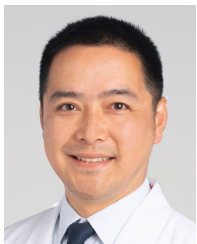


Parkinson's Disease Center of Excellence Newsletter



Team Member Spotlight



James Liao, MD

Dr. Liao is an associate staff neurologist in the Center of Neurological Restoration at Cleveland Clinic. Prior to his appointment at Cleveland Clinic, he obtained a bachelor

of science in electrical engineering and computer science from the University of California, Berkeley. He obtained his PhD in biomedical engineering in 2014 and his MD in 2016, both from Case Western Reserve University in Cleveland, Ohio. He completed his neurology residency at Case Western Reserve University/University Hospitals Cleveland Medical Center, and a movement disorders fellowship at Cleveland Clinic. His clinical and research interests are in Parkinson's disease and related disorders, where technologies like motion analysis, augmented reality, wearable sensors, neural signal recordings and deep brain stimulation are used to assess and treat patients. He has a particular interest in the neural control of gait and gait impairment. Dr. Liao's current research involves developing technology-based assessments and therapies for gait impairments and freezing of gait in Parkinson's disease.

Q&A with Dr. Liao

What can a patient expect from medication adjustments?

Many of the medications for Parkinson's disease have similar side effects because they affect the dopamine system. The brain has several dopamine systems. The most relevant ones are the nigrostriatal motor system (that we are trying to treat in Parkinson's disease), a mesolimbic pleasure and reward system, and a mesocortical cognitive system. Because dopamine affects so many brain systems, it can cause many kinds of side effects, including dyskinesias, impulse control

problems, hallucinations, mood fluctuations and fatigue. It also has actions outside of the brain that can cause nausea and blood pressure variations.

When making a change to a medication, patients and their families should pay attention to whether there are any benefits for motor symptoms, and whether there are any side effects. For many side effects, the symptoms can be treated by medication adjustments. If the dose of the medication cannot be adjusted (due to its benefit for the motor symptoms), there are other medications or therapies that your physician will discuss with you.

How can patients improve or slow cognitive decline?

We are all prone to cognitive decline, but because Parkinson's disease is a neurodegenerative condition, individuals with Parkinson's disease are at higher risk for this. The first thing is to maintain strong cardiovascular health. Exercise has been shown to slow the decline of motor function, and studies have shown similar effects of exercise on cognition in Parkinson's disease. For general brain health, exercise is crucial, along with maintaining healthy blood pressure and cholesterol levels, maintaining a balanced diet, limiting alcohol intake and maintaining social interactions. Hearing and vision impairments should be treated and your health care provider should check whether there are any systemic or medical issues that are affecting your cognition, such as vitamin deficiencies. Finally, there are some medications that can boost memory and cognitive function that your health care provider can prescribe.

What is the difference between Parkinson's disease and Parkinsonism?

Parkinsonism simply means the symptoms of Parkinson's disease (slow movement, rigidity, and rest tremor). If someone has bradykinesia (slow movement) and either

rigidity or rest tremor, then they have parkinsonism. The most common cause of parkinsonism is Parkinson's disease. However, there are several other conditions that can cause parkinsonism. Your physician will evaluate whether there are any exam findings, clues from your disease course or brain imaging, or any other associated symptoms, that suggest that it is a condition other than Parkinson's disease causing your symptoms. For example, parkinsonism can be a side effect of certain psychiatric medications. Parkinsonism can also be due to neurodegenerative conditions other than Parkinson's disease, including progressive supranuclear palsy, multiple system atrophy, Lewy body dementia, corticobasal syndrome, normal pressure hydrocephalus and more. Strokes and some other rare conditions can also cause parkinsonism.

Fun Facts about Dr. Liao

"I love music. I can play piano, guitar, bass and drums. I was in a jazz band in high school, a rock band in grad school, and I'm still actively playing piano at church. I secretly hope my son gets hooked too, so I can set up a band area in our house. I do like Pete the Cat (a children's book series where the main character and his friends are in a band) for this reason."

"When I think about what my favorite superpower would be, I tend to think about neurological tests. I can't really decide as there are so many good ones! EEG, MRI, EMG, DATscan, LP. 'Instant charting' would be a good one too."

"I'd love to open a shop that sells good Taiwanese food in Cleveland. The closest one I actually like is in Pittsburgh. Before my son was born, I'd say the drive was worth it."

RESEARCH HIGHLIGHT

TEMPO3

TEMPO 3: Evaluating Efficacy, Safety, and Tolerability of Tavapadon as Adjunctive Therapy for Parkinson's Disease in Levodopa-Treated Adults with Motor Fluctuations

PI: Benjamin Walter, MD

Contact: Julia Kosco – 216.444.6626 or koscoj@ccf.org

The purpose of this interventional study is to learn whether the study drug, CVL-751 (Tavapadon) is effective. It is an investigational drug that aims to improve motor control symptoms of Parkinson's disease while minimizing side effects. It is not approved by the Food and Drug Administration (FDA). Participants will receive either the study drug or placebo. There are about 11 in-clinic visits and a safety follow-up telephone visit over the course of about 35 weeks. Study activities include physical and neurological exams, blood and urine tests, ECG and questionnaires. Compensation is provided.

PARKINSON'S DISEASE CENTER OF EXCELLENCE RESOURCE CENTER



Did you know that the Parkinson's Foundation has a podcast series called, Substantial Matters, covering multiple topics important to people with Parkinson's disease and their friends and family. These can be found and listened to on their website parkinson.org, or wherever you listen to your favorite podcasts by searching, "Parkinson's

Foundation". A recent episode addresses, "How Pesticides Impact Parkinson's" with Timothy Sampson, PhD.

Parkinson's Disease Gait Clinic



Michal Gostkowski, MD

Cleveland Clinic Center for Neurological Restoration Gait Clinic is a multidisciplinary program for people with parkinsonian syndromes who have gait and instability issues. The program is a half-day clinic involving computerized gait assessment and evaluations by a movement disorders specialist, physiatrist (physical medicine and rehabilitation specialist) and neurological physical therapist. These evaluations will be discussed, and a patient-specific program sent to the referring movement disorders specialist.

LIVING WELL WITH PD TIP

By Erin Zinn, APRN-CNP



Erin Zinn, APRN-CNP

Research shows that aerobic exercise improves symptom control and slows the progression of Parkinson's disease.

There are many options available for aerobic activity including, but not limited to, biking, swimming, non-contact boxing, Parkinson's disease exercise classes and walking. When starting an exercise routine, think about what you enjoy doing for exercise. It should not feel like a chore or something to check off

your to-do list, but something you look forward to and will be likely to continue long-term. For some, the thought of doing aerobic activity for 30-minutes a day, most days of the week can be overwhelming. Setting reasonable and obtainable goals when first getting started is the key to success!



UPCOMING EVENTS

April 22 – Ohio Parkinson's Foundation Northeast Region's 23rd Annual Parkinson's Symposium: Practical Tips for Daily Living

For more information, go to ohparkinson.com/events or call 1.800.630.3193

June 10 – Parkinson's Foundation Moving Day Annual Walk

For more information, go to movingdaywalk.org/event/moving-day-cleveland

August 19 – Cleveland Clinic's 5th Annual EMPOWER U: Taking Control of Parkinson's Disease

More information coming soon.

September 10 – InMotion's Pals In Motion 7th Annual Walk

For more information, go to beinmotion.org/pals