The Edmond J. Safra Fellowship in Movement Disorders

Improving Lives through Research and Care

Fall 2021

EDMOND J. SAFRA
PHILANTHROPIC FOUNDATION

THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH

> “One of the greatest assets of The Edmond J. Safra Fellowship is its people. The network promotes a spirit of lifelong learning and collaboration.”
>
> — **Whitley Aamodt, MD, MPH**
> Edmond J. Safra Alumna, Class of 2021;
> University of Pennsylvania; Philadelphia, Pennsylvania

On the cover:
David Breen, MRCP (Neurol), PhD, Edmond J. Safra Fellowship Class of 2018;
and Susan Fox, MB ChB, MRCP, PhD, Edmond J. Safra Fellowship Director

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A Distinguished Network of Parkinson's Doctors Making a Difference

For people with Parkinson's and their families, seeing an expert Parkinson's doctor — a movement disorder specialist — is one of the keys to living life with the disease as well as possible. As a movement disorder specialist and someone who regularly interacts with people in the Parkinson's community and their loved ones, I know what a difference it can make.

Movement disorder specialists have additional training to diagnose and treat Parkinson's. This allows them to help people and families navigate all facets of disease, which differ from person to person and evolve over time, throughout the Parkinson's journey. When also trained as researchers, movement disorder specialists can connect patients to the clinical trials that need them and advance research toward better understanding and new treatments.

Yet there aren't enough specialists for the 6 million people around the world who live with Parkinson's. As the number of people with Parkinson's grows — experts project a doubling by the year 2040 — the shortage of doctors to care for them also will continue to grow.

The Edmond J. Safra Fellowship in Movement Disorders is helping to meet this growing need. By funding medical centers around the world to train new movement disorder

6M+

People worldwide live with Parkinson’s

2x

Number of Parkinson’s diagnoses expected to double by 2040

50

Average number of movement disorder specialists trained in the U.S. each year

specialists, the program is creating a global network of Parkinson’s clinician-researchers. The Fellowship has trained 21 new movement disorder specialists to date and is on track to graduate 48 by the year 2025.

These experts broaden access to high-quality care where it otherwise might not be available, fuel research progress to better diagnose and treat Parkinson’s, train future generations of Parkinson’s doctors, and more.

In this publication, we highlight our most recent graduates in the Classes of 2020 and 2021. Amid the unprecedented challenges of the COVID-19 pandemic, these clinicians — along with their peers and mentors in The Edmond J. Safra Fellowship network — demonstrated exceptional dedication and innovation to adapt patient care, maintain research momentum, and continue training. We are proud of their successes and their commitment to the Parkinson’s community.

We are immensely grateful to the Edmond J. Safra Foundation for their vision, partnership and support in this program. The Edmond J. Safra Fellowship in Movement Disorders truly is making a difference in the lives of people and families with Parkinson’s today and for decades to come.

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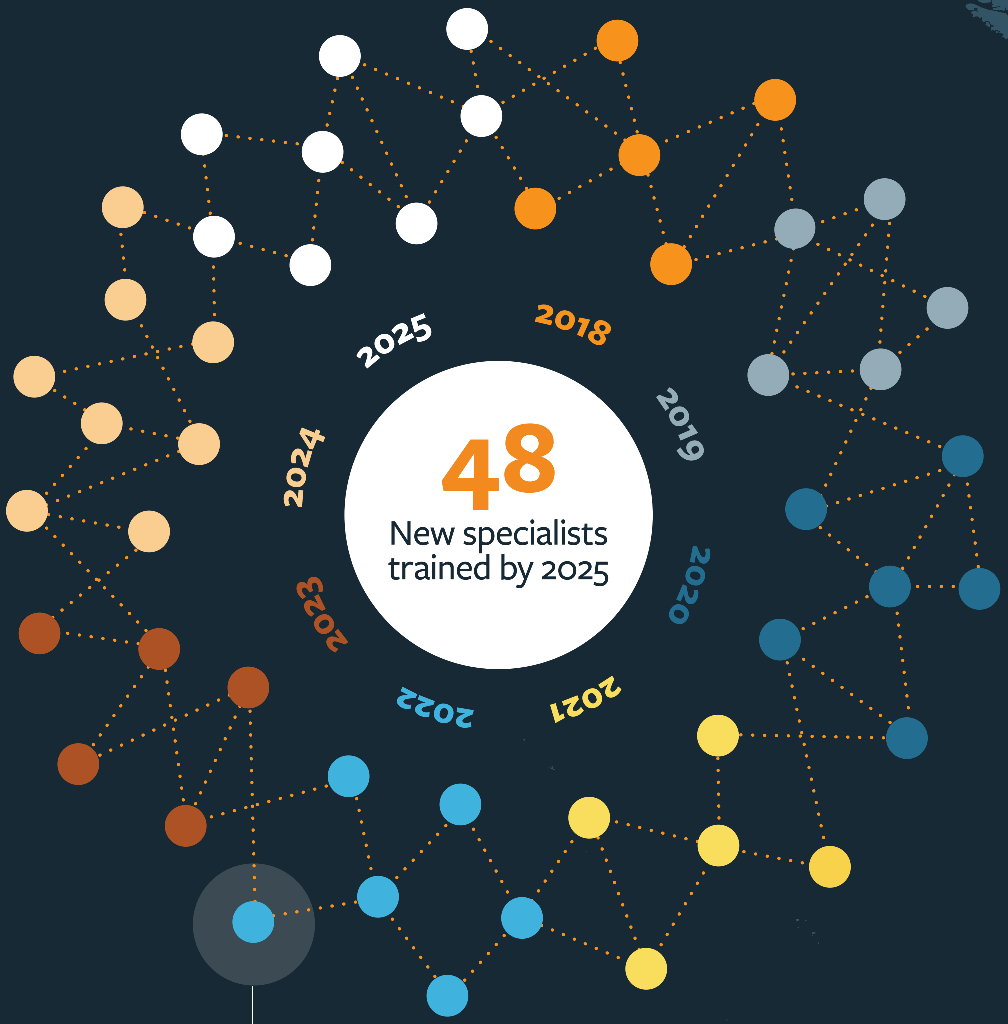
Rachel Dolhun, MD
Senior Vice President, Medical Communications
The Michael J. Fox Foundation for Parkinson’s Research

A Global Research and Care Network



48
New specialists trained by 2025

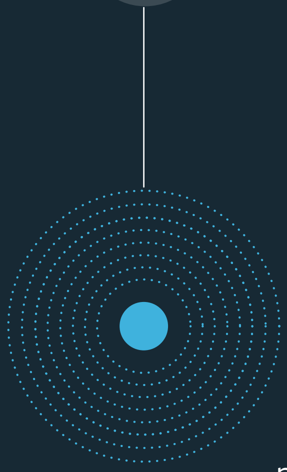
The network spans

31

centers across

8

countries



Each new specialist sees an average of

600

people with Parkinson's and other movement disorders every year.

21

Current graduates expand access to expert care for

12K

patients around the world

Fostering Collaboration

Greg Kuhlman, MD, MBA
Class of 2020

Judith van Gaalen, MD
Class of 2021

These fellows crafted a manuscript describing a rare movement disorder, adding to the literature to further research and impact care. This partnership arose after Judith presented a case at an Edmond J. Safra Fellowship network webinar, prompting interest from Greg and his fellowship director Anthony Lang.

Aditya Boddu, MD
Class of 2022

Marissa Dean, MD
Class of 2018

Building on data from The Michael J. Fox Foundation's Parkinson's Progression Markers Initiative, this trainee-graduate pair is examining the PD experience of an underrepresented African American population to broaden access and inclusivity across care and research.

Fellow or Fellowship Director

Fellow practicing in underserved area

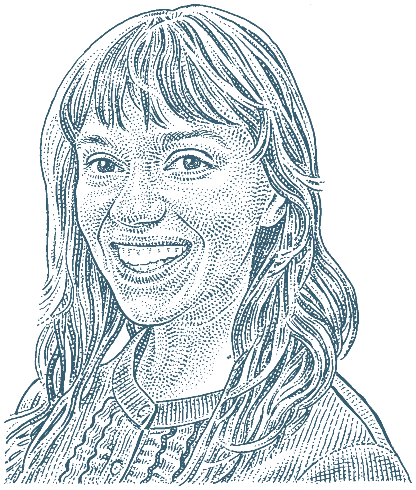
Recent Graduates

Classes of 2020 and 2021

Class of 2020

Juliana Coleman, MD

UAB (University of Alabama at Birmingham)
Birmingham, Alabama



The Most Fun Field of Medicine

Like many doctors, I went to medical school to help people — which is why I thought I'd become an OB-GYN or a pediatrician. I assumed that's where I'd get the biggest "helping" bang for the buck. But in my third year, I accidentally fell in love with movement disorders. I tried to talk myself out of it — it was so complex — but I'm glad I didn't, because neurology is definitely the most fun field of medicine.

A "Beautiful" Exam

The physical exam we do in neurology, and with patients who have Parkinson's disease (PD), is personal without being uncomfortable. And I love that when you get through it, you know this person. You've assessed their cognition, a bit of their personality, their physical strength and vision, their perceptions, their gait.... In a way, the exam encapsulates all the romantic reasons I went into medicine in the first place.

Little Bit of Magic

One of the charges against going into this field is that neurologists can make diagnoses but can't cure anything. But that's a very narrow view of what neurologists do. Some of the joy I get from working with Parkinson's patients is in making their lives better right now, with therapies like deep brain stimulation (DBS). With DBS, which I focused on in the second year of my Edmond J. Safra Movement Disorders Fellowship, you put in an electrode, turn on the device, and almost immediately, the patient looks better. So far, I've been in over 60 DBS surgeries, and it's still thrilling to see the tremors stop and the rigidity melt away. There's a little bit of magic in it.

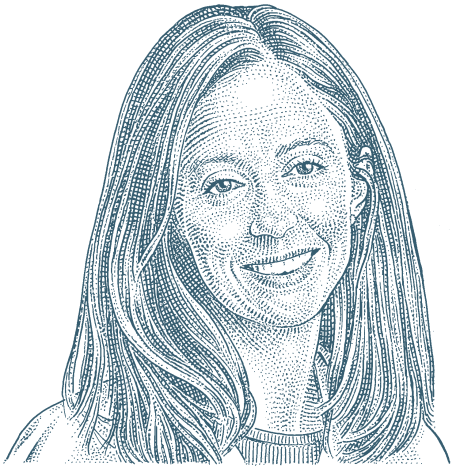
A Team Sport

I like to think of treating PD patients as a team sport — for the best results, we neurologists engage with a team of physical and occupational therapists and other experts, and together we can help make patients' lives better for longer. Since I love the neurological exam, I'm looking forward to teaching medical students and doctors how to do it — not just in the United States, but also in Africa, where I hope to spend time each year. And, of course, I'm also looking forward to taking care of my patients on an individual level. For me, helping patients feels like both a joy and an honor.

Class of 2020

Grace Crotty, MD, MB BCh BAO, MRCPI

Massachusetts General Hospital
Boston, Massachusetts



Addressing Unmet Needs

I've always been interested in neurology, and back in Ireland, where I'm from, I was awarded the Professor Denis O'Sullivan Research Fellowship for my proposal "Biomarkers in Parkinson's Disease." In a way, it was relatively random: The opportunity became available, and I had the chance to meet some patients with Parkinson's disease. I could see right away that these people had a lot of unmet needs, and my eyes were opened, in particular, to all the non-motor symptoms that they can experience — from drooling to constipation to cognitive changes. There's been an under-recognition of the burden of these symptoms; I find that patients are amazed and grateful when I ask about them.

Overlooked No More

For me, helping patients manage their non-motor symptoms has been among my most satisfying experiences as a neurologist. I consider the treatment of these symptoms to be a critical — and often unmet — need in care and research. I remember one of my patients had very severe orthostatic hypotension [when blood pressure drops as a person stands or sits up, sometimes causing loss of consciousness or falls]. This individual had pretty much become immobilized, staying in bed all day because he was afraid of passing out or falling. Through multidisciplinary assessment and management, we were ultimately able to improve his blood pressure enough to allow him to walk short distances with assistance and participate in physical therapy. It was a challenging situation, but we were able to help him and improve his quality of life.

Nature versus Nurture

I'm fascinated by gene-environment interactions in Parkinson's disease. My research looks at whether certain environmental modulators, from caffeine to exercise to vitamin B12, can reduce the risk of developing Parkinson's in a person who is genetically predisposed. In the future, I believe we'll be able to take this kind of truly personalized, precision-medicine approach to clinical care of patients.

Transforming Care with Telemedicine

It can sometimes be difficult for people with advanced Parkinson's to get to the hospital or to the doctor. My hope is that with telemedicine improving and becoming more common, we can optimize delivery of care and make it more available to everyone, whether they can travel easily or not.

Eric Jackowiak, MD

University of Michigan
Ann Arbor, Michigan

A Passion for Education

I was the first person in my family to go to medical school, and I had no idea what to expect or what type of medicine I wanted to practice. But when I spent time with the patients and doctors in a movement disorders clinic, it hit me — this is what I want to do.

A Tailored Approach to Treatment

One of my Parkinson's patients is a professional furniture maker, and I'm working to help him reach his goal — to get back to work. With Parkinson's patients, you get to know what's important to them, and can tailor your treatments around that. I still remember some of my first patients from medical school. There was a pianist who'd had a difficult time getting a diagnosis. Once we figured out that she had Parkinson's, we were able to treat her, and she returned to playing again. That kind of experience is one of the things I like best about this field.

Caring for Caregivers

There's so much that can be done for people with Parkinson's disease — and not just with motor symptoms. Often, the caregivers get overlooked. But there's a lot of data out there that suggests that a good, strong caregiver can make a lot of difference for a Parkinson's patient. In my research, I've focused on quality of life issues for patients and for their caregivers. I'm interested in what we, as doctors, can do to improve caregivers' experiences, which will improve patients' experiences.

Encouraging the Next Generation

Moving forward, one of things I'm doing is educating neurology residents — not only to further their expertise but also to hopefully pique their interest in movement disorders. Neurology is so wide and vast that, from an education perspective, the residency is jam-packed. For that reason, training in movement disorders can be variable — sometimes it lasts only a few weeks during a three-year residency. You can't expect people to go into a field if they haven't had experience with it. So part of my goal is to maximize the resident experience in movement disorders. We may not yet have found a cure, or disease-modifying agents, for Parkinson's disease. But because there's so much we still don't know, there's even greater potential for what we can do in the future. That's what encourages me.

Class of 2020

Greg Kuhlman, MD, MBA

Toronto Western Hospital
Toronto, Canada

Knowledge Is Power

I'm a type 1 diabetic, and I see a lot of parallels between my experiences and the experiences of patients with Parkinson's disease (PD). With PD, just like with diabetes, there are often fluctuations in symptoms, and it can feel kind of like a rollercoaster, with motor function going up and down like blood sugar does. And though you can treat the symptoms of diabetes and PD with medication, there's no cure for either condition. But in both cases, patients have to absorb a lot of knowledge about the best way to manage their symptoms. I think that's why educating patients is so important to me.

Changing Misperceptions

One thing I've done during my Edmond J. Safra Fellowship in Movement Disorders is to research how to improve web-based education for Parkinson's patients, specifically on the "wearing off" phenomenon, when medications stop working and symptoms return. I've found that patients don't always want to talk about the fact that they're losing function because they're worried that it means their disease has progressed or that nothing can be done. That's a misperception. I try to let them know that it *is* possible to improve their condition by adjusting their medications. If we improve what's available for patients online, we can spread the information that can help change patients' quality of life for the better.

Everyone Looks Different

We like to think of Parkinson's as one disease, but in reality, there are many different subtypes — everyone looks different. This is one potential explanation for why neuroprotective drugs have not yet shown benefit in clinical trials. It may be that particular therapies work for particular subtypes of PD. If this is true, then identifying these subtypes and their pathophysiological mechanisms will be critical to finding an effective neuroprotective drug, even if for a small subset of Parkinson's disease patients. There is some groundbreaking research happening in this area.

Up for the Challenge

I'm looking forward to having my own clinic of patients and building relationships with them over time. I love talking to patients, examining them, and teasing out important pieces of information that help me make challenging diagnoses or come up with the best therapies. I've seen patients who have struggled with the practical implications of their disease for years. Providing therapies or adjusting their prescriptions to improve some aspect of their life, then having them come back and tell me that they can once again do what they love to do — I find it really gratifying to have that kind of impact.

Kimberly Kwei, MD, PhD

Columbia University
New York, New York

A Powerful Sense of What Medicine Can Do

My interest in movement disorders started long before medical school, when I read *Awakenings* by Oliver Sacks. Dr. Sacks describes his experience with late-stage Parkinson's disease patients who had been living in nursing homes, frozen, until he administered levodopa and watched them "wake up." I didn't understand the medical terms at the time, but the book gave me a powerful sense of what medicine can do.

A Special Window into Modern Medicine

With other specialties, it's common to rely on labs and imaging studies to make a diagnosis. But with neurology, and movement disorders in particular, we get the most information about our patients from the extensive physical exam — it's a special window into the way modern medicine is practiced. I love the tactile factor of the exam, and the fact that you come to understand who your patient is as a person, what's causing their symptoms, and what sort of disease process is at play. As a result of this exam, among other things, we develop a closer relationship with our patients.

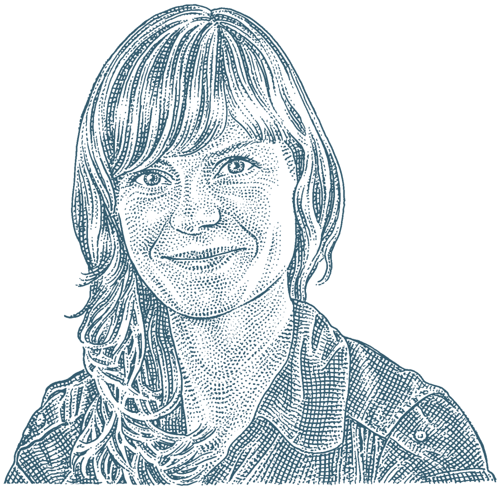
Pushing the Limits of Our Treatments

As part of my Edmond J. Safra Fellowship in Movement Disorders, I fielded calls from patients about any issues they were having at night and on the weekends. That wasn't always easy, especially since I gave birth to my second son during fellowship. But looking back, those night and weekend calls allowed me to really understand the kinds of things that bothered patients the most. As I discovered, the non-motor features — anxiety, depression, dementia, sleep issues — can be just as disabling as the motor symptoms. Going forward, I'd like to figure out better treatment modalities for these. There's something that feels good about seeing the limits of what we can do, because it shows you where you need to go to make things better.

Class of 2020

Anne Weissbach, MD

University of Lübeck
Lübeck, Germany



Seeing the Whole Picture

In medicine, it can be challenging to get enough time with patients. But during my two years as an Edmond J. Safra Fellow in Movement Disorders, I was able to be with patients for adequate time and to look at them in a very comprehensive way. When a new patient comes in, we take a lot of time to not only make a precise diagnosis but also to listen to their interests and what's important to them so we can satisfy their needs. Having the chance to be with patients and help them this way is wonderful for me and for them.

Brain Power

A neurodegenerative condition like Parkinson's affects different networks in the brain. The wealth of information you can get about what's going on in a patient's brain by combining a detailed clinical and neurophysiological examination is amazing. In my research, I've correlated a sensor-based, video-guided movement disorder examination with neurophysiological findings obtained through a tool called transcranial magnetic stimulation (TMS). In TMS, a non-invasive magnetic pulse stimulates different brain regions to discover how they communicate with one another. By merging these types of information, we discovered a problem in the interaction of different brain areas that prepare, shape and execute movements.

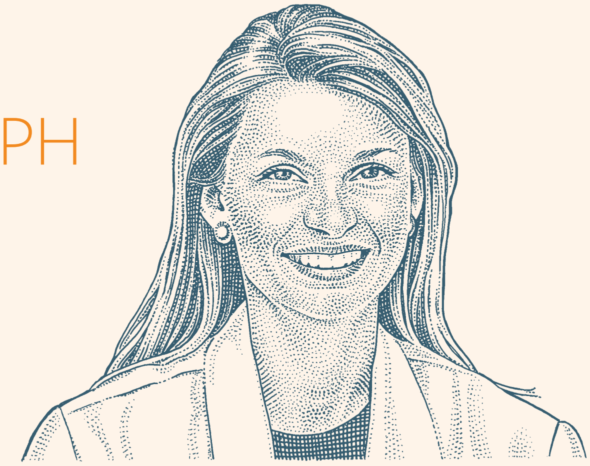
Putting It All Together

Some people carry genetic variants that might put them at risk of developing Parkinson's disease. I enjoy doing research with people who carry a *Parkin* or *PINK1* genetic mutation to see if they show subtle signs of Parkinson's, and to see how those change over time. We also give them and their families genetic counseling. What's satisfying for me is to include these genetic data along with clinical and neurophysiological information (using tools like TMS) to figure out how people with a genetic mutation but no Parkinson's differ and overlap with people who have Parkinson's and genetic mutations. This type of work will hopefully one day help us predict who might (or might not) develop Parkinson's disease. Thanks to my fellowship, I've been able to see all the perspectives of this fascinating disorder, to really understand not just the science, but also what patients are living with every day. That's what matters most.

Class of 2021

Whitley Aamodt, MD, MPH

University of Pennsylvania
Philadelphia, Pennsylvania



Helping Others Live Happy Lives

Growing up, I was very close with my grandparents. After witnessing my grandfather's battle with Alzheimer's disease and working full-time in cognitive aging research, I was intrigued by neurology and care for older adults. When I began working in movement disorders, I found the clinical atmosphere to be extremely vibrant. There is so much we can do for those with Parkinson's disease to help them live happy, meaningful lives. I find it very fulfilling.

Caregivers Need Care Too

As doctors, we focus on helping our patients, but support for their caregivers is critical too. Their lives are so entwined with our patients' care. It's important to support the whole family, from the time of diagnosis until later stages of disease. I have several patients with advanced Lewy body dementia, and their spouses are the primary caretakers. I talk with them regularly by phone, not only to discuss strategies for optimizing care, but also to discuss their well-being. These conversations are oftentimes more important than prescribing medications.

A Need for More Conversations

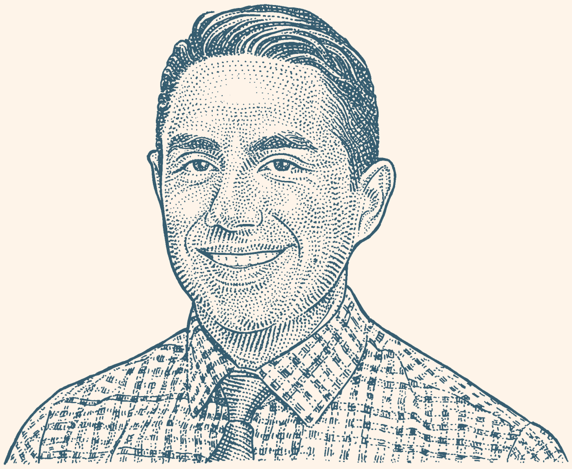
It's important for us to think about all aspects of someone's life, at all stages of disease. Having conversations with patients about their wishes and goals of care earlier in the disease course, for example, can prepare them for a time when medications may be less effective.

Palliative care is a growing field that aims to improve symptom management and quality of life for patients and their caregivers throughout disease. My research focuses on identifying the best candidates for this type of care and determining how to provide them with the resources they need.

By understanding the role of palliative care earlier in Parkinson's, I hope to reinforce the message that palliative care is about helping people achieve a better quality of life regardless of their disease stage or trajectory.

Amir Badiei, MD, MS

University of California, San Francisco
San Francisco, California



Getting to the Bottom of a Mystery

During neurology residency, I discovered that the subspecialty of movement disorders included the aspects of neurology I'm most interested in — how the brain circuitry works to produce cognition and movement. It also involves my favorite part of medicine — the privilege of knowing and caring for people long-term.

Relative to other areas of neurology, there is a lot we can do to help our patients. But there are also a lot of mysteries. Sometimes, you have to investigate exhaustively until you find the answer, which might be an extremely rare condition. I have learned that and so much more from the talented doctors I trained with during fellowship.

Games People Play

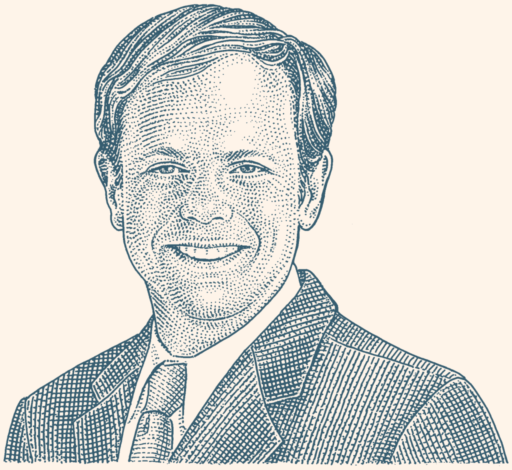
My research involves using games to track certain cognitive and psychiatric aspects of Parkinson's, such as changes in motivation, impulsivity and decision-making. As the COVID pandemic unfolded, we shifted our work to include games people can play at home on their digital devices rather than ones that require an in-person visit. It turns out this is a valuable tool not only for research but potentially also for care. During a typical patient visit, I get a brief snapshot — what someone tells me about their past few months. However, if a person plays a simple game intermittently, it could give an objective measure of how they're doing. Based on that information, I might be able to better tailor their treatments.

Treating Patients like Family

When I went into this field, I was interested in atypical, rare movement disorders. Since then, I've grown to love "regular" Parkinson's disease and helping families with the nitty gritty of day-to-day activities. Parkinson's isn't just a movement disorder — many other symptoms can go along with it, including depression, insomnia, urinary issues, constipation, lightheadedness and others. All involve intimate communication. Maybe doctors aren't supposed to do this, but I often give people my cell phone number. I want to be there for them because they feel like family.

Christopher Caughman, MD

Emory University
Atlanta, Georgia



Working Together to Meet Goals

My grandmother had Parkinson's before some of the newer treatments were available, and she had a rough time. Seeing her experience, I was hyper aware that neurology might be an intriguing career for me. When I was in medical school, my neurology rotation happened to be in a Parkinson's disease clinic at a Veteran's Administration (VA) medical center. I found I really enjoyed working with my patients there.

People living with Parkinson's are plugged in to what's going on with their disease, as well as the research and treatment options. They're very engaged in their own care and are highly motivated to do well. These interactions make my job fulfilling. Many patients want to learn more, find ways to get better and work together to meet those goals.

Pivoting Under Pressure

During the pandemic, we had to pivot suddenly from in-person deep brain stimulation surgery and hands-on experience with patients in clinic to more remote work. I wasn't sure how patients would respond. But I discovered that they enjoyed staying home and interacting with their health care providers remotely. And for people living with PD, we were still able to do accurate assessments and work effectively with them — even virtually. Ultimately, I think they benefit from having both in-person and remote options.

Treatment and Care for All

The nervous system is so complex that it is one of the last frontiers we have yet to crack in medicine. But with movement disorders, you can really see patients improve with certain treatments, and their responses can be astounding. It's important that this care is available equitably. I've researched disparities in access to certain medications, including newer drugs. Some of these treatments are expensive or inaccessible because a person lacks insurance. With many promising treatments and perhaps even a cure in the pipeline, we will have to make sure care and treatment access is available to all.

Class of 2021

Judith van Gaalen, MD

Radboud University Medical Centre
Nijmegen, the Netherlands

Spreading Knowledge to Decrease Stigma

My interest in movement disorders was sparked in medical school, when I was doing a research project on cerebellar ataxia, a rare movement disorder. I was struck by how often people with these conditions are unfairly judged. Too often, others assume that something is wrong with their thinking, just because they walk and talk differently. Parkinson's disease and other movement disorders are easily visible — as a result, patients automatically share their disorders with the world, whether they want to or not. Seeing that daily struggle made me want to spread more knowledge about these conditions into the world.

A Partnership with Patients

To provide the right treatment, you must stay close to patients and the people who care for them. It all begins with the neurological exam and looking and listening carefully. It's also important to talk with patients about which symptoms bother them most and where they'd like to see improvement. It's a partnership working with them and their families to relieve symptoms and make daily life as easy as possible.

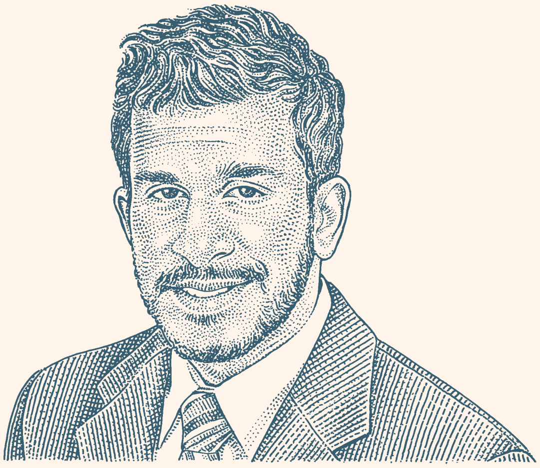
Promising Options on the Horizon

I will apply the knowledge and skills I have acquired during my fellowship to help improve the lives of those living with Parkinson's. I am focusing on deep brain stimulation (DBS), a treatment that is a great alternative for some when medications aren't sufficient for controlling symptoms. DBS is increasingly used for other movement disorders also, and this is an area I would like to contribute to in the future.

These are very exciting times for the field of movement disorders. Ongoing clinical trials are exploring new drugs or developing gene therapies that could target the underlying cause of disease to prevent or slow progression. I have faith that these promising developments will offer better treatment options for patients in the future.

Neil Shetty, MD

Northwestern University
Chicago, Illinois



Real Relationships with Patients

In my admittedly biased opinion, the movement disorders field has the potential for what I think of as ideal medical care. It balances innovative and high-tech treatments, such as deep brain stimulation (DBS), with a more traditional approach to patient care. For example, to diagnose and treat Parkinson's disease, you still have to rely on a detailed medical history and physical exam. A lot of us are drawn to this field by the opportunity to establish connections and form real relationships with patients. We are truly able to spend time with them. That's unique in medicine now.

A Powerful Shared Moment

I'll be staying on as faculty at Northwestern next year and continuing care and research in DBS. When a patient with Parkinson's disease comes in for their first DBS programming session after surgery, they are usually fairly impaired because they need to be off all their medications. Often, they arrive in a wheelchair or with significant tremors. But after an hour or two of programming, many can walk out on their own and with steady hands. That's a powerful, emotional moment we have the privilege of sharing with patients. In the very same visit, we see the extent of a person's disease, and the power of DBS treatment to restore function.

Making Tremendous Strides in Treatments

Many people view Parkinson's and other neurodegenerative conditions as untreatable or as part of the aging process. But that's not really the case. Even during the short time I've been in the field, we've made tremendous strides in developing more effective treatments that work for a longer time. My research has involved clinical trials to control symptoms using different approaches, such as DBS as well as a pump that delivers a continuous levodopa infusion.

Research is moving toward understanding Parkinson's disease on a personal level, so we are not treating the disease as one entity. Eventually, the field will provide individualized medicine not just for symptoms but also for the underlying disease. I believe we will develop disease-modifying treatments in my lifetime.

Fellowship Directors

Classes of 2020 and 2021

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internationally renowned movement disorder specialists serve as Edmond J. Safra Fellowship directors, significantly expanding trainees' opportunities for education, collaboration and career development

Bastiaan (Bas) Bloem, MD, PhD

Radboud University Medical Centre; Nijmegen, the Netherlands

Bas Bloem is a consultant neurologist, professor of neurology with a special interest in movement disorders, and director of the Center of Expertise for Parkinson and Movement Disorders at the Radboud University Medical Centre. Bas is on the editorial board of several national and international journals and has authored over 800 publications, including more than 700 peer-reviewed international articles. With Marten Munneke, PhD, Bas developed ParkinsonNet, a patient-centered and network-based health care approach for people with Parkinson's, covering all of the Netherlands. He also is an Executive Scientific Advisory Board Member of The Michael J. Fox Foundation.

Nabila Dahodwala, MD, MS

University of Pennsylvania; Philadelphia, Pennsylvania

Nabila Dahodwala is associate professor of neurology at the University of Pennsylvania. Her clinical interests include Parkinson's disease and other movement disorders. Her research interests involve access to care, disease prevention and health promotion, disparities and health equity, and global health and risk communication. Nabila leads several projects that study patient, physician and health system barriers to high-quality care for individuals with neurodegenerative diseases. She is the site principal investigator and a member of both the Steering Committee and Diversity, Equity and Inclusion Task Force for The Michael J. Fox Foundation's Parkinson's Progression Markers Initiative study.

Classes of 2020 and 2021 Fellowship Directors

Praveen Dayalu, MD

University of Michigan; Ann Arbor, Michigan

Praveen Dayalu is an associate professor, director of the movement disorders fellowship, and the Thomas H. and Susan C. Brown Early Career Professor of Neurology at the University of Michigan. His main clinical focus is the management of movement disorders, especially Parkinson's disease. His research interests include Huntington's disease and multiple system atrophy.

Stewart Factor, DO

Emory University; Atlanta, Georgia

Stewart Factor is a professor of neurology, director of the Movement Disorders Program, and Vance Lanier Chair of Neurology at Emory University School of Medicine. As the movement disorders fellowship program director, he has mentored 20 fellows over the last 15 years. Stewart is a member of the American Academy of Neurology, American Neurological Association, International Parkinson and Movement Disorder Society, American Society for Experimental Neurotherapeutics, Parkinson Study Group, Huntington Study Group and Dystonia Study Group. He is past chair of the Movement Disorders Section of the American Academy of Neurology. He has edited four textbooks and authored over 300 peer-reviewed articles. His areas of research interest include Parkinson's biomarkers, freezing of gait in Parkinson's, genetics in Parkinson's, and tardive syndromes.

> *"The Edmond J. Safra Fellowship is ranked as the best fellowship funding of its kind, is highly sought after, and is a great achievement for the fellows who are bestowed with this honour."*
>
> — Susan Fox, MB ChB, MRCP, PhD, Edmond J. Safra Fellowship Director;
> Classes of 2018, 2020 and 2022; Toronto Western Hospital; Toronto, Canada

Alice Flaherty, MD, PhD

Massachusetts General Hospital; Boston, Massachusetts

Alice Flaherty is a neurologist at the Massachusetts General Hospital and an associate professor of neurology and psychiatry at Harvard Medical School. She treats patients with movement and mood disorders and directs the movement disorders fellowship. She was the site principal investigator for the GAD-AAV trial, the first to demonstrate safety and early efficacy of a Parkinson's genetic treatment. Her books, including *The Massachusetts General Hospital Handbook of Neurology* and *The Midnight Disease*, a general audience book about creativity and the brain, have multiple translations and national awards. She has appeared on several national and international television broadcasts, and two networks have filmed dramatic series pilots based on her work.

Blair Ford, MD

Columbia University; New York, New York

Blair Ford is a professor of neurology and the movement disorders fellowship director in the Department of Neurology at Columbia University Medical Center. He also is medical director at the Center for Neuromodulation and Movement Disorder Surgery, a collaboration between the Departments of Neurology and Neurological Surgery at Columbia University that he co-founded in 1997. Blair's primary clinical work and research involve using deep brain stimulation for Parkinson's disease, tremor and dystonia. He is a member of the American Academy of Neurology and previously served two terms on the organization's Education Committee. Blair also is a member of the American Neurological Association. He has contributed over 100 original articles, reviews and book chapters to the literature.

Classes of 2020 and 2021 Fellowship Directors

Susan Fox, MB ChB, MRCP, PhD

Toronto Western Hospital; Toronto, Canada

Susan Fox is head of the Division of Neurology at University Health Network and Sinai Health Systems. She holds the Krembil Family Chair of Neurology and is a professor of neurology at the University of Toronto. She is a member of the Edmond J. Safra Program in Parkinson's Disease and associate director of the Movement Disorders Clinic at Toronto Western Hospital.

Susan is chair-elect of the Pan-American section of the International Parkinson and Movement Disorder Society (MDS). She has served on committees, grant review and advisory boards for MDS, National Institutes of Health, Canadian Institutes of Health Research, The Michael J. Fox Foundation and Dalhousie Medical Research Foundation. Susan has over 20 years of research experience in pre-clinical models of Parkinson's disease and translational studies of novel pharmacological therapies for Parkinson's and other movement disorders. She has published over 170 peer-reviewed papers, reviews and book chapters in the field and is a regular speaker at national and international conferences.

Nicholas Galifianakis, MD, MPH

University of California, San Francisco; San Francisco, California

Nicholas Galifianakis is an associate professor of neurology and director of the movement disorders fellowship at University of California, San Francisco (UCSF). Medical education has always been a focus of his career. Nicholas is currently participating in the UCSF Teaching Scholars Program, which fosters educational leadership, scholarship and expertise in curriculum development. He created a first-of-its-kind teleneurology rotation for neurology residents and now is building a medical humanities program for movement disorders fellows. His clinical research focuses on filling gaps in care, including palliative care, for people with Parkinson's disease and using telemedicine to deliver specialized care to underserved populations around the world. During the coronavirus pandemic, he spearheaded efforts to promote virtual wellness and health care outreach programs for marginalized communities in California.

> *"Exposure to fellowship directors through The Edmond J. Safra Fellowship webinars allowed me to learn from the expertise and experiences of some of the most exceptional movement disorders experts around the world."*
>
> — Conor Fearon, BE, MB BCh BAO, MRCPI, PhD, Edmond J. Safra Fellow; Class of 2022; Toronto Western Hospital; Toronto, Canada

Christine Klein, MD

University of Lübeck; Lübeck, Germany

Christine Klein is the Schilling Professor of Neurology and Neurogenetics and director of the Institute of Neurogenetics at the University of Lübeck. Her research focuses on the clinical and molecular genetics of movement disorders, and she has published over 500 scientific papers. Christine is deputy editor of the *Movement Disorders* journal, associate editor of *Annals of Neurology*, and acting Past-President of the German Neurological Society.

Anthony Lang, MD

Toronto Western Hospital; Toronto, Canada

Anthony Lang is a professor and previous director of the Division of Neurology at the University of Toronto. He holds the Jack Clark Chair for Parkinson's Disease Research and the Lily Safra Chair in Movement Disorders. He is the director of the Edmond J. Safra Program in Parkinson's Disease, the Rossy Progressive Supranuclear Palsy Program, and the Morton and Gloria Shulman Movement Disorders Clinic at Toronto Western Hospital. He is one of the most highly cited investigators in the field of movement disorders. His distinctions include Officer of the Order of Canada, Fellow of the Canadian Academy of Health Sciences and Fellow of the Royal Society of Canada, and Honorary Member of the International Parkinson and Movement Disorder Society (MDS). His awards include: the inaugural MDS Pan-American Section Leadership Award, the Weston Brain Institute International Outstanding Achievement Award and the Dean's Lifetime Achievement Award for global impact from University of Toronto.

Classes of 2020 and 2021 Fellowship Directors

Bart Post, MD, Msc, PhD

Radboud University Medical Centre; Nijmegen, the Netherlands

Bart Post is a movement disorder specialist and co-director of the Parkinson's Foundation Center of Excellence in the Center of Expertise for Parkinson and Movement Disorders at Radboud University Medical Centre. Bart also is chair of the neurology residency program in the Department of Neurology. His research investigates young-onset Parkinson's disease and genetic movement disorders. He is part of the Steering Committee for several large Parkinson's clinical trials.

Tanya Simuni, MD

Northwestern University; Chicago, Illinois

Tanya Simuni is the fellowship director and the head of the Movement Disorders Division in the Department of Neurology at Northwestern University Feinberg School of Medicine. The center is recognized by the Parkinson's Foundation, Huntington Disease Society of America and Wilson's Foundation as a Center of Excellence and serves as a training model in the region. Tanya is the lead investigator of several clinical trials on experimental pharmacology, non-motor manifestations and pharmacological management of Parkinson's. She serves on several committees for national Parkinson's clinical trials, the Parkinson Study Group and the Parkinson's Foundation. Tanya is the site principal investigator and Steering Committee member for The Michael J. Fox Foundation's Parkinson's Progression Markers Initiative study. She also is the site principal investigator for the Network for Excellence in Neuroscience Clinical Trials (NEXT). Tanya is an active member of the American Academy of Neurology, American Neurological Association, International Parkinson and Movement Disorder Society and Parkinson Study Group. She co-directed the 2020 and 2021 Edmond J. Safra Foundation-sponsored MDS-PAS Movement Disorders Schools for Neurology Residents, leading the transition to virtual programming during the pandemic.

> *"My mentors provided me training in state-of-the-art, evidence-based and always highly humanistic patient care which I strive to apply on a daily basis."*
>
> — Christine Kim, MD, Edmond J. Safra Fellowship Alumna; Class of 2018; Columbia University; New York, New York

David Standaert, MD, PhD

UAB (University of Alabama at Birmingham); Birmingham, Alabama

David Standaert is the John N. Whitaker Endowed Chair of Neurology and a senior member of the Division of Movement Disorders at the University of Alabama at Birmingham. He is a physician-scientist with a long-standing interest in the basic and clinical aspects of neurodegenerative diseases, particularly Parkinson's disease and dystonia. He maintains an active research laboratory and is the program director for the National Institutes of Health-funded Alabama Udall Center, which explores neuroinflammation in Parkinson's disease. His clinical practice focuses on movement disorders and Parkinson's disease. He has several national and international leadership roles, including chair of the Scientific Advisory Board of the American Parkinson Disease Association, as well as member of the National Institute of Neurological Disorders and Stroke Board of Scientific Counselors.

Bart van de Warrenburg, MD, PhD

Radboud University Medical Centre; Nijmegen, the Netherlands

Bart van de Warrenburg is a neurologist, associate professor and principal investigator at the Donders Centre for Medical Neuroscience and Department of Neurology at Radboud University Medical Centre. He also leads the Center of Expertise for Parkinson and Movement Disorders at the University. He is actively involved in many international committees and task forces. Bart also serves on the advisory boards of national patient organizations for various movement disorders. He leads or participates in many research projects, including those run by European consortia. Bart's research group leads translational research on rare and genetic movement disorders, with a focus on mechanism-based interventions and trial-readiness.

Fellows

Classes of 2022
and 2023

The Edmond J. Safra Fellowship currently is supporting 11 movement disorder specialists in training at top-tier medical centers around the world.

2022

Juan Toledo Atucha, MD, PhD

Norman Fixel Institute for Neurological Diseases at University of Florida Health; Gainesville, Florida

Fellowship Director: Christopher W. Hess, MD

Aditya Boddu, MD

UAB (University of Alabama at Birmingham); Birmingham, Alabama

Fellowship Director: David Standaert, MD, PhD

Conor Fearon, BE, MB BCh BAO, MRCPI, PhD

Toronto Western Hospital; Toronto, Canada

Fellowship Directors: Susan Fox, MB ChB, MRCP, PhD, and Anthony Lang, MD

Eoin Mulroy, MB BCh BAO

University College London; London, England

Fellowship Director: Kailash Bhatia, MD

Chintan Shah, MD

Baylor College of Medicine; Houston, Texas

Fellowship Director: Joseph Jankovic, MD

Pavan Vaswani, MD, PhD

University of Pennsylvania; Philadelphia, Pennsylvania

Fellowship Director: Nabila Dahodwala, MD, MS

2023

Sergio Andrés Castillo-Torres, MD

Fleni Hospital; Buenos Aires, Argentina

Fellowship Director: Marcelo Merello, MD

Stephen Joza, MD, PhD

McGill University/Montreal Neurological Institute; Montreal, Canada

Fellowship Director: Ronald Postuma, MD, MSc

Poornima Jayadev Menon, MB BCh BAO, LRCP & SI, MRCPI, DTMH

Pitié-Salpêtrière Hospital; Paris, France

Fellowship Director: Jean-Christophe Corvol, MD, PhD

Andrea Sujung Yoo, MD

Mount Sinai Beth Israel Medical Center; New York, New York

Fellowship Directors: Susan Bressman, MD, and Rachel Saunders-Pullman, MD, MPH, MS

Jun Yu, MD, MS

Norman Fixel Institute for Neurological Diseases at University of Florida Health; Gainesville, Florida

Fellowship Director: Christopher W. Hess, MD

Class of 2024
Fellowship Centers

With a generous increase in support from the Edmond J. Safra Foundation, the fellowship recently expanded to fund eight distinguished institutions across the globe.

The sixth Edmond J. Safra Fellowship class will begin training in 2022 and graduate in 2024.

Cleveland Clinic
Cleveland, Ohio

Fellowship Director: Hubert Fernandez, MD

Emory University
Atlanta, Georgia

Fellowship Director: Stewart Factor, DO

Johns Hopkins University
Baltimore, Maryland

Fellowship Director: Alexander Pantelyat, MD

Radboud University Medical Centre
Nijmegen, the Netherlands

Fellowship Directors: Bastiaan Bloem, MD, PhD; Bart Post, MD, Msc; and Bart van de Warrenburg, MD, PhD

Rush University
Chicago, Illinois

Fellowship Director: Katie Kompoliti, MD

Toronto Western Hospital
Toronto, Canada

Fellowship Directors: Susan Fox, MB ChB, MRCP, PhD, and Anthony Lang, MD

UCL (University College London)
London, England

Fellowship Director: Kailash Bhatia, MD

University of Pennsylvania
Philadelphia, Pennsylvania

Fellowship Director: Nabila Dahodwala, MD, MS

Credits

Fellow Biographies as told to Paula Derrow

Illustrations by Nancy Januzzi

> “We’re grateful to be working together to increase the number of highly specialized neurologists who can help patients live better with Parkinson’s disease and speed progress toward a cure.”
>
> — **Michael J. Fox**

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THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH

As the world's largest nonprofit funder of Parkinson's research, The Michael J. Fox Foundation is dedicated to accelerating a cure for Parkinson's disease and improved therapies for those living with the condition today. Funding more than $1 billion in research to date, the Foundation pursues its goals through high-impact research efforts coupled with an active global engagement of scientists, Parkinson's patients, business leaders, clinical trial participants, donors and volunteers.

michaeljfox.org

EDMOND J. SAFRA
PHILANTHROPIC FOUNDATION

Edmond J. Safra, one of the 20th century's most accomplished bankers and a devoted philanthropist, established a major philanthropic foundation to ensure that individuals and organizations would continue to receive his assistance and encouragement for many years to come. Under the chairmanship of his beloved wife Lily, the Edmond J. Safra Foundation draws continuing inspiration from its founder's life and values, and supports hundreds of organizations in more than 40 countries around the world. Its work encompasses four areas: Education; Science and Medicine; Religion; and Humanitarian Assistance, Culture and Social Welfare. The Foundation has provided significant funding for Parkinson's disease research and patient care at dozens of hospitals and institutes in places as varied as Natal (Brazil), Toronto, New York, Grenoble, Paris, London and Jerusalem.

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