

WINTER 2020

Parkinson Update



A team approach for Deep Brain Stimulation surgery evaluation

Delaram Safarpour, M.D. – DBS Director



Deep brain stimulation (DBS) surgery is an effective treatment for select patients with Parkinson's disease, essential tremor and dystonia that can significantly improve the quality of life of patients

who are suffering from these conditions. A DBS system is like a pacemaker for the brain. Electrodes are implanted in certain areas of the brain that control movement. A small, battery-operated device is programmed to send pulses of electricity to the electrodes, which control abnormal movements.

However, not all patients with these movement disorders are candidates for DBS, so careful evaluation is an important step. One of the reasons our patients have such good success after DBS surgery is because our team has a unique and thorough evaluation process.

First, patients meet with a neurologist who is specialized in movement disorders. It's important for the neurologist to understand the specific troublesome symptoms the patient is experiencing. This way, both patient and doctor can set reasonable

expectations for results of the surgery.

Patients also complete a series of evaluations by our DBS team, which consists of doctors and therapists from a variety of disciplines.

Neuropsychologist: Evaluates patients' cognitive and emotional functioning prior to surgery.

Neurosurgeon: The patient meets with the surgeon who will perform the surgery to discuss risks and benefits.

Physical therapist: Patients with Parkinson's have two evaluations to assess gait and balance — one on their medications, and one off their medications. Patients with essential tremor and dystonia have just one appointment. During this appointment the physical therapist evaluates patients' gait and balance.

Speech therapist: A speech therapist will check how well the patient speaks and swallows since DBS may affect these things.

Social worker: A social worker helps patients plan for any assistance the patient might need, such as help with family concerns, caregiving, mental health, addiction and financial or advanced care planning.

Preoperative medicine specialist: The patient has a general physical examination and health assessment to make sure they are healthy enough for DBS surgery and recovery.

When all of these appointments are complete, the entire OHSU DBS team meets to review the patient's evaluations and discuss whether they are a good candidate for surgery. Then, the DBS physician assistant calls the patient to discuss the results and answers their questions and concerns. This unique team approach is the most effective and thorough way to determine whether a patient is a good candidate for DBS surgery. Patients who complete this process have a very good understanding of their goals for the surgery and possible benefits.

Whether or not a patient is a good candidate for surgery, our team strives to support them and provides detailed recommendations for medical management as well as rehabilitation suggestions.

For further information, please visit our website: www.ohsu.edu/db

See page 3 for Q&A

A PUBLICATION OF
THE OHSU PARKINSON CENTER



Director's Corner: Not just another year for the OHSU Parkinson Center

Joe Quinn, M.D. – Medical Director



Most years, I look forward to writing the end of the year summary. And most years, I enjoy pausing and reflecting on how day-to-day chores add up to annual accomplishments. And most years, I am pleasantly surprised to realize how far we've come. But, of course, 2020 has not been "most years." And yet I find myself once again pleasantly surprised by the accomplishments of the year, despite the surrounding turmoil.

The most dramatic change of this unusual year was imposed on us by the COVID pandemic, which forced us to switch our clinical practice to virtual care, essentially overnight. Watching our team of clinicians and support staff make these changes in mid-stride, prioritizing patient care while their own lives were turned upside down, has made me even more proud to be part of this great operation. I knew we had great people working in the center, but the pandemic showed us just how dedicated and resilient they all are. Our volume of patient care has actually increased compared to 2019, a remarkable and unexpected fact that speaks to the efforts of the entire team.



We also saw some of our faculty reach key milestones this year. We brought on a new movement disorders fellow, and signed up two more for next July, despite the challenges of virtual interviewing. Several of our junior faculty secured competitive research grants this past year, including Martina Mancini, Ph.D., Ian Martin, Ph.D., and Marian Dale, M.D. At the other end of the career spectrum, two of our senior clinical faculty, Ron Pfeiffer, M.D., and Jay Nutt, M.D., retired from active clinical practice. While we miss seeing them day to day, both will continue to clinically supervise our M.D. specialists-in-training on an intermittent basis, so that we will continue to enjoy their vast experience and great wisdom in our clinical program and in our training of new Parkinson's specialists.

We also had a few wins in the research arena despite a mandatory pause in activities and a variety of challenges. For example, a trial of immunotherapy for Parkinson's disease, involving intravenous administration of an antibody directed at Lewy bodies, showed preliminary evidence that this strategy can slow the progression of motor impairments in newly diagnosed PD. Additional trials are necessary to determine if this will move into clinical practice, and those are slated to begin in 2021. Another trial tested a kinase inhibitor in a variant of Parkinson's called Lewy body dementia and showed that this strategy may also slow the rate of disease progression. The kinase inhibitor results will be reported at an international meeting by the time this newsletter is in print, and follow-up studies are being designed. Successful studies like these are few and far between, so this is really exciting.

In-person clinical research has also ramped up this fall and patients have already been enrolled in three new clinical trials. One is for a repurposed drug originally designed for diabetes, one is for another kinase inhibitor (this time for PD) and the third is for a remarkable new approach in medicine, anti-sense oligomers. This last approach involves the use of small bits of RNA (oligomers) that are designed to selectively turn genes on or off. This approach has been successfully applied to some rare neurologic diseases in the recent past, and this is the first time it is being tried for Parkinson's. The first two PD patients in Oregon were treated in October, marking the resumption of state-of-the-art clinical research at the Center in dramatic fashion.

One of our main goals for 2019-20 was to improve care delivery to underserved populations, and our education director, Lisa Mann, R.N., launched an innovative program, with support from the Parkinson's Foundation, to allow us to reach geographically underserved areas in Oregon. Utilizing the "ECHO" program, which has been developed for disseminating medical education in diverse subject areas throughout the U.S., Lisa piloted a six-session program of interactive Parkinson's education, engaging health care providers scattered across the region, primarily in areas that are not well served by neurology. We anticipate that this effort, in combination with outreach efforts



by Parkinson's Resources of Oregon, and in combination with our newfound expertise in virtual care, will allow us to extend care delivery to those most in need throughout the region. Delivering care more effectively to underrepresented minorities is also an important goal that has been highlighted by the events of 2020, and will be a focus of our continuing outreach efforts.

Despite the many challenges of 2020, we can take some satisfaction in some concrete achievements and some significant advances. At the same time, we recognize the hardships for our patients and their families due to the limitations of virtual care, the cancellation of exercise programs, the adverse effects of social isolation, and on and on.

But regardless of your opinion of 2020, we can all probably agree on one thing: Bring on 2021.



2020 virtual events ready for your viewing pleasure

We pivoted mid-year to virtual educational events for our last two Essential Tools and our annual Options and Opportunities symposium. We were astounded by the far-reaching attendance. If you missed them, they are available for view at: www.avcast.me/ohsu-pd.

If you've missed an event previous to June 2020, you can visit and watch great presentations featured during the last few years.

Frequently asked questions about DBS

Q1. I have Parkinson's disease and am considering DBS surgery. Will I still be taking medications after DBS surgery?

Yes. While DBS can improve hand and wrist tremors, slow movement and rigid muscles, it does not improve all symptoms of Parkinson's. You will continue to take medications after surgery for symptoms that respond to Parkinson medications and not DBS. Often, we are able to lower the dose of medications after the surgery.

Q2. Does DBS surgery slow the progression of Parkinson's disease?

No. DBS surgery will improve symptoms but will not cure the disease or slow its progression.

Q3. Does DBS surgery improve all Parkinson's disease symptoms (gait, balance, voice, swallowing and cognition)?

DBS is not indicated for these symptoms. However, these symptoms may be impacted by surgery. As such, our evaluation process takes a close look at all your symptoms to help figure out which ones may improve, not change or possibly get worse as a result of surgery. This will help you, your family and your Parkinson's disease team make the best decision about surgery for you.

Q4. I have essential tremor. Do I need to complete all evaluations including physical therapy, speech therapy and neuropsychological evaluations?

Yes. Gait and balance can be impaired in patients with essential tremor, and these patients can have difficulties with speech and cognition. All of these symptoms can progress after the surgery. Learning about how severe these symptoms are helps us determine if you are a good candidate for surgery and whether you might need rehabilitation after surgery.

Q5. I have essential tremor and take high doses of medications. Although they help improve tremor, I have side effects from these medications. Should I consider surgery?

If management of tremor requires high doses of medications and you have side effects from these medications, you may consider surgery. Often patients are able to significantly reduce or stop medications after DBS surgery for essential tremor.

Q6. How often do I need to have programming after surgery?

We perform programming in monthly sessions for three months after DBS surgery for essential tremor and Parkinson's disease. After that, depending on symptoms, we may make additional changes to better manage the symptoms every three to six months.

Q7. What are the different devices that are available for surgery and who decides the appropriate device for me?

There are currently three companies that make devices for DBS. Each platform has its own benefits and limitations. After careful discussions by the DBS team, the ideal device will be recommended for you. This decision is made based on your specific case and goals for surgery.

Q8. What if I have other specific questions?

Our DBS clinic at OHSU is available to answer your specific questions. You will have an opportunity to ask questions with each specialist, and our physician assistant, Shannon Anderson, will have a final session with you to answer your remaining questions.



Shannon Anderson, P.A.-C. with one of our programmers in a 2019 photo.

Pilot Grant to Enhance Access to Specialty Care

The Parkinson Foundation has provided a small grant to pilot greater access to specialty care for those who might not otherwise have the opportunity. Several Parkinson's Foundation Centers of Excellence, including our own, were chosen to receive \$5,000 grants to help underserved populations access specialty care. *Drive Toward a Cure* (www.drivetowardacure.org) contributed funds and did additional car rallies in each region (including the Northwest) to raise additional funds for the project. Pictured here are the organizers of Oregon's Drive Toward a Cure, Neil d'Autremont and Keith Martin, presenting an additional \$6,250 to Dr. Joe Quinn, medical director, and Lisa Mann, education director of the OHSU Parkinson Center.

We will be developing ways to identify and help support individuals through travel grants or technical support of virtual visits in the next 12 months. If you know of a person with Parkinson's disease who has not yet seen a Parkinson's specialist due to financial or technology limitations, please have them call Diana Potts at the OHSU Parkinson Center at 503-494-7243 or pottsd@ohsu.edu to explore some assistance options.

Our own OHSU Balance Lab Director, Fay Horak, Ph.D., lent her expertise to Europe's



Parkinson's Life online journal. Known worldwide for her research in gait and balance issues,

Dr. Horak shares why people with Parkinson's disease shuffle when they walk and how to combat it.

The story is now live here: <https://parkinsonslife.eu/shuffling-gait-parkinsons>. We hope you like it!



Research Opportunities

Please note: You may not personally benefit from participating in a research study. However, by service as a subject, you may help us learn how to benefit patients in the future.

Parkinson's Registry

The Parkinson Foundation has launched a Patient Registry at all Centers of Excellence, which includes OHSU.

Title: Parkinson's Outcomes Project

Purpose: The purpose of the registry is to better understand Parkinson's disease (PD) and find out what treatments are associated with the best outcomes for patients.

Participation requirements: You receive care for Parkinson's disease at the OHSU Parkinson's Center Neurology Clinic and are able to give written informed consent.

Participation details: Once per year at your follow-up visit in our neurology clinic, you will meet with a staff member for a 10–15 minute consultation and a questionnaire.

For more information please contact: **Melissa Gittings** at 503-494-7245 or PDResearch@ohsu.edu IRB #5508

Early PD/de novo patients

Have you been diagnosed with Parkinson's disease in the last 3 years and are not currently taking carbidopa/levodopa or dopamine agonists?

Purpose: This study explores the ability of K0706, an experimental drug, to slow the progression of Parkinson's disease (PD). K0706 aims to block an enzyme called "Abl" which may play a role in PD. There are currently no drugs available proven to slow the progression of PD.

Participation Requirements: In order to participate in the study you must have been diagnosed with PD within the last 3 years, are older than 50 years of age, and have no history of taking dopaminergic drugs for more than 30 days previously. You must be able to have an MRI and DaT SPECT.

Participation Details: Study participation occurs over a period of 44 weeks and includes 11 visits to OHSU if deemed eligible after an up to six week screening period. Visits occur every 2 to 8 weeks. If



enrolled, you will take K0706 in powder form mixed with a glass of water once daily and record your daily dose in a journal. This study is placebo-controlled, meaning that you may receive a placebo instead of study drug. Eligible participants will receive study-related evaluations at no cost, possibly including an MRI and DaT SPECT. Participants are compensated for their time and travel after visits are completed

For more information please contact study staff at PDResearch@ohsu.edu and reference #20122 in the subject line. (eIRB #20122)

Memory and cognition

Have you been diagnosed with Alzheimer's disease, mild cognitive impairment, another type of dementia, OR are healthy and would like to participate in research?

Title: Peptide Biomarkers for Alzheimer's disease

Purpose: The purpose of this study is to see if biological molecules in the blood and cerebrospinal fluid (CSF) can help detect Alzheimer's disease (and other types of dementia) at an earlier stage.

Participation requirements:

- You are between 55 and 80 years old
- You are a healthy volunteer (no neurological diagnosis), or have a diagnosis of AD, mild cognitive impairment, Parkinson's disease, fronto-temporal dementia, or dementia with Lewy Bodies.
- You have a study partner who will attend study visits with you.
- You are not taking warfarin or other blood thinners.
- You have no lower back problems and/or surgeries.

Participation details: This study involves collection of blood from a vein in your arm, and collection of CSF through a lumbar puncture (spinal tap). There are two study visits over approximately 1 month and one follow up phone call. You will receive study-related evaluations at no cost and will be compensated \$100 for time and transportation for the lumbar puncture visit.

For more information please contact: **Melissa Gittings** at (503) 494-7245 or PDResearch@ohsu.edu, IRB #18193

Are you interested in participating in a study to learn more about role of genes in thinking and memory in Parkinson's disease?

Title: Pacific Northwest UDALL Center (PANUC): Clinical Core and Sample Collection

Purpose: This study aims to characterize the changes in thinking and memory of Parkinson's disease patients over time and to determine the role genetics plays in cognitive impairment in Parkinson's disease.

Participation requirements: You have a diagnosis of Parkinson's disease or you are willing to participate as a healthy volunteer.

Participation Details: This is a long-term study and your participation would last 5 years or more. The study involves at least two visits to the VA Portland Health Care System. At each visit, you will undergo tests of thinking and memory, have a neurological exam, fill out questionnaires, and have a blood draw. Each visit will last for about three to four hours. After the first visit, you have the option to undergo a lumbar puncture. A lumbar puncture is known as a spinal tap. A spinal tap is where a special needle is inserted between bones in your back and fluid is removed. The spinal tap will take about two to two and a half hours. You have the option to undergo a second spinal tap three years after the first spinal tap. In between visits at the VAPORHCS you will have a telephone interview with questions regarding your thinking and memory. These interviews will last about 30 minutes. You will be compensated \$200.00 for each spinal tap that you complete.

For more information please contact: **Micki Le** at (503) 220-8262 x54688 or by mail at 3710 SW US Veterans Road, Portland, Oregon 97239. IRB#6154, MIRB #2332

Balance & gait studies

Have you been diagnosed with Parkinson's disease and have low back pain and sudden freezing while walking?

Title: Spinal Cord Stimulation to Improve Balance, Gait and Freezing in Parkinson's Disease

Purpose: This study aims to learn more about the effect of spinal cord stimulation (SCS) on balance, walking, and freezing of gait in people with Parkinson's disease (PD).

Participation requirements: Volunteers age 55–85 with Parkinson's disease with low back pain and freezing of gait who have not benefited from other forms of treatment (conservative or medical therapy, back surgery), and have no other neurological or musculoskeletal issues.

Participation details: If you decide to take part in this study, you will have a spinal cord stimulator (SCS) surgically inserted into your back and receive three different types of stimulation for 2 weeks at a time. Your participation in the study over 1 year will consist of 4 clinical visits to the Neurosurgery Clinic for SCS programming, 6 study visits to the Balance Disorders Laboratory (OFF anti-Parkinson medication), and wearing sensors at home for 7 days repeated 7 times over the year. Visits will last up to 4 hours. In addition, you will track any falls in a diary. You will be compensated \$600 for time and transportation.

For more information, please contact: **Makena Strand** at 503-418-2601. IRB#: 20442

Blood pressure

Do you take levodopa for Parkinson's disease and experience blood pressure changes when you medication wears off?

Title: Clinical Characteristics of Parkinson's Disease Subjects with Severe Hypertension During Motor Offs

Purpose: This study is looking at blood pressure changes in Parkinson's disease (PD).

Participation requirements:

- You have been diagnosed with Parkinson's disease
- You have been taking levodopa for at least 3 years
- You have a history of your levodopa wearing off within 4 hours
- Your blood pressure increases during "off" periods
- You are not taking beta blockers daily
- You do not have Diabetes mellitus or other condition known to alter autonomic functions

Participation details: This study involves two visits with one at-home monitoring period in-between the visits. The first visit will happen at the VA Portland Health Care System and last about one hour. During this visit, you will answer questions about your Parkinson's disease and have a physical examination. You will then be sent home to monitor your blood pressure in relation to your levodopa dose cycle for the next couple of days. The second visit will last 4 to 8 hours depending on your levodopa cycle. You will arrive at 08:00 am OFF of your levodopa. You will undergo various measures of your vitals, movements, and answer questionnaires about how Parkinson's affects you. The study visit will last until 3:00pm or until your levodopa wears off. There is no compensation for participation in this study.

For more information, please contact: **Brenna Lobb** at 503-220-8262 extension 51871 or by mail at 3710 SW US Veterans Rd, P3-PADRECC, Portland, Oregon 97239. IRB #17490; MIRB #4143



Have you been diagnosed with Parkinson's disease (PD), multiple system atrophy (MSA), or pure autonomic failure (PAF) experience dizziness, light-headedness, feeling faint, or feeling like you might black out upon standing?

Title: Clinical Effect of Ampreloxetine (TD-9855) for Treating snOH in Subjects with Primary Autonomic Failure

Purpose: This study will help determine if the study drug is effective in people diagnosed with Multiple System Atrophy (MSA), Parkinson's disease (PD), or Pure Autonomic Failure (PAF) who also experience symptoms of orthostatic hypotension, or low blood pressure upon standing. In people with conditions such as PD, MSA and PAF the autonomic nervous system may not work as well at regulating your blood pressure.

Participation requirements:

- Age 30 years or older
- You experience symptoms of orthostatic hypotension
- You have been diagnosed with MSA, PD, or PAF
- You do not have Diabetes mellitus or other condition known to alter autonomic functions
- You are not taking medication for hypertension
- You are not participating in any other research study in which you are receiving study drug

Participation Details: The study will involve up to seven visits to the OHSU neurology clinic over about 3 months. The visits may include testing your blood pressure in different positions (laying down, sitting, and standing), questionnaires, a blood draw, home blood pressure monitoring, and completing diaries in between visits. If you enroll in the study you will have a 50% chance of receiving a placebo (inactive medication). You will be compensated \$50 per visit or \$300 if entire study is completed.

For more information please contact: **Monica Arena** at **503-494-7235** or **PDRResearch@ohsu.edu**, **IRB #19533**

Motor fluctuations with Carbidopa/Levodopa

Have you been diagnosed with Parkinson's disease and currently take carbidopa/levodopa?

Purpose: The purpose of the study is to learn if a person's response to levodopa is affected by problems with the digestive system. We are hoping to find out if a delayed or lack of response to some or all daily doses of levodopa can be due to changes in how long it takes the medication to move through the digestive system.

Participation requirements:

- Age 50-89
- You have been diagnosed with Parkinson's disease and are currently take carbidopa/levodopa (Sinemet)
- You are able to swallow a large capsule (similar to the size of a fish oil capsule).
- You have not had gut surgery or bowel disease
- You do not have an implanted medical device (such as cardiac device, gastric stimulator, insulin pump, or deep brain stimulator)
- You do not have Diabetes or hypothyroidism

Participation details: Study participation lasts about two weeks and involves four visits to OHSU. During the study, participants will be asked to swallow one SmartPill, under the supervision of the study investigator. The SmartPill is an FDA-approved single-use capsule that travels through the GI tract and wirelessly transmits data about your GI tract to a receiver worn on a belt clip or pouch. You need to keep the receiver within three feet of your body for five days following ingestion of the SmartPill. You will be asked to return the receiver after five to seven days. The SmartPill will be passed naturally by your body, and you will not be asked to return the pill. You will receive study-related evaluations at no cost.

For more information please contact: **Monica Arena** at **503-494-7235** or **PDRResearch@ohsu.edu**, **IRB #20012**

The effect of GOCOVRI on quantity and quality of gait in Parkinson's disease

This study is investigating the effect of GOCOVRI (extended release Amantadine) on activity levels in people with Parkinson's disease that experience Levodopa induced dyskinesia (LID). The study includes 2 remote/virtual visits and two 1-week periods of home monitoring with wearable sensors and medication tracking. Participants will take GOCOVRI for a total of 5 weeks. We are looking for people ages 50-70 years old that have idiopathic Parkinson's disease and at least 1 hour/day of ON time with Levodopa induced dyskinesia, no other neurological or musculoskeletal disorders, and no renal impairments. For more information, please contact **Makena Strand strandm@ohsu.edu/ 503-418-2601**. This study is virtual/remote. **IRB# 20105, PI: Amie Hiller**

Stress

Have you been diagnosed with Parkinson's disease, Huntington's disease, or are a healthy volunteer willing to participate in research on the stress hormone, cortisol?

Title: Measuring Cortisol Levels in Persons with Parkinson's (PD) [CORT-PD]

Purpose: Cortisol is a hormone that is normally released in response to events and circumstances such as waking up in the morning, exercising, and stress.

Participation requirements:

- You have been diagnosed with Parkinson's disease, Huntington's disease, or are willing to participate as a healthy volunteer.
- You are willing to give saliva samples.

Participation Details: This study will last about 1 week. There are two paths for participation. Option 1 has three (3) days of saliva collection at home and one visit to the Portland VA (VA Portland Health Care System). Option 2 has two visits to the Portland VA. Visit one will last approximately 30 minutes and include questionnaires of mood and quality of life. For PD and HD participants, a disease specific exam will be performed. You will collect your saliva, complete some diaries, and wear some sensors for three days at home. You will return to the Portland VA for a visit that lasts about five minutes to return the sensors, diaries, and saliva. The visit will last approximately 30 minutes and include questionnaires of mood and quality of life. You will be compensated \$25.00 for participation in this study. We will reimburse travel expenses up to \$50.00 round trip.

For more information please contact: **Brenna Lobb** at **503-220-8262 extension 51871** or **lobbb@ohsu.edu**, **IRB #15183**

Progressive Supranuclear Palsy (PSP)

Have you been diagnosed with progressive supranuclear palsy (PSP)?

Title: Cerebellar Transcranial Magnetic Stimulation for Motor Control in Progressive Supranuclear Palsy

Purpose: To investigate whether transcranial magnetic stimulation (TMS) effective for treating issues with balance and speech in progressive supranuclear palsy (PSP).

Participation requirements:

- Age 40-85
- You have been diagnosed with supranuclear palsy (PSP)
- You are willing to refrain from other physical and speech therapy programs for the duration for the study
- You are able to remain on stable doses of medications for the duration of the study
- You do not have any other significant neurological disorders (including seizures) or inner ear disorders.
- You do not have medical implants (such as a pacemakers, defibrillators, or cochlear implants) or material containing metal in your eyes, head, or body

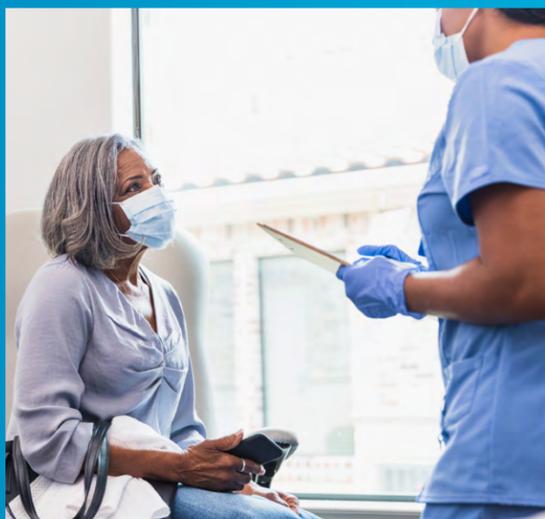
Participation details: This study involves 24 total visits that may include balance and gait testing, an MRI scan of the brain, cognitive testing, and TMS or a "sham" treatment.

For more information, please contact: **Austin Prewitt** at **prewitta@ohsu.edu** or **503-418-2600**.

IRB #66152

Other Parkinson's disease research studies can be found at these sites:

- OHSU Parkinson Center Research: <https://tinyurl.com/PDRsearchOHSU>
- Michael J. Fox Trial Finder: <https://foxtrialfinder.michaeljfox.org>
- National Institutes of Health: <https://clinicaltrials.gov>
- Washington State PD Registry: www.registerparkinsons.org



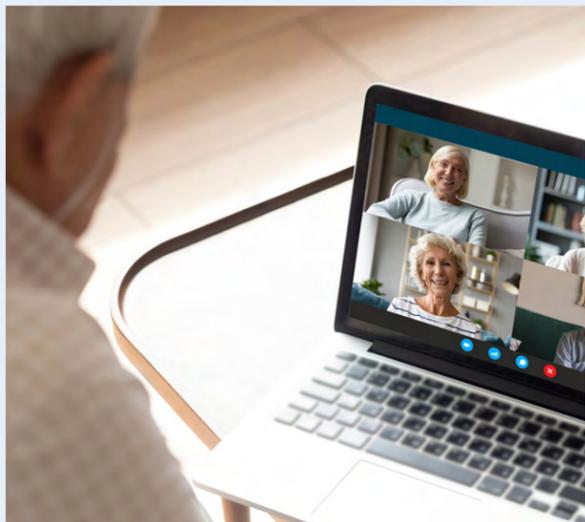


Upcoming OHSU events

Newly Diagnosed PD Education Session – Virtual

The second Thursday of each month the OHSU Parkinson Center offers a 90-minute virtual session for people recently diagnosed with PD and their spouses or family members. Participants may ask any and all questions of a PD specialist and longtime patient and care partner.

\$10/couple. For dates and to register go to <https://tinyurl.com/OHSUUpdedu> or email pcoeducation@ohsu.edu with questions.



Your Newly Diagnosed Education Team:
Pat and Dan Baker, Shannon Anderson, P.A.-C.

Virtual events to continue in 2021

During the coming year, we want to ensure people stay as safe as possible until the pandemic is resolved. We will continue to hold events virtually including our Newly Diagnosed Education Session (above) and the Essential Tools Mid-Stage Series. Program dates and registration links will be posted on our website and through notifications to our email list.

To receive OHSU Parkinson Center emails, sign up at: <http://tinyurl.com/OHSUParkinsonEmail>.

In the Parkinson's community



Parkinson's Resources of Oregon (PRO)

Parkinson's Resources continues to offer a variety of programs and services for PwP and caregivers alike. Most activity can now be accessed online or by telephone. Chair-based movement, education, support groups, singing and more. For the current schedule and registration information, visit the website at www.parkinsonsresources.org or call the PRO helpline at 800-426-6806.



Brian Grant Foundation

Helping people with PD live active, fulfilling lives through wellness and community. For more information about upcoming events, visit www.briangrant.org.

PADRECC *Portland/Seattle* Parkinson's Disease Research, Education and Clinical Center

PADRECC

The Veterans Administration Parkinson's Disease Research, Education and Clinical Center (PADRECC). Serving our veterans with PD through research, education and care. Visit parkinsons.va.gov/northwest for more information on upcoming events and to watch the My Parkinson's Story videos online. This series of videos features real veterans telling their Parkinson's stories with commentary provided by VA medical providers.



OHSU Parkinson Center

Oregon Health & Science University
Department of Neurology
OHSU Parkinson Center, OP32
3181 S.W. Sam Jackson Park Road
Portland, OR 97239-3098

Medical Director
Joseph Quinn, M.D.

Newsletter Coordinators
Lisa Mann, R.N., B.S.N., M.A.
Diana Potts, B.S., M.P.A.
Jennifer Carpenter

Mailing List/Change of Address:
503-494-7231
pco@ohsu.edu

Charitable Giving
800-462-6608
www.ohsufoundation.org
Maddy Abulencia
Director of Development
Direct: 503-552-0663
abulenci@ohsu.edu

Neurosciences Development Office
OHSU Parkinson Center
Phone: 503-494-7231
Fax: 503-494-9059
www.ohsubrain.com/pco