PD Heros
Meetings of the Challenges of PD
Brian Grant, former Trail Blazer and professional basketball player, recently shared his diagnosis of Parkinson’s disease with the world. Already, Mr. Grant has used his fame to raise awareness of young onset Parkinson’s disease and is committed to fighting the disease personally and publically.

Thank you, Mr. Grant, for your example and support of all people with PD.
For more on Mr. Grant’s story, visit www.nvsresearch.org and search: Brian Grant.

PD PILATES LOCATIONS EXPAND
• Circle Studio - 1231 NW 21st St., Portland, OR 97210; 503-382-4909; Instrutor: Bethina Blank.
• Pilates Plus Northwest – 1010 NE Broadway, Vancouver, WA 98664; 360-357-7600; www.pilatesplusnorthwest.com; Instrutor: Ina Khalnys.
• Portland Pilates Studio – 333 S. Lake Oswego Blvd., Suite 200, Lake Oswego, OR 97034; Instrutor: Delia Burchiel.

E-NEWS format coming! Before year’s end, we will be adding an electronic newsletter format for the “Parkinson Update.” If you haven’t already, please complete the enclosed pre-paid information card and mail it back to us to make sure we have your e-mail address.

Calendar of Events
SAT, SEP 19 - BAKER CITY, OR 3rd Annual BALT LICK CITY Don’t miss this unique fundraiser to benefit the OHSU Parkinson Center. If you can’t be there in person, participate online at www.saltlickcity.com.
THU, NOV 12 - BEND, OR CHALLENGES & CHAMPIONS Join us in beautiful Central Oregon for the 2nd Annual Outreach Symposium for pa-
tients & families. More information will be available on our website and by mail the near future.

NEWLY DIAGNOSED WITH PD?
EVERY OTHER MONTH the OHSU-PRO offers a three hour session for people recently diagnosed with PD and their spouse or family member. Participants may ask any and all questions of a PD specialist and long time patient. $20/person; refreshments served. Call Amy at 503-494-9054 for more information.

PRO (Parkinson’s Resources of Oregon)
September is Sole Support Season! Sole Support for Parkinson’s is a fundraising and awareness walk to benefit Parkinson’s Resources of Oregon, a regional support and education group.

Save the Date - Saturday, March 27, 2010.
State Inspire Empower: PRO’s Annual Parkinson’s Education Conference at Valley River Inn, Eugene. Oregon; Call Parkinson’s Resources of Oregon for information - 800-426-6806.

VA’s PADRECC (Parkinson Disease Research, Education, and Care Center) Lecture Series
The VA offers PD specific lectures free to the public throughout the year. All lectures held in the Portland VA Medical Center Au-
ditorium. For dates, times, and topics, call Jeremy at 503-721-1051 for more information.

EFFECTS & OPPORTUNITIES
26th Annual Symposium
OHSU Parkinson Center of Oregon
Options & Opportunities
PD & the BRAIN
Twenty-six years and still going strong!
You wouldn’t want to miss this year’s symposium we explore how our understanding of the brain’s ability to adapt and change can inform our approach to living with and treating Parkinson’s disease. We are fortunate to feature the Northwest’s own, Monique Giroux, M.D., as our keynote speaker.

Topics of interest include:
• Parkinson’s Disease: Brain Conversations
• Enhancing Resiliency
• Keeping the Brain Sharp!
• Brain Quest: PD Research and Expert Panel
• Special Caregiver Breakout: Caregiver Connections

Exhibitors will also share helpful information on PD treatments and activities.

If you are a PD artist or hobbyist, we would love to have you share your talents and exhibit your work (call Amy at 503-494-9054 if you are interested).

If you haven’t already received a registration brochure, visit our website at www.ohsu.edu/pco or call 503-494-7231. The registration deadline is September 5th. We hope to see you there!

EFFECTS & OPPORTUNITIES
26th Annual Symposium
OHSU Parkinson Center of Oregon
Options & Opportunities

Genetics Spotlight: What Genes Are Telling Us about PD
Byahs Payne, Ph.D.

You may remember when PD was thought to be a purely environmental disease. It wasn’t until the 1990’s when family studies began reporting evidence for a considerable genetic component, which has now been confirmed and documented worldwide. The first paper was actually from OHSU, led by myself and Dr. Jay Nutt; the research was based on approximately 200 PD patients and healthy volunteers from Portland. (Our study has now grown into a national consortium with about 5000 patients and healthy volunteers; more on that later.)

Several genes have since been identified as causes of familial forms of PD. Some are rare; but others are relatively common. The LRRK2 G2019S mutation is the most common cause of PD identified to date, accounting for 1-4% of all cases of PD, and up to 30% in Ashkenazi Jews. Parkin is another common PD gene that accounts for about 10%-50% of young onset PD. The alpha-synuclein gene encodes the alpha-synuclein protein, which is the major component of Lewy bodies, the hallmark brain lesions in PD. The significant aspect of alpha-synuclein is that the normal gene can increase the risk of PD if it is over expressed (i.e., it makes too much of the protein it is designed to make; too much of a normal protein can be detrimental). Knowing this has opened the door to novel and exciting research, currently underway, for molecular therapies to remove the excess alpha-synuclein protein. This is an example of how discovery of disease genes can empower development of treatments that could be more effective than what is available now, because they target the molecular problem at its root.

The majority – nearly 70% – of PD patients have no other relative with PD, which, in the old days, was used to argue for absence of genetic involvement in the common forms of PD. ‘Not true. Increasing evidence suggests showing that most cases of PD arise from a complex interaction between one’s environment (life style, diet, exposure to toxins and protactins), and one’s genetic make-up, which determine how one responds to these external insults. The genes involved in common forms of PD are called susceptibility genes, and are different from those that cause the familial forms of PD. Each susceptibility gene has only a small effect on the overall risk of developing PD, but, in combination with other susceptibility genes and environmental factors, they can raise – or more importantly, lower – the risk by ten-fold (that is one-thousand percent).
People with Parkinson’s disease are often affected by upper extremity (arm/hand) tremors, muscle rigidity, and difficulty with movement (slowness and freezing). These issues can affect one’s ability to “earn a living” and perform self-care tasks (known as “activities of daily living” or “ADLs”). If you find that difficulties with one of these tasks, your doctor may refer you to see an occupational therapist (OT/ OT). OTs’ work often involves modifying some aspects of your environment, using seating for movement, reducing tremor, and home safety.

Home safety is often a major concern for clients and family members. No matter what level of Parkinson’s disease you are in, or what your sleep assessment is helpful to prevent falls and increase a person’s ability to maintain a family member or caregiver on ways to make your home easier and safer for you to participate in activities of daily living. OT’s will provide recommendations regarding the environment and equipment. Recommendations may include things such as lighting, moving, removing scatter rugs and clutter.

Reference: The National Parkinson Foundation publishes adaptive devices that can help reduce the impact of tremors. Strategies typically involve stabilization and adaptive equipment which may include using bigger or heavier handles. One benefit of seeing an OT is the ability to try and practice devices to determine which works the best for you and that you can continue to use their hands as much as possible to continue to do the things you enjoy. OT/OT’s work with an increasing number of people with PD who are desiring to continue to work, and OT/OT’s make it difficult to use the keyboard, phone, mouse or other equipment and tremors make it difficult to use the keyboard so often the answer is to avoid these and register double clicks. But there is a new option to help you reduce the frustration.

In 2005, IBM invented a computer mouse adapter called the Accessible Mouse Adapter, which aids in eliminating excessive movements. The device uses similar technology to mice and fits into a computer’s mouse plug. The adapter helps people with tremors to use the mouse. The adapter is a simple and effective tool for people with motor difficulties. It also helps people with tremors and reduces the risk of injury to themselves. The device is a simple and effective tool for people with tremors and reduces the risk of injury to themselves. The device is a simple and effective tool for people with tremors and reduces the risk of injury to themselves. The device is a simple and effective tool for people with tremors and reduces the risk of injury to themselves. The device is a simple and effective tool for people with tremors and reduces the risk of injury to themselves.
The Role of Basic Science Research in PD

Dr. Haydeh Payami (above) and Dr. Steven Johnson (on our cover and inset) are key players in basic science research on Parkinson’s disease. So, what is basic science research and what is its role in treating and ultimately curing Parkinson’s disease? Dr. Johnson explains:

“Basic science research is essential for developing a cure for Parkinson’s disease. The most common form of Parkinson’s disease is called ‘idiopathic’ because medical doctors do not know the true cause of the disease. However, it is becoming increasingly clear that the likelihood of developing Parkinson’s disease is influenced by both genetic and environmental factors. This is why basic science research using laboratory animals, tissue culture, biochemistry, and computer simulations are vital for progress in Parkinson’s disease research.”

RESEARCH FOCUS

Do you have issues with poor balance and/or falling?

Recent studies have shown that people with Parkinson’s disease are more likely to have low vitamin D levels than healthy people or those of the same age with Alzheimer’s disease. Also, the effects of vitamin D in the body have recently been found to be greater than realized in the past. Vitamin D’s effect on bones has been known for decades, but more recent research also shows effects on muscles, the hormone system, and possibly in the brain. Vitamin D receptors are present in the brain, especially in an area called the “substantia nigra,” which is one of the places affected by Parkinson’s disease (PD). Studies have shown that when people with PD who had low vitamin D levels and also had problems with falling and balance were given vitamin D supplements, they fell less often.

Knowing that poor balance and falls can become a big problem for people with Parkinson’s disease, I am conducting a new study to learn more about the connection between vitamin D and balance in PD. The goals of the study are: 1) to first measure whether people with balance problems in PD have lower than normal vitamin D levels and 2) to lay the ground work for a future project where I will measure changes in balance and falling after giving Vitamin D to people with PD who have low levels at the beginning. I am now looking for people with PD and balance problems or falls to participate in the single study visit. You must not have severe memory problems and must be able to walk without help from another person; it is fine to use a walker or a cane. The visit will take about two hours at OHSU and will include some memory tests, balance tests, and a blood sample to measure vitamin D. If you have poor balance and often fall and would like to participate in “A Pilot Study of Vitamin D and Balance in Parkinson’s Disease,” please contact Dr. Triana Goodn at 503-494-9531 or goodn@ohsu.edu. IRB #4266

Don’t have PD, but want to help?

OHSU’s Human Balance Disorders Program is seeking healthy individuals to serve as age-matched controls for patients with Parkinson’s disease for studies in balance function. If interested, call Triana Nagel Nelson, 503-418-2602. IRB #: 177, 675, 1161, 1065 and 2487.

Your Donations Keep Us Going

OHSU Parkinson Center of Oregon’s research, education and comprehensive clinical care programs are nationally renowned and regionally treated. A key underpinning in Parkinson’s disease (PD) research and care today in part because caring people support these programs with charitable gifts. Many supporters give in memory of a loved one who received exceptional care here, or who believed in the value of our cutting-edge research. Your gift in honor or memory of a special person with PD is a meaningful investment in fighting PD for future generations. And, 100 percent of your gift goes directly to support care or research. Whether you wish to make a gift or pledge today, or prefer to give to the OHSU Parkinson Center of Oregon through your estate or other form of deferred giving, our development staff can help you create a gift that achieves your philanthropic and personal goals. If you would like more information in the future of the OHSU Parkinson Center of Oregon, please contact Lori Sweeney at 503 494-7445, sweeneyl@ohsu.edu or visit the web site at www.ohsu.edu/thankyou.
Is your Parkinson’s disease affecting your mood and ability to handle stress? If so, you may be interested in learning more about Parkinson’s disease. We are interested in stress, mood, and fatigue. This information will be used to help design larger studies looking at medication-based, complementary, and alternative interventions for stress and fatigue in Parkinson’s disease. Participation Requirements: Participation in this study will require 2-3 visits over 12 months. Eligible participants will be randomized to receive the study drug, placebo, or usual care. Follow-up visits will be performed at the Center for Health and Healing at Oregon Health & Science University. For more information, please contact Dr. Jaskirat Wild at 503-494-7219 or wilja@ohsu.edu. eIRB #4106

Announcing a New Research Opportunity for Patients with Parkinson’s Disease who do not require PD treatment medications. Oregon Health & Science University is conducting a Multicenter, Double-Blinded, Placebo Controlled study: Effects of Coenzyme Q10 in Parkinson’s disease. Purpose: The purpose of this study is to evaluate whether the nutritional supplement Coenzyme Q10 is able to delay the progression of Parkinson disease (PD). Participation Requirements: In order to qualify for this study, participants must: • Be 50 years of age or older • Have not been diagnosed with Parkinson’s disease • Have no prior exposure to PD medications In this study, you will have a chance to receive active study drug and a standard dose of study drug. You will receive the study drug for a minimum of 5 years, and each clinic visit will take place at the Center for Health and Healing at Oregon Health & Science University. There will be 7 study visits over 16 months. Study visits will include: • Physical and neurological examinations • Electrocardiogram at screening visit (EKG, a record of your heartbeat) • Blood and urine samples at some of the visits • No costs for you to become involved. Study drug will provided at no cost. Please contact Dr. Jaskirat Wild at 503-494-9531 or conroy@ohsu.edu. if you are interested in participating. eIRB #4373

Do you have early Parkinson’s disease (PD) that you aren’t currently treating with any PD medications? There is some recent evidence that higher levels of vitamin D may be related to a slower decline in Parkinson’s disease. Purpose: The purpose of this study is to see if income can safely be used to raise urate levels in people with early Parkinson’s disease. More about the genetics of Parkinson’s disease from diagnosed individuals as well as how to give yourself SQ injections. If you are interested in this study, contact Dr. Jaskirat Wild at 503-494-7219 or wilja@ohsu.edu. eIRB #4106

Do you have Parkinson’s disease and is your vitamin D levels low? Are greater than or equal to 21 years of age

Can create slow the progression of Parkinson’s disease? Purpose: The purpose of this study is to evaluate the study drug, carbidopa, affect disease progression. This information will help us understand how to slow the progression of Parkinson’s disease (PD). In this study, you will be randomly assigned to receive the study drug or placebo (inactive substance). Neither you nor the investigator will know whether you have received the study drug or placebo. Participation Requirements: Participation in this study requires 1 clinic visit and 1 telephone call at the end of the study. The investigator will follow the progress of participants for a minimum of 5 years, performing telephone calls, assessments of thinking, mood, and evaluations of quality of life to monitor signs of disease progression. To qualify for this study you must have been diagnosed with Parkinson’s disease within 5 years and you must have been treated with and been analyzed for treatment with dopaminergic medications or levodopa for at least 90 days but not more than 2 years. Julie Carter is the investigator for this study. For more information, please contact Megan Murray at 503-418-4387 or murrayjm@ohsu.edu. eIRB #3112

Do you have Parkinson’s disease and currently taking medications for your condition? Oregon Health & Science University’s Human Balance Disorders Laboratory is seeking patients with Parkinson’s disease for a study of the effect on the balance function of Parkinson’s disease on while on and off Levodopa. Participation Requirements: Participants must be 18 years or older, diagnosed with Parkinson’s disease, be free of other neurological disorders, have no significant orthopedic or muscular impairments for standing and be able to stand independently for at least 20 minutes. You will receive payment for your participation. Dr. Kay Horak is the investigator for this study. For more information, please contact Triana Nagel-Nelson at 503-418-2562, eIRB #4402

Are you interested in exercise for your Parkinson’s Disease? Purpose: OHSU’s Human Balance Disorders Laboratory is seeking patients with Parkinson’s disease to study the effect of two types of high intensity interval exercises on the balance function of Parkinson’s disease while on and off Levodopa. Participation Requirements: Participation in this study requires being randomized into one of two exercise groups and going to OHSU to participate in the exercise program, 4 times a week for 4 weeks and 2 times a week for 2 weeks. You will also undergo a comprehensive 3 times (twice before the exercise program begins and one time after). To qualify for this study you must be diagnosed of Parkinson’s disease, be free of other neurological disorders, have no significant orthopedic, muscular, or cardiovascular impairments. Dr. Laurie King is the investigator for this study. For more information, please contact Triana Nagel-Nelson at 503-418-2562, eIRB #8111

Are greater than or equal to 21 years of age

A Pilot Study of Vitamin D and Balance in Parkinson Disease. Purpose: The purpose of this study is to find out what the relationship between low vitamin D levels and balance in subjects with Parkinson’s disease is. Participation Requirements: You may be eligible to participate in this research study. If you: • Have Parkinson’s disease • Can walk and see without help • Are greater than or equal to 21 years of age This study requires 1 visit to the clinic. Once the entire study is done, we will call you to tell you the result of this study. For more information call Rebecca Conroy at 503-494-9531 or conroy@ohsu.edu. eIRB #44266

Healthy Volunteers Needed for Balance Study. Purpose: OHSU’s Human Balance Disorders Laboratory and Human Spatial Orientation Laboratory are seeking healthy individuals to serve as age-matched controls for patients with neurological disorders. Participation Requirements: Participation in this study requires clinic visits on a weekly basis for approximately 2 hours per visit. For more information, please contact Lisa Kropf at 503-418-2562. eIRB #9113

Healthy Volunteers Needed for Balance Study. Purpose: Participate in this study will require 1 clinic visit that will take 2 to 4 hours. To qualify for this study you must be 18-80 years of age, in excellent general health, and have no history of neurological disorders. You will receive payment for your participation. Dr. Kay Horak and Dr. Bob Peterka are the investigators for this study. For more information, please contact Dr. Ariana M. Nagel-Nelson at 503-418-2562. eIRB #8111

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23andMe also identifies genetic forces that cause Parkinson’s disease. Thus if 23andMe detects a mutation in the second position of the word “complicated,” the user may consider that a mutation in the LRRK-2 gene may be responsible for up to 6-8% of cases of Parkinson’s disease in some US patient populations. However, only one commonly mutated in the gene is detected, and it is known that there are a large number of mutations in the LRRK-2 gene that cause Parkinson’s disease. Thus if 23andMe does not detect the mutation in the LRRK-2 gene that mean that you do not have another mutation that could cause Parkinson’s disease. Further, having the mutation does not mean that you have, or will have, Parkinson’s disease. Some people with the mutation do not develop Parkinson’s disease.

Second, one of the markers used by 23andMe detects a mutation in a gene that causes some people with the second letter of the word “PD” to inherit the disease, which may be responsible for up to 6-8% of cases of Parkinson’s disease in some US patient populations. However, only one marker used by 23andMe requires a genetic sophistication that many clients are unlikely to possess.

People with Parkinson’s disease are often affected by upper extremity (arm/hand) tremors, muscle rigidity, and difficulty with movement (slowness and freezing). These issues can affect one’s ability to perform one’s personal care self-care tasks (known as “activities of daily living” or “ADLs”). If you have some of these difficulties, or if you have one of these tasks, your doctor may refer you to a speech and occupational therapist (OT). OT’s can treat the following issues secondary to Parkinson’s disease, increasing movement during freezing, and home safety.

Many people with Parkinson’s disease have difficulty with their activities of daily living due to their freezing, which may affect: • Fastening buttons • Using a spoon/fork • Handwriting • Using the computer mouse or keyboard

There are tremor reducing strategies and adaptive devices that can help reduce the impact of tremors. Strategies typically involve stabilizing and adaptive equipment which may include using bigger or heavier handles. One benefit of seeing an OT is that they can help and try these devices to determine which works best for you. They can also encourage you to continue to use their hands as much as possible to prevent disuse weakness, which can result in further decline of independence. Often this can be done through using adaptive equipment or with compensatory strategies.

Home safety is often a major concern for clients and family members. No matter what level of support and adaptation your assessment is helpful to prevent falls and increase a person’s independence. For example, family member or caregiver on ways to use the kitchen easy and help them to participate in activities of daily living. OT’s will also make recommendations regarding the environment and equipment. Recommendations may include increasing lighting, removing or moving scatter rugs and clutter.

Reference: The National Parkinson Foundation publishes an article titled “Living Practical For Parkinson Disease.” This is a free publication.
PD & the BRAIN
Twenty-six years and still going strong!

You won’t want to miss this year’s symposium as we explore our understanding of the brain’s ability to adapt and change can inform our approach to living with and treating Parkinson’s disease. We are fortunate to feature the Northwest’s own, Monique Giroux, M.D., as our keynote speaker.

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Join us for our 26th annual PD symposium. See detailed information above.

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Don’t miss this unique fundraiser to benefit the OHSU Parkinson Center. If you can’t be there in-person, participate online at www.saltillickcity.com.

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What’s Inside
• Cover story: Genetics Spotlight (continued inside)
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• Ask a Social Worker
• Role of Basic Science Research in PD
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• Events Rack Up Another Year of Success
• PCO Research Opportunities: Join the Fight
• Calendar of Events

Genetics Spotlight: What Genes Are Telling Us about PD
You may remember when PD was thought to be a purely environmental disease. It wasn’t until the 1990’s when family studies began reporting evidence for a considerable genetic component, which has now been confirmed and documented worldwide. The first paper was actually from OHSU, led by myself and Dr. Jay Nutt; the research was based on approximately 200 PD patients and healthy volunteers from Portland. (Our study has now grown into a national consortium with about 5000 patients and healthy volunteers; more on that later.)

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