

PEP NEWS

JULY 2021

Barbara Marquardt, Editor, M.Ed., MCHES, WCP, RYT

PEP Meeting—Zoom Video Conference Meeting – Wednesday, July 7, 2021 at 2-4 p.m.

We are pleased to welcome **Dr. Jay Alberts, Ph.D.** at the **Cleveland Clinic Lerner Research Institute** who will talk on a number of different studies that his group has ongoing in the area of Parkinson's research. **Dr. Alberts** became well known in 2003 when he noticed during a bike ride across Iowa, a long-time friend who was riding in the back seat, had her Parkinson's symptoms subside substantially. This spurred a series of studies on the benefits exercise provides for people with Parkinson's.

If you receive this newsletter via email/PDF copy, just click on this link to join the Zoom Meeting in July:

<https://us02web.zoom.us/j/82516300937>, Meeting ID: **825 1630 0937**

If you receive this newsletter via regular USPS mail, and if you have a computer or smart phone, you can join the meeting by entering exactly the following in your browser:

<https://us02web.zoom.us/j/82516300937>, add this Meeting ID: **825 1630 0937** if requested.

Calling from your cell phone? No problem—here's a one-tap link [+16465588656,,82516300937#](tel:+16465588656)

Lastly, calling from your Land Line Phone without all the fuss? Just dial in and listen at: 1 646 558 8656

From David Brandt

Hopefully you can join us for our next meeting via Zoom on July 7th as we have Dr. Jay Alberts speaking. In last month's PEP newsletter, there was an article about Pedaling for Parkinson's which was started by Dr. Alberts and he will be talking on his research including a recent \$3 million grant from the NIH. It should be very interesting. If you are not comfortable with Zoom, make a point of calling in on your phone and listening.

Occasionally, a PEP member will contact me regarding donating equipment and medical supplies related to Parkinson's. We at PEP do not collect or distribute any of that, but I have come across a wonderful non-profit organization in Cleveland that does. MedWish saves lives and the environment by repurposing discarded medical supplies and equipment to provide humanitarian aid to people in need.

Individuals wishing to donate health-related products may drop-off unused, non-expired medical supplies and usable medical equipment right at our

warehouse. Unfortunately, MedWish is unable to pick up medical supplies and cannot accept expired supplies.

Drop-Off Hours: Tuesday – Friday 8 a.m. – 4:30 p.m.
No appointments needed - upon arrival, please ring the front doorbell and our staff will be happy to assist you.

Warehouse Location: 1625 East 31 Street, Cleveland, OH 44114

Although we have not finalized anything at this point, we are hoping to have our first chance to get together on a social basis, either through a picnic or our ice cream social. Please watch for more details in our next newsletter.

Upcoming Events

Saturday, August 14, 2021 – Empower U presented by the Cleveland Clinic. This will again be a virtual event. Look for more details next month.

(cont'd on Page 2)

Parkinson's Disease Question Corner

Email: barbaramarquardt@outlook.com with questions!

Question: How important is Vitamin C with Parkinson's?

Answer: "Vitamin C can increase the production of dihydroxyphenylalanine (DOPA)."

L-dopa (levodopa) is a commonly prescribed treatment for Parkinson's. The human body can and does make this substance. Vitamin C in high doses lets your body make, and use, L-dopa more efficiently, enabling your body to naturally and safely produce more of its end products, epinephrine and norepinephrine. These are what Parkinson's patients are so low in, and why L-dopa medication is given. Increasing vitamin C can reasonably be expected to lower the necessary dose of the drug. Work closely with your doctor before making any changes in your medication.

L-phenylalanine (from protein foods) -> L-tyrosine (made in the liver by hydroxylation) -> L-dopa -> dopamine -> norepinephrine -> epinephrine

[Nagayama H, Hamamoto M, Ueda M, Nito C, Yamaguchi H, Katayama Y. The effect of ascorbic acid on the pharmacokinetics of levodopa in elderly patients with Parkinson disease. Clin Neuropharmacol. 2004;27:270-273.]

"Vitamin C can increase the production of dihydroxyphenylalanine (DOPA). Seitz et al. noted overproduction of DOPA in a dose-dependent manner after incubation of the human neuroblastoma cell line SK-N-SH with ascorbic acid (100-500 mM) for 2 hours. Additionally, the gene expression of tyrosine hydroxylase increased threefold after incubation with ascorbic acid (200mM) for 5 days. The scholars speculated that ascorbic acid may be effective in the treatment of early-stage Parkinson's Disease (PD). Vitamin C can improve the absorption of levodopa in elderly PD patients with a poor levodopa bioavailability. Previous studies showed that ascorbic acid can reduce the levodopa dosage under the premise of equal efficacy. Combination of anti-PD drugs and vitamin C may be more effective for alleviating the symptoms of PD."

Ref: <http://www.doctoryourself.com/parkinson.html>

From David Brandt

(Cont'd from Page 1)

Sunday, September 19, 2021 – 5th Annual Pals In Motion Fundraiser. This year the event will be held at Beachwood High School.

Sunday, November 7th, 2021 – Big Band Brunch, put on by the Ohio Parkinson's Foundation Northeast Region from Noon - 3 p.m., at Landerhaven in Mayfield Hts.

TRIBUTES

In Memory of Robert J. Cvelbar
Barbara Marquardt

Carol and Hans Drescher

George Eichenberg

In Memory of Chuck Godale
Barbara Marquardt

In Memory of James Nichols, Jr.
Barbara Marquardt

Barbara Schaeffer

We need your donations to continue bringing you the PEP News and for other expenses. A special thanks to those who contribute at the monthly meetings. To send a donation, please make your checks payable to Parkinson Education Program and mail to 2785 Edgehill Rd., Cleveland Heights, OH 44106

August 4, 2021 Meeting

We are exploring trying to get together for a picnic or our ice cream social. More details to follow in next month's newsletter!

DISCLAIMER: The material contained in this newsletter is intended to inform. PEP makes no recommendations or endorsements in the care and treatment of Parkinson's disease. Always consult your own physician before making any changes. No one involved with the newsletter receives financial benefit from any programs/products listed.

Study Examines Connection Between Diabetes Medication and Parkinson's Disease

(Excerpt from Parkinson's Foundation)

It was first suggested in the 1960's that people with type-2 diabetes are at increased risk for developing Parkinson's disease (PD) – and when they do develop PD, its progression is faster and often more severe. This may be due, in part, to an apparent relationship in the brain between dopamine, insulin resistance, and glucose control. Insulin is not only made in the pancreas, it's also present in the brain – where it has been shown to impact dopamine levels.

Parkinson's is generally believed by scientists to be caused by the loss of dopamine-producing neurons. Parkinson's symptoms, such as slowness, rigidity, and tremor, typically develop after approximately 40-80% of these dopamine-producing neurons die.

Why does this matter? Currently, more than 30 million people in the United States have type-2 diabetes, and that number is growing. The lifetime risk of developing Parkinson's is also on the rise. In light of these trends, it would be valuable to know whether any specific type-2 diabetes medications might be associated with an increased or decreased risk for developing PD.

A 40-month cohort study of over 100,000 patients with diabetes (Brauer et al., 2020) published in the journal, *rain*, titled "Diabetes medications and risk of Parkinson's disease" examined the association between type-2 diabetes medications and the risk of developing Parkinson's. Using patient medical records, the study authors compared the risk of developing PD in patients diagnosed with type-2 diabetes who took the following oral diabetes medications in various combinations:

- 1) Thiazolidinediones (also called glitazones), like pioglitazone (Actos) or rosiglitazone (Avandia), which specifically target insulin resistance
- 2) Drugs, like albiglutide (Tanzeum) or dulaglutide (Trulicity), that mimic glucagon-like peptide-1 (GLP-1) a hormone that promotes insulin secretion, and

- 3) Dipeptidyl peptidase 4 (DPP4) inhibitors, which increase GLP-1 levels, and lead to insulin secretion and lowering of blood sugar levels

The control (comparison) group were those individuals prescribed any other oral combination therapy for diabetes, such as metformin and sulfonylureas.

Results

The rate of Parkinson's disease was 36–60% lower in the people who took DPP4 inhibitors and/or GLP-1 receptor agonists.

There was no evidence of any association between the use of glitazones and Parkinson's disease.

No other medication or combination of medications demonstrated any statistically significant effect.

What Does This Mean?

In this large population-based cohort study, taking the medications DPP4 inhibitors and/or GLP-1 receptor agonists was associated with a lower rate of Parkinson's disease. Based upon these findings of the possible protective effect of these medications, further studies are warranted and are currently underway. However, it is also important to note that an association is not the same as a causation. There may be other factors associated with taking certain type-2 diabetes medications that influence Parkinson's risk.

Additionally, as noted by the study authors, while the results of this study may be useful for clinicians to take into account when choosing oral medications for treating diabetes, these preliminary results, "[...] cannot inform on the usefulness of specific drug classes on the rate of progression of Parkinson's disease after diagnosis, nor on their efficacy among patients with Parkinson's disease in the absence of diabetes" (Brauer et al., 2020, p. 3075). In other words, it's too soon to tell, but the next phase of their research is already underway, where hopefully more definitive answers will be found.

TO REACH US AT PEP 440-742-0153
dbrandtpep@gmail.com — Facebook — Parkinson
Education Program of Greater Cleveland

PEP NEWS

Parkinson Education Program
of Greater Cleveland
2785 Edgehill Rd.
Cleveland Heights, OH 44106

Address Service Requested

We try to keep our roster current. If you no longer wish to receive this bulletin or would like to receive it via email instead, notify Katherine.A.Kaminski@gmail.com or call 216-513-8990.

(Excerpt from The Davis Phinney Foundation)

Researchers from the University of Helsinki believe they have found the root cause of Parkinson's. In their study published in the journal *Frontiers in Cellular and Infection Microbiology*, the team suggests that Parkinson's could originate from hydrogen sulfide produced by intestinal bacteria. Analyzing fecal samples from 40 people, half of whom were living with Parkinson's and half of whom were not, the researchers found comparatively high levels of a bacteria belonging to the *Desulfovibrio* genus (sulfate-reducing bacteria) in the gut microbiota of people with Parkinson's. Because the *Desulfovibrio* bacteria produces substances such as hydrogen sulfide and lipopolysaccharide, and in some cases magnetite, their presence likely contributes to the onset of Parkinson's, the paper suggests.

Also exploring the connecting between the gut and neurodegenerative disorders, researchers at the University of Florida used the intestine of the roundworm model organism *Caenorhabditis elegans* to investigate whether specific species of bacteria play a role in the development of conditions such as Parkinson's, Alzheimer's, and amyotrophic lateral sclerosis (ALS). The team says their results point to the potential use of specific types of bacteria as a preventative and treatment strategy.

