



DukeNeurology

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DUKE NEUROLOGY



2020

ANNUAL REPORT

EXCELLENCE THROUGH INTEGRITY, DIVERSITY, AND CARING

C ONTENTS

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A CKNOWLEDGMENTS

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FROM THE CHAIR



I'm pleased to share the Duke Department of Neurology's latest annual report, which details some of the achievements and growth we've made during a difficult but successful year.

COVID RESPONSE



It is impossible to think of 2020 and not think of COVID-19. In just a few weeks, the novel coronavirus grew from an abstract concern to something that defined our lives, personally and professionally. More than one year later, the pandemic is finally starting to come under control, but only after many people have lost lives or loved ones.

Even as the virus spread, I was **amazed at the speed at which members of the Neurology Department and our colleagues across Duke collaborated, innovated, and went above and beyond** the call of duty. We masked up, held Grand Rounds and meetings over Zoom, started virtual patient visits at an unprecedented level, and took care of each other. We have emerged as a stronger Department and a stronger Duke.



2020 was also about so much more than COVID-19 in our department. **We welcomed new faculty to our divisions** of Stroke and Vascular Neurology, Neurocritical Care, and Multiple Sclerosis and Neuroimmunology.

We saw our **clinical facilities expand**, with growth in both inpatient and outpatient services, as well as the movement of our Neuro Intensive Care and Stroke Units from the Duke Medical Pavilion to the new Duke Central Tower. We saw our **research continue to accelerate**, with the publication of 167 peer-reviewed journal articles from members of our Department, more than double what our Department published four years ago and NIH funding rising to 15 million in direct costs per year.

2021 looks to be even more exciting. The **new Duke University and the University of North Carolina Alzheimer's Disease Research Collaborative (Duke/UNC ADRC)** is bringing together academic expertise from across North Carolina to revolutionize research into identifying, treating, and preventing Alzheimer's disease and related dementias, as well as reducing the continuing disparities associated with this condition.

We hope to **further expand our residency program** with new dedicated slots open for residents interested in pursuing careers as physician scientists. Our clinical capabilities continue to grow, and we've made great strides towards improving diversity, inclusion, and equity in our Department, the School of Medicine, and across Duke.

CLINICAL, RESEARCH & EDUCATION



I'd like to thank everyone in the Duke Neurology Department and our colleagues within the Duke University Health System and School of Medicine for the work they have done to get us this far. I'd also like to thank our philanthropic partners, academic collaborators, alumni, family members, and everyone else whose support has allowed our Department to thrive. In particular, Dean Mary Klotman, MD, Chancellor Gene Washington, MD, John Sampson, MD, PhD, Bill Fulkerson, MD, and Steve Lisberger, PhD, who have been instrumental in our success.



Richard O'Brien, MD, PhD

Disque D. Deane University Professor
Chair, Duke Department Of Neurology

THANK YOU

2020

IN REVIEW

2020 was a momentous year for the Duke Neurology Department and for all of Duke. In addition to nearly overwhelming our health system, the COVID-19 pandemic disrupted how members of our Department provided care, conducted research, and interacted with trainees. Our faculty, staff, and trainees quickly adapted to these challenges. By the end of the year, our Department emerged stronger, bigger, and more capable than it has ever been.

JANUARY



In an interview, our new Division Chief **Matthew Luedke, MD**, talks about the growing subspecialty of Hospital Neurology. This specialty provides inpatient care for

complex neurological cases across our hospital system. Luedke discusses where and how hospital neurologists typically treat patients, how they can help fill gaps in the hospital system, and some of the reasons why neurologists may want to consider specializing in this career.

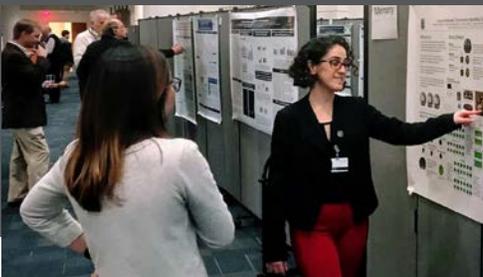
FEBRUARY

Members of our Department advance clinical neurology from coast to coast in national conferences this month. In Los Angeles, the **American Heart Association/American Stroke Association** gives its most prestigious award for stroke care to all three Duke hospitals at the 2020 International Stroke Conference. At the 2020 American Clinical Neurophysiology Society annual meeting in New Orleans, our faculty, housestaff, and medical students lead courses and breakout sessions, and present posters and abstracts on their research.



MARCH

The Department holds its first **Division of Translational Brain Sciences and Neurology Resident Joint Poster Session** in our last major in-person event before COVID-19 reaches dangerous levels in the U.S. This event brings together our clinical, translational, and basic science wings. Research faculty, postdoctoral associates, clinical neurology residents, and other members of the Department present more than 30 ongoing research projects from a variety of disciplines and perspectives.



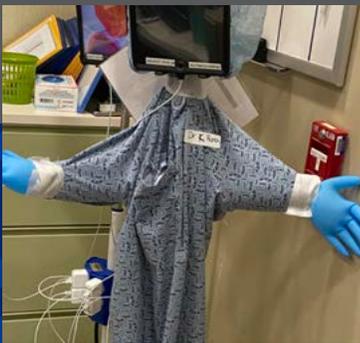
APRIL

As health care workers in our **Neuro Intensive Care Unit** work around the clock to provide their usual care and handle as well as the influx of COVID-19 patients, they receive a welcome surprise: 35 box lunches of northern Indian cuisine, donated by NaanStop, a nearby Indian restaurant. This gift inspires members of our faculty to purchase catered meals for the team, providing the Neuro ICU with free meals for the next three weeks as a way of showing gratitude for their dedication and hard work.



MAY

Our health system innovates and adapts in response to the COVID-19 epidemic, accelerating its ability to provide care while keeping patients and our health care workers safe. Duke Health begins providing more than 700 patient visits over video or audio calls per day, up from 150 a month. At Duke Regional Hospital, our **Matthew Ehrlich, MD, MPH**, and colleagues use robots and iPads to interact with patients without increasing the risk of spreading COVID-19.



JUNE

Members of the Neurology Department join President Vincent Price, Chancellor for Health Affairs **A. Eugene Washington, MD, Dean Mary Klotman, MD**, and hundreds of health care workers to march in support of racial justice and equality by the Duke Medical Pavilion. Later that month, Klotman hosts a special State of the School Address where she announces the “Moments to Movement” initiative, which commits the School to dismantling systematic racism, understanding the root causes and consequences of racial inequity, and promoting an inclusive, antiracist future at Duke.



JULY

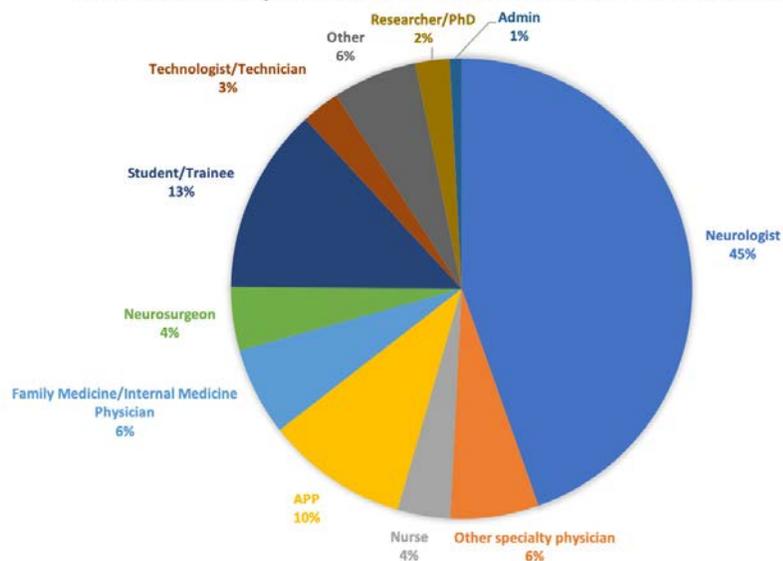
After our first virtual graduation for our 2020 chief residents (which included a serenade from our longtime faculty member **Marvin Rozear, MD**), a new class of residents join our Department. Three years after our Department expanded and redesigned its selection process, our class is larger and more diverse than ever before, with an all-female class of residents in their internal medicine year.



AUGUST

Duke Neurology and Duke Neurosurgery offer a **free online symposium** with 32 providers offering 30 lectures on regarding epilepsies, stroke, multiple sclerosis, headache, movement disorders, and other conditions. Nearly 1,100 individuals attend this week-long event.

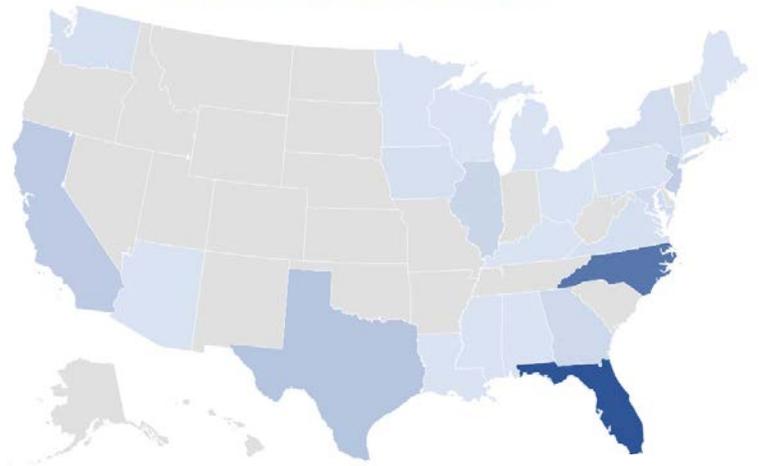
DUKE NEUROLOGY, NEUROSURGERY UPDATE 2020 ATTENDEE PROFESSIONS



SEPTEMBER

Wayne Feng, MD, MS, joins other global leaders in neurorehabilitation for an online symposium discussing COVID-19 and its impact on the field. The conference is one of three organized by Feng and the World Federation of Neurorehabilitation (WFNR) in response to the crisis this year. It discusses how COVID-19 is likely to affect neurological care, rehabilitation strategies, and research in the Americas, Africa, and Asia. More than 1,000 people from around the world attend.

Applicants for the Underrepresented in Neurology Tele-shadowing Experience Program



OCTOBER



College students from underrepresented in medicine backgrounds receive a chance to experience neurology firsthand with the launch of our neurology tele-shadowing program. This program matches current undergraduate students and recent graduates from underrepresented in medicine backgrounds with a clinician in a subspecialty of their choice. Students then connect with the clinician via a video screen and spend a half-day with them virtually as they interact with patients. In its first two months the **program receives more than 200 applications from 28 states.**

NOVEMBER

Advanced Topics in Neurology, a virtual continuing medical education (CME) series from our Department, launches to a large virtual audience. Building on the success of previous continuing medical education events, this session will continue on a monthly basis, with each session focusing on a different subspecialty in the field. This series features national experts from our Department and faculty across Duke and is open to anyone who wishes to join.

DECEMBER



Rick Bedlack, MD, PhD, expands his wardrobe with a new custom-designed cornflower blue suit covered with designs and imagery symbolizing his dedication to helping people with amyotrophic lateral sclerosis (ALS). Designs include motor neurons on each pant leg, the greek staff of Asclepius along his right arm, cornflowers (the international symbol for patients living with ALS), twin swallows in memory of a tattoo of one of his youngest patients and a UFO, a tribute to his love of the X-Files and his own search for truth among mysteries) on the back.



B Y THE NUMBERS: 2020

DEPARTMENT



84

PRIMARY
FACULTY
MEMBERS

21

SECONDARY
AND CPDC
FACULTY

99

STAFF
MEMBERS

52

TRAINEES



RESEARCH



PEER REVIEWED JOURNAL ARTICLES
PUBLISHED BY OUR DEPARTMENT



EDUCATION



8 fellowship programs



CLINICAL CARE

22,427

WRVUS

20,220

TELEHEALTH ENCOUNTERS

45,718

OUTPATIENT VISITS

\$51.3M

TOTAL CHARGES

FUNDING*

326 INDIVIDUAL
DONORS

\$3.3M TOTAL
DONATIONS

*FY2021

In 2020 clinicians and providers innovated and dedicated themselves, providing expert clinical care despite the COVID-19 outbreak. Neurology providers in our hospital system worked long hours and adopted new safety procedures to treat patients, including those with COVID-19, who had experienced stroke, traumatic brain injury, and other conditions. In our clinics, providers began treating patients with sleep disorders, multiple sclerosis, movement disorders, ALS, and other conditions, remotely providing more than 20,000 telehealth encounters during the year. Duke also expanded its ability to treat patients with neuromuscular diseases, stroke, epilepsy, and other conditions.

20,220
TELEHEALTH
ENCOUNTERS
IN 2020

Morreene Road Clinic Expands Access for Headache Patients

Finding treatment for head and facial pain at Duke has become easier than it ever has before, thanks to efforts from **Tim Collins, MD**, and others at our Morreene Road Clinic (MRC).

When Collins became the chief of the Headache Division in the Neurology Department in 2015, there were only two providers specializing in treating headaches in the Department. Patients faced waits of anywhere from six to nine months to have these devastating, complex conditions treated or diagnosed.



Collins oversaw an expansion and modernization of the Morreene Road Clinic as well as a national search for the best providers to treat headache and facial pain. Our expanded headache clinic in the MRC now has three neurologists, three physician assistants, and one nurse practitioner dedicated to treating headache and facial pain. As a result of this growth, the current wait time for new appointments is 3 to 4 weeks.

Collins also created a fully accredited headache fellowship program which has trained one fellow each year since its debut in 2018. Sweta Sengupta, MD, our first headache fellow, joined our faculty after completing her training and now oversees the program.

DCEC offers newer, integrated options for every patient with epilepsy



The Duke Comprehensive Epilepsy Center (DCEC) is a multidisciplinary center committed to providing persons with epilepsy the highest level of integrated care. In spite of the challenges posed by the COVID pandemic, the DCEC had a productive 2020, providing services at volumes on par with past years. Highlights include increased surgical procedures being performed using MRI-guided laser interstitial thermal therapy, including a corpus callostomy, as well as the first deep brain stimulation at Duke targeting the centromedian nucleus of the thalamus for refractory generalized epilepsy.

“Every patient with epilepsy should have options for managing and treating epilepsy based on their condition and personal preferences. I’m pleased that the DCEC is now offering patients more options than ever before.”

AATIF HUSAIN, MD

Division Chief of Epilepsy, Sleep, and Clinical Neurophysiology



Duke University Hospital's NCCU finds a new, larger home

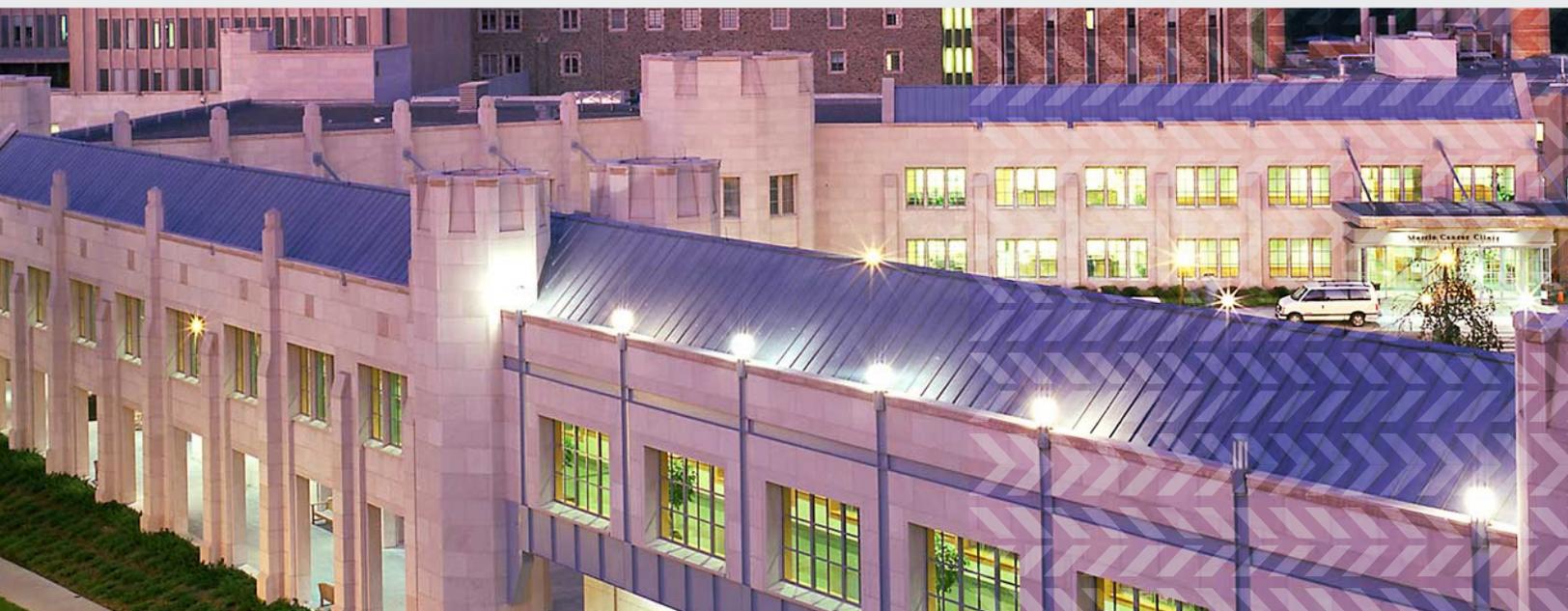


Duke University Hospital's neurocritical care unit (NCCU) functions as a complex, meticulously designed machine. Neurologists, advanced practice providers, neurosurgeons, anesthesiologists, and other providers have to collaborate quickly and effectively to provide care to some of the most difficult, urgent cases at Duke University Hospital. When **Cherylee Chang, MD**, joined

our Department as division chief of Neurocritical Care in July 2020, she faced the challenge of keeping this unit functioning while also moving our NCCU from its old home in Duke Medical Pavilion to the newly constructed Duke Central Tower, all during the first wave of the COVID-19 pandemic. "Our new NCCU will allow Duke to lead the way in cutting-edge clinical practice and to promote the education of trainees through inclusiveness of the multi-professional team, research, and open-minded perspectives on change and innovation," said Chang. In addition to expanding capacity for COVID-19 pandemic during the worst crisis, the move will also expand the NCCU's capabilities, and allowing for additional nurses, advanced practice providers, and neurointensivists to provide care. Renovations to allow these expansions are already underway and are expected to be completed in 2021.

"Our new NCCU will allow Duke to lead the way in cutting-edge clinical practice and to promote the education of trainees through inclusiveness of the multi-professional team, research, and open-minded perspectives on change and innovation."

CHERYLEE CHANG, MD
Division Chief of Neurocritical Care



RESEARCH

The Duke Neurology Department's contributions to clinical, translational, and basic neuroscience accelerated in 2020. Members of our Department contributed to 167 peer-reviewed studies in 2020, more than doubling our contributions over the past four years. The subjects of these articles reach across all fields of neuroscience and advance our ability to understand, prevent, and treat neurological conditions.

167
PEER-REVIEWED
STUDIES



Andy Liu

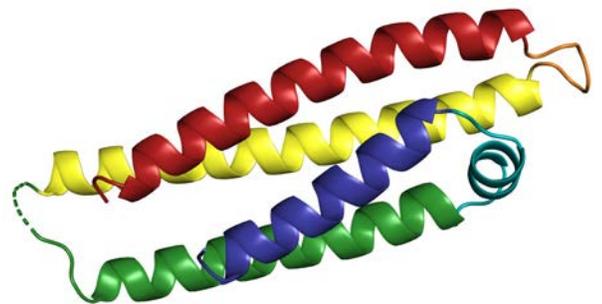
Eyes may be key to earlier Alzheimer's detection

Eyes are the window into the soul. In the near future, they may also be key to identifying Alzheimer's disease. A new form of computer software developed between the Duke Departments of Ophthalmology and Neurology, including Andy Liu, MD, MS, examined the retinal structure and blood vessels on images of the inside of the eye, looking for changes associated with cognitive decline. The software distinguished between cognitively healthy patients from those with Alzheimer's disease. Further developments of this software could offer a reliable, non-invasive method of diagnosing Alzheimer's disease before symptoms appear.

Gene Offers Potential "New Frontier" for Therapies for Alzheimer's



Three decades ago, Duke Neurologist Allen Roses, MD, uncovered the first links between genetics and Alzheimer's disease. His discovery that the APOE gene acted as a risk factor for the condition revolutionized our understanding of Alzheimer's disease. Now, **Ornit Chiba-Falek, PhD**, believes this gene may also be key to developing the first effective therapies against this devastating condition. Chiba-Falek was the senior author of a new article in the *International Journal of Molecular Sciences* that examines how new technologies could be used to develop targeted therapies for individuals most at risk for Alzheimer's disease. The result could be a new frontier for treating the world's most common neurodegenerative condition.



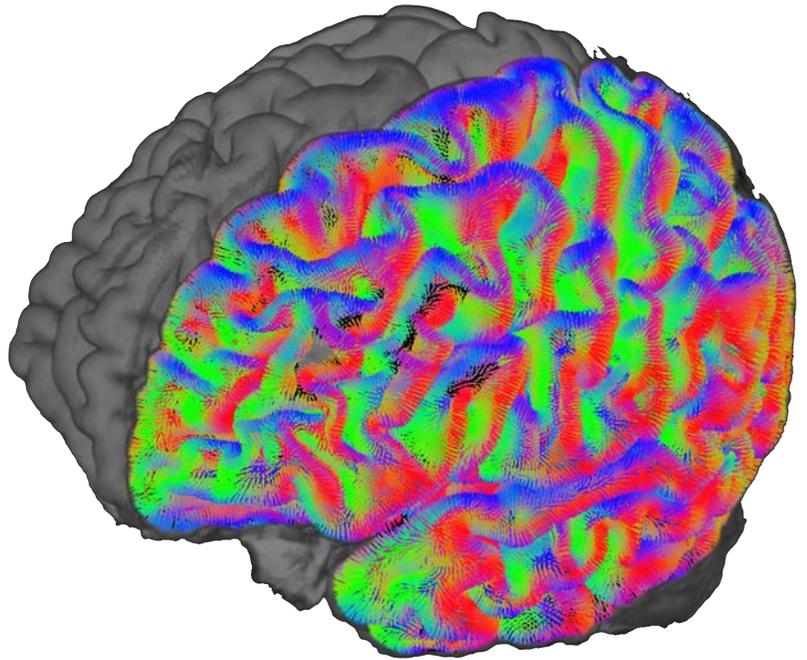
frontier for treating the world's most common neurodegenerative condition.

Study to Compare DOACs for Stroke Prevention



Medications known as direct oral anticoagulant therapies (DOACs) are an important tool in preventing stroke in patients with atrial fibrillation, the most common form of heart arrhythmia. While four major forms of DOACs exist and have been

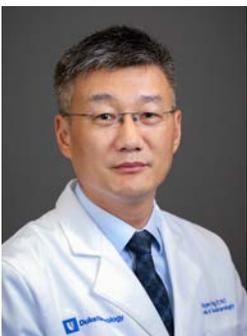
shown to be at least as effective as warfarin in preventing stroke, no major studies have compared these medications' effectiveness or examined whether specific populations might benefit from particular doses or regimens. **Ying Xian, MD, PhD**, recently received a five-year, \$2.9 million NIH grant to help answer these questions. Using the American Heart Association Get With The Guidelines-Stroke registry, Xian and colleagues will analyze data from more than 60,000 ischemic stroke patients discharged from nearly 2,000 hospitals between 2011 and 2018 to determine the long-term clinical effectiveness and safety of different DOACs for secondary stroke prevention in older ischemic stroke patients with AF. Their findings could offer evidence how to tailor stroke prevention for patients with atrial fibrillation and potentially reduce the more than 170,000 deaths a year in the United States associated with the condition.



DCEC Pioneers New Treatments to Improve Epilepsy Care

At the Duke Comprehensive Epilepsy Center (DCEC), neurologists, neurosurgeons, and biomedical engineers are collaborating to improve surgical treatments for epilepsy. Together, **Saurabh Sinha, MD, PhD, Jonathan Viventi, PhD, Gregory Cogan, PhD, and Derek Southwell, MD, PhD**, are developing equipment and techniques to localize seizure activity in the brain at the micro-scale for better surgical outcomes. Meanwhile **Iain Bruce, PhD** is pioneering advanced imaging tools to better localize seizure onset zones. Bruce uses novel diffusion imaging magnetic resonance imaging (MRI) in patients with focal epilepsy.

Faculty Examine COVID-19's Effect on the Brain and Nervous System in Real Time



The emergence of the COVID-19 pandemic posed numerous unanswered questions relating to neurological care, from possible interactions between COVID-19 and neurological conditions, to how best to communicate emerging information to providers and patients. Our faculty, trainees, and staff rushed to answer these questions and others in addition to performing their usual duties. **Wayne Feng, MD, MS**, led a series of virtual symposiums on COVID-19 and its impact on neurorehabilitation, drawing more than 1,000 viewers from around the world. Mark Skeen, MD, was part of Project ECHO, a videoconference-based education and case consultation program designed to allow providers to quickly and effectively share new information about multiple sclerosis and COVID-19. Jeffrey Guptill MD, MHS, and Yingkai Li, MD, PhD, conducted a survey of nearly 2,000 patients at Duke to better understand how patients are experiencing the COVID-19

pandemic, including where they receive relevant information, how it has affected medical care, and what measures they use to protect themselves.

E DUCATION

Despite the challenges of the COVID-19 pandemic, our residency, fellowship, and advanced practice provider (APP) programs excelled in 2020. Our trainees work with each other, their attendings, and their colleagues across the Duke University Health System to provide excellent patient care while becoming the next generation of neurologists and neurology providers. Our core values of diversity, equity, and inclusion inform each of these training programs as well as our missions of research and patient care.

52
TRAINEES

Residency

Our residency program provides excellent training in all areas of general and subspecialty neurology. After spending their first year in general internal medicine, our residents work alongside Department faculty, treating patients, and conducting research with gradually increasing responsibility. The volume and diversity of the patients that come through our inpatient wards and outpatient clinics insure that every resident has ample opportunity to gain expertise in all aspects of neurology.



“The first few months during the COVID-19 pandemic were challenging but also served as a reminder for why I decided to go into medicine. I think our program did a great job in preparing us for an influx of coronavirus patients and supporting us during this time. I am so inspired by all of my

colleagues. We have always supported each other and that’s been especially true this year.”

ARIEL LEFLAND, MD
Resident, Class of 2022

“Chief Resident year was a great end to my residency training. I was able to take all the skills and knowledge I have gained and show that I now have the confidence to be a team leader and independent neurologist.

The support from the faculty and my co-residents cannot be understated, and I am so happy that I chose Duke for my medical training.”



OVAIS INAMULLAH, MD
Resident, Class of 2020

Fellowship

The Duke Department of Neurology offers advanced fellowship programs in eight subspecialties of neurology, with additional fellowships in hospital neurology and epilepsy planned for 2021. These programs offer trained neurologists the opportunity to become clinical and research experts in their field of choice. Fellows work with faculty from across our Department, many of whom have completed multiple fellowships themselves, as well as national experts in neurosurgery, anesthesiology, immunology, and other disciplines.

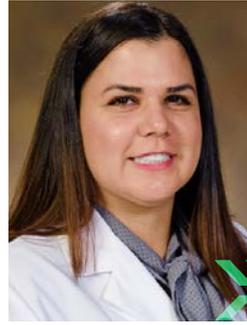
Current Fellowship Programs:

- Clinical Neurophysiology
- Epilepsy**
- Neurocritical Care
- Neuromuscular Medicine/EMG*
- Multiple Sclerosis and Neuroimmunology
- Parkinson’s Disease and Movement Disorders
- Sleep Medicine
- Vascular Neurology
- Headache
- Hospital Neurology**

*Advanced, second year of training available on request

**Scheduled for 2021

"I will always be thankful to Duke and, in particular, the Neurocritical Care faculty and staff for providing me with such an amazing fellowship experience. The kindness and patience I received was unparalleled. They went above and beyond to help me meet both my educational and research goals, with phenomenal mentorship. In light of the training that I received, I graduated the program feeling confident in my skills as a neurointensivist and was prepared to be an attending physician. Duke will always have my gratitude."



RANA MOOSAVI, MD
Neurocritical Care Fellow,
Class of 2020



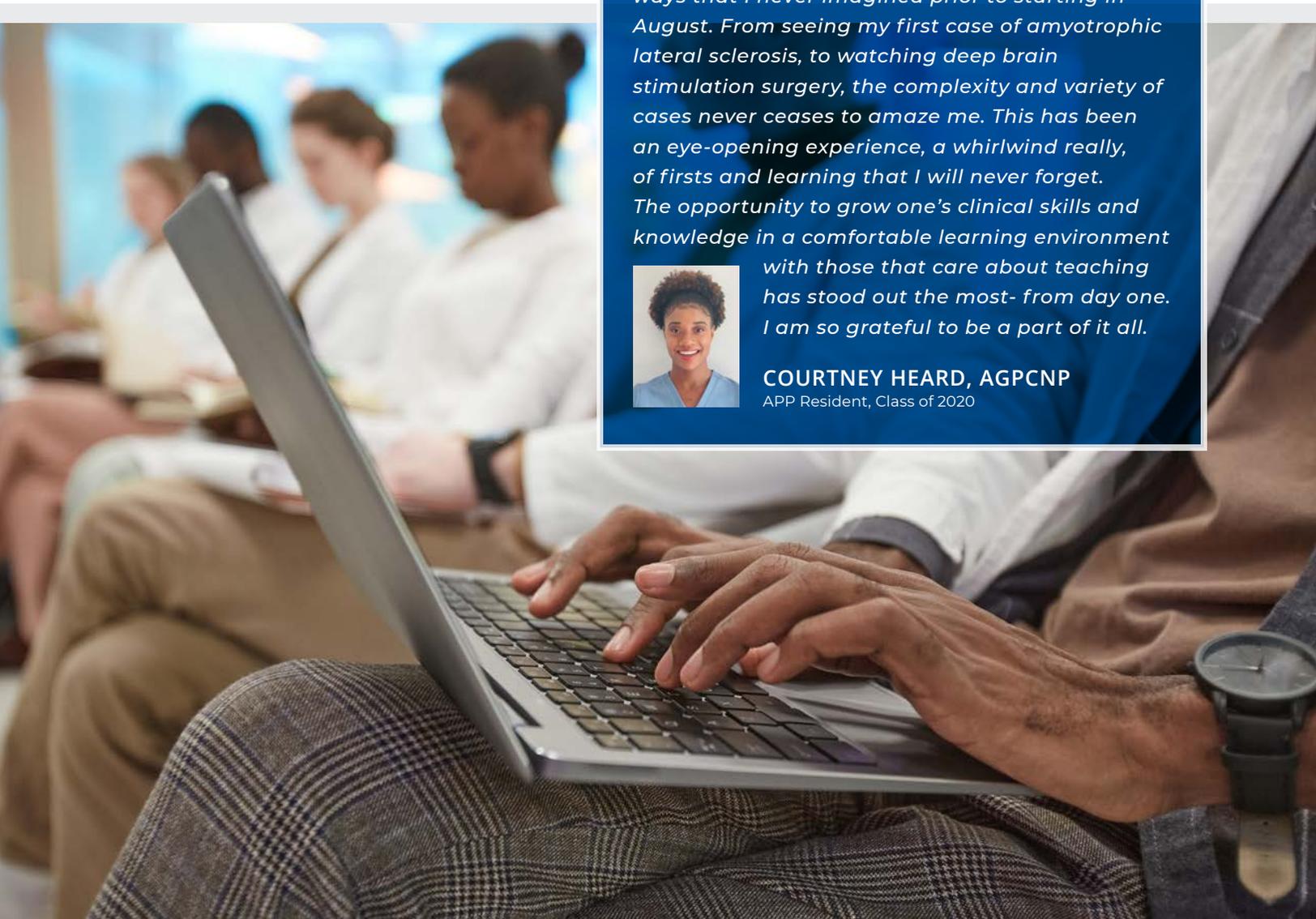
Advanced Practice Providers (APP) Residency Program

The Duke Neurology Advanced Practice Provider Residency Program provides specialty neurology training for licensed advanced practice providers. Now in its fifth year, the one-year post-graduate residency has already graduated more than ten licensed nurse practitioners and physician assistants. APP residents are educated in general neurological principals and gain experience in both inpatient and outpatient settings. After graduation residents are well-versed in clinical neurological principals and are prepared for general or subspecialty practice.

The Neurology APP residency has shaped me in ways that I never imagined prior to starting in August. From seeing my first case of amyotrophic lateral sclerosis, to watching deep brain stimulation surgery, the complexity and variety of cases never ceases to amaze me. This has been an eye-opening experience, a whirlwind really, of firsts and learning that I will never forget. The opportunity to grow one's clinical skills and knowledge in a comfortable learning environment with those that care about teaching has stood out the most- from day one. I am so grateful to be a part of it all.



COURTNEY HEARD, AGPCNP
APP Resident, Class of 2020



At the Duke Department of Neurology, the values of diversity, empowerment, and inclusion inform our missions of providing world-class patient care, education, and research. We are working on our own, with other Duke institutions, and with colleagues across the country to create and maintain an anti-racist, equitable environment where members of our community feel welcome and can thrive.



Turning a Moment into a Movement

In 2020, Duke University, the Duke University School of Medicine, and the Duke University Health System made a collective stand against systemic racism and injustice. In the School of Medicine, the Moments to Movement initiative brought together Duke leadership along with voices from across Duke to break down systemic racism and make all of Duke safe, welcoming, and open to all members of our community. The School of Medicine has committed to making fundamental, lasting change to ensure it becomes and remains an equitable, anti-racist institution.

Building an Inclusive, Equitable, and Anti-Racist Department

The Duke Neurology Department is engaged in a comprehensive effort to make our institution, and academic neurology, welcoming and equitable to everyone. To that end, we are working at a systems-wide level to acknowledge and reduce biases, improve equity and inclusion in decision-making, and engage with populations that are underrepresented in neurology and academic medicine.

» AN INCLUSIVE AND ANTI-RACISM CURRICULUM

Education on the importance of diversity, equity, and inclusion are an important part of our curriculum both during onboarding and in a sustained manner, for all members of our Department. Our Clinical Neuroscience Grand Rounds includes lectures to help members of our Department learn more about health disparities within neurology, systemic racism and its detrimental effects on health, bystander intervention, and other related topics. Speakers include members of our Department as well as national leaders in their fields. These lectures are archived and made available to all members of the Duke community.

» SELF-ASSESSMENT, TRANSPARENCY, AND ACCOUNTABILITY

Self-assessment, transparency, and accountability are the cornerstones of our diversity and inclusion efforts. These values reduce the effects of bias and unwritten rules that disadvantage individuals from underrepresented in medicine backgrounds. But being self-aware, transparent, and accountable but also improves equity for all members of our Department. These efforts began with a series of self-assessments including a Department-wide census, a survey of our diversity and inclusion efforts, examinations of gender and racial equity in faculty salary and grand rounds lectures, and an analysis of our residency recruitment and interview offer process. This information is available for Department members to review and used as the basis for further diversity and inclusion efforts.

» BUILDING OPPORTUNITIES FOR NETWORKING, MENTORSHIP, AND COMMUNITY

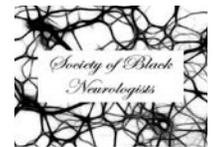
Populations that are underrepresented in medicine and in neurology face many challenges, including isolation, difficulty finding mentors, and microaggressions from their colleagues and with patients. Our Departmental Women in Neurology group and the national Society of Black Neurologists offer opportunities for women and Black neurologists in particular to collaborate, find mentors and partners, and problem-solve.

WOMEN IN NEUROLOGY (WIN)

Our Women in Neurology (WIN) group offers an inclusive, welcoming environment for women in our Department to discuss challenges and educate others. WIN welcomes clinicians, trainees, research faculty, and advanced practice providers. Members of WIN mentor their colleagues, residents, fellows, and students within the Duke University School of Medicine. Outside of the Department, members of WIN participate in women's neurology groups for the American Academy of Neurology (AAN), American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM), and the International Women in MS group (IWIMS).

SOCIETY OF BLACK NEUROLOGISTS

The Society of Black Neurologists (SBN) was created to foster discussion, mentorship, and camaraderie among Black neurologists. Founded by Andrew Spector, MD, our Vice Chair for Inclusion, Diversity, and Empowerment, and the McGovern Medical School's Shaun Smart, MD, the project initially started as a small Facebook group. The SBN now has more than 250 members worldwide and has organized in-person events and webinars.



» ENCOURAGING INTEREST IN NEUROLOGY

A variety of barriers contribute to the “leaky pipeline” that leaves people who are Black or persons of color underrepresented in neurology, academic medicine, and higher education. Our Department is working to promote interest in neurology to as wide an audience as possible to students from middle school through medical school. These efforts include:

- **Partnering with BOOST** (Building Opportunities and Overtures in Science and Technology), a multidimensional program designed to excite middle school students from underrepresented minorities, girls, and kids from economically challenged backgrounds.
- **Developing a virtual shadowing program** that allows college students to connect with faculty and providers within the Duke Neurology Department to virtually “follow” their work and learn more about careers in neurology and academic medicine.
- **Hosting a series of dinners** with our Department Chair as well as faculty, residents, and students from local medical schools, including regional Student National Medical Association (SNMA) and Latino Medical Student Association (LMSA) chapters.

The Duke Department of Neurology relies on individual gifts and philanthropic partnerships to support our missions of providing transformational patient care, advancing our understanding of neurological conditions, and training the next generation of neurologists.

HOW TO GIVE

There are many ways to support our work. To discuss your options for giving, or to suggest a contribution area, contact Director of Development Whitney Martin: Whitney.W.Martin@duke.edu or 919-385-0068.

WHY YOUR CONTRIBUTIONS MATTER

Your contributions are a vital part of our work, allowing us to:



Investigate the mechanisms behind conditions like Alzheimer's disease, multiple sclerosis, Parkinson's disease, and chronic pain, and develop new treatment for these conditions.



Provide new and innovative forms of patient care, such as telemedicine for stroke and ALS, and cutting-edge treatment and support services for people living with movement disorders.



Train and nurture medical students, residents, fellows and junior faculty to establish their careers, provide the best possible care, and become national leaders in their fields.

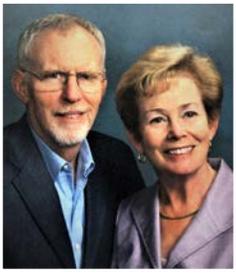
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Phyllis and Marshall Clements
Rebecca and James Clodfelter
Ilkcan Cokgor
Carol Colebrook
Carol Colton
Fairley Bell Cook
Mary Ann Cooper
Rocky Cooper
Corning Incorporated Foundation
Kathy Corrigan
Corticare Inc.



Jim and Lynn Fuechsel, both Duke University graduates, have included the Department of Neurology in their legacy plans in an effort to further our understanding, translate advances from the laboratory, and ultimately make a difference in the lives of our patients living with devastating neurological diseases.



Marian Griffiths, a School of Medicine graduate, and her husband, Phillip, provide generous support for the Donald B. Sanders Residents and Fellows Research Fund to ensure our Duke trainees become future leaders in neurology. By honoring the incredible legacy of Sanders, their support allows trainees to receive the best opportunities for their educational and research needs.

D

Joseph M. Cosentino Trust
Ann Crawford
Margaret Culp
Ellen Dalbo
Peter Dampf
Lewis Dancy
Eric Davies
Elizabeth DeArmy
Donna Denhof
Linda and Eric DiStefano
Deborah M. Donatiello
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Kathryn Doyon
Michelle and Lee Dresser
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Richard Farner
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Jane and Baxter Freeze
Wayne Feng
Sheri Ferguson
Sara Forbes
Donald Fowler

G

Michael J. Fox Foundation for Parkinson's Research
Linda and Lewis Fredane
Lynn and Jim Fuechsel
Andrew Galbreath
Dottie Gardner
GBS|CIPD Foundation International
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Carol and Joel Greenberg
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Susan and Tom Haffner
Amanda Nicole Haile
Genie Han
Mary Hanna
Nancy Hardin
Dixie Harrell
Elizabeth C. Hart
Mary Hassfurter
Jane Hawes
Sabe Hawkins

H

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F

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K

Denise Haywood
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Del Hunt Helton
Carol K. Hennrikus
Robert Kevin Hight
Jack Hinson
Hannah Hittleman
Julia Hobbie-Low
Howard Hoffman
Wendy and Brett Hoge
Harold Huberfeld
Huntington's Disease Society of America
Kista and Kevin Hurley
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Diane Johnson
Kim and John Johnson
Dawn Johnson
Lynne Jones
Stefanie and Douglas Kahn
Kavanewsky Family Foundation Inc.

L

M

Hal Kaylor
Mike Keough
Renee and Robert Kielb
Melinda King
Virginia and William King
Jason Knight
Elizabeth and Thomas Kochakji
Harold Lewis Kohn
Thomas Kuppens
Samantha Luangkhot
Carl Harden Lawrence
Nadine Lawton
Audrey and Gerald Lazarus
William Leadbitter
Rebecca Lee
Hsi-Hsiu Lung and Richard Lee
Ian Lee
Laura Y. J. Li
Julianna Lincoln
Pamela and David Little
Susan A. Lord
Catherine and Matthew Luedke
LVH ALS Foundation
Marie Mackey
Carol Mackie
Don Marshall
Carol Martin
Whitney and John Martin
Janice and Edward Massey
Maupin Travel



Brett Hoge, his family, and the LVH ALS Foundation have provided significant annual support for amyotrophic lateral sclerosis research at Duke. Through his dedication and exciting fundraising events, the LVH Foundation has donated more than \$1 million to support Duke's research and search for a cure.



Janice and Wayne Massey, distinguished faculty in the Department of Neurology, provide generous support for the Donald B. Sanders Residents and Fellows Research Fund in honor of their colleague, Don Sanders, MD. International leaders in their respective fields and dedicated to mentoring future leaders, the Masseys provide annual support that ensures our Duke trainees can carve out time for unique projects and important research opportunities.

Laurie and Randy May

Nancy and Robert McCaslin
Tara McCommons
Ralph McDonald
Estate of Estie Lee Mcfee
Stephanie K. McGee

Janet McGettrick
David McKinney

Margaret McLaurin
Neill McLeod

Jennifer McMillen
Lynda McPherson

Kimberly Anne Mebust
Medtronic Inc.

Allison and Justin Mhoon
William Mitchell

Kevin Montgomery
Kathryn Moody

Gene Moore

Joel Morgenlander

Kristen Murphy

Mary Lou Murphy

Muscular Dystrophy
Association

Ibrahim Mustafaa

Myasthenia Gravis
Foundation of America

Sandra Myerson

National Multiple Sclerosis
Society

National Parkinson
Foundation, Inc.

Brenda Neil

Neurology Clinic of Marin

Peggy Newton

Carol Nick

O

P

R

Randy and Laurie May, generous Duke alumni, have provided support in honor of their daughter, Brooke, for evaluating the use of unique biomarkers to assess who might be at risk for long-term symptoms after traumatic brain injury (TBI). This work, led by Dan Laskowitz, MD, MHS, will make a significant difference for patients who suffer from TBI and post-TBI symptoms.



Deborah Holt Noel

Dale Noffsinger

Carol Hare Norris

Richard O'Brien

John O'Neil

Carole Olderman

Martha Olson-Fernandez
Foundation

Ginny and Bill Ott

Caroline Pappas

Samuel Peck

Andrea Peet

Susan and Oliver Pennington

Cheryl Pffirmann

Dawn Phillippi

Joan and Micheal Plavnicky

Caryl and David Portney

Mrs. MaryBeth Rackowski

Rodney Radtke

Ann Ransdell

D. N. Rao

Llewelyn Rentel

Vickie Reyer

Michael Leroy Reynolds

Walter Robinson

Jane Rogers

Kathryn and Ronald Rogers

William Romero

Mark Rose



Sandy Myerson gave to support Duke's robust and exceptional Alzheimer's research in honor of her mother, Hannah Hittleman.

Bill and Ginny Ott

demonstrated their support for others impacted by ALS and the type of research conducted by Rick Bedlack, MD, PhD, by making a gift to the Duke's ALS research fund. This unrestricted funding gives Bedlack the flexibility to direct resources to research areas of greatest need.



Andrea Peet, founder of the Team Drea Foundation, was diagnosed with ALS at age 33. She consistently and enthusiastically supports the research of Rick Bedlack, MD, PhD, because of his bold, innovative approach. Peet has raised more than \$600,000 for research through Team Drea and is working towards her goal of completing a marathon on a trike in all 50 states.



Mark Rose established a named fund in memory of his wife, **Susanne M. Rose**, in support of Alzheimer's research related to Duke's effort to gain the National Institute of Health's prestigious designation as an Alzheimer's Disease Research Center.

S

Barbara Rosenblatt
Charles and Nancy Rosenblatt

- James Rosenblum
- Terry Sanford High School
- Sanofi European Treasury Center
- SANOFI SA
- Arielle and Arnold Schechter
- Anne and Thomas Schick
- Lucinda Schleicher
- Marianne Bouvier and Burton Scott
- Robert L. Sessum
- Robert Shaffner
- Shreyansh Shah
- Suma Shah
- Jacqueline Shamlian
- Carolyn M. Sharpe
- Anne and Steven Shay
- Meredith A. Sheridan
- Hee June and Cheolsu Shin
- Ella Jean Shore
- Rachel Shore
- Constance Short
- Jane Shuler
- George HC Shutt III
- Margaret Sims
- Sandra Slates
- June Small
- Mary Smith
- J. Marshall Smith
- Lowell Smith
- C. Joseph Soper
- Andrew Spector
- Linda Spratt
- Charlene Staats
- Elisa Strasser
- Marion Steffen

T

- Olivia Steger
- Susan Stein
- Stonegate Financial Charitable Fund
- David Stracola
- Beverly Stupak
- Gregg Sullivan
- Marc Howard Supcoff
- Betty Jo Suttle
- Gwen Swenberg
- Alexandra Taitz
- Sterling B. Taylor
- Team Drea Foundation Inc.
- Tricia Terlecky
- Dorothy Thomason
- Lois Top
- United Methodist Women
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- Cynthia Anne Walker
- English Walpole
- Joseph Wargo Jr.
- Lewin Warren
- Linda Watren
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- Rebecca and Terry Wiles
- Bruce Noll Williams
- Jeanette and Dave Williams
- Karen Williams
- Julia Willis
- John Wisner
- Jennifer Wojnar
- J. Curtis Woodlief
- Janice Wooten
- Deborah Bell Young
- Neha Zadoo

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V

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The Rosenblatt family has provided generous support for research that has the potential to transform the way in which patients with epilepsy are diagnosed and treated.

