

Leading with Compassionate Care: *Stories and Updates*

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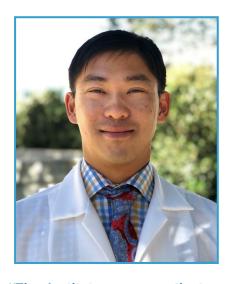
Coming Full Circle: New Clinician Dr. Christopher Way

Dr. Christopher Way, a board-certified neurologist, started in late August as the Parkinson's Institute and Clinical Center's newest movement disorders specialist. Yet the Institute was not exactly new to him. Dr. Way recalls going to appointments at the Institute with his father, who was diagnosed with early-onset Parkinson's before Dr. Way had entered middle school.

Fast-forward a decade, and Dr. Way shares that "In college, I was fascinated by neuroanatomy and brain circuits, and this along with my personal experience pushed me towards pursuing neurology as a career." He graduated with an undergraduate degree in neuroscience from UCLA and received his medical degree from Touro University in Vallejo, CA.

Next, he completed his residency in neurology at Kaiser Permanente Los Angeles Medical Center. "As I got more exposure to movement

disorders, it's what I felt most motivated to practice," Dr. Way says. Certain of moving his career in this direction, he completed a two-year clinical and research fellowship in Parkinson's disease and movement disorders at the Portland VA Medical Center and Oregon Health & Science University. "I feel very fortunate training with the team at OHSU and having them as



"The Institute serves patients with Parkinson's and creates a community where caregivers and family members also have support and resources. It's a team-based approach to care for patients that's not extremely common. I think this is the ideal model."

- Dr. Christopher Way

mentors," Dr. Way says. "They really encouraged me to step into my own during this period."

Over his training, Dr. Way began to connect his sincere empathy toward those living with Parkinson's—his father included—with real patients under his care. "What was most striking to me in retrospect about my dad's Parkinson's was the loss of independence that came with it," he shares. He watched his father gradually lose his ability to move, consequently ending a carer building houses.

"Movement is so important to life," Dr. Way says. "However, Parkinson's is not a disease that has to destroy your life. With the right mindset, activities, support, and community, people with Parkinson's live very good lives."

The Institute attracted Dr. Way for many of the same reasons it attracted his father. While many closer

medical facilities existed near the family's home in Marin, CA, his father pursued treatment at the Parkinson's Institute and Clinical Center "due to the clinicians there, its foundation as a non-profit, and its reputation," Dr. Way shares. "Everyone there is committed to Parkinson's and that's the main reason my dad kept coming back."

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Did he ever dream his childhood visits to the Institute would come full circle, with him serving there now as a physician?

Dr. Way laughs. "No, definitely not," he says. "It's kind of surprising for me, actually. Knowing I've been there as a kid and now twenty-something years later returning as a clinician...It was too good of an opportunity to pass up. It's exciting to be giving back to the place that my dad received his care from."



Gloria Goldstein, our long-time receptionist at the Institute, was a friendly face back when Dr. Way's father received treatment. Says Dr. Way, "Even though it has been over 15 years, my family and I still remember Gloria. Her kindness has always made the Parkinson's Institute a warm place to visit."

His father holds the same enthusiasm. "He's excited about my job at the Parkinson's Institute," Dr. Waysaysabouthisfather. "He's rooting for me."



Danville d'Elegance Gala

The Danville d'Elegance Gala, held this past September, celebrated the inspiring community of those living with Parkinson's and those supporting them. The Gala successfully brought greater awareness to Parkinson's and raised significant funds for the Parkinson's Institute and Clinical Center to advance research and find a cure.

Maria Muldaur, American folk and blues singer, performed with her band for an audience that stayed and danced the night away. Linda Ronstadt wrote a very nice note introducing her and thanking her, stating "I am so sorry I cannot be with you this evening, however I'm so happy that my friend and colleague Maria Muldaur will be performing for you this evening. Maria and I go way back and it is such an honor that she would perform on behalf of finding a cure for Parkinson's. Enjoy the show!" Among those on the dance floor all evening were Jim and Guila Pollock, longtime supporters of the Institute and its vision for the future. As a patient, Jim experiences help and hope at the Institute, successfully fighting his Parkinson's and leading a full life — which still includes a promenade with his wife.

The Institute brings together the specialists and opportunities that make innovative care happen for Jim and so many others. Thanks to all who supported the Danville d'Elegance Gala and who continually support the Institute.

From our CEO

Dear Institute family,

Do you realize your support allows our clinic to operate the way that it does? Consequently, you change lives every day when patients benefit from our empathetic and innovative approach. You fuel our powerful research engine as we get closer to a cure.

Right now, one of our generous donors has stepped up and agreed to match any gift we receive before December 31st, up to \$1 million. Please don't pass up this opportunity. You've been so generous in the past, and I hope I can count on you once more before the end of the year. Will you please make a

gift today, knowing that every dollar you send will be doubled to speed us toward new treatments and a cure?

Your gifts translate into real change and real hope for those living with Parkinson's across the country. Remember, every dollar will be matched before 12/31. Please give generously. Thank you!



Carrolee Barlow, MD, PhD Chief Executive Officer

From Hunch to Healing: Understanding the Gut Brain

By the end of 2018, a collaboration between the Parkinson's Institute and Clinical Center and industry partner Axial Biotherapeutics will translate an initial hunch about the GI tract into a therapeutic trial for Parkinson's patients—something Dr. Carrolee Barlow, CEO of the Institute, calls "record time." The key lies in the gut.

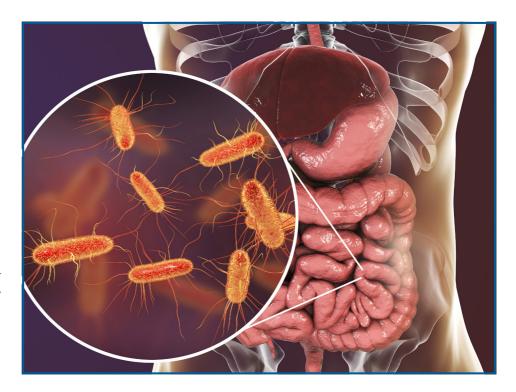
What's Going On in the Gut?

The complex enteric nervous system governs all functions of your gastro-intestinal tract. It coordinates everything from swallowing to releasing enzymes for food digestion to elimination. It emits the same chemical and electrical signals as your brain, functioning as what's commonly known as your second brain or your 'gut brain.'

What does this have to do with the neurological abnormalities found in Parkinson's?

"We recognized that some of our patients actually have problems in their gut brain before they ever have Parkinson's disease symptoms," says Dr. Barlow. While gastrointestinal symptoms are relatively common for Parkinson's patients, it's only recently that scientists and clinicians alike started to explore this connection in more depth. "Turns out, the exact same damaging protein that's found in the brain of those with Parkinson's, alpha synuclein, is also damaging the gut brain," Dr. Barlow states.

Four years ago, the Parkinson's Institute and Clinical Center moved forward on



the hypothesis that the gut brain might play a bigger role in the picture.

A multi-year GI Natural History Study began in 2014 to discover how gastrointestinal symptoms affect Parkinson's patients over time, and how well different medications help these symptoms. Over a hundred of patients receiving care at the Institute have already enrolled.

A short time later, Dr. Ty Molitor, Postdoctoral Fellow and Vivarium Manager at the Institute, began building a model system in the laboratory. His model mimics GI issues that patients report at the clinic, and allows the Institute to screen new therapies that remedy these issues.

"The model we're defining is really focused on the gut brain," Dr. Molitor explains. "We're examining what happens molecularly in the neurons of the gut...the aggregation of this bad player: the alpha synuclein protein. We focus all of our efforts testing drugs and trying to remove the significant gastrointestinal deficit in the model system."

Axial and the Institute Team Up

In the midst of this research at the Institute, a group of Caltech researchers published a significant research paper in December 2016, titled "Gut Microbiota Regulate Motor Deficits and Neuroinflammation in a Model of Parkinson's Disease." Their basic scientific discovery, under the leadership of Axial Biotherapeutics founder Dr. Sarkis Mazmanian, confirmed that the gut brain could be key to managing or even healing Parkinson's.

"When Axial got to the point where they were ready to translate some of their basic research findings into something that could benefit patients, they came to us because they knew we were the leaders in this area," Dr. Barlow shares about a collaboration formed earlier this year. "Now we're partnered with Axial to move that basic science discovery into the clinic, to convert findings from the lab into real products for our patients."

Progress has accelerated rapidly. Over 100 patients at the Institute have al-

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ready provided samples to screen for a specific toxin. "Then we hope to start a study with an intervention to block that toxin this year," Dr. Barlow says. Dr. Molitor adds, "And we should know if our test drug has any effect on the model system by the end of the year."

Successful interventions could stop or possibly reverse GI-related issues in Parkinson's patients. Moreover, the similarities between the gut brain and the brain allow researchers to test a more accessible part of the human body—the gut—and then translate their findings into related therapeutic strategies for the brain.

"We anticipate a whole series of discoveries will follow this," Dr. Barlow says.

Powerful Ways to Support the Institute

Both the level of compassionate care our patients receive daily, as well as the world-class research we perform, are unique to the Parkinson's Institute and Clinical Center and only made possible through your support. We want you to know about the variety of ways you can give to the Institute.

- Write a check or use your credit card today
- Give a gift from your Donor Advised Fund or Family Foundation
- Give a gift of stock or other appreciated assets
- Have your gift matched by your employer
- Include us in your will or estate plans

Racing Toward a Cure for Parkinson's



Less than an hour's drive from the Parkinson's Institute and Clinical Center lives a rising star in racecar driving, Colin Mullan. He has raced since age five, graduating to longer tracks and faster cars even before his own high school graduation. Colin hopes to bring attention to Parkinson's — and to the Parkinson's Institute and Clinical Center — through what he loves most.

"I have the Parkinson's Institute and Clinical Center logo on my car and on my race suit. But the cars go by pretty fast," Colin adds with a laugh.

Parkinson's is personal to Colin: both his uncle and grandfather live with Parkinson's. His uncle even receives some of his care through the Institute. "It's really incredible to be working with such a close cause to my family in general," Colin says.

Colin grew up attending events in his hometown held by the Danville D'Elegance Foundation, a group passionate about finding a cure for Parkinson's... and really nice cars. After attending their events and fundraising for Parkinson's research over the past few years, Colin now focuses specifically on the organization even closer to home.

"The Parkinson's Institute and Clinical Center is local to where I'm based out of," Colin explains. "I've been a couple of times; I've met almost everybody in charge there and they are such good people. It's really an incredible place overall."

Racetrack meet-and-greets, as well as radio spots during races, provide the platform for fellow racers and fans to learn about Parkinson's and the Institute. "I've really been trying to fine-tune how I get the Institute out there," he says.

When Colin isn't racing, he's a normal high schooler with an affinity for math, science, and mountain biking on nearby Mount Diablo. "If I can't be a racecar driver someday, I'd love to be a mechanical engineer for a team," he shares.

Meanwhile, Colin's career continues to accelerate. Just this fall, he was named one of two 2018 Team USA Scholarship recipients. He spent a month in London racing in several of the largest Formula Ford races in the UK. This honor hoisted him into an elite group of professional drivers around the world.

Yet in the driver's seat you'll still find a down-to-earth, empathetic teenager who is also part of the team racing toward a cure for Parkinson's.

"I want to give the Institute more national exposure so more people can be aware of Parkinson's disease," Colin says, "and what we're doing to help fight it."

To also help accelerate the pace of finding a cure for Parkinson's, please consider donating to the Institute today. You can use the enclosed reply envelope or give at www.thepi.org.