Xadago: A “New” Medication for Parkinson’s Disease?
Matthew Brodsky, M.D.

Last year, Xadago, generically known as safinamide, was approved by the FDA as one of the newer medication options for treating the symptoms of Parkinson’s disease (PD). Safinamide is known as an MAO-B (monoamine oxidase type B) inhibitor. MAO-B breaks down dopamine in the synapses (spaces) between brain cells, limiting dopamine’s effectiveness in the body. A drug that blocks MAO-B allows dopamine to work longer in the brain. Enhancing the effect of dopamine allows people with PD to experience a mild benefit with regard to motor symptoms, such as muscle rigidity and slowed movement.

While this specific mechanism of action does not differentiate safinamide from other MAO-B inhibitors that are already used to treat PD, such as selegiline and rasagiline (Azilect), it differs in that this inhibition is “reversible,” unlike these latter two drugs which have an “irreversible” action. Similar to selegiline and rasagiline, safinamide also reduces “off” episodes in people with PD taking carbidopa/levodopa (Sinemet) who have developed motor fluctuations. Using it in addition to carbidopa-levodopa is the specific indication for which it was approved by the FDA and likely the scenario in which most insurance plans will cover its cost.

Safinamide also inhibits the release of glutamate (another neurotransmitter in the brain) and has been shown in clinical trials to have a modest benefit improving levodopa-induced dyskinesia (extra involuntary movements), much like amantadine.

In both clinical trials and in my own experience having been an investigator in one of the safinamide PD trials here at OHSU, safinamide is well tolerated with minimal side effects in almost everyone who has taken it. Safinamide is taken just once daily, so it has a convenience similar to rasagiline. In summary, safinamide brings to the crowded field yet another dopaminergic replacement therapy that is generally well-tolerated to treat the motor symptoms of Parkinson’s disease, but unfortunately is not a significant improvement on what we already have.
Each of my updates starts with my anxiety that I won’t have much to report, and concludes with my apology that I don’t have space to cover all the important new activity:

**Research into new treatment strategies for Parkinson’s**

By the time this newsletter is published, the Phase 1 study of an anti-alpha synuclein antibody will be published, and enrollment in the Phase 2 study will be under way. Many of you have heard of “immunotherapy” as a promising new approach in cancer therapy, and this study is an example of its application to neurologic disease. The idea is that administering antibodies to the abnormal substance which is thought to drive the disease process in Parkinson’s (i.e., alpha synuclein), will allow the patient to use his or her own immune system to keep the disease from progressing. For this reason, the target population is patients within a couple of years of diagnosis. The OHSU Parkinson’s Center was one of a small, select group of sites invited to participate in the Phase 1 trial, which showed that the antibody bound up alpha synuclein as intended, and was very well tolerated, even at relatively high doses. A news release around the Phase 1 publication is anticipated so you may see this in the media in the near future.

You may have also recently seen reference to a study by OHSU’s Drs. Brodsky and Burchiel, showing that when DBS surgery is performed under anesthesia, outcomes are as good as the traditional approach with “microelectrode recording.” OHSU has been an “early adopter” of this approach to DBS surgery, which patients have preferred, rather than remaining awake in the operating room.

The paper was featured on the front page of a prominent neurology journal, accompanied by an editorial emphasizing its importance to the field, and selected for additional coverage by several neurology and neurosurgery websites.

Another treatment strategy which has captured the interest of patients is also “re-purposed” from the world of cancer therapy, a drug named “nilotinib”. Early clinical trials of nilotinib were reported to have dramatically positive effects, so dramatic in fact that some physicians and scientists became skeptical. In an effort to sort out the facts about this potentially valuable approach, the Michael J. Fox Foundation has funded a multi-center trial in individuals with Parkinson’s. The first phase, in mid-stage patients, is currently enrolling at OHSU, and a second phase, in early stage patients, will follow soon after, under the leadership of Dr. Kathy Chung.

**Research to optimize currently available treatments**

Enrollment into the Parkinson’s Outcomes Project (POP) has resumed at OHSU. This is a Parkinson’s Foundation study recording practice patterns and patient outcomes at more than 20 Centers of Excellence around the world, including data on more than 500 OHSU Parkinson’s patients. In contrast to the clinical trials described above, the POP is focused on optimizing the use of the clinical options that are currently available by promoting systematic comparison among the Centers of Excellence. This project has also launched an effort to determine if the use of wearable monitors of Parkinson’s disease activity can be helpful for treating physicians to make decisions about therapy.

In addition to this international effort, we have collaborated locally with Parkinson’s Resources of Oregon to evaluate a “self-efficacy” program called “Strive to Thrive”, designed to improve outcomes for newly diagnosed PD patients and their loved ones. This program was adapted for PD from programs shown to improve management of other chronic diseases by OHSU Parkinson’s Center co-founder Julie Carter, ANP. Data collection is complete and the analysis is currently under way.

We have also convened a standing Quality Improvement Committee led by Dr. Jeff Kraakevik, which has decided to focus on fall prevention as the next Quality Improvement effort for the Center as a whole. Efforts are also under way to launch a “Cognitive Health” clinic within the Parkinson’s Center, with the goal of reducing risk factors for cognitive decline in patients with PD. A June 2018 launch for this clinic is anticipated and more details will be provided in a future newsletter. Our Patient Advisory Committee, which continues to meet on a monthly basis, provides critical input to each of these efforts to improve our clinical services.

**Apologies...**

To all the other great clinicians and scientists that are not mentioned here for lack of space, and to the readers who are interested in hearing about other aspects of our work or of the field. Please let us know what you’d like to hear about and we will do our best to cover it in future editions.

Joe Quinn, M.D.
New Research Targets Leukemia Gene for Parkinson’s Disease Treatment

Kathy Chung, M.D. — OHSU Parkinson Center Specialist

The “holy grail” in Parkinson Disease research means finding a drug or agent that will slow the progress of the disease. This would be fundamentally different from treatments that manage the symptoms, like levodopa. Currently, no drug is allowed by the FDA to claim “neuroprotective” capability. Basic science labwork is revealing more each day about the abnormal processes occurring in neurons that lead to Parkinson Disease, characterized by a buildup in a protein called alpha-synuclein. Alpha synuclein is abnormal in PD, because it is found clumped up in abnormal structures within neurons called Lewy Bodies. On the way to this buildup is a pathway involving activity in the c-abl gene, which is also abnormal in a disease called chronic myelogenous leukemia (CML). Note, there is no known increased risk of CML if you have PD. There is an effective drug that modulates this gene for people with CML called nilotinib. It is thought that nilotinib could then modulate the c-abl pathway in such a way that it might reduce buildup of alpha-synuclein. It is hoped that less alpha-synuclein might lead to lessened progression of Parkinson Disease. In 2016 researchers at Georgetown University performed a 24-week open-label study (which means no placebo was given) of nilotinib in 12 volunteer research subjects with PD and Lewy Body disease. It appeared to be well-tolerated by the participants, and many felt their symptoms improved. Because of this, the next important step would be to study it in a “blinded” fashion in Parkinson disease. The Michael J. Fox Foundation and a collaborative group of researchers called the Parkinson Study Group decided to launch a controlled trial of nilotinib in Parkinson Disease. The main purpose is to study whether the drug is well tolerated and safe, as measured by clinical examinations, blood tests, heart tracings (EKGs) and using survey tools. Biological indicators of drug activity will be measured as well in the cerebrospinal fluid and blood. In the first study the goal is to enroll 75 subjects with middle to advanced stages of PD and to follow them for a year. A second study of very early PD subjects will follow in the months ahead. 25 centers in the United States are participating in this important effort, including OHSU.

If interested in participating in this or other research studies at OHSU, see the OHSU Parkinson Center research list included on page 4.

How Does Exercise Help the Slowness of Parkinson’s Disease?

Kate Scanlan, PT, DPT, NCS

Bradykinesia is one of the main features of Parkinson’s disease. Bradykinesia refers to a slowness of movement and can also encompass when movements get smaller. You may notice this in your handwriting, or how long your morning routine takes. Bradykinesia is thought to be caused in part by weakness. Interestingly, the weakness is really produced by your brain, and how it is telling your muscles to fire, and not by the muscles themselves. When you do not produce enough dopamine, your brain has a decreased drive to your muscles. Your brain is only telling your muscles to work at partial strength. That is why bradykinesia can improve when you take your Parkinson’s medications. However, when this happens for a long time, you may actually develop weakness in your muscles as well since they are not being used as much.

Exercise can also help improve bradykinesia and the poor movement patterns that come with it. Exercises that help bradykinesia should include fast and large movements. The idea is to ‘think big’ to increase the drive from your brain to your muscles. One good exercise for bradykinesia is performing multidirectional lunges. Agility training can also be helpful. Agility training might include the use of an agility ladder or various coordinated movements. Classes like ‘Rock Steady Boxing’ and dance classes also incorporate agility and balance and focus on quick movements. Work with a physical therapist or a personal trainer to help you find what exercises are safest and might work best for you.

OHSU Neurological Rehabilitation has specially Parkinson’s disease trained physical, occupational, and speech therapists. Your primary care or any specialist can refer you to see them. For more information, call 503-494-3151.
The OHSU Parkinson Center is a national leader in Parkinson’s disease (PD) research and recognized as a National Parkinson Foundation Center of Excellence. The OHSU Parkinson Center is involved in many studies that are fully recruited and others that are being planned.

For more information, contact the coordinator listed at the end of each study.

**Newly Diagnosed**

Have you been diagnosed with Parkinson’s disease (PD) in the last two years and have not started any dopaminergic medication for your symptoms?

**Purpose:** While there are many options for treating the symptoms of PD, there is currently no effective treatment for slowing the progression of PD. The purpose of this study is to see if a new drug is safe, and effective in slowing or halting the progression of PD in people who have been recently diagnosed.

The study drug is not approved for treatment of PD because we don’t know enough about it.

**Participation Requirements:** In order to participate in the study you must have been diagnosed with PD in the past two years, be between the ages of 40 and 80, are not taking any dopaminergic medication for your symptoms, and do not expect to begin taking medication for your symptoms for at least 52 weeks after your first study visit. You also must not have a genetic cause for your PD, or a history of freezing or falls related to your PD. There will be a total of approximately 34 study visits over 2 years. The study drug is a capsule taken by mouth once per day. Participants will have a 2/3 (66% chance) of receiving study drug and a 1/3 (33%) chance of receiving placebo for the entire length of the study.

A placebo is a drug that looks like the study drug but has no real medicine in it. Neither the participant nor the study doctor can choose whether study drug or placebo is assigned. Eligible participants will receive study-related evaluations, laboratory tests, and the study drug at no cost. Participants and care partners will be reimbursed for their transportation and meals during study visits. For more information please contact Bess Glickman at 503-494-7245 or glickman@ohsu.edu. (eIRB #17161)

**Moderate or Advanced Parkinson’s Disease**

Do you have moderate or advanced Parkinson’s disease, are 40-79 years old, are taking dopaminergic medications, and have been taking a stable amount of medications for at least 30 days. You must be generally healthy aside from your PD diagnosis. You cannot have had surgery for PD, including Deep Brain Stimulation (DBS). Women who may be able to become pregnant cannot participate in this study. There will be a total of approximately 13 study visits over 8.5 months. The study drug is a capsule taken by mouth once per day. Participants will have a 2/3 (66% chance) of receiving study drug and a 1/3 (33%) chance of receiving placebo for the entire length of the study. A placebo is a drug that looks like the study drug but has no real medicine in it. Neither the participant nor the study doctor can choose whether study drug or placebo is assigned. Eligible participants will receive study-related evaluations, laboratory tests, and the study drug at no cost. Participants will be compensated for their time and transportation. For more information please contact Brandon Labadie at 503-494-0276 or labadie@ohsu.edu. (eIRB #17502)

**Clinical Characteristics of Parkinson’s Disease Subjects with Severe Hypertension During Motor Offs**

Dr. Kathryn Chung and Dr. Way are conducting a research study looking at blood pressure changes in Parkinson’s disease (PD). This study involves two visits with one-at-home monitoring period of a couple of days in-between the visits. The first visit, a screening visit, will happen at the VA Portland Health Care System and last about one hour. During this visit, you will complete some questionnaires, answer some 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 in the morning at 08:00 am in an “OFF” state. You will eat breakfast. Every half hour you will undergo various measures of your Parkinsonism, vitals, movements, and answer more questionnaires about how Parkinson’s affects you. The study visit will last until 03:00 pm or when you turn “OFF”. There is no compensation for participation in this study. You may not personally benefit from participating in this study. However, by service as a subject, you may help us learn how to benefit patients in the future. For more information on how to participate, please contact Brenna Lohb, Research Coordinator, at 503-220-8262 extension 51871 or by mail at 3710 SW US Veterans Rd, P3-PADRECC, Portland, Oregon 97239. (OHSU eIRB # 17490)

**Balance & Gait Studies**

Body-worn sensors to characterize and treat gait disturbances in Parkinson’s disease

The purpose of this study is to learn more about gait problems, such as inability to initiate or continue walking (Freezing of Gait), in Parkinson’s Disease (PD), and to investigate the effect of vibration on the feet or wrists as a rehabilitation intervention. From this study we hope to learn how to accurately measure freezing of gait episodes, if vibration improves gait problems, and how to measure brain activity during walking. The study takes place at OHSU and it entails one visit. During the visit, balance and gait will be assessed with body-worn sensors, as well as brain activity with a wearable system. PD participants will need to be off their anti-Parkinson’s medication for testing. You will be compensated $5. You will not benefit from being in the study. However, by serving as a subject you may help us learn how to benefit patients in the future. For more information please contact Makena Strand at 503-418-2602 or strandm@ohsu.edu.

**Parkinson’s Outcome Project**

The National Parkinson Foundation has launched a Patient Registry at all NPF centers of excellence, which includes OHSU. The purpose of the Registry is to collect data on individuals with Parkinson’s disease (PD) to better understand the illness and the effects of various treatments. The ultimate goal is to improve the care of people who have PD. This study was started in 2009 and has been reopened for recruitment. Data will be gathered once a year at a follow-up visit in our clinic, and will consist of a 10-15 minute consultation and a questionnaire. For more information please contact Alex Zajack at 503-418-4387 or zajack@ohsu.edu. (OHSU eIRB #5508)

**Parkinson’s Outcome Project**

The OHSU Parkinson Center is a national leader in Parkinson’s disease (PD) research and recognized as a National Parkinson Foundation Center of Excellence. The OHSU Parkinson Center is involved in many studies that are fully recruited and others that are being planned.

For more information, contact the coordinator listed at the end of each study.

**Newly Diagnosed**

Have you been diagnosed with Parkinson’s disease (PD) in the last two years and have not started any dopaminergic medication for your symptoms?

**Purpose:** While there are many options for treating the symptoms of PD, there is currently no effective treatment for slowing the progression of PD. The purpose of this study is to see if a new drug is safe, and effective in slowing or halting the progression of PD in people who have been recently diagnosed.

The study drug is not approved for treatment of PD because we don’t know enough about it.

**Participation Requirements:** In order to participate in the study you must have been diagnosed with PD in the past two years, be between the ages of 40 and 80, are not taking any dopaminergic medication for your symptoms, and do not expect to begin taking medication for your symptoms for at least 52 weeks after your first study visit. You also must not have a genetic cause for your PD, or a history of freezing or falls related to your PD. There will be a total of approximately 34 study visits over 2 years. The study drug is an infusion given by injection into a vein in your arm once per month. Participants will be randomized (like the flip of a coin) to receive either the study drug or identical placebo for the entire length of the study. A placebo is a drug that looks like the study drug but has no real medicine in it. Neither the participant nor the study doctor can choose whether study drug or placebo is assigned. You have a 33% chance of getting the placebo.

Eligible participants will receive study-related evaluations, laboratory tests, and the study drug at no cost. Participants and care partners will be reimbursed for their transportation and meals during study visits. For more information please contact Bess Glickman at 503-494-7245 or glickman@ohsu.edu. (eIRB #17161)

**Moderate or Advanced Parkinson’s Disease**

Do you have moderate or advanced Parkinson’s disease, are 40-79 years old, are taking dopaminergic medications, and have been taking a stable amount of medications for at least 30 days?

**Purpose:** Parkinson’s disease (PD) is a brain disorder that affects a person’s movement and brain function. These symptoms worsen over time. Researchers have identified a protein that collects in the brain and increases symptoms related to PD. This study evaluates a drug that may help reduce the build-up of that specific protein and may help relieve PD symptoms. The purpose of this study is to see if a new drug is safe and well-tolerated by people with PD, and to learn if it has an effect on PD symptoms. Right now the study drug is not approved for treatment of PD because we don’t know enough about it.

**Participation Requirements:** In order to participate in the study you must be 40-79 years old, diagnosed with PD over 5 years ago, currently have moderate to advanced PD, and have been taking a stable amount of medications for at least 30 days. You must be generally healthy aside from your PD diagnosis. You cannot have had surgery for PD, including Deep Brain Stimulation (DBS). Women who may be able to become pregnant cannot participate in this study. There will be a total of approximately 13 study visits over 8.5 months. The study drug is a capsule taken by mouth once per day. Participants will have a 2/3 (66% chance) of receiving study drug and a 1/3 (33%) chance of receiving placebo for the entire length of the study. A placebo is a drug that looks like the study drug but has no real medicine in it. Neither the participant nor the study doctor can choose whether study drug or placebo is assigned. Eligible participants will receive study-related evaluations, laboratory tests, and the study drug at no cost. Participants will be compensated for their time and transportation. For more information please contact Brandon Labadie at 503-494-0276 or labadie@ohsu.edu. (eIRB #17502)

**Clinical Characteristics of Parkinson’s Disease Subjects with Severe Hypertension During Motor Offs**

Dr. Kathryn Chung and Dr. Way are conducting a research study looking at blood pressure changes in Parkinson’s disease (PD). This study involves two visits with one-at-home monitoring period of a couple of days in-between the visits. The first visit, a screening visit, will happen at the VA Portland Health Care System and last about one hour. During this visit, you will complete some questionnaires, answer some 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 in the morning at 08:00 am in an “OFF” state. You will eat breakfast. Every half hour you will undergo various measures of your Parkinsonism, vitals, movements, and answer more questionnaires about how Parkinson’s affects you. The study visit will last until 03:00 pm or when you turn “OFF”. There is no compensation for participation in this study. You may not personally benefit from participating in this study. However, by service as a subject, you may help us learn how to benefit patients in the future. For more information on how to participate, please contact Brenna Lohb, Research Coordinator, at 503-220-8262 extension 51871 or by mail at 3710 SW US Veterans Rd, P3-PADRECC, Portland, Oregon 97239. (OHSU eIRB # 17490)
Cortisol in PD

Measuring Cortisol Levels in Persons with Parkinson’s (PD) [CORT-PD]

Dr. Amie Hiller is conducting a research study looking at cortisol levels in Parkinson’s disease (PD). Cortisol is a hormone that is normally released in response to events and circumstances such as waking up in the morning, exercising, and stress. We are recruiting both Parkinson’s disease patients and healthy controls. To be a healthy control, you must not have a neurological disorder. Both groups must be willing to give saliva samples. This study will last for approximately 1 week with three (3) days of saliva collection at home. There will be one visit to the Portland VA. (VA Portland Health Care System).

The visit will last approximately 30 minutes and include questionnaires of mood and quality of life. For PD participants, a Parkinson’s focused exam will be performed. You will not be compensated for participation in this study. This is a research study and not for treatment or diagnosis of PD. You may not benefit from participating in this study. However, by serving as a subject, you may help us learn how to benefit patients in the future. For more information on how to participate, please contact Brenna Lobb, Research Coordinator, at 503-220-8262 ext. 51871 or by mail at 3710 SW US Veterans Road, P3-PADRECC, Portland, Oregon 97239. (OSU eIRB # 15183)

Progressive Supranuclear Palsy

Abbie Arise Study for Progressive Supranuclear Palsy

Objective: The purpose of the Arise Study is to assess the performance of the investigational study medication (ABBY-8E12) in slowing disease progression in patients with Progressive Supranuclear Palsy (PSP) for up to 52 weeks. The medication being studied is an investigational medication called ABBY-8E12. This medication is an antibody that targets the protein that is often linked to PSP. ABBY-8E12 is a liquid that will be sent directly into the vein using a needle or tube – this is often referred to as an intravenous (IV) infusion. These IV infusions will happen at the research site. After you are enrolled into the study, you will receive the investigational study medication or placebo (inactive drug) every four weeks for 48 weeks. You will also have periodic follow-up visits with the study doctor to undergo blood work, clinical and neurological examinations, and a review of how you are feeling. Throughout the study, you will have brain MRIs and you may receive a lumbar puncture. These tests will take several hours but will not require you to stay overnight in the hospital. However, accommodations may be provided if you prefer to stay overnight due to long visit days. After a screening period of up to eight weeks, the study doctor will determine eligibility to participate in the study. If eligible, participation in the study will last up to approximately 48 weeks with a follow-up period of approximately 20 weeks after the last dose of the investigational study medication. Participation could last up to a total of 76 weeks.

Eligibility Requirements: Eligible participants will meet the following criteria: 40 years of age or older, showing symptoms of PSP, including problems moving one’s eyes up and down or unsteadiness or falls for five years or less, able to undergo magnetic resonance imaging (MRI), which is a scan to produce an image of the brain, able to undergo a lumbar puncture, which is a procedure to collect spinal fluid from the lower back (in certain medically approved circumstances, this will not be required), able to walk at least five steps with little assistance (e.g., use of cane/walker), able to identify someone who can act as a study partner, such as a caregiver, who spends at least 10 hours a week with the patient and can accompany the patient to study visits. Contact Brandon R. Labadie at 503-494-0276 or labadie@ohsu.edu for more information. PI: Joseph Quinn, MD. (IRB Study # 16945)
Video Library: Parkinson’s Disease

Caregiver Connections
- Procrastination, Caregivers guide
- Resilience, resources, relationships

Essential Tools for Managing PD
- Depression, Exercise
- Sleeping changes in PD
- Beating fatigue
- Team care in PD, Vision
- Communication in mid-stage PD, Bowel and bladder
- Mobility and exercise, Medication management
- Anxiety and depression, Cognitive changes

And more....

Calendar Items

UPCOMING OHSU EVENTS

Newly Diagnosed PD Education Session — Monthly
Each month the OHSU Parkinson Center offers a three-hour session for people recently diagnosed with PD and their spouse or a family member. Participants may ask any and all questions of a PD specialist and long-time patient and caregiver.
$20/person; refreshments served.
Register online at http://tinyurl.com/NewParkinson or call 503-494-9054 with questions.
Next sessions will be Jul. 12, Aug. 9, Sep. 13, Oct. 11, Nov. 8 and Dec. 13, 2018.

Jul. 19 and Oct. 18 — Portland, Ore.
Essential Tools for Mid-Stage PD Series 2018
Key issues encountered by people with PD and their loved ones during the middle stages of the disease will be presented throughout the year. In a two hour program, topics will be presented by experts with time for audience interaction.
Two programs remain in 2018.
July 19: PD Meds, Part II and Freezing
Oct. 18: Driving and Community Resources
More information and registration will be available in the future at https://tinyurl.com/eetools2018

Sat., Sep. 17, 2018 — Baker City, Ore.
Great Salt Lick Art Auction
The Great Salt Lick Art Auction continues to grow in popularity every year, and for good reason: It’s a lot of fun and supports a good cause — the work of the OHSU Parkinson Center. Plan to join in the fun and hilarity of this unique event this fall. For a glimpse of what to expect, see the feature on OPB’s “Oregon Art Beat” at www.opb.org/television/programs/artbeat/segment/salt-lick. For information about next year’s program, be sure and follow “The Great Salt Lick” on facebook.

Options & Opportunities
OHSU Parkinson Center 34th Annual Symposium
Save-the-date! This year, we will focus on issues encountered during the earlier stages Parkinson’s disease including treatments, the role of counseling, legal planning, and research.
We’ll also have our popular PD Artists Fair (request for artists at right). We look forward to seeing you there!
Watch for registration information in July at www.ohsubrain.com/pco
Embassy Suites, Washington Square
Portland, Oregon, 10 a.m. – 2:30 p.m.

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 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.

Senator Parkinson’s Resources of Oregon (PRO)
Serving the PD community through education and advocacy. PRO has numerous ongoing educational events. Visit their website www.parkinsonsresources.org or www.pro.eventbrite.com for more information.

PD Artists Fair
Contact pco@ohsu.edu or call 503-494-7875

Inspire others to find their creative side and express it!
PD artists and hobbies, contact us if you would like to display your work at this year’s PD Artists Fair during the symposium. Contact pco@ohsu.edu or call 503-494-7875.