single rooms and is the only level IV NICU in the state that has an established neonatal neurocritical service line (NeuroNICU).
- The NeuroNICU was established in 2013 and serves about 180-200 new patients per year. The NICU offers whole body hypothermia, ECMO, cardiac critical care and continuous full-montage neuromonitoring.
- Primary clinical duty will be to act as neurology consultant within the level IV NICU at Riley Hospital for Children at Indiana University Health.
- NeuroNICU also provides a fertile educational and research environment. The NeuroNICU is the only neonatal neurocritical care program in the state. The program is established and has ongoing clinical and quality improvement research.

Riley Hospital for Children at Indiana University Health is Indiana's largest and only free-standing children's hospital. It is located on the primary campus of Indiana University School of Medicine in Indianapolis. The successful candidate will join a growing child neurology section of 13 faculty, 3 nurse practitioners, and a genetic counselor, as well as a neonatology section of 33 faculty and 50 neonatal nurse practitioners.

**For more information or to submit a CV, please contact:**
**Lindsey Gushrowski, Physician Recruiter**
**Lpund@iuhealth.org or 317-936-0224**

CNS PERSONNEL REGISTRY

## KANSAS

### Pediatric Neurologist
### The University of Kansas Hospital

The Department of Pediatrics at the University of Kansas Hospital in Kansas City, is seeking a full-time BC/BE Pediatric Neurologist skilled in general child neurology and clinical patient care to care for patients with a broad range of general neurological concerns. The ideal candidate will have an interest in developing an Adolescent Transitional Care program with our nationally recognized Adult Neurology Department.

Our pediatric department includes a 36 bed Level III NICU, a 6 bed PICU and 19 bed general pediatric unit.

Responsibilities of the job:

- Inpatient Consultations
- Outpatient Care
- Shared call
- Support from APRN trained in Pediatric Neurology
- Teaching residents and medical students
- Academic research is encouraged and supported

Qualifications:

- MD/DO or equivalent
- Board certified/eligible in Pediatric Neurology
- Fellowship training in Pediatric Neurology

KU Medical Center is an Equal Opportunity / Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, protected veteran or disability status, or genetic information.

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### Pediatric Neurologist

NEW MULTI-SPECIALTY CLINIC PRACTICE OPPORTUNITY

We are seeking a Pediatric Neurologist for our multi-specialty group in Overland Park, Kansas. This position offers the unique opportunity of being part of a new pediatric specialty clinic. The Neurologist will work alongside other pediatric subspecialty physicians in this office-based practice.

About our group: Overland Park Pediatric Specialty Group is an affiliate of Pediatrix, a MEDNAX company. We are proud to partner with the hospitals in Overland Park, Kansas to provide a full pediatric solution, housed in one place and designed exclusively for pediatric patients. Our concept is to create a seamless patient experience, allowing both parents and patients to easily navigate the whole process. With almost 40 years of pediatric healthcare experience, we understand the importance of making the best choices for your child's care. We believe a full service pediatric solution not only increases the coordination of a patients care across multiple specialties, but that it also improves outcomes.

*Benefits*

Our clinicians enjoy a competitive compensation package with many locations offering sign on bonuses, relocation and tuition reimbursement.

Our benefits include:

- Health (various options), life, vision, dental and disability insurance
- 401(k) with annual matching program
- Advanced and continuing medical education
- Leadership training and advancement opportunities
- Employee stock purchase plan at a 15% discount
- Professional liability insurance
- Support and payment for mandatory license/s and hospital credentialing

These benefits are for full time employees, employees in other types of employment classifications may be eligible for some of these benefits.

**RECRUITER CONTACT:**
**Cindy Sowinski at cindy_sowinski@mednax.com, (800) 243-3839 x 5210**

*About MEDNAX*

With a 35+ year record of success, MEDNAX has grown from a single medical practice to a trusted health solutions partner. As part of our national medical group, we give you the tools you need to build the career you want, and the flexibility to adapt as your personal needs and professional interests change.

We invite you to grow with us and help shape the future of health care.

MEDNAX Ranks on *Forbes* Most Innovative Growth Companies

MEDNAX is an Equal Opportunity Employer

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or veteran status.

CNS PERSONNEL REGISTRY

## LOUISIANA

### Pediatric Neurology and Epileptology Openings – Gulf Coast

We're seeking Board Eligible/Board Certified Pediatric Neurologists and those with additional fellowship training in Clinical Neurophysiology for Ochsner Hospital for Children in New Orleans, Louisiana. The Section provides EEG's, CT Scans and MRIs and evaluates children and young adults with the full range of neurological disorders.

This is an exciting opportunity to join Ochsner Hospital for Children's rapidly growing team of over 120 physicians, including pediatric subspecialists, and a full spectrum of pediatric medical and surgical subspecialty teams. The group is the region's leading integrated provider of multispecialty care for infants, children, adolescents, and young adults offering a full range of pediatric services, including solid organ transplantation and pediatric cardiovascular surgery. The current facilities include a 52-bed Level III-C NICU, a 26-bed PICU (14-bed PICU and 12-bed CVICU), and a 33-bed General Pediatric Unit as well as a free-standing ambulatory center for children housing primary care and subspecialists.

Located in one of our most vibrant cultural cities, this nonprofit, academic, multi-specialty institution is the recipient of numerous awards, including Healthgrades' Distinguished Hospitals for Clinical Excellence, which places Ochsner in the top 5 percent of U.S. hospitals for clinical outcomes. Ochsner also has a combined pediatrics residency program with Tulane University Medical School. Medical students from Tulane and the University of Queensland/Ochsner Clinical School rotate through the division. The successful candidate will be eligible for an academic appointment commensurate with experience.

The appeal of living in New Orleans is absolutely undeniable. The city exudes a character all its own and residents have a passionate attitude to life. New Orleans is an unparalleled blend of cultures. Regarded as a city of neighborhoods, New Orleans is best traveled by foot, but you can also hop on one of the city's historic streetcars or join the growing legion of commuters by bicycle. NOLA's neighborhoods each have a distinct architectural flavor and include everything from traditional Antebellum style to historic bungalows and cottages to modern lofts. Professional sports, gorgeous city parks, year-round festivals, prestigious academic centers and universities, and Southern hospitality are only the beginning. The local economy is diverse, with oil and gas, tourism, shipbuilding and aerospace among the top industries, along with health care and education; several world-class colleges and universities are situated here. If you're craving the beach, the gulf shores of Alabama are about two and a half hours away by car; and the white sands of Pensacola, Florida, are just three hours away. It's easy to understand why residents take great pride in calling New Orleans their home.

**For complete details and consideration, please contact:**
**Glenda Smith, Principal,**
**Pediatric Search Partners**
**Phone 877.440.3832,**
**Cell 214.850.3094 or email**
**glenda@pediatricsearchpartners.com.**

CNS PERSONNEL REGISTRY

## MICHIGAN

### Three faculty positions – University of Michigan

Pediatric Neurology Faculty Positions

Michigan Medicine the
University of Michigan

The Department of Pediatrics is seeking three faculty positions in the Division of Pediatric Neurology at the University of Michigan in Ann Arbor. These positions are flexible with regard to academic rank and track as well as allocation of effort for clinical, education, and research activities.

Particular preference will be given to those with an interest in headache, general child neurology, neuromuscular diseases or in health services or quality improvement research.

The Division currently includes 12 full-time faculty members with diverse clinical and scholarly interests.

The Pediatric Neurology Division at Mott Children's Hospital provides comprehensive diagnostic services and treatment for children with neurologic disorders. Clinics and inpatient care are provided at Mott Children's Hospital as well as several satellite clinics. The Division is supported by three nurse practitioners, three ketogenic dieticians, an epilepsy care coordinator, a pharmacist, nurses, and social workers. Our research assistants support both multicenter and local clinical research studies. Pain psychologists work closely with our headache patients. The University of Michigan provides outstanding environments for clinical care, for student and resident education, and for translational, health services, and basic research.

## MICHIGAN continued

Candidates must be board certified or eligible for certification by the ABPN with Special Qualification in Child Neurology, and must be US citizens or permanent US residents who are eligible for medical licensure in Michigan. The University of Michigan is an Affirmative Action / Equal Opportunity Employer.

**Please contact Dr. Steven Leber (leber@med.umich.edu), Division Director, for additional information.**

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### Pediatric Neurologist

Henry Ford Health Systems Department of Neurology, located in southeastern Michigan, is seeking a board eligible/ certified pediatric neurologist to join our multi-disciplinary team.

With over 45 neurologists, including two pediatric epileptologists with a robust clinical practice, Henry Ford's Department of Neurology has over 30 years of experience in the medical and surgical management of neurological disorders. We are particularly interested in candidates with an area of expertise in one of the following sub-specialties: neurodevelopmental disorders of childhood including autistic spectrum disorder, childhood neuromuscular diseases, cerebral palsy, pediatric demyelinating disorders or pediatric headache disorders. Opportunities exist to work with dedicated advanced practice providers to expand your scope of practice.

Henry Ford's Neuroscience Institute is one of the largest and most active medically and surgically in the Midwest, offering the most advanced neurologic medical and surgical therapies. Henry Ford Hospital has ranked among the best in neurology and neurosurgery by *U.S. News & World Report* for 15 of the past 17 years. Our busy neurological practice completes over 30,000 visits annually across four outpatient medical centers in metro Detroit. With two stroke units, two EMUs, and a Neuro-ICU, our team also treats over 5,000 inpatients annually.

As an academic program, we are active in clinical trials and neurology research. Since 1996, the Henry Ford Neuroscience Institute has received over $185 million in research funds and conducted more than 630 clinical trials. Currently, more than 180 clinical trials are ongoing for patients with neurological diseases. All centers within the Henry Ford Neuroscience Institute conduct research, with a major focus on translational research to fast track scientific discovery from bench to bedside.

Our practice position offers time for educational and other academic endeavors, including a teaching role with medical students and neurology residents. Additionally, a tenure-track academic appointment is offered through Wayne State University School of Medicine.

**CONTACT:**
**Scott Johnson**
**sjohns10@hfhs.org**

CNS PERSONNEL REGISTRY

## MISSOURI

*See ad at right.*

### Pediatric Neurology Opportunity – Top 100 Integrated Healthcare System

CoxHealth, a Top 100 Integrated Healthcare System, in Springfield, Missouri, is seeking a BE/BC Pediatric Neurologist with general neurology interests. This established practice includes outpatient clinic, EEG readings and consultative hospital services at one hospital, Cox South. The outpatient clinic is connected to the hospital.

Cox South Hospital (a 644-bed hospital, level 1 trauma center) is a highly developed regional referral center. The hospital includes a level III NICU, 4-6 bed PICU, and pediatric floor covered by neonatologists, pediatric critical care intensivists, and pediatric hospitalists respectively. Pediatric sub-specialty care includes: cardiology, endocrinology, general surgery, orthopedic surgery, sleep medicine and urology.

This physician would have a collegial relationship with CoxHealths nationally recognized Neuroscience Program. The neuroscience team at CoxHealth offers state-of-the-art care for patients with brain and spine diseases, disorders and injuries; adult neurologists subspecialize in neuromuscular diseases, epilepsy, sleep, and vascular neurology.

The position offers:
- Excellent compensation
- Comprehensive benefits program
- Sign on bonus
- Professional liability insurance
- CME allowance

Springfield, Missouri is consistently rated as one of the Top Quality of Life Communities in the Nation by Money Magazine. Located in the southwest portion of the state, Springfield is the third largest city (metro population 450,000) and offers diversity in the arts, a wide variety of outdoor activities and numerous sporting events.

**Check out this you tube video highlighting the city: https://www.youtube.com/embed/1xnoFf0JO9g?rel=0&hd=1**

**Feel free to contact me if you are interested in pursuing this opportunity. You can reach me at 417-893-8952 or 1-800-869-4201.**

CNS PERSONNEL REGISTRY

## NEW MEXICO

### Child Neurologist – Open Rank Faculty Position

The University of New Mexico School Of Medicine is seeking a board certified/ board eligible Child Neurologist to join the Department of Neurology in an Open Rank Faculty position. The Division of Child Neurology currently includes faculty with general as well as specialty expertise in epilepsy, headaches, cerebral palsy and other developmental disabilities, congenital vascular disorders and neuroimaging.

Broad spectrums of clinical services are provided by the division including: active outpatient clinics, a busy inpatient attending service and outreach clinics throughout the state of New Mexico. In addition, the Department of Neurosciences is particularly strong at the University of New Mexico with a recently funded NIH Clinical and Translational Science Center and state-of-the-art clinical and animal neuroimaging research facility. This provides ample opportunities to support any research activity of the interested candidate. However, research is not required. Applicants with primary interest in providing clinical service are also strongly encouraged to apply. Most importantly, candidates must be collegial, have a passion for caring for children, and enjoy teaching medical students and residents. Albuquerque is a terrific place to live and work, with a vibrant university community, a strong tri-cultural environment, and unparalleled outdoor access where one can be cross country skiing on the top of Sandia Mountain as the sun comes up and still get to clinic on time.

*Minimum Requirements:*

MD or DO degree; board certified/board eligible in Child Neurology. Eligible for licensure in the state of New Mexico; eligible to work in the United States.

*Desired Qualifications:*

Strong clinical and teaching skills; skills in all aspects of clinical Child Neurology. The strength of training and recommendations will be important considerations.

*Application Process:*

For complete details of this position and to submit an application, please go to: https://unmjobs.unm.edu. Reference posting for job #2396: Open Rank, Child Neurologist. First review of applications will begin on November 1, 2017; the position will remain open until filled. Complete applications should include a cover letter, CV and three references with contact information.

**Inquiries may be emailed to: Chair Department of Neurology Christopher Calder at cscalder@salud.unm.edu and Division Chief, John Phillips at jpphillips@salud.unm.edu or sent to: UNM HSC Dept. of Neurology; MSC 10-5620; 1 University of New Mexico; Albuquerque, NM 87131-0001; Attn.; Traci Jastrzemski, Clinical Dept. Administrator.**

This position may be subject to criminal records screening in accordance with New Mexico law. UNMs confidential policy (Disclosure of information about Candidates for Employment, UNM Board of Regents Policy Manual 6.7), which includes information about public disclosure of documents submitted by applicants, is located at http://www.unm.edu/~brpm/r67.htm

The University of New Mexico is an Equal Opportunity/Affirmative Action Employer and Educator.

CNS PERSONNEL REGISTRY

## NEW YORK

Child Neurologist

The Department of Neurology at Columbia University and the New York Presbyterian Hospital – announce the recruitment for a board certified established Child Neurologist to expand our practice, appropriate support will be provided. The Child Neurology Division just opened a new practice site on the Upper West Side of Manhattan. In addition to our site on the CUMC campus and in Tarrytown, NY.

MD and board certified in Child Neurology. Faculty rank to be commensurate with experience and achievement. All candidates must provide evidence of practice experience, research accomplishments and have some teaching experience.

**Qualified candidates should send a letter of interest and curriculum vitae to:**
**Richard Mayeux, MD, MSc**
**Department of Neurology**
**710 W. 168th St. Box 14**
**New York, NY 10032**
**neurologyhr@columbia.edu**

**AND apply directly at:**
**http://academicjobs.columbia.edu/applicants/Central?quickFind=64693**

CNS PERSONNEL REGISTRY

## NORTH CAROLINA

**Pediatric Neurology position with teaching opportunities in Charlotte, NC**

Levine Childrens Hospital (LCH) is seeking a full-time pediatric neurologist to join a growing division within North Carolinas largest healthcare system. The division presently has 13 pediatric neurologists and 4 nurse practitioners. Sitting at the heart of a 2.4 million metropolitan area positioned between mountains and beaches, LCH is the largest childrens hospital between Atlanta and Washington DC. It serves high patient acuity as the flagship childrens hospital within the innovative Carolinas Healthcare System and offers a full complement

Washington University in St. Louis
SCHOOL OF MEDICINE

The Division of Pediatric and Developmental Neurology (Department of Neurology) at the Washington University School of Medicine in St. Louis, Missouri is seeking 2 full-time general Pediatric Neurologists with a broad spectrum of interests to join our faculty. This clinical position will entail evaluating and treating child neurology patients across the breadth of the discipline. In addition, this clinician will have inpatient and outpatient responsibilities, both at St. Louis Children's Hospital and our satellite locations. Ample opportunities also exist to participate in clinical/translational research as well as to share in the education of medical students, residents and fellows.

The candidate must be an M.D. or D.O and be board certified or board eligible in Neurology with special qualifications in Child Neurology. Academic rank and salary are commensurate with qualifications.

The Division encompasses over 25 faculty, provides pediatric neurological care in all subspecialties, and has a well-deserved international reputation for innovative patient care and transformative research.

**If Interested please contact/send curriculum vitae to:**
Bradley L. Schlaggar, MD, PhD
A. Ernest and Jane C. Stein Professor of Developmental Neurology
Director, Division of Pediatric and Developmental Neurology
Department of Neurology, Washington University School of Medicine
Neurologist-in-Chief, St. Louis Children's Hospital
660 S. Euclid Avenue, CB 8111
St. Louis, MO 63110
schlaggarb@neuro.wustl.edu

Washington University is an equal opportunity/affirmative action employer.

## NORTH CAROLINA continued

of pediatric subspecialists, including 4 pediatric neurosurgeons, 2 pediatric neuro-oncologists, and 2 pediatric physiatrists.

LCH has 4 pediatric hospitalist teams, a 20-bed PICU (including cardiac ICU), an 85-bed NICU, and an inpatient pediatric rehabilitation facility. LCH hosts a premier Pediatrics Residency Program, serves as a teaching hospital for students of the UNC School of Medicine, and offers excellent support for clinical research and quality improvement. LCH has been ranked among the Best Childrens Hospitals in the nation by U. S. News & World Report in six pediatric specialties for 2017-2018 including neurology & neurosurgery.

Candidates with interest in stroke or neurogenetics / metabolism are particularly encouraged to apply, although collegiality and professionalism are values of greatest importance. Duties include shared call and inpatient consult responsibilities, balanced with outpatient clinics and potential for satellite outreach.

**CONTACT:**
**Sarah Foster**
**sarah.foster@carolinashealthcare.org**
**choosecarolinas.org**

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### Faculty position in Neurodevelopmental Neurology at the Instructor/Assistant Professor/ Associate Professor levels

The Department of Pediatrics at Duke University Medical Center invites applications for a faculty position in Neurodevelopmental Neurology at the Instructor/Assistant Professor/Associate Professor levels in our rapidly expanding Division of Pediatric Neurology.

Eligible candidates must hold an MD/DO degree and be board certified/eligible in Neurodevelopmental Disabilities, Pediatric Neurology and Pediatrics. The successful applicant would join one other

Neurodevelopmental Neurologist on the Faculty and would have the opportunity to participate in excellent multidisciplinary clinics in Cerebral Palsy, Down syndrome, and Spina Bifida and in on-going research projects, with mentoring.

High priority will be placed on excellence in clinical skills, teaching proficiency, and on having a specific area of clinical and research interest. Excellent resources support, and benefits are available.

**Interested individuals should submit a CV and a statement of interest to: mohamad.mikati@duke.edu.**

Qualified candidates of all genders, races, and religions are encouraged to apply. Duke University

Health System is an Equal Opportunity/ Affirmative Action Employer.

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### Duke Pediatric Neurology Faculty

Duke Pediatric Neurology Faculty Positions: Duke University Children's Hospital

The Division of Pediatric Neurology at Duke University invites BC/BE neurologists to apply at the Instructor/Assistant/Associate Professor levels.

Candidates are for the Clinician-Practitioner or Research tracks. The Division has a long history of excellence in clinical service, teaching, and leadership in multiple cutting edge programs and research. We seek to continue to expand our division through Pediatric Neurologists with an interest in Epilepsy, General Pediatric Neurology, Neurointensive Care, Neurodevelopmental, and other Child Neurology subspecialty fields. The environment at Duke fosters and supports development of clinical careers and of clinical or basic science research by the candidates. We are currently recruiting to fill purely clinical or academic track positions. Duke University Health System is an Equal Opportunity/ Affirmative Action Employer.

The Division has 12 faculty members with leading programs and multidisciplinary clinics. It is based in Duke Children's Hospital, which is an approximately 200-bed hospital. *U.S. News and World Report* have repeatedly ranked the Medical School, Hospital, and the Pediatric Neurology service in the top medical schools, pediatric hospitals, and pediatric neurology services in the country.

Durham, North Carolina is consistently ranked very high in the Best Cities to Live In, scoring highly on schools, amenities, museums, and performing arts center, in addition to being known officially as the City of Medicine, USA. Over 230,000 residents enjoy the temperate climate, world-class dining, cultural events, and college and professional sports.

**Interested individuals should contact Dr. Mohamad A. Mikati at 919-668-4073 or mohamad.mikati@duke.edu and vickie.wilson@duke.edu**

CNS PERSONNEL REGISTRY

## NORTH DAKOTA

*See ad at right.*

CNS PERSONNEL REGISTRY

## OHIO

### Pediatric Epileptologist

The Cleveland Clinics Neurological Institute is seeking a BC/BE Neurologist with fellowship training in pediatric epilepsy. This individual will join the Epilepsy Center, one of the largest and most comprehensive programs in the world. The position will involve evaluation and treatment of Pediatric patients, delivering highly specialized care in our state-of-the-art facility.

On-site resources to support the busy and growing Epilepsy Center include nursing, rehabilitation services, patient education program and advanced imaging capabilities. In addition to patient care, the individual will help further develop the epilepsy clinical or translational/basic research programs, with the assistance of an established research administrative infrastructure.

We invite highly qualified candidates who are committed to excellence in patient care, possess strong clinical skills and have an interest in clinical or basic investigation and education. A faculty appointment at a rank commensurate with experience is available at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. The Department deservedly enjoys a national reputation for excellence in clinical care, innovations, patient outcomes and education.

The position offers competitive salary and generous benefits package, including continuing education and travel expenses.

MINIMUM REQUIREMENTS:

- Board Certification or Board Eligibility with Special Qualification in Child Neurology
- Fellowship training in pediatric epilepsy with board certification or board eligibility for Epilepsy and/or Clinical Neurophysiology

**CONTACT:**
**Nathan Elting**
**eltingn@ccf.org**
**Website: http://www.PracticeMatch.com/CareerCenter/Opportunities/Find.cfm?OpportunityID=504581&RemainEmbedded=1&NewSearch=true**

CNS PERSONNEL REGISTRY

## OREGON

**General Academic Child Neurology (Portland, Oregon)**

The Division of Pediatric Neurology at the Oregon Health & Science University (OHSU) is seeking a BC/BE Pediatric Neurologist to join their expanding faculty. This position will primarily focus on strengthening our outpatient neurology clinics, but depending on the interests of the candidate, could include some coverage of our inpatient neurology service. Special consideration will be given to candidates with interest and/or expertise in headache or neuroimmunology/ neuroimflammatory disorders.

Ample opportunities exist for program development and leadership roles within the Division and in the Department of Pediatrics, as well as mentoring of residents in both our child neurology and neurodevelopmental disabilities residency programs.

*Position Condition/Requirements*

Candidates should possess an M.D. or equivalent degree and have completed neurology residency and/or fellowship training at a strong tertiary or quaternary care center. Additional subspecialty/ fellowship training is welcomed but not required. A commitment to excellence in patient care is a must.

*Location*

Doernbecher Childrens Hospital is a 151-bed modern state-of-the art facility on the OHSU campus and serves as the tertiary and quaternary referral center for all of Oregon and SW Washington. The Division of Pediatric Neurology currently consists of 11 M.D. and 3 N.P faculty and the Department of Pediatrics boasts more than 90 clinicians and scientists representing all pediatric subspecialties integral to the mission of OHSU and the School of Medicine.

OHSU and Doernbecher Childrens Hospital are located in the stunning city of Portland, Oregon, which pairs its vibrant and progressive urban scene with abundant access to year-round outdoor opportunities for individuals and their families. Portland

## OREGON continued

is consistently ranked as one of the most desirable places to live in the United States.

*Additional Details*

OHSU is an equal opportunity, affirmative action institution. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of disability or protected veteran status. Applicants with disabilities can request reasonable accommodation by contacting the Affirmative Action and Equal Opportunity Department at 503-494-5148.

**If interested in this opportunity, please contact:**
**Yoon-Jae Cho, MD**
**Chief, Division of Pediatric Neurology**
**Oregon Health & Science University**
**3181 SW Sam Jackson Park Rd, MC: L321**
**Portland, OR 97239**
**Phone: 503-494-9113**
**E-mail: chyo@ohsu.edu**

CNS PERSONNEL REGISTRY

## PENNSYLVANIA

### PEDIATRIC NEUROLOGIST

Geisinger is seeking talented and motivated Pediatric Neurologists to join a growing multidisciplinary clinical and research team at Geisinger's Autism & Developmental Medicine Institute (ADMI) in beautiful Lewisburg, PA, Wilkes Barre/Scranton and other sites in central Pennsylvania.

Geisinger fosters a training environment with strong academic ties to nearby Bucknell University and our medical school, Geisinger Commonwealth Medical College. ADMI's vision is to expand and integrate clinical services, research, education, and family support for children and adolescents with autism and other neurodevelopmental disorders.

At ADMI, pediatric neurologists:

- Provide clinical care, including diagnostics and medication management, as part of a dynamic, multidisciplinary developmental medicine, psychiatry, psychology, neuroscience, and genomics team
- Work within a busy, stimulating clinical and research environment serving individuals with diverse neurodevelopmental challenges
- Develop clinical expertise and research interests through specialty clinics for fragile X, Smith-Magenis, 22q11.2 deletion, and other genetic syndromes
- Enjoy protected time to pursue research projects and clinical trials related to developmental brain disorders
- Teach residents, medical students, and trainees in allied disciplines through established affiliations between Geisinger and regional academic institutions (Bucknell University and Geisinger Commonwealth Medical College)
- Are respected and supported colleagues within Geisinger's nationally-recognized and growing Autism & Developmental Medicine Institute

*About Geisinger*

Geisinger fosters an atmosphere of clinical excellence while offering the best of life in small-town America good schools, safe neighborhoods with affordable housing and a wealth of cultural and recreational activities. The surrounding natural beauty provides opportunities for fishing, skiing, canoeing, hiking and mountain biking. Urban life is easily accessible, with New York, Baltimore, Philadelphia or Washington DC just an afternoon's drive away.

Discover for yourself why Geisinger has been nationally recognized as a visionary model of integrated healthcare.

**For more information, visit GeisingerADMI.org or contact: ADMI Medical Director, Thomas Challman, MD, c/o Grace Lowry at 570-214-6918 or gblowry@geisinger.edu**

geisingerADMI.org

As one of the nation's largest health service organizations, Geisinger serves more than 3 million residents throughout 45 counties in central, south-central and northeast Pennsylvania, and also in southern New Jersey with the addition of AtlantiCare, a National Malcolm Baldridge Award recipient. The physician-led system is comprised of approximately 30,000 employees, including nearly 1,600 employed physicians, 12 hospital campuses, two research centers and a 510,000-member health plan, all of which leverage an estimated $8.9 billion positive impact on the Pennsylvania economy. Geisinger has repeatedly garnered national accolades for integration, quality and service. In addition to fulfilling its patient care mission, Geisinger has a long-standing commitment to medical education, research and community service.

**For more information, visit www.geisinger.org, or follow the latest Geisinger news and more on Twitter and Facebook.**

Does not qualify for J-1 waiver. We are an Affirmative Action, Equal Opportunities Employer Women and Minorities are Encouraged to Apply

**RECRUITER:GRACE B. LOWRY**
**gblowry@geisinger.edu**
**570-214-6918 46918**

Does not qualify for J-1 waiver. We are an Affirmative Action, Equal Opportunity Employer. Women and Minorities are Encouraged to Apply. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of disability or their protected veteran status.

PA Licensed/license eligible and BC/BE physician in Pediatric Neurology.

**Apply Here: http://www.Click2Apply.net/nzf7ndfr2qrk4f6w**

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**Developmental Pediatrician – Geisinger Autism and Developmental Institute**

Seeking Talented & Motivated Developmental Pediatricians

World class healthcare in the heart of Pennsylvania

Join a growing multidisciplinary clinical and research team at Geisinger's Autism & Developmental Medicine Institute (ADMI) in beautiful Lewisburg, Pa. and other sites in central Pennsylvania. In collaboration with nearby Bucknell University, ADMI's vision is to expand and integrate clinical services, research, education, and family support for children and adults with autism and other neurodevelopmental disorders.

At ADMI, physicians:

- Provide clinical care as part of a dynamic, multidisciplinary developmental medicine, psychology, neuroscience, and genomics team
- Work within a busy, stimulating clinical and research environment serving individuals with diverse neurodevelopmental challenges
- Develop clinical expertise and research interests through specialty clinics for fragile X, Smith- Magenis, 22q11.2 deletion, and other genetic syndromes
- Enjoy protected time to pursue research projects and clinical trials related to developmental brain disorders
- Teach residents, medical students, and trainees in allied disciplines through established affiliations between Geisinger and regional academic institutions are respected and supported colleagues within Geisinger's nationally-recognized developmental medicine institute

*About Geisinger*

Geisinger fosters an atmosphere of clinical excellence while offering the best of life in small-town America good schools, safe neighborhoods with affordable housing and a wealth of cultural and recreational activities. The surrounding natural beauty provides opportunities for fishing, skiing, canoeing, hiking and mountain biking. Urban life is easily accessible, with New York, Baltimore, Philadelphia or Washington DC just an afternoon's drive away.

**Discover for yourself why Geisinger has been nationally recognized as a visionary model of integrated healthcare. For more information, visit GeisingerADMI.org or contact: ADMI Medical Director, Thomas D. Challman, MD, c/o Grace Lowry, Professional Staffing, at 570-214-6918 or gblowry@geisinger.edu.**
**Web: geisingerADMI.org**
**Facebook: fb.me/GeisingerADMI**
**Twitter: @GeisingerADMI**

Physicians who are board-certified/eligible in nuerodevelopmental disabilities or developmental behavioral pediatrics.

**CONTACT US:**
**gblowry@geisinger.edu**

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**PSYCHIATRIST (AUTISM & DEVELOPMENTAL MEDICINE)**

LOCATION: SUSQ IMAG/AUTISM DEV MED INST, LEWISBURG PA

Geisinger is seeking talented and motivated Child and Adolescent Psychiatrists

Join a growing multidisciplinary clinical and research team at Geisinger's Autism & Developmental Medicine

Institute (ADMI) in beautiful Lewisburg, PA and other sites in central Pennsylvania. In collaboration with nearby Bucknell University, ADMI's vision is to expand and integrate clinical services, research, education, and family support for children and adolescents with autism and other neurodevelopmental disorders.

At ADMI, Child Psychiatrists:

- Provide clinical care, including diagnostics and medication management, as part of a dynamic, multidisciplinary developmental medicine, psychiatry, psychology, neuroscience, and genomics team
- Work within a busy, stimulating clinical and research environment serving individuals with diverse neurodevelopmental challenges
- Develop clinical expertise and research interests through specialty clinics for fragile X, Smith-Magenis, 22q11.2 deletion, and other genetic syndromes
- Enjoy protected time to pursue research projects and clinical trials related to developmental brain disorders
- Teach residents, medical students, and trainees in allied disciplines through established affiliations between

*Geisinger and regional academic institutions*

Are respected and supported colleagues within Geisinger's nationally-recognized and growing Autism &Developmental Medicine Institute

*About Geisinger*

Geisinger fosters an atmosphere of clinical excellence while offering the best of life in small-town America good schools, safe neighborhoods with affordable housing and a wealth of cultural and recreational activities. The surrounding natural beauty provides opportunities for fishing, skiing, canoeing, hiking and mountain biking. Urban life is easily accessible, with New York, Baltimore, Philadelphia or Washington DC just an afternoon's drive away.

Discover for yourself why Geisinger has been nationally recognized as a visionary model of integrated healthcare.

**For more information, visit GeisingerADMI.org or contact: ADMI Medical Director, Thomas Challman, MD, c/o Grace McCluskey at 1-800-845-7112 or gbmccluskey@geisinger.edu**

Geisinger Health System is an integrated health services organization widely recognized for its innovative use of the electronic health record, and the development of innovative care models such as ProvenHealth Navigator and ProvenCare. As one of the nation's largest rural health services organizations, Geisinger serves more than 3 million residents throughout 48 counties in central, south-central and northeast Pennsylvania. The physician-led system is comprised of approximately 23,500 employees, including a 1,200-member multi-specialty group practice, nine hospital campuses, two research centers and a 467,000-member health plan, all of which leverage an estimated $7.7 billion positive impact on the Pennsylvania economy. The health system and the health plan have repeatedly garnered national accolades for integration, quality and service. In addition to fulfilling its patient care mission, Geisinger has a long-standing commitment to medical education, research and community service.

Does not qualify for J-1 waiver. We are an Affirmative Action, Equal Opportunities Employer Women and Minorities are Encouraged to Apply

**RECRUITER: GRACE B. MCCLUSKEY**
**gbmccluskey@geisinger.edu**
**570-214-6918 46918**

## PENNSYLVANIA continued

Does not qualify for J-1 waiver. We are an Affirmative Action, Equal Opportunity Employer. Women and Minorities are Encouraged to Apply. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of disability or their protected veteran status.

Licensed Child Psychiatrist. BE/BC in Pennsylvania.

**CONTACT US:**
**gblowry@geisinger.edu**

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### Child Neurologist – Eastern Pennsylvania

Lehigh Valley Health Network (LVHN) Children's Hospital is seeking a BC/BE pediatric neurologist to join our growing Department of Pediatrics which now includes physicians in 28 specialties, a large general pediatric group and dedicated hospitalists and intensivists. Lehigh Valley Health Network is located 1 hour north of Philadelphia and 1.5 hours west of NYC. The Children's Hospital has a 30-bed inpatient unit, a 40-bed Level III NICU, 8-bed Level II PICU, Level II pediatric trauma center and 12-bed pediatric ER. LVHN offers a cohesive work environment, a busy clinical practice and the opportunity to be involved in teaching pediatric residents and medical students, and an academic appointment at the University of South Florida. LVHN is a nationally recognized physician-led network with a medical staff of 1,200, more than half of whom are employed. The area is one of the fastest growing in the state of Pennsylvania due to urban redevelopment, suburban affordability and outstanding public and private schools.

**Email CV to Karen_R.Fay@LVHN.org or call 484-862-3206 for more information.**

**Please visit our website at www.LVHN.org.**

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### Pediatric Epileptologist

Pediatric Epileptologist Opportunity at Penn State Health Children's Hospital

The Penn State Health Children's Hospital has an opportunity for a Pediatric Epileptologist in our Department of Pediatrics, Division of Pediatric Neurology to join our group under the leadership of Leslie Walker-Harding, M.D., Chair, Department of Pediatrics and William Trescher, M.D., Chief, Division of Pediatric Neurology.

What were seeking:

- BC/BE in Pediatric Neurology.
- BC/BE in Epilepsy and/or Clinical Neurophysiology.
- Completed fellowship in Clinical Neurophysiology and Epilepsy.
- Experience with all aspects of epilepsy in children, including management of children with intractable epilepsy and evaluation of children for epilepsy surgery.
- Developing or established record of scholarship.

What were offering:

- Leadership position in Pediatric Epilepsy
- Non-tenure or tenure track appointments at the assistant/associate/professor level, dependent on qualifications.
- Primary appointment in Pediatrics with a joint appointment in Neurology.
- High quality academic and clinical program.
- Opportunity to participate in resident and medical student education
- Excellent Junior Faculty Development Program.
- Competitive salary and attractive benefits package.

Penn State Health Children's Hospital and the Penn State Hershey Medical Center:

The Penn State Health Children's Hospital is the sole tertiary care pediatric center in South Central Pennsylvania, serving a pediatric population of approximately 1 million children. The Division of Pediatric Neurology consists of 7 pediatric neurologists, a Pediatrician, a Nurse Practitioner, and a Dietician experienced in the management of the ketogenic and related diets for epilepsy. The Department of Pediatrics has 175 faculty members across all specialties of Pediatrics. The Department of Neurology has 28 neurologists, 5 basic scientists and 2 neuropsychologists. The Department of Neurosurgery includes 3 pediatric neurosurgeons and an adult and pediatric epilepsy surgeon fellowship trained at the Cleveland Clinic. The new Childrens Hospital, completed in 2013 has 125 beds, including 42 beds in the neonatal intensive care unit. A major expansion project is underway. The hospitals are the major teaching facilities for the Pennsylvania State University College of Medicine, located in Hershey, PA.

Area Highlights Include: Hershey is a suburban community of 20,000 in a metropolitan area of 400,000 in one of the fastest growing regions in the state. Penn State Health Hershey Medical Center is approximately twelve miles from Harrisburg, the state capital.

**Interested candidates, please send CV and cover letter to Patty Shipton, FASPR, at pshipton@pennstatehealth.psu.edu. Applications received until position is filled.**

The Penn State Health Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. EOE-AA-M/F/D/V. All individuals (including current employees) selected for a position will undergo a background check appropriate for the positions responsibilities.

CNS PERSONNEL REGISTRY

## SOUTH CAROLINA

### PEDIATRIC NEUROLOGIST

Greenville Health System (GHS), the largest healthcare provider in South Carolina, is currently seeking a General Pediatric Neurologist to join our dynamic team of 6 MDs and 1 AP.

This practice has an approximate volume of 5,000 patients annually. This opportunity provides a mix of 85% outpatient with 15% inpatient as well as teaching responsibilities with pediatric residents, 3rd and 4th year medical students, and developmental/ behavioral fellows. The outpatient practice offers EEGs, performed by certified technicians. Call ratio is 1:6.

GHS employs 15,000 people, including 1000+ physicians on staff. Our system includes clinically excellent facilities with 1,662 beds on 7 campuses. We are an academic health center that currently hosts 15 residency and fellowship programs and we are home to one of the nation's newest medical schools University of South Carolina School of Medicine - Greenville.

The Children's Hospital includes a 12 bed PICU, 80 bed Level-3 NICU, and a dedicated Pediatric ER. With experienced doctors representing more than 35 pediatric specialties, GHS offers more comprehensive "whole child" care than many of the country's major medical centers.

Greenville, South Carolina is a beautiful

place to live and work and the GHS catchment area is 1.3 million people. Greenville is located on the I-85 corridor between Atlanta and Charlotte, and is one of the fastest growing areas in the country. Ideally situated near beautiful mountains, beaches and lakes, we enjoy a diverse and thriving economy, excellent quality of life and wonderful cultural and educational opportunities.

We offer great compensation and benefit plans, malpractice insurance, and full relocation packages.

**Qualified candidates should submit a letter of interest and CV to: Tina Owens, In-House Recruiter, towens2@ghs.org, 864-797-6240.**

CNS PERSONNEL REGISTRY

## TENNESSEE

### Child Neurologist to join The Children's Hospital at TriStar Centennial in Nashville, Tennessee

We seek a board certified/eligible Child Neurologist to join The Children's Hospital at TriStar Centennial in Nashville, Tennessee.

Our 96 bed Children's Hospital sits on the 52 acre campus of the five hospitals that comprise TriStar Centennial Medical Center. We have immense current capabilities and are positioned to grow extensively, with Child Neurology our fastest growing service line second only to Pediatric Surgery. We are building out a separate space for child neurology in the third quarter of 2017. Our Program features: Treatment Autism spectrum, ADHD & OCD defiant behaviors, Electroencephalography laboratory for EEG studies (proficiency reading EEGs required) and Outpatient Rehabilitation. The clinic runs Monday through Friday 1/2 days with three exam rooms per physician along with a highly specialized pediatric team for support. Subspecialty

Support also includes:
- Pediatric Emergency Services
- Kids Express outpatient center for labs, imaging, and hydration
- 60 bed level III NICU with Transport Services
- 10 bed PICU
- 26 bed Pediatric unit (includes 4 bed EMU)
- 11 bed Hem/Onc unit (completion September 2017)
- Child Life Specialists
- Pediatric Sleep Services
- Pediatric OP Diagnostics and Imaging
- Pediatric Nurse Triage After Hours Program
- Pediatric Intensivists and Hospitalists available for back up 24/7
- Pediatric Hematology/Oncology, Endocrinology, Gastroenterology, Cardiology,
- Infectious Diseases, General, Orthopedic (including spine), Thoracic Surgery, Urology, Plastic & Reconstructive, Ophthalmology & Retinal Surgery, ENT and Anesthesiology

NASHVILLE is a thriving metropolitan society with a population of approximately 600,000 surrounding communities offering refuge to those who dont prefer to live in the middle of the hustle and bustle and has been chosen as the #1 location for Top 50 smart places to live by Kiplingers magazine. We pay no state income tax, and are listed consistently as one of the best places in the country to practice medicine. We offer lakes and mountains, bike trails and parks, endless live entertainment and a very rich cultural community. If sports are an interest, we have Professional Football and Hockey, AAA Baseball and we attract professional events such as Mens US Soccer Team and the National Hockey League 2016 Nashville All-Star Game Weekend. Added together, this professional opportunity and the excellent lifestyle afforded our citizens will give you an excellent lifestyle to consider.

For more information about the opportunity or to be considered for the group practice, please contact us now!

**CONTACT:**
**kelly.phelps@hcahealthcare.com**
**http://thechildrenshospitalnashville.com/**

CNS PERSONNEL REGISTRY

## TEXAS

### Pediatric Neurologist

Management Enterprise Development & Services, Inc. (MEDS) is seeking a full-time pediatric neurology physician to provide hospitalist services at Brooke Army Medical Center, Fort Sam Houston, San Antonio, Texas.

Benefits include:
- Medical and dental insurance
- Malpractice insurance not required
- Paid leave
- 401(k)
- Relocation package
- Competitive salary - $315,000 range
- Great work environment and state-of-the-art clinical space

**To apply, email CV and contact information to Sonya Harris at s.harris@medshuntsville.com.**

Applicant must possess a doctor of medicine degree (MD) or a doctor of osteopathic medicine degree (DO) and be board certified or eligible in pediatric medicine. Applicant must have and maintain a valid license to practice in one of the states/territories of the United States; must possess and maintain valid Basic Cardiac Life Support (BCLS) and Cardiopulmonary Resuscitation (CPR) certifications throughout the period of performance; must meet or exceed currently recognized national standards as established by the Joint Commission. Credentialing by BAMC will be required prior to hiring.

CNS PERSONNEL REGISTRY

## VIRGINIA

### Pediatric Sleep Medicine

Children's Specialty Group (CSG) is seeking a Sleep Medicine physician to join our growing team of providers. The ideal candidate should be comfortable with both adult and pediatric sleep medicine and must be BC/BE in Sleep Medicine with a primary interest in Pediatrics. We prefer an additional BC/BE in Child Neurology. You will be responsible for inpatient and outpatient care for newborns through patients in young adulthood. You will have the opportunity to work with a robust clinical research team and teach medical students and residents. CSG is a physician owned, pediatric multispecialty practice based at Children's Hospital of The Kings Daughters (CHKD) the only free-standing, full service children's hospital in Virginia. CSG provides high-quality pediatric care to the communities of coastal southeastern Virginia and northeastern North Carolina. Our physicians also serve as the full-time faculty in the Department of Pediatrics at Eastern Virginia Medical School. The position offers the administrative support of a large multispecialty practice, competitive compensation, and a comprehensive benefits package that includes a 401k

## VIRGINIA continued

plan, profit sharing, health insurance, and professional liability coverage.

**CONTACT:**
**James McCoy**
**james.mccoy@chkd.org**
**www.csgdocs.com**

CNS PERSONNEL REGISTRY

## WASHINGTON

### Physician Pediatric Neurology

We lead the country in Pediatric service excellence. Help us soar even higher.

Founded in 1955, Mary Bridge Children's provides our regions most advanced care for children. Last year, we achieved a major service milestone – a 99th percentile ranking in the Press Ganey patient perception survey. While were proud of this achievement, were more focused on what we can do in the future.

Our new Pediatric Neurologist will play a key role in that future. You will be a trusted physician and a part of our MultiCare values of Respect, Integrity, Stewardship, Excellence, Kindness and Collaboration. Your strengths will include both clinical excellence and business acumen.

*A bit about us:*

Mary Bridge Children's Hospital and Health Network is more than just a place for children to heal. It's a place for them to grow and thrive. A place for families to come for solutions and support. A place where medical expertise and a passion for children and families work together in perfect balance. Key statistics include:

- 4,700 inpatient/observation discharges
- 174,400 outpatient visits
- 5,800 surgeries
- 42,700 emergency department visits

As part of MultiCare Health System, you'll enjoy the benefits of a financially stable, technologically advanced health system with more than 12,000 employees. You'll also be supported by an active foundation committed to our mission of Partnering for Healing and a Healthy Future.

*Job Description:*

MultiCare Mary Bridge Children's Hospital is searching for a Pediatric Neurologist to join an established team of 6 Providers with multiple pediatric Neurologysubspecialties. Call is 1:6. We have a busy EEG lab with OP EEGs performed in multiple locations. We have the capacity to monitor 4 IP video EEG patients. We also have 4 pediatric sleep center beds. Mary Bridge Children's Hospital is an advanced regional care and referral center for Southwest Washington serving more than 13 referring hospitals over 9 counties and backed by fully staffed services 24/7. Mary Bridge supports a level IV NICU. The pediatric neurology service is primarily a consultation service with excellent support through fully staffed busy ED service, PICU, trauma service, IPS and a full complement of pediatric subspecialties.

Competitive salary, a full array of benefits, a healthy work/life balance, and a great location make this an ideal choice for the provider who is looking to experience the best of Northwest living: from big-city amenities to the pristine beauty and recreational opportunities of the great outdoors.

*Requirements:*

- Completion of a Pediatric Neurology Fellowship
- Board certified/eligible at time of employment
- Licensed in the state of WA by the time of employment
- DEA, NPI & prescriptive authority
- Current BLS for Healthcare Providers certification by the American Heart Association

**APPLY:**
**Please visit our website to apply at https://jobs.multicare.org/pedneuro.**

MultiCare is an equal opportunity employer. Hiring decisions are made without regard to race, color, religion, national origin, sexual orientation, gender identity, disability, veteran.

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### Pacific Northwest Child Neurology

Providence Sacred Heart Children's Hospital and Providence Medical Group are seeking two BC/BE Pediatric Neurologists to join us in eastern Washington. New providers will join an established group of two Pediatric Neurologists and a mid-level in a busy and expanding practice located on the campus of Sacred Heart Medical Center and Children's Hospital in Spokane. The group is responsible for providing inpatient and outpatient care for pediatric neurology patients in the beautiful Pacific NW region. There would be an opportunity for a new provider to focus on inpatient pediatric neurology or a mix of IP/OP based on personal preference. Enjoy the support of a strong team of pediatric subspecialists.

Great opportunity to enjoy generous compensation and long term salary support while helping to shape the future of child neurology in one of the Pacific Northwest's leading children's hospitals. New grads and Neurologists with a background in academics are encouraged to apply.

Join us in Washington's second largest city with a metro population of about 550,000 and enjoy an excellent work / life balance aided by minimal traffic and easy commutes to all areas of the city.

Providence Medical Group Eastern Washington is our physician-led network of more than 500 primary and specialty care providers in multiple clinic locations in Spokane and Stevens counties. PMG providers offer exceptional patient-centered care as a reflection of our Providence values. PMG partners with some of the regions most advanced hospitals: Providence Sacred Heart Medical Center & Children's Hospital, Providence Holy Family Hospital, Providence Mount Carmel and Providence St. Joseph's Hospital.

Spokane, located about halfway between the Rocky and Cascade Mountain Ranges, is a regional medical hub, drawing patients from four states. Spokane and eastern Washington offer high quality of life features as well, including some of the nation's cleanest air and water, responsible development in harmony with nature, and a mild four-season climate. Spokane's affordable housing, growing arts and theater community and excellent higher education choices make it a prime destination for families and working professionals alike. Outdoor enthusiasts relish Spokane's prime location with over 60 miles of biking and hiking trails and close to exceptional skiing, whitewater rafting and other recreation.

Providence Health & Services is an integrated, not-for-profit system of hospitals, clinics and providers in Alaska, California, Montana, Oregon and Washington. We are affiliated with Swedish Health Services,

Pacific Medical Centers, Kadlec and Facey Medical Group, sharing one EMR and best practices to create healthier communities, together.

**Learn more at www.providence.org/providerjobs.**

CNS PERSONNEL REGISTRY
**WISCONSIN**

### Pediatric Neurology Movement Disorder

Pediatric Movement Disorder Specialist

The Pediatric Neurosciences Center at Children's Hospital of Wisconsin (CHW) and The Medical College of Wisconsin is recruiting a Movement Disorder specialist to continue our programmatic expansion.

In a period of fiscal instability and rapid change in the practice of medicine we find ourselves at Children's Hospital of Wisconsin in the enviable position of financial and cultural stability. We have enjoyed substantial growth over the past few years and receive tremendous support from Children's Hospital of Wisconsin.

Many collaborative research opportunities are also available to interested applicants. CHW is one of the largest free standing children's hospitals in the United States. There are many patients who have already been identified with diverse and challenging movement disorders, and an institutional commitment to the group. The group has grown rapidly and currently has fourteen faculty members and eight advanced practice providers trained in Neurology with the expectation of expanding soon. The metro Milwaukee area provides a great quality of living and school systems as well.

**Please contact Dr. Kurt Hecox, Section Chief, at 414-337-8702 with any questions or email your CV to Kimberly Hughes khughes@mcw.edu**

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### Pediatric Neurology Epileptologist

Pediatric Epileptologist

We have openings for a Pediatric Epileptologist at the Medical College of Wisconsin & Children's Hospital of Wisconsin to qualified candidates who have already completed their child neurology residency training at an ACGME-accredited institution.

The strengths of our program are the size and complexity of our pediatric epilepsy population, a thriving pediatric surgical epilepsy program, a MEG facility, PET, dedicated pediatric neuro-radiologists and neuropsychiatrists, state-of-the-art stereotactic EEG, and one of the largest full time faculty in pediatric neurophysiology in the country.

There are 7 clinical pediatric epileptologists, 6 of whom have already become successfully boarded in the newly-established ABPN Epilepsy Boards. In 2015 we reopened our dedicated neurosciences floor with a completely redesigned epilepsy monitoring unit and updated state-of-the-art Electrodignostic technology. Our pediatric epilepsy monitoring unit is one of the busiest in the country, with 12 dedicated beds and the capability of monitoring 10 additional patients in any part of the children's hospital and all the intensive care beds are wired for remote monitoring.

CHW Epilepsy 2016 Statistics:
- 1200 long-term video EEG studies
- 1600 outpatient EEGs
- 1600 unique patients in the comprehensive epilepsy program (generally patients with medically refractory epilepsy)
- 57 pediatric epilepsy surgeries.

Pediatric Epileptologist Application requirements:
- CV
- Letters of recommendation

**For more information, or to apply for a position in the fellowship, please contact our program coordinator Kim Hughes at khughes@mcw.edu.**

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### Pediatric Neurologists: University of Wisconsin-Madison

The Department of Neurology at the University of Wisconsin School of Medicine and Public Health seeks fellowship-trained BC/BE pediatric neurologists to join our expanding Pediatric Neurology Program as Assistant, Associate or Full Professors on the clinician-teacher or CHS track. The pediatric neurology Section currently has four pediatric epileptologists and three general pediatric neurologists with plans to expand to a faculty of ten. Fellowship-trained pediatric neurologists in Stroke, Neuroimmunology, Movement Disorders, Neuromuscular diseases and general pediatric neurologists are welcome to apply. Candidates must hold an M.D., M.D./Ph.D. or DO, be Board certified or eligible in neurology, and have the ability to obtain a Wisconsin Medical License, fellowship training or equivalent experience is required. The positions include opportunities for teaching, clinical and research activities in an academic environment with pediatric and adult epileptologists, general pediatric neurologists, faculty in other services including pediatrics, neuropsychology, neurosurgery, neuroradiology, clinical neurophysiology and basic science research faculty. Clinical activities will involve attending duties in neurology clinics and on inpatient services at the American Family Childrens hospital at the University of Wisconsin and affiliated regional hospitals and clinics. Teaching responsibilities include teaching medical student courses and clerkship, mentoring graduate students and trainees, training pediatric and adult neurology residents, fellows and medical students and teaching continuing education programs for physicians and the public.

**Interested applicants, please visit our job board, at Jobs at UW and submit a curriculum vitae/resume and cover letter referring to the position vacancy listing number. Finalists may be asked to provide at least three letters of reference at a future date. Questions can be addressed to applications@neurology.wisc.edu.**

Wisconsin open records and caregiver laws apply. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. The University of Wisconsin is an Affirmative Action / Equal Opportunity Employer

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