PARKINSON EDUCATION PROGRAM

P E P NEWS

J A N U A R Y 2 0 2 6 **Barbara Marquardt, Editor, M.Ed., MCHES, WCP, RYT**

FEBRUARY MEETING / Wednesday, February 4, 2026 2:15 p.m.

Speaker to be announced.

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

JANUARY 2026—NO MEETING – Happy New Year!

From David Brandt

With 2025 coming to a close and 2026 now upon us, I thought I would give a summary of advancements in Parkinson's research in 2025.

In 2025, Parkinson's disease (PD) research transitioned from managing symptoms to targeting the underlying biological causes through precision medicine and improved delivery systems.

Biological Staging and Diagnostics
The most critical advancement in 2025 was the clinical adoption of the alpha-synuclein seed amplification assay (αSyn-SAA). This "biochemical biopsy" allows for the definitive identification of Parkinson's via spinal fluid or skin samples before the onset of tremors. This shift enabled the first biological staging system, allowing researchers to categorize patients by their specific cellular pathology rather than just outward physical symptoms.

Disease-Modifying Breakthroughs
2025 marked a milestone for neuroprotective therapies. Results from large-scale trials of GLP-1 receptor agonists (traditionally used for diabetes) demonstrated a statistically significant reduction in motor symptom progression over 12 months. Additionally, the first LRRK2 inhibitors and GBA-targeted enzyme replacements entered late-stage clinical use, offering the first genetically tailored treatments for patients with specific hereditary markers.

Technological and Surgical Innovations
Neuromodulation saw the rise of Adaptive Deep Brain Stimulation (aDBS). These "smart" implants use AI to monitor brain signals and deliver electrical pulses only when needed, significantly reducing side effects like speech blurring and extending battery life. Simultaneously, the FDA approval of several continuous subcutaneous levodopa infusion pumps provided a non-surgical way to maintain "steady-state" medication levels, nearly eliminating the debilitating "off" periods associated with oral pills.

Looking Ahead
Research into the gut-brain axis also matured in 2025, with new clinical trials investigating how specific gut microbiome alterations can trigger or accelerate protein misfolding in the brain. These advancements collectively represent a shift toward a future where Parkinson's is caught early, treated genetically, and managed with automated, high-precision technology.

Happy New Year!!

Top Parkinson's Science News Articles of 2025

(Excerpts from parkinson.org)

- **Update: New Study Finds Drugs like Ozempic Ineffective for Parkinson's Treatment –** *Lancet* **study** found that the diabetes drug exenatide, a GLP-1 receptor agonist, did not improve **Parkinson's symptoms** compared to a placebo over two years. Researchers also found no changes in dopamine activity in the brain, suggesting that current GLP-1 drugs are not effective as Parkinson's treatments.

- **Golf Course Pesticides, Drinking Water & Parkinson's Risk –** Living near golf courses may increase the risk of **developing Parkinson's**, according to a **new study** using 25 years of medical data from southeastern Minnesota. Researchers found that people who lived within one mile of a golf course were more than twice as likely to be diagnosed with PD compared to those living six or more miles away. These findings suggest that pesticides and herbicides used on golf courses could leach into drinking water and contribute to Parkinson's risk. This study highlights how **environmental exposures** may play a role in PD. Understanding these risks could help individuals and regulators take steps to reduce exposure and protect brain health.

- **Two New Trials Explore Stem-Cell Therapy for Parkinson's –** Two new studies suggest that stem cell-based therapies may safely boost dopamine production in people with Parkinson's. Researchers in Japan, the U.S., and Canada transplanted early-stage dopamine-producing cells — derived from induced pluripotent (iPS) and human embryonic stem (hES) cells — into the brains of 19 participants. After up to two years, no serious side effects or tumors were reported, and brain scans showed increased dopamine activity. Many also showed improvements in **movement symptoms**. While these early results don't prove stem cell therapy can reverse Parkinson's, they highlight a safe and promising new direction for developing future **PD treatments**.

- **Study Finds Potential Link Between Parkinson's and Gut Health –** People with inflammatory bowel disease (IBD) have a higher risk of developing Parkinson's, but the reason why has remained unclear. A new study compared the gut microbiomes of people with Parkinson's, IBD, and healthy individuals, revealing striking similarities between the first two groups. Both showed reduced levels of certain bacteria that produce short-chain fatty acids (SCFAs), which are important for gut and brain health. These findings suggest that the loss of SCFA-producing bacteria may link IBD and Parkinson's by disrupting gut and brain communication, known as the gut-brain axis. This could make some people with IBD more susceptible to developing Parkinson's later in life.

- **Study Shows Multiple Sleep Problems Are Common in Early Parkinson's –** Sleep problems are common even in the **early stages of Parkinson's**. Among 162 people recently diagnosed with PD, 71% experienced at least one sleep disorder, and nearly half had more than one. The most frequent issues included insomnia (41%), REM sleep behavior disorder and excessive daytime sleepiness (each 25%), as well as restless legs syndrome (16%). Researchers found that these sleep problems were more strongly linked to physical changes caused by PD than to emotional factors like anxiety or depression. The findings suggest that sleep disturbances may appear early in the disease and have a major impact on quality of life.

- **Brain Inflammation Linked to Dementia Risk in Parkinson's –** Parkinson's can lead to **dementia**, affecting nearly half of people within 10 years of diagnosis. A new study explored early brain changes to understand why some people develop dementia while others don't, focusing on two factors: brain inflammation and buildup of the protein tau. Researchers found that people with Parkinson's who were at higher risk for dementia showed more brain inflammation and performed worse on cognitive tests. These results suggest that brain inflammation may be an early driver of cognitive decline in Parkinson's and could help identify those at greater risk.

(cont'd on page 3)

PD Question Corner

Email: barbaramarquardt@outlook.com

***Question*: I know physical exercise is good for Parkinson's, but do you have any ideas for mental exercises?**

Answer: Yes, mental exercise is as important as physical exercise with a Parkinson's diagnosis. Please consider the following: reading, memorizing lists and phone numbers, playing brain-specific games, learning a new language of interest to you, and finally carving out time to learn to play a new musical instrument.

Happy Healthy New Year to You!

Top Parkinson's Science News Articles of 2025—Con't. from Page 2

(Excerpts from parkinson.org)

- **Mainstay Parkinson's Medication Sometimes "Wears Off" Faster for Women –** Levodopa is a key treatment for the **movement symptoms** of Parkinson's, but its effectiveness can diminish over time, a phenomenon known as "wearing off." A study found that nearly 65% of women had symptom fluctuations between doses, compared to about 53% of men. **Women** were also more likely to develop **dyskinesia** (involuntary movements caused by levodopa). The study concluded that female gender was the strongest predictor of wearing-off effects and dyskinesia. These findings highlight that men and women may respond differently to levodopa, suggesting the need for more personalized, gender-informed treatment plans for people with Parkinson's.

- **Study Shows Staying Active in the Hospital Benefits People with Parkinson's –** People with Parkinson's are more likely to be hospitalized, face complications and experience longer stays than those without PD. A **new study** shows that staying active during a hospital stay — moving safely in and out of bed at least three times a day — can greatly improve outcomes for patients with PD. The study found that hospitalized patients with PD who stayed active had shorter stays, were more likely to be discharged home rather than to a care facility and had lower odds of dying within 30 to 90 days after release. These results highlight the importance of inpatient mobility programs and support the **Parkinson's Foundation's recommendations** for regular movement during hospitalizations to help improve recovery.

- **Study Links Air Pollution to Lew Body Dementia Risk** – A study of 56.5 million Americans found that living in areas with higher air pollution may increase the risk of developing Lewy body dementia (LBD) — a finding with significant implications for the Parkinson's disease (PD) community, as approximately 70% of people with Parkinson's eventually develop LBD. Researchers linked long-term exposure to fine particulate matter (PM2.5) — tiny particles from vehicle exhaust, industrial emissions, and wildfire smoke — to higher rates of LBD hospitalizations. The findings suggest air pollution may trigger harmful brain changes similar to those seen in human LBD, highlighting the need for cleaner air and stronger environmental protections to support brain health.

Please visit parkinson.org for more detailed links to these articles.

Preclinical evidence shows the cruciferous nutrient, sulforaphane supports protection of aging brains. Perhaps in the New Year, consider adding broccoli to your menu!

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THE FIRST GUT-BRAIN PROBIOTIC MEDICAL FOOD FOR PARKINSON'S – The gut-brain connection

(Excerpt from https://benedlife.com)

Stomach cramps and nervous flutters- your gut-brain connection is obvious in stressful moments. But did you know it can also have positive effects? Your mind and mood can be influenced by the gut microbiome, the trillions of microorganisms living in your gut. Preclinical studies suggest that PS128TM, the unique probiotic strain in Neuralli® MP, can influence levels of serotonin and dopamine in the brain via gut microbiome-to-brain signaling. PS128TM has also been studied as dietary management for people being treated for Parkinson's disease. Participants reported significant improvements in motor symptoms, "off" time, and in their quality of life (single-arm study).

Laughter is Medicine

What does a ghost say on January 1st?

Happy Boo Year!

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TRIBUTES

In Memory of Frank Spring
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