

JULY 2023

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

JULY MEETING—Wednesday, July 5, 2023 – 2:15 p.m.

We welcome Fatima Perkins from the Western Reserve Area Agency on Aging who will talk on many of their wonderful programs and services for those living in Cuyahoga and surrounding counties. Fatima will focus on their Family Caregiver Support program.

Cleveland Heights Senior Activity Center/One Monticello Blvd., Cleveland Heights, OH 44118

August Meeting—Wednesday, August 2, 2023 / Noon – 2 p.m.

Annual PEP Picnic/Ice Cream Social

Cleveland Heights Forest Hills Park Picnic Shelters 2A and 2B

From David Brandt

Last month I had the opportunity to hear Dr. Ray Dorsey speak at InMotion on the book he co-wrote “Ending Parkinson’s Disease”. It was very enlightening to hear about the suspected causes of PD and the ways we can prevent them.

The highlights of the book tell of how the number of people who have PD have more than doubled in the past 25 years and is likely to double again by 2040. Every day, 200 more are diagnosed with PD and 100 people die with it.

Although there are cases of PD being inherited, the 4 authors suggest that environmental issues are a major cause of PD. Several things were detailed such as air pollution and the continued use of chemicals such as paraquat and TCE, trichloroethylene. TCE is used in a variety of ways like industrial cleaning and dry cleaning. It is a major reason for all of the health issues at Camp Lejeune. Paraquat is one of the most widely used herbicides.

Dr. Dorsey indicated that one in four Ohioans live near toxic release facilities. They are facilities that make or use toxic chemicals that are then released into the air. There are also thousands of Superfund sites that are waiting to be cleaned up which continue to leak into

ground water.

He finished by stating that many people remain undiagnosed and untreated, research funding stagnates, and the most effective treatment is now a half century old. His book provides a plan to help prevent Parkinson's, improve care and treatment, and end the silence associated with this devastating disease.

Following his talk, I spoke with Karen Jaffe, co-founder of InMotion who showed me her unofficial map of Cleveland Heights and locations of people she knows that have either PD, ALS, or MS, of which there were many. Could they have been affected by air pollution in Cleveland, or paraquat, or TCE, or any other related chemicals?

Upcoming Events

Saturday August 19 – EmpowerU put on by the Cleveland Clinic will be held at the John S Knight Center in Akron. More details to follow.

Sunday September 10 – Pals in Motion Walk put on by InMotion will be held at Beachwood High School. More details to follow.

Saturday September 23 – Parkinson’s Boot Camp put on by University Hospitals. More details to follow.

Walking Helps Us Fight Parkinson's Symptoms, Enjoy Nature

(Excerpt from parkinsonsnewstoday.com)

The weather isn't typically on your side when you live in a place like Cleveland. But for me, having lived here most of my life, I love the climate and the change of seasons. While I enjoy all four seasons for different reasons, I always look forward to the first snowfall, when my family and I cuddle up in front of the fireplace and watch the movie "Elf." I also enjoy the end of winter when spring is near; you can feel warmth in the air, and tiny buds start to pop their heads up through the soil.

As winter slowly turns to spring, it feels like the entire world has opened up again. Like a bear after a long hibernation, Clevelanders emerge from their long winter nap, and our city becomes alive again.

Taking advantage of the warm weather

We love spring because we can finally enjoy walks outside without worrying about falling when ice and snow make it unsafe. My husband, Arman, who was diagnosed at age 38 with early-onset Parkinson's disease, and I love to walk outside together. It's a great activity that we both enjoy, and it gets us out of the house, which is important in preventing isolation.

In addition, exercise is one of the best tools we have in the fight against Parkinson's. Moving your body daily is crucial to combating symptoms like stiffness and fatigue. For many years, we used the walking paths around our old neighborhood. Now that we've moved into a smaller, more Parkinson's-friendly home, we're excited to live near a metropolitan park with a beautiful walking path. While there are many places to walk and enjoy nature in our area, we must be conscious about the safety of the path for Arman.

We've found so much joy in our daily strolls together. When walking among strangers, we find peace in our anonymity. We're just a middle-aged couple enjoying our day, not the couple known around town as the ones burdened with an early-onset Parkinson's diagnosis.

Every person we pass has a story of their own. While most park visitors don't know each other, almost everyone makes a point to say hello, nod, or offer a kind smile. Some push strollers, and some ride bikes, but everyone is there to enjoy the warm sun and breathe in the fresh air.

If you're looking for a place to walk in your area, you can start by checking TrailLink for nearby paths. You'll likely be amazed at the number of options you may not know about. Happy walking!

Parkinson's, Specific Cancers Share Genetic Risk Factors: Study

(Excerpt from www.independent.co.uk)

Associations among genes were found between skin, prostate, and breast cancers

Researchers have found a genetic association between Parkinson's disease and melanoma, a type of skin cancer, and prostate cancer. Data also showed that Parkinson's genetic risk factors are linked to an increased risk of breast cancer and lower risk of ovarian cancer.

(Cont'd on last page)

TO REACH US AT PEP 440-742-0153

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TRIBUTE

Marcia Short



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

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.

Parkinson's Disease Question Corner

Email: barbaramarquardt@outlook.com

Question: What are some benefits of movement for Parkinson's?

Answer: In general, movement is any sort of movement you are doing low-intensity without specific physique related goals. However, exercise is something you are doing at a high intensity with a goal to build strength, muscle, endurance, burn fat, etc.

The benefits of movement for Parkinson's include:

1. Improves circulation
2. Stimulates lymphatic drainage
3. Enhances tissue oxygenation
4. Balances key brain neurotransmitters
5. Reduces stress and tension in body
6. Improves mood and happiness
7. Enhances mental clarity and memory

Ref: www.drjockers.com

Molecular Link Found Between Parkinson's and Skin Cancer Associations between Parkinson's, Cancers Analyzed

(Excerpt from www.independent.co.uk)

The analysis identified a significant genetic association between Parkinson's and melanoma and prostate cancer for each Parkinson's dataset. A link with breast cancer was also detected, but failed to reach statistical significance. For ovarian, lung, and thyroid cancers, the results were variable between both datasets and not conclusive.

The polygenic risk score (PRS) for Parkinson's, or the sum of several genetic variants that contribute to the disease, was significantly linked to a higher risk for breast cancer. Moreover, the Parkinson's PRS was significantly associated with a lower risk of ovarian cancer, and vice versa, meaning the ovarian cancer PRS was also linked to a lower risk of Parkinson's.

The PRS for Parkinson's, breast cancer, and ovarian

cancer shared a common region in chromosome 17, with four genetic variants within three genes — *NSF*, *MAPT*, and *CRHR1*.

The inverse association between Parkinson's and ovarian cancer was mainly driven by a variant, called rs183211, in the *NSF* gene, which encodes for a protein important for protein transport inside cells, and for nerve cell communication. The variants in this region were also associated with a higher risk of breast cancer.

"These results are in favor of a common haplotype associated with the three diseases," the researchers wrote. A haplotype is a group of genetic variants in a given chromosome that tend to be inherited together.

Also, five Parkinson's PRS variants in other chromosomes were linked to a higher risk of breast cancer and two variants of the breast cancer PRS were associated with a higher risk of Parkinson's.

"Sex-stratified analyses did not show major differences between men and women in the association of the PRS for both ovarian cancer and breast cancer with PD," the researchers wrote, suggesting "the importance of shared genetic variants between PD and some cancers," that favor "a contribution of pleiotropic genes" to these associations.

More research on the variant, gene, or molecular pathway level may help understand the shared biological mechanisms between Parkinson's and cancer, they said.

"It would also be interesting to explore additional environmental factors that could interact with pleiotropic genes associated with both PD and cancer," the researchers wrote. "Evidence of pleiotropy between PD and cancer will improve our understanding of the [causes] of these diseases and will provide insights into their underlying biology."

PEP NEWS

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Parkinson's, Specific Cancers Share Genetic Risk Factors: Study

(cont'd from pg. 2)

"Our results suggest the importance of shared genetic variants between PD [Parkinson's disease] and some cancers," the researchers wrote in the study "Investigation of Shared Risk Factors Between Parkinson's Disease and Cancers," which was published in Movement Disorders.

The frequency of cancers and neurodegenerative diseases increases with age, although their cellular effects are opposite; in cancers there is an increase in the number of cells, but nerve cell death in neurodegenerative diseases.

Epidemiological studies tend to indicate that people with Parkinson's have a reduced risk for cancer, in general, and cancer patients have a lower risk for Parkinson's.

This is mostly explained by the reduced rate of smoking-related cancers, such as lung, colorectal, and bladder, due to a low prevalence of smoking among Parkinson's patients.

Several studies, though, have reported an increased risk for specific types of cancer, such as melanoma, breast, prostate, and brain with Parkinson's.

"Specific genes involved in familial forms of PD (*SNCA*, *Parin*, *LRKK2*) have been implicated in biological mechanisms associated with breast, prostate, and thyroid cancers," the researchers wrote.

While the mechanisms underlying this complex association remain poorly understood, evidence suggests the existence of pleiotropic genetic factors. Pleiotropic genes are those that influence two or more seemingly unrelated traits.

An international team of researchers analyzed genetic data from two datasets of Parkinson's genome-wide association studies (GWAS), including data from more than 40,000 patients and 450,000 controls to identify common genetic risk factors between Parkinson's and cancer, and better understand their genetic association. GWAS for specific cancers, including melanoma, breast, prostate, lung, ovarian cancer, each involving between 36,000 and 229,000 people, were also analyzed. GWAS enable researchers to search all genes in a person's cells for small variations that occur more frequently in those with a particular disease. Scientists use these data to pinpoint genes that may contribute to the risk of developing that disorder.