Training Tomorrow's Parkinson's Leaders

10 Years

The Edmond J. Safra Fellowship in Movement Disorders

Fall 2024

EDMOND J. SAFRA
PHILANTHROPIC FOUNDATION

THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH

"I'm proud and humbled to see the seeds of our partnership with the Edmond J. Safra Foundation flourish in the most incredible way."

For people and families with Parkinson's, seeing a movement disorder specialist is a game-changer. But the reality is that there are simply not enough of these specially trained neurologists, and that's one of many reasons why not enough Parkinson's patients get to the right doctor.

In 2014 The Michael J. Fox Foundation called on the vision of our longtime partner the Edmond J. Safra Foundation to support a durable strategy to train more movement disorder specialists. The Edmond J. Safra Fellowship in Movement Disorders was purpose-built to allow more people with Parkinson's to experience what's possible with the right care — from a doctor who possesses specialized training and deep experience in this disease. Ten years later, my dear friend Lily Safra's legacy of compassionate care continues with each new class of fellows.

I'm proud and humbled to see the seeds of our partnership with the Edmond J. Safra Foundation flourish in the most incredible way. And I'm tremendously grateful to our fellows and fellowship directors. Their commitment will bring us to our collective goal: A day when Parkinson's is a curable, and even preventable, condition.

"The Edmond J. Safra Fellowship uniquely positions its graduates as emerging leaders, experts who care for people and families living with disease today while working toward a future in which Parkinson's, as we know it, no longer exists."

R. Do

Rachel Dolhun, MD, DipABLM
Principal Medical Advisor
The Michael J. Fox Foundation for Parkinson's Research

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Making a Global Impact on Parkinson's Care and Research

Ten years ago, the Edmond J. Safra Foundation and The Michael J. Fox Foundation (MJFF) came together over a central challenge: how can we foster scientific advances in Parkinson's research while also meeting the growing need for trained specialists who can diagnose and care for the needs of people living with PD? The answer came in the launch of the Edmond J. Safra Fellowship in Movement Disorders, formed in partnership with MJFF.

This partnership created a new opportunity to shape Parkinson's care as a complement to research. The need for these resources is real. The number of people diagnosed with Parkinson's is expected to double by 2040, and with it the demand for movement disorder specialists will also increase. But advancing Parkinson's care goes beyond the bedside: it also means leading the research that can be transformative to patient care.

The Edmond J. Safra Foundation has been our dedicated partner in this endeavor, expanding the ripple effect of its long history as our partner in the work to develop better therapies and a cure for Parkinson's. Since our earliest days, the Edmond J. Safra Foundation has provided sustained support for every one of our top scientific and care priorities. Its impact is felt and seen in the incredible accomplishments in the past 10 years since the Fellowship began, including the validation of the new biomarker in our Parkinson's Progression Markers Initiative and a new genetic link for PD found in underrepresented populations via our GP2 initiative, both supported by the Edmond J. Safra Foundation. The 19 new treatments for Parkinson's approved in the United States in the past decade attest to its deeply ingrained support and the importance of the Fellowship and its network now more than ever — furthering research advances and delivering them directly

to patients, while connecting them to the research that propels us forward.

A decade after its launch, the impact of the Edmond J. Safra Fellowship in Movement Disorders is indisputable. The Fellowship is a renowned and distinguished training program that has built a global network that extends care access, including in underserved areas; fuels research advances; and trains future generations beyond trainees. Centers and trainees seek out this opportunity, knowing it signals the highest quality education. People with Parkinson's and their families know that with the training, our graduates will deliver the most skilled and compassionate care.

Our influence has extended far beyond the U.S. A unique and highly valued feature of the program – extending education, mentorship and partnership opportunities beyond a trainee's individual center – has helped the network grow to 51 centers in four continents, 12 countries, and across 14 states in the United States. With 56 Fellowship directors, 40 graduates and 16 in training, there are 112 clinician-scientists driving research and patient care across the globe. For an estimated 31,200 people, that means they have care that, without this training program, would not be there.

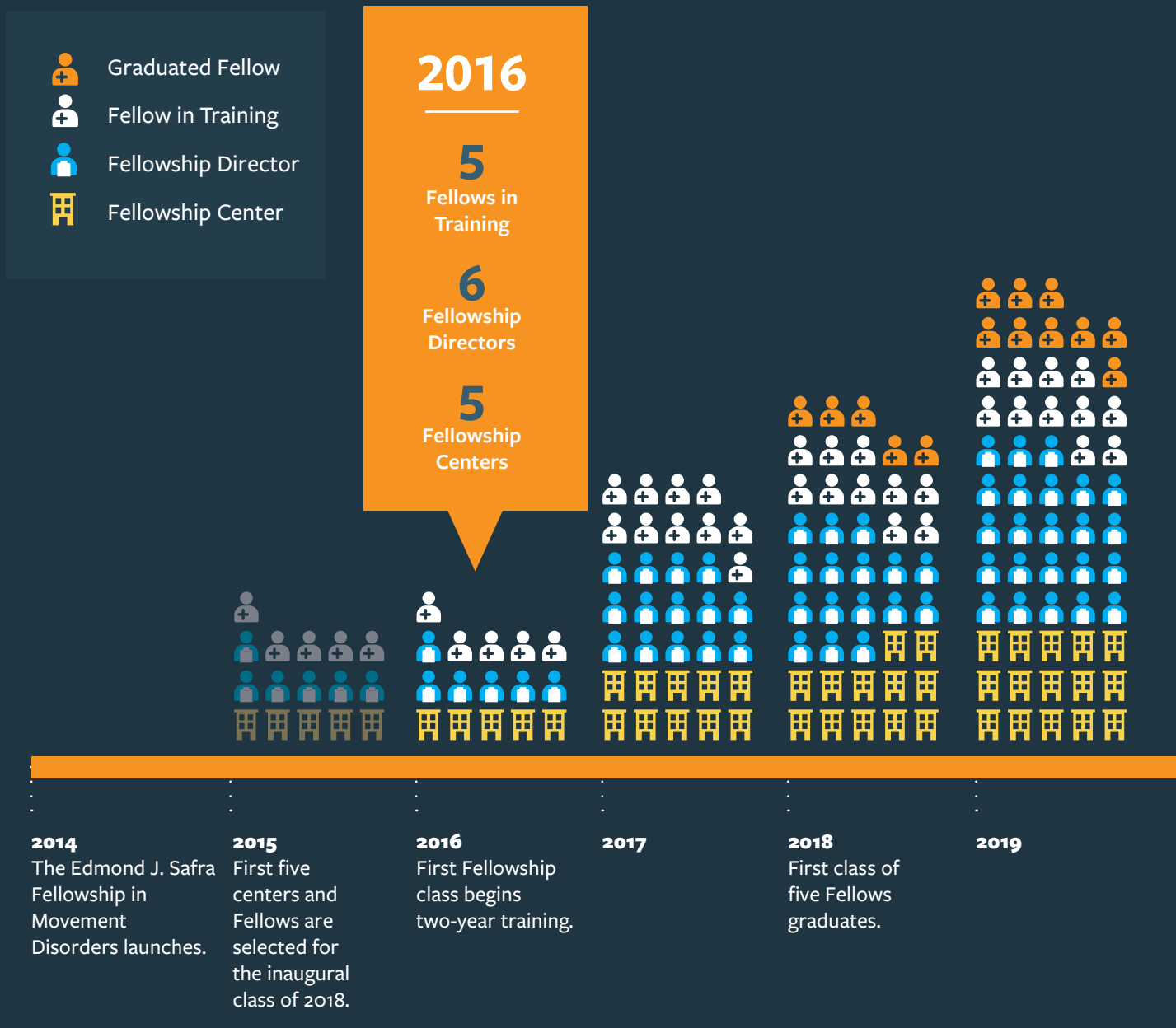
The Edmond J. Safra Foundation's support has never been more critical than in the current moment, when the momentum is building around new drug development and research breakthroughs accelerated by the new biomarker validated last year. As we enter the new era of Parkinson's research, and with the growing need for trained specialists to address the unmet needs of patients, it will be the capable and dedicated leaders of the Fellowship who will sustain and grow the incredible momentum that has brought us to this point. This next generation of clinician-researchers are uniquely positioned to usher in the next chapter of research and care.

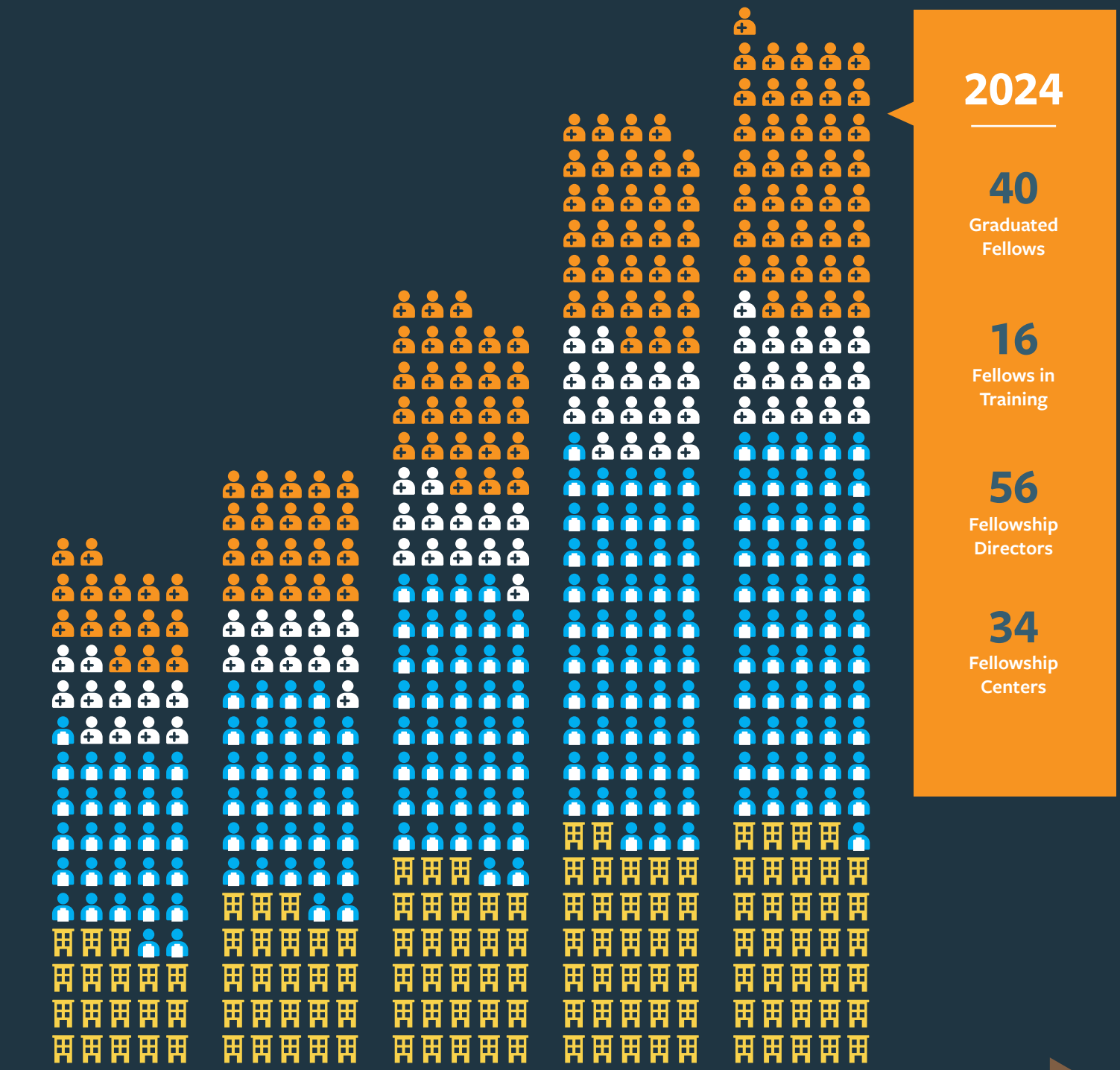
The vision, generosity and sustained partnership of the Edmond J. Safra Foundation has enabled the Fellowship to make a global impact on the Parkinson's community. We are deeply grateful for your generous and visionary support, which has altered Parkinson's care and research forever.

—The Michael J. Fox Foundation

Expanding Parkinson's Care: A Decade of Innovation and Growth

In 2014, The Michael J. Fox Foundation, with the support of its longstanding partner the Edmond J. Safra Foundation, identified a critical need for more movement disorder specialists. Ten years later, a unique global network of specialists trained by the Edmond J. Safra Fellowship in Movement Disorders is expanding access to patient care and fueling research.





2024

40
Graduated Fellows

16
Fellows in Training

56
Fellowship Directors

34
Fellowship Centers

2020

2021
With generous support from the Edmond J. Safra Foundation, the number of centers funded annually increases to eight.

2022

2023

2024
First class of eight Fellows graduates.

2028
With pledged funding from the Edmond J. Safra Foundation, the program will graduate a total of 73 new movement disorder specialists around the world.

Leaders in the Transformative New Era of Parkinson's Research

Over the last 10 years, Fellowship-trained movement disorder specialists have powered the bench-to-bedside pipeline. They have been leaders in research amid the growing momentum for new drug development and scientific breakthroughs accelerated by the new Parkinson's biomarker.

The alpha-synuclein biomarker was validated in 2023 through MJFF's Parkinson's Progression Markers Initiative (PPMI).

59%
of funded Fellowship centers are PPMI sites

"The ability to see how new diagnostic tools are aiding our patient care has been invaluable in teaching me the importance of good research in clinical care."
Emily Tharp, MD; Class of 2025

The Global Parkinson's Genetics Program (GP2) has advanced understanding of **novel genetic variants** that contribute to Parkinson's.

38%
of Fellowship centers are GP2 Centers

"My research team's discovery of a new gene implicated in early-onset Parkinson's would have not been possible without the support of the Edmond J. Safra Fellowship, the Career Development Award, my mentors and the Fellowship network."
Francesca Magrinelli , MD, PhD; Class of 2023

19 new Parkinson's treatments have been approved since 2014 for use in the U.S.

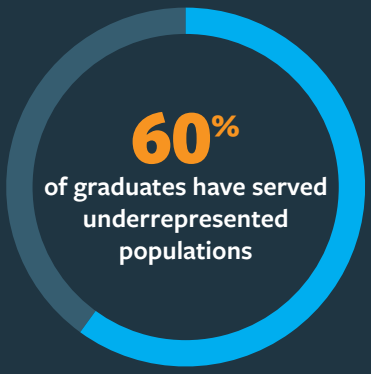
60%
of alumni have served as principal investigators

"The Edmond J. Safra Fellowship has taught me how to design, initiate, execute and manage both prospective clinical trials and retrospective studies."
Jun Yu MD, MS; Class of 2024

An Expanding Network Improves Access to Parkinson's Care

Graduates of the Edmond J. Safra Fellowship in Movement Disorders bring care to underserved regions, serve a greater geographic area as they relocate and increase patient access to care.

- **12 Countries**
- **34 Fellowship Centers**
- **Network Expansion Through Graduate Relocation**



"Being one of only four movement disorder neurologists in the state of Arkansas, an underserved area of the country, has been a profoundly gratifying experience."
Aditya Boddu, MD; Class of 2022

Each of the 40 graduates to date care for an average of

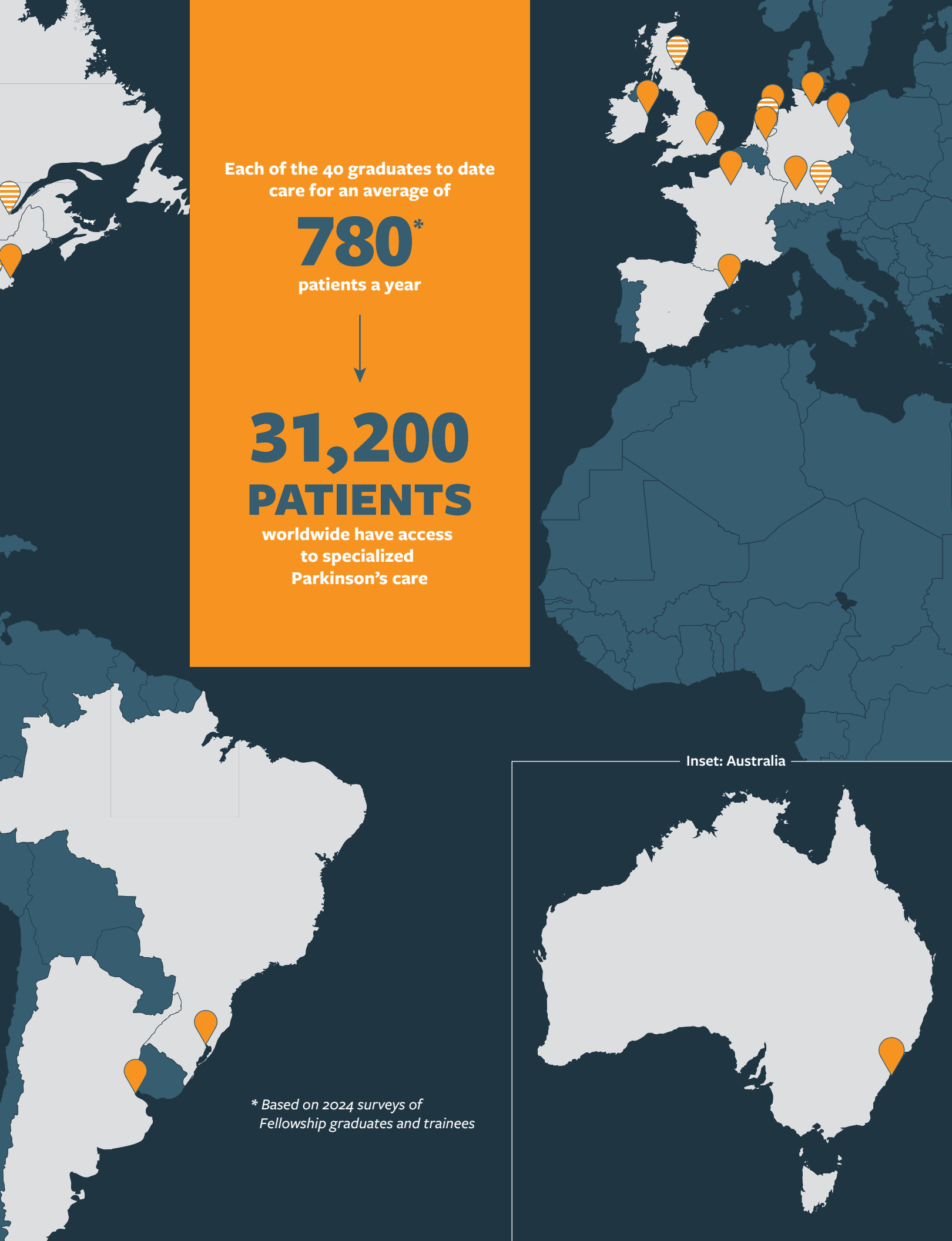
780*

patients a year

31,200

PATIENTS

worldwide have access to specialized Parkinson's care



** Based on 2024 surveys of Fellowship graduates and trainees*

Collaboration Creates a Ripple Effect

Fellows are partnering together to improve our understanding of Parkinson's, advance new treatments and create additional training opportunities.

Aditya Boddu, MD
Little Rock, Arkansas
Class of 2022

Examined the PD experience of an underrepresented African American population.

Marissa Dean, MD
Birmingham, Alabama
Class of 2018

Greg Kuhlman, MD, MBA
Cincinnati, Ohio
Class of 2020

Collaborated on a study of cannabis oil for pain in Parkinson's.

Conor Fearon, BE, MB BCh BAO, MRCPI, PhD
Dublin, Ireland
Class of 2022

Pavan Vaswani, MD, PhD
Philadelphia, Pennsylvania
Class of 2022

Researched weight and survival after deep brain stimulation for Parkinson's disease.

Whitley Aamodt, MD, MPH, MSCE
Philadelphia, Pennsylvania
Class of 2021

Sarah Horn, MD
Class of 2019

2019
Completes the Edmond J. Safra Fellowship in Movement Disorders from University of Pennsylvania

2020
Establishes a new fellowship at University of Texas Health San Antonio

2022
Graduates new fellow

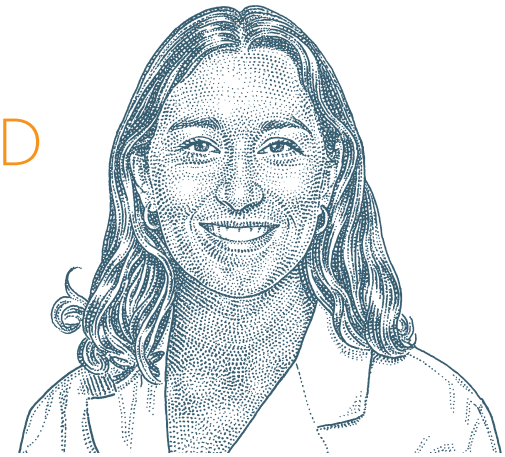
Recent Graduates

Class of 2024

Class of 2024

Laura Armengou-García, MD

Toronto Western Hospital
Toronto, Canada



Charting a Clear Path

Growing up in Seville, Spain, my parents were wonderfully supportive, spending quality time with me, while they also worked weekends and late nights. I learned from them that being disciplined and devoting time to my interests would help me reach my goals and dreams. My uncle and great-grandfather were pediatricians, so my taste for medicine runs in the family. What's more, my grandfather, who passed away six years ago, suffered from Parkinson's disease. I'd accompany him to his neurologist and admire how the doctor carried out the clinical examination. That same doctor happened to teach me neurology at the medical school in Seville, and I ultimately did my senior thesis with him. Then, I did my residency in neurology at the Clínica Universidad de Navarra in Pamplona, Spain.

Connecting Research and Care

To treat patients and understand diseases, we need to know more about them. The only way to do this is through basic and clinical research, so we can develop new treatment targets. My greatest achievement during the Edmond J. Safra Fellowship has been participating in various research projects. In particular, I've enjoyed working on Parkinson's biomarker studies and clinical trials targeting Parkinson's genes. We're in the beginning of a new era in Parkinson's research, which is stimulating, encouraging and exciting. The academic environment at Toronto Western Hospital has been exceptional. Under the supervision of Dr. Susan Fox and Dr. Anthony Lang, working in a highly qualified unit dedicated entirely to the care of neurodegenerative diseases helped me to understand the importance of having colleagues with different roles, collaborating to achieve the same goal.

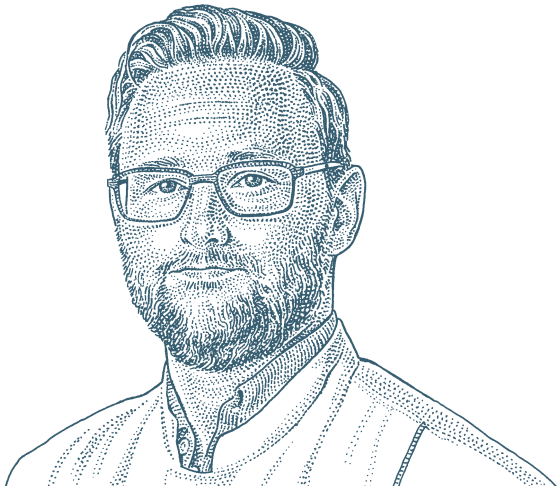
Beginning a New Career

Being an Edmond J. Safra Fellow has allowed me to deepen my clinical and research skills and create a new network of colleagues with whom I can share ideas and build new projects. There have been many valuable meetings and opportunities for collaboration. I'll enjoy special time with my family this summer after giving birth to my first child. Following maternity leave, we'll move to Quebec City, where I'll take up a new position as a neurologist specializing in movement disorders at the CHU de Québec-Université Laval, known for its basic science research program. I aim to help develop the movement disorders unit with more clinical research, while caring for patients. I'll also have an academic role at Laval. And in the fall, I'll defend my doctoral thesis on PD and subthalamotomy, a surgical treatment option to treat PD symptoms.

Class of 2024

Milan Beckers, MD, MSc

Radboud University Medical Center
Nijmegen, Netherlands



Being There for Patients

I'm from the province of Friesland, Netherlands. I always had an internal drive to gather knowledge and learn new things. My parents were very supportive of my goals. My love for science led me to the University of Groningen for medical school, but a personal experience further influenced me. My father received an incurable cancer diagnosis in the presence of people he didn't know, including nurses and other patients. Later, when the oncologist told him his cancer progressed, it was a shock. We had so many questions but we were simply seen out. Since then — including throughout my neurology residency at Zuyderland Medical Center — I always make sure that I set the stage right for my patients, and that I deliver difficult news in the presence of people whom the patient wishes to be there. In neurology, the history-taking and physical exam can give such important clues. This hands-on approach can also help patients cope. They understand that I have listened, done a thorough exam, felt the stiffness, seen the tremor. We take a lot of time with our patients, and I think all of this helps patients accept their diagnosis and the journey ahead.

Studying Levodopa Resistance

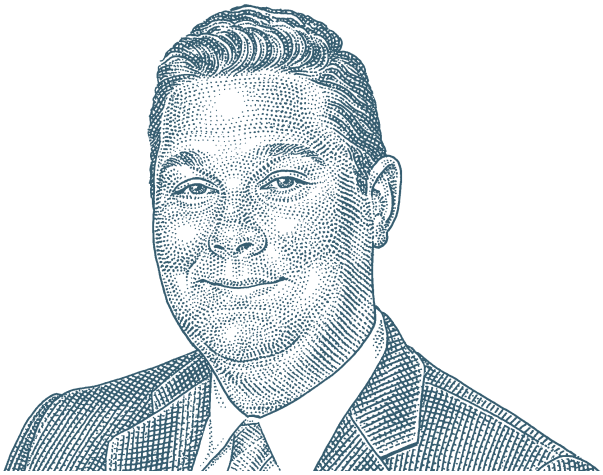
The topic of my PhD research project is levodopa, the most commonly used medication for Parkinson's. Up to 20 percent of PD patients don't respond well or at all to it. One reason for levodopa resistance is that the gastrointestinal system may absorb it badly, especially where many PD patients have GI issues. So, levodopa won't reach the brain in sufficient quantities. We're setting up the first clinic in the Netherlands to care for and manage PD patients with levodopa resistance.

Advancing Equity in the Netherlands

I'm excited to stay here at Radboud University Medical Center for two more years to finish my research. My supervisor, Dr. Bas Bloem, opened my eyes to how the knowledge gained through a PhD can advance clinical care. I'm also part of an effort to connect nursing homes and hospitals to address and improve Parkinson's disease care in the significantly growing elderly population. As a Fellow, I was also part of a working group to identify challenges related to diversity and access to care in the Netherlands, which we want to understand better and work on so that everyone with PD gets the care they need.

Stephen Berger, MD, PhD

Johns Hopkins University
Baltimore, Maryland



Catching the Research Bug

My mom is a palliative care specialist and my dad is an engineer, so science and learning were encouraged from a young age. They'd take me to children's science museums. They gave me a little toy microscope where I'd take an eyedropper of water from the backyard and look at what was moving around in that drop. Those early experiences influenced my choice to pursue neurology. For four summers in high school and college, I volunteered in a National Institutes of Health Lab that studies the genetics of neurological diseases. That's where the research bug hit me. Around the same time, my grandfather's Parkinson's disease was progressing. Seeing his health decline had a major impact on me. He passed away as I was applying for MD-PhD programs. I knew I'd end up in movement disorders, in large part because of this personal experience. I was drawn to the combination of scientific curiosity about the brain's nuts and bolts, and the extent to which the brain is the origin of so much of what makes us human: our personalities, relationships, interests and ability to interact with the world.

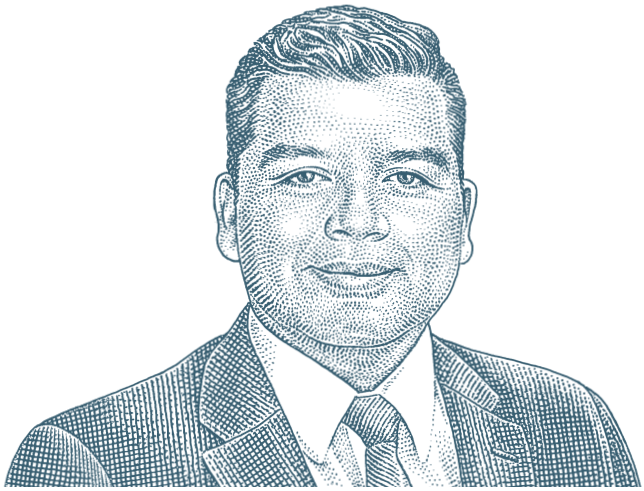
Learning from Patients and in the Lab

I attended Johns Hopkins University for college, then spent 13 years at New York University for my MD-PhD and my neurology residency. Now, back in Baltimore at Johns Hopkins, I've been able to see a lot of patients — many with rare diseases or uncommon presentations — and I've learned a tremendous amount from patients and families while working with a large, interdisciplinary group of physicians and scientists. I also joined the lab of Drs. Ted and Valina Dawson, who have done a lot of work on the cell biology of Parkinson's disease. My particular interest is in Parkinson's dementia and dementia with Lewy bodies — closely related cognition disorders that aren't as well understood as Parkinson's disease. Under the microscope, these two dementias seem to have a lot of features of both Parkinson's and Alzheimer's disease. I'm using stem cells that we can grow in a dish to model the overlapping pathology between Parkinson's and Alzheimer's, and to explore basic questions of why brain cells get sick and die in these two forms of dementia. Ultimately, we want to design better treatments based on understanding better this overlapping pathology and bolster the treatments coming into the pipeline for Parkinson's and Alzheimer's.

Class of 2024

José Ricardo López Castellanos, MD

Emory University
Atlanta, Georgia



Connecting Early to Patients and Families

I've been connected to Parkinson's and Alzheimer's disease populations since growing up in San Salvador, El Salvador. My father is a movement disorders specialist who founded a Parkinson's support group that met on Saturday mornings when I was a kid, and I'd go with him. I found a remarkable, resilient and united patient population, eager to help each other. That was one reason why I felt inspired to work with this group throughout high school, after graduating from the Dr. José Matías Delgado Medical School, and today. I completed my residency at the University of Arkansas for Medical Sciences and was at Emory University for the Fellowship. Here, the many subspecialists working together in movement have provided tremendous learning opportunities. Discussing and managing cases together and working in the dystonia, ataxia and Parkinson's disease comprehensive care clinics has been invaluable. I feel very passionate about movement disorders — and with the special bond that my father and I share in this field, it makes the work even more enjoyable.

Diving into DaTscans

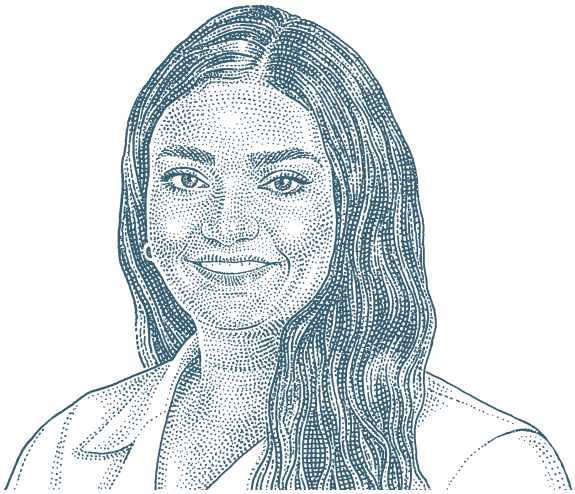
One project I've been working on during my Fellowship is the utilization of DaTscan. This imaging test helps differentiate neurodegenerative parkinsonism from other conditions, including drug-induced parkinsonism and essential tremor, and since patients often come to us with very complicated cases that need a second or third opinion, DaTscan can help. I am researching how it is used overall at our center, what patients' diagnoses are before the scan is done and how much diagnoses change after using it. Under Dr. Stewart Factor's mentorship, I'm also looking at drug-induced movement disorders and their comprehensive management.

Educating and Empowering Patients

Next year, I'll pursue an autonomic disorders specialty studying autonomic body processes like heart and blood pressure — a much needed specialty in Parkinson's care — at Beth Israel Deaconess Medical Center in Boston. I will also continue outreach, education and empowerment for patients and family members with Parkinson's and other movement disorders — both in the U.S. and in Latin-American countries. U.S. Spanish speakers who need a translator every time they come to the clinic can be afraid; they may not know what questions to ask if they have Parkinson's. If they're able to know what the disease means, how the symptoms can be controlled and what is within their reach to improve or maintain, we can empower them.

Leila Saadatpour, MD

Cleveland Clinic Foundation
Cleveland, Ohio



An Inspiring Family

My dad is a radiologist in our hometown of Isfahan, the second largest city in Iran. I'd go to the hospital with him a lot and became very familiar with the environment. I enjoyed watching him and seeing how much he loved his job. His work ethic made a big impression on me.

Making My Own Mark

By the time I got to high school, though, I thought I wanted to do something different from my dad and my older sister, who was already in medical school, and I wanted to become an architect. But by my final year of high school, I realized that I wouldn't be happy if I wasn't in medicine. That's what I decided to pursue. After finishing medical school in Isfahan, I came to the U.S. and did two years of research. Then, I completed my residency at the University of Texas at San Antonio, where an Edmond J. Safra Fellowship alumna, Dr. Sarah Horn, mentored me. I'll be returning to work with her in the movement disorders clinic there as an assistant professor, after I complete my Fellowship at Cleveland Clinic.

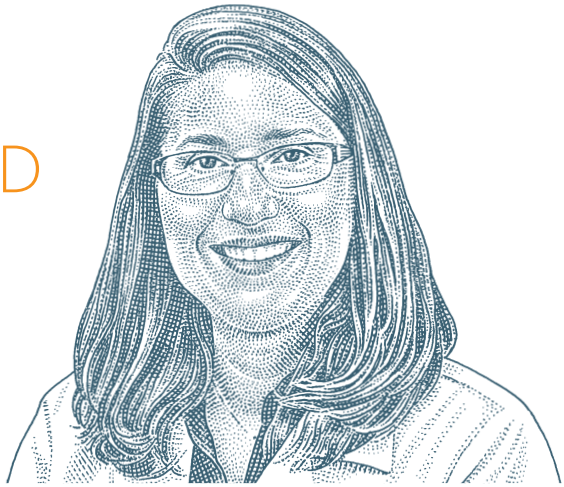
Combining Care with Research

Going into neurology was an easy choice. I love both the clinical and research aspects. I love how much magic we can do to make someone feel better. There's a lot we can offer, and there's so much more coming in the future with new treatments. Combining clinical work with research keeps us on top of things. There are a lot of advancements today, and if you're not active in research you may not grow your mindset in how to treat patients. For example, I've been using publicly available data from the Parkinson's Progression Markers Initiative, plus artificial intelligence, to try to predict cognitive outcomes in Parkinson's patients. I've also been studying a common Parkinson's medication, amantadine, the commercially available treatment for dyskinesia. It's a mystery how amantadine works, because for some patients it's great, but not everyone responds well. We decided to do a study looking at whether genetic factors influence drug response. I'm excited to see what we find.

Class of 2024

Christina B. Swan, MD, PhD

Rush University Medical Center
Chicago, Illinois



Hometown Affinity

I'm proud to be a New Jersey girl, having been born and raised there with wonderful family and friends. My grandmother lived with us. She was my role model and gave me the mindset that I could figure anything out. My mom and dad, both engineers, helped me develop whatever I showed an interest in — which happened to be science and building things. In fourth grade, I did a report on sharks and we used my erector set to build a shark whose mouth moved. I was very proud of it.

A Passion for Patient Care

To me, neuroscience is like working with a living computer, the brain, so first I focused on brain machine interfaces as an undergraduate student at Dartmouth College. Then I went to Duke University for my MD-PhD, a path I chose so I could work with patients and research. As soon as I started interacting with patients, everything reversed for me. I went from focusing primarily on deep brain stimulation (DBS) and biomedical engineering to loving the direct connection with patients. So, I changed my focus from mainly doing research to becoming a clinician carrying out clinically based research.

Refining Deep Brain Stimulation

I've been training to assist surgeons in the operating room, implanting DBS electrodes. On the research side, I'm looking at patient outcomes from DBS surgeries to compare how they have done when they are awake versus asleep. Traditionally, DBS surgery happens with the patient partially awake, because you can do a recording and listen to the brain cells to help with implant precision. But today, thanks to very high-resolution imaging, you can also get excellent results by implanting those electrodes with the patient fully asleep. Because a patient's head must be secured to the operating table, the traditional awake procedure doesn't work for patients with severe post-traumatic stress disorder, claustrophobia or dystonia. If the asleep version is just as effective, then it opens the procedure to many more people who could benefit from it.

Fulfilling a Dream

As I stay on at Rush as an assistant professor, I'll work in movement disorders, continue assisting with DBS procedures in the operating room and join a prospective study comparing awake versus asleep outcomes using new data that we'll collect from DBS surgery patients. The interactions with every one of my patients and trying to make things better fulfill me.

Rebecca Williamson, MD, PhD

University of Pennsylvania
Philadelphia, Pennsylvania

From Neurons to Neurology

I remember learning about a neuron and an action potential while in high school, and how these action potential signals progress along a neuron to communicate with other neurons. I was amazed that this is how our bodies work and it's how we have thoughts and feelings, transfer those into movements and make decisions.
After high school, I left my hometown outside of Toronto, Canada to study neuroscience through a combined BA/MA program at Johns Hopkins University. Then, it was on to Columbia University for my MD-PhD, and I completed my residency at Massachusetts General Hospital and Brigham and Women's Hospital.

The Power of Teamwork

I fell in love with rowing in high school. You work as part of a whole unit, especially on larger boats with eight rowers and a coxswain directing you. It's the ultimate team sport. It's very similar here at the University of Pennsylvania. A team of clinicians, social workers, advanced practice providers, therapists and clinical research coordinators works together. With their partnership, I've learned to care for the whole patient in both the general movement disorders clinic and cognitive clinics. A team here, led by my mentor, Dr. Dave Irwin, follows patients with rare cognitive disorders and atypical parkinsonisms throughout their lives with imaging, biomarkers and neuropsychiatric testing. The patients then donate their brains at death. We use a very high-powered MRI to get high-resolution images of the brain — we can correlate molecular and structural analysis with all the data from a person's life.

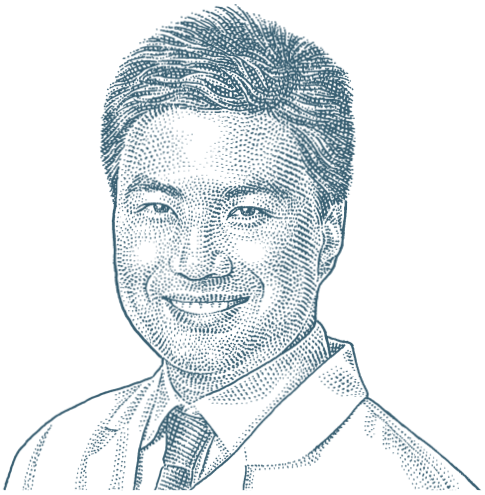
Researching Biomarkers

I'm looking at the basal ganglia within frontotemporal dementias and atypical parkinsonisms to see if a radiographic biomarker, like we have in Alzheimer's, can give us a better sense of underlying pathology in the brain. We've found some changes that might be able to predict the type of protein that accumulates in the brain of someone diagnosed with frontotemporal dementia. This is an essential step to ultimately target those proteins and treat the patient while they're living. I will stay at the University of Pennsylvania as an assistant professor and will work in the movement disorders and cognitive neurology clinics. It's amazing to be able to give patients a name and a diagnosis for what they are experiencing and offer hope that new medications are coming onto the market that could really help them.

Class of 2024

Jun Yu, MD, MS

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



Connections in the Brain

I developed a kinship with healthcare providers very early on. I grew up in an apartment complex in Nanjing, China, where all the residents worked at the hospital a block down the road. My grandmother would pick me up from school and bring me to her dermatology office. Around the same time, I also became interested in building and programming personal computers when home computers and the internet were becoming more popular. These experiences came together when I moved to the U.S. to attend the University of Texas at Austin. I studied the brain's contributions to our consciousness, learning behavior, the brain-immune interaction in the brain tumor setting and the mind-body connection with stress and sleep. These brain networks drew me to movement disorders. During my master's studies at Georgetown University and a year-long research project in Oregon afterward, I learned about integrative medicine, applying different health modalities to enhance quality of life — these intersect well with neurology's emphasis on interdisciplinary care and healing, especially in neurodegenerative diseases. I can empower my patients and their families and friends to live with their conditions, maximizing their quality of life and their health potential.

Staying Informed and Curious

Combining research with care helps me to stay informed, stay curious and ensures I provide expert-level care. As a Fellow, I've learned more about neurophysiology, which assesses how your nervous system is functioning, especially its electrical activity, and correlative disease states and symptoms in Parkinson's, essential tremor and dystonia. I'm also designing and initiating several pilot clinical trials to apply neurophysiology-based artificial intelligence algorithms to predict the optimal DBS programming in these conditions. Clinically, I've been seeing patients, doing DBS programming and performing intraoperative microelectrode recording and testing in the operating room to help me transition into my practice next year. Our center also started offering MRI-guided focused ultrasound, and I collaborated with the neurosurgeons to participate in the care of the first three patients who underwent that treatment so far. For my next phase, I'll stay at the University of Florida Health as an assistant professor, focusing on DBS for movement disorders. The Fellowship has prepared me to be a successful movement disorders neurologist, and I've better defined my niche of clinical practice.

"Being a Fellow not only enabled me to deepen my clinical and research skills at a highly recognized institution under the supervision of highly qualified movement disorder specialists. It has also given me a new network of colleagues with whom I can share ideas and build new projects."

— **Laura Armengou-García, MD**
Class of 2024

Fellowship Directors

Class of 2024

Fellowship Directors Marcelo Merello, MD, PhD, Fleni Hospital, left; and David Standaert, MD, PhD, University of Alabama at Birmingham

Christopher Caughman, MD

Emory University
Atlanta, Georgia

Christopher Caughman is an assistant director in the Department of Neurology at Emory University and the fellowship director of the Movement Disorders Program at Emory Healthcare in Atlanta, Georgia. He is a graduate of Emory's Neurology Residency Program and was a recipient of the Edmond J. Safra Fellowship in Movement Disorders with the Class of 2021. As a clinician educator, Dr. Caughman works closely with medical students, residents and fellows at Emory. His clinical focus includes Parkinson's disease, essential tremor, dystonia and other movement disorders.

Andres Deik, MD, MSEd, FAAN

University of Pennsylvania
Philadelphia, Pennsylvania

Andres Deik is an associate professor of clinical neurology at the University of Pennsylvania and a movement disorders specialist in the Parkinson's Disease and Movement Disorders Center at Penn Medicine in Philadelphia. He focuses on clinical care, spearheads clinical trials and directs the Movement Disorders Fellowship. Awarded for teaching excellence at Penn's Perelman School of Medicine, Dr. Deik has overseen more than 20 Parkinson's clinical trials, gene therapy trials and studies on other neurological disorders such as dystonia and Huntington's disease. He is currently completing an investigator-initiated dystonia therapeutics trial.

Hubert Fernandez, MD

Cleveland Clinic
Cleveland, Ohio

Hubert Fernandez is professor of medicine at the Cleveland Clinic Lerner College of Medicine, Case Western Reserve University, and director of the Center for Neurological Restoration at the Cleveland Clinic in Cleveland, Ohio, where he also directs the Movement Disorders Fellowship. Dr. Fernandez has published more than 300 articles and abstracts on Parkinson's disease, cervical dystonia, blepharospasm and other movement disorders. He has also published 50 book chapters and a dozen books. Dr. Fernandez is the editor-in-chief of *Parkinsonism & Related Disorders* and an editorial board member of the *American Journal of Clinical Neurology*, *European Neurological Journal* and *Clinical Neuropharmacology*.

Class of 2024 Fellowship Directors

Susan Fox, MB ChB, MRCP, PhD

University Health Network
Toronto, Canada

Susan Fox is head of the Division of Neurology at the University Health Network (UHN) in Toronto, Canada, the Krembil Family Chair of Neurology at the University of Toronto and co-chair of UHN's Clinical Research Collaborative Centre. Dr. Fox is the past chair of the Pan-American section of the International Parkinson and Movement Disorder Society. With over 25 years of experience in preclinical models of Parkinson's disease and translational studies of novel pharmacological therapies for movement disorders, she has published more than 200 peer-reviewed papers, reviews and book chapters in the field and speaks regularly at national and international conferences.

Christopher W. Hess, MD

University of Florida Health
Gainesville, Florida

Christopher Hess is an assistant professor of neurology who serves as the director of neurotechnology and medical director and fellowship director at the Norman Fixel Institute for Neurological Diseases at University of Florida Health in Gainesville, Florida. He also directs the Parkinson's Disease Research, Education and Clinical Centers Consortium Center at the Gainesville VA Medical Center. Dr. Hess's research interests include wearable technologies in movement disorders and near-infrared light therapy for Parkinson's disease. He was recently the coordinating principal investigator on a multi-center study investigating the use of wearable devices for PD.

Katie Kompoliti, MD

Rush University Medical Center
Chicago, Illinois

Dr. Kompoliti is professor of neurology, educational director for the section of movement disorders in the Department of Neurological Sciences and director of the Movement Disorders Fellowship Program at Rush University Medical Center in Chicago, Illinois. She also directs Rush's Tourette Association Center of Excellence for Tourette syndrome and other tic disorders. An author and co-author of numerous publications, Dr. Kompoliti's clinical interests as a principal investigator have included studies to evaluate the safety and efficacy of new compounds to treat Parkinson's disease, other parkinsonian syndromes, Tourette syndrome and functional movement disorders.

Fellowship Directors Kailash Bhatia, MD, UCL Queen Square Institute of Neurology, left; and Susan Fox, MBChB, MRCP, PhD, Toronto Western Hospital

Alexander Pantelyat, MD

Johns Hopkins University
School of Medicine
Baltimore, Maryland

Alexander Pantelyat is an associate professor of neurology, movement disorders neurologist, director of the Atypical Parkinsonism Center, co-founder and co-director of the Johns Hopkins Center for Music & Medicine and co-director of the Movement Disorders Fellowship at Johns Hopkins University School of Medicine in Baltimore, Maryland. Dr. Pantelyat's research explores atypical parkinsonian disorders such as dementia with Lewy bodies, progressive supranuclear palsy, corticobasal syndrome/degeneration and multiple system atrophy; cognitive aspects of movement disorders and music-based rehabilitation of neurodegenerative diseases.

Bart Post, MD, Msc, PhD

Radboud University
Medical Center
Nijmegen, Netherlands

Bart Post is a movement disorder neurologist, co-director of the Parkinson Foundation Center of Excellence and chair of the residency program in the Department of Neurology at Radboud University Medical Center, Nijmegen, Netherlands. He has served on the steering committees of several large Parkinson trials, including LEAP (Levodopa in Early Parkinson's Disease), CHEVAL and FAIR-PARK. Within movement disorders, he is a member of the Multiple System Atrophy Study Group's rating scale committee, and a steering committee member of the Early-Onset Parkinson's Disease Study Group through the International Parkinson and Movement Disorder Society. Dr. Post has founded and organized several masterclasses on parkinsonisms and movement disorders in the Netherlands.

The Edmond J. Safra Movement Disorders Research Career Development Awards

2023 Awardees

Francesca Magrinelli, MD, PhD

Class of 2023

University College London
London, England

Dr. Francesca Magrinelli recently discovered the *PSMF1* gene to be related to Parkinson's disease. With the Research Career Development Award, she seeks to explore how defects in *PSMF1* cause a spectrum from early-onset PD to perinatal lethality with neurological manifestations, and ultimately lead to neuronal loss. She will use a combination of genetics, transcriptomics, proteomics experiments and develop cell and animal models with defects in this gene to study how PSMF1 impacts cell functioning. Dr. Magrinelli is six months into the two-year project and has already obtained solid preliminary results and promising findings to further develop.

Kimberly Kwei, MD, PhD

Class of 2020

Columbia University
New York, NY

Dr. Kimberly Kwei is seeking to understand the underlying biological pathways that lead to gait changes, particularly freezing of gait, in people with Parkinson's disease. She aims to do this by integrating assessments of gait — using video and wearable sensors — along with measurements of brain activity via deep brain stimulation electrodes and PET imaging. The project kicked off recently and the study team is initiating participant identification and recruitment. Dr. Kwei plans to seek additional funding from federal agencies using preliminary data generated from this study to further learnings gleaned from this project.

Launched in 2022 with support from the Edmond J. Safra Foundation, this competitive research funding opportunity from 2022 to 2024 aims to support the early career development and research trajectory of Edmond J. Safra Fellowship alumni. Awardees for the two-year pilot program were chosen based on the strength of the investigator, clarity of path to scientific independence and potential impact of the proposal. Each received a $50K grant to support a two-year project.

2022 Inaugural Awardees

Conor Fearon, BE, MB, PhD

Class of 2022

Dublin Neurological Institute
Dublin, Ireland

Dr. Conor Fearon seeks to develop quantitative, clinically relevant biomarkers of Parkinson's disease to help differentiate between PD and related disorders through analysis of eye movements and pupillary response. Dr. Fearon has recruited a substantial number of participants and evaluated eye movements, while participants freely watch video clips in a natural way. Preliminary data from participants with Parkinson's demonstrate that saccades are smaller, slower and fewer in number that age-matched healthy controls and saccade velocity correlates with standard clinical measures. Additional more detailed analysis is ongoing.

Anne Weissbach, MD

Class of 2020

The Institute of Neurogenetics in Lübeck
Lübeck, Germany

Dr. Anne Weissbach seeks to examine people with mutations of different genes. She compares sensorimotor integration and clinical symptoms to investigate whether abnormalities in sensorimotor integration depend on the presence of symptoms of mutation carriers or if they are related to the genetic mutation. Dr. Weissbach and her team have established a mobile examination unit, enabling travel to participants in their home environments, for example, in the Philippines, to increase recruitment numbers. This year, Dr. Weissbach joined the permanent faculty of the University Clinic Schleswig-Holstein and applied for a full professorship to the University of Lübeck.

Fellows in Training

The Edmond J. Safra Fellowship is currently supporting 16 movement disorder specialists in training at top-tier medical centers around the world.

Class of 2025

William Barbosa, MD
University of Rochester
Rochester, New York

Juan Ramon Deliz, MD
Northwestern University
Chicago, Illinois

Kacey Hu, MD
University of Southern California
Keck School of Medicine
Los Angeles, California

Taha Omer, MBBS, Dip.Ther, DCSM, MRCPI, MRCP (London), PhD
University of Calgary
Calgary, Canada

Emily Tharp, MD
University of Texas Health Science Center
Houston, Texas

Mehmet Salih Tuncer, MD
Charité — Universitätsmedizin
Berlin, Germany

Duncan Wilson, PhD, MRCP, MB ChB
Westmead Hospital and University of Sydney
Sydney, Australia

Isabel Wurster, MD
University of Tübingen
Tübingen, Germany

Class of 2026

Sara Berman, MD, PhD

University of Pennsylvania
Philadelphia, Pennsylvania

Nicholas Bodnar, MD, PhD

Brigham and Women's Hospital,
Harvard Medical School
Boston, Massachusetts

Patrick Cullinane, MB BCh, BAO, MSc, MRCPI

University College London
London, England

Carlos Lázaro Hernández, MD

Fundació de Recerca Clínic Barcelona-Institut d'Investigacions Biomèdiques August Pi i Sunyer
Barcelona, Spain

Sanne Meles, MD, PhD

University Medical Center Groningen
Groningen, Netherlands

Shashika Rodrigo, MD

Rush University Medical Center
Chicago, Illinois

Eshita Shah, MD, MS

University of California San Diego
San Diego, California

Viviana Torres Ballesteros, MD, MS

University of Miami
Coral Gables, Florida

Class of 2027 Fellowship Centers

The program recently selected eight international centers, two of which are new to the fellowship network, to train the tenth fellowship class.

Each center will now identify a candidate to begin two years of training in July 2025.

Dublin Neurological Institute at the Mater and St. Vincent's University Hospital
Dublin, Ireland

Cleveland Clinic
Cleveland, Ohio

Fleni Hospital
Buenos Aires, Argentina

Hospital de Clínicas de Porto Alegre
Porto Alegre, Brazil

Mount Sinai Hospital
New York, New York

University of California, San Francisco
San Francisco, California

University of Florida College of Medicine
Gainesville, Florida

University of Sydney and Westmead Hospital
Sydney, Australia


Sergio
Castillo

The Edmond J. Safra Fellowship A Decade of Training Leaders

Graduated Fellows

Class of 2018

David P. Breen, BSc(Hons), MBChB, PhD, FRCP
Toronto Western Hospital

Marissa Dean, MD
University of Alabama at Birmingham

Lenora Higginbotham, MD
Emory University

Christine Kim, MD,
Columbia University

Gerrit Machetanz, MD
University of Tübingen

Class of 2019

Katherine Amodeo, MD
University of Rochester

Sarah Horn, MD
University of Pennsylvania

Katherine Leaver, MD
Mount Sinai Hospital

Jessica Weinstein, MD
University of California, San Francsico

Natalie Witek, MD, MS
Rush University Medical Center

Class of 2020

Juliana Coleman, MD
University of Alabama at Birmingham

Grace Crotty, MD, MB BCh BAO, MRCPI, MPH
Massachusetts General Hospital

Eric Jackowiak, MD
University of Michigan

Greg Kuhlman, MD, MBA
Toronto Western Hospital

Kimberly Kwei, MD, PhD
Columbia University

Anne Weissbach, MD
University of Lübeck

Class of 2021

Whitley Aamodt, MD, MPH, MSCE
University of Pennsylvania

Amir A. Badiei, MD, MS
University of California, San Francisco

Christopher Caughman, MD
Emory University

Judith van Gaalen, MD
Radboud University Medical Centre

Neil Shetty, MD,
Northwestern University

Class of 2022

Aditya Boddu, MD
University of Alabama at Birmingham

Conor Fearon, BE, MB, PhD
Toronto Western Hospital

Eoin Mulroy, MB BCh, BAO, FRACP
UCL Queen Square Institute of Neurology

Chintan Shah, MD
Baylor College of Medicine

Jon Toledo Atucha, MD, PhD
University of Florida-Shands Health Center

Pavan Vaswani, MD, PhD
University of Pennsylvania

Class of 2023

Sergio Andrés Castillo-Torres, MD
Fleni Hospital

Stephen Joza, MD, PhD
McGill University/Montreal Neurological Institute

Francesca Magrinelli, MD, PhD
UCL Queen Square Institute of Neurology

Poornima Jayadev Menon, MB BCh BAO, LRCP & SI, MRCPI, DTMH
Pitié-Salpêtrière Hospital

Andrea Sujung Yoo, MD
Mount Sinai Hospital

Class of 2024

Laura Armengou-García, MD
Toronto Western Hospital

Milan Beckers, MSc
Radboud University Medical Centre

Stephen Berger, MD, PhD
Johns Hopkins University School of Medicine

José Ricardo López Castellanos, MD
Emory University

Leila Saadatpour, MD
Cleveland Clinic

Christina Swan, MD, PhD
Rush University Medical Center

Rebecca Williamson, MD, PhD
University of Pennsylvania

Jun Yu, MD, MS
University of Florida-Shands Health Center

Fellowship Centers and Directors

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Brigham and Women's Hospital, Harvard Medical School
Barbara Changizi, MD

Charité – Universitätsmedizin
Andrea Kühn, MD;
Christos Ganos, MD

Cleveland Clinic
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Columbia University
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Oren Levy, MD, PhD;
Blair Ford, MD

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Emory University
Stewart Factor, DO

Fleni Hospital
Marcelo Merello, MD, PhD

Fundació de Recerca Clínic Barcelona-Institut d'Investigacions Biomèdiques August Pi i Sunyer (FRCB-IDIBAPS)
Francesc Valldeoriola, MD, PhD

Hospital de Clínicas de Porto Alegre
Artur Schumacher-Schuh, MD, PhD

Johns Hopkins University School of Medicine
Alexander Pantelyat, MD

Massachusetts General Hospital
Alice Flaherty, MD, PhD

McGill University/Montreal Neurological Institute
Ronald Postuma, MD, MSc

Mount Sinai Hospital
Susan Bressman, MD;
Rachel Saunders-Pullman, MD, MPH, MS

Northwestern University
Tanya Simuni, MD

Pitié-Salpêtrière Hospital
Jean-Christophe Corvol, MD, PhD

Radboud University Medical Centre
Bart van de Warrenburg, MD, PhD; Bart Post, MD, Msc, PhD; Bastiaan (Bas) Bloem, MD, PhD

Rush University
Katie Kompoliti, MD

Toronto Western Hospital
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UCL Queen Square Institute of Neurology
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Sonia Gandhi, BMBCh, PhD

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University of Calgary
Justyna Sarna, MD, PhD

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University of California, San Francisco
Rafael Zuzuárregui, MD;
Ethan Brown, MD

University of Florida-Shands Health Center
Christopher W. Hess, MD

University of Lübeck
Christine Klein, MD

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Danielle Shpiner, MD;
Ihtsham Haq, MD

University of Michigan
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James F Morley, MD, PhD;
Pavan Vaswani, MD, PhD;
Nabila Dahodwala, MD, MS

University of Rochester
Irene Richard, MD;
Jamie Adams, MD

University of Southern California Keck School of Medicine
Mark Lew, MD;
Emily Tamadonfar, MD;
Katherine (Kat) Wong, MD;
Xenos Mason, MD

University of Texas Health Science Center
Mya Schiess, MD

University of Tübingen
Thomas Gasser, MD, PhD

Westmead Hospital and University of Sydney
Victor Fung, MBBS, PhD;
Neil Mahant, MBBS, PhD

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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. The Foundation pursues its goals through an aggressively funded, highly targeted research program coupled with active global engagement of scientists, Parkinson's patients, business leaders, clinical trial participants, donors and volunteers. In addition to funding $2 billion in research to date, the Foundation has fundamentally altered the trajectory of progress toward a cure. Operating at the hub of worldwide Parkinson's research, the Foundation forges groundbreaking collaborations with industry leaders, academic scientists and government research funders; creates a robust open access data set and biosample library to speed scientific breakthroughs and treatment with its landmark clinical study, PPMI; increases the flow of participants into Parkinson's disease clinical trials with its online tool, Fox Trial Finder; promotes Parkinson's awareness through high-profile advocacy, events and outreach; and coordinates the grassroots involvement of thousands of Team Fox members around the world.

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 charitable foundation to ensure that individuals and organizations would continue to receive his assistance and encouragement for many years to come. Led for more than 20 years by his beloved wife Lily, the Edmond J. Safra Foundation draws continuing inspiration from Mr. and Mrs. Safra's values and priorities, supporting hundreds of organizations and programs 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.

edmondjsafra.org

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Fellow biographies as told to Sarah Jackson

Illustrations by Nancy Januzzi

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