



Capital Area Parkinson's Society

October 2015 Newsletter

P.O. Box 27565, Austin, Texas 78755-2565

www.capitalareaparkinsons.org

Progress Toward Predicting Parkinson's Disease

Posted by Maggie McGuire Kuhl, September 8, 2015

Who will develop Parkinson's disease?

Our inability to answer this question slows research and vexes people with family history of Parkinson's disease (PD).

With new findings from the MJFF-sponsored Parkinson's Progression Markers Initiative, though, we may be a step closer to an answer.

Researchers from the National Institute on Aging (NIA), part of the National Institutes of Health, recently published a paper in *The Lancet Neurology* that outlines five criteria they used to differentiate people with Parkinson's disease from control volunteers: olfactory function (smell loss), genetic risk score, family history of PD, age and gender.

"The idea is that we could start to get at things that might be able to predict disease. These are things that we thought might be early markers of Parkinson's disease," said Andrew Singleton, PhD, chief of the NIA Laboratory of Neurogenetics and lead author of the paper.

Identifying the Five Criteria

Last year this same research team identified 28 genetic risk factors for Parkinson's disease. Looking at PPMI, they gave each individual a genetic risk composite score based on the presence of those mutations.

They then turned to "easy-to-access" data points that could be easily assembled for any individual as opposed to, for example, a time-consuming and costly imaging scan. They ran every qualified factor from PPMI data through a model with the genetic risk score. Only those four other criteria were informative (smell loss, family history of PD, age and gender).

"Those in combination in this model allow us to predict who has disease and who doesn't," Dr. Singleton said.

After refining their model with PPMI data, NIA researchers used data from five other studies to validate their findings.

The NIA team also applied its formula to PPMI subjects without evidence of dopaminergic deficit (SWEDD). This participant population showed clinical symptoms of PD but not the trademark dopamine activity loss in brain scans upon enrollment in the study. Five PPMI SWEDD subjects showed dopamine loss in follow-up scans one to two years later. The NIA criteria classified four of the five as PD (versus control) with the final one on the cusp of PD classification. These findings give evidence for the predictive use of their five-point formula.

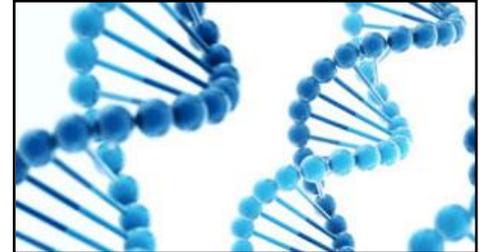
Accelerating Intervention for Greatest Impact

Researchers are interested in predicting who will develop Parkinson's disease because earlier detection can mean earlier intervention. Many researchers believe that PD clinical trials have failed because they were not intervening in the disease process early enough to show substantial benefit.

"We know that when people begin showing Parkinson's cardinal symptoms, there is already significant dopamine loss," said Mark Frasier, PhD, MJFF senior vice president of research programs. "If we could predict who may develop Parkinson's and start them on safe preventive therapies, we may be able to save those dopamine cells and stop PD."

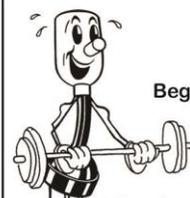
As for how they'll find those people, Dr. Singleton thinks technology will help.

"We're collecting all this data in electronic medical records (EMR), and we'll start to use that data to predict disease. Your smell status—if you've had it evaluated—genetics, age, gender will all be in your EMR. I think we'll use this to highlight individuals who we should be keeping an eye on," he said. ■



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New PFP Classes

Beginning in October, CAPS Community Partner, Power for Parkinson's, is starting two new, free Move & Shout classes. See www.powerforparkinsons.org for schedule.

East Austin
Tuesdays 1:30 p.m. beginning October 13th
Conley-Guerrero Senior Activity Center
808 Nile Street
Austin, Texas 78702

Pflugerville
Mondays 1:00 p.m. beginning October 5th
Pflugerville Community Church
1214 Pfennig Lane
Pflugerville, Texas 78660

Area Outreach Support Groups

Bastrop Area - 3rd Thursday @ 2pm
(Small dining room right of entry)
Argent Court Assisted Living
508 Old Austin Hwy, Bastrop, TX 78602

**Deep Brain Stimulation (DBS) –
3rd Friday @ 2pm**
Neurology Solutions Office
12201 Renfert Way, Suite 360
Austin, TX 78758

Lakeway – 1st Tuesday @ 2pm
Vibra Rehabilitation Hospital of Lake Travis
2000 Medical Drive, Lakeway, TX 78734

Marble Falls - 2nd Wednesday @ 2pm
Seton Marble Falls Healthcare Center
700 U.S. 281, Marble Falls, TX 78654

**Northeast Austin – 3rd Tuesday
Bimonthly @ 4pm**
(Feb, Apr, Jun, Aug, Oct, Dec)
Legend Oaks of North Austin
Healthcare & Rehabilitation
11020 Dessau Road, Austin, TX 78754

Round Rock - 4th Tuesday @ 3pm
Wyoming Springs Assisted Living
7230 Wyoming Springs Drive
Round Rock, TX 78681

**Simultaneous Care Partner and Patient -
2nd Tuesday @ 10:15am**
Covenant Presbyterian Church
3003 Northland Drive, Austin TX 78757

Young Onset Parkinson's Disease (under 55)
Contact: Bob Sahm at 512-914-2132
or rsahm99@gmail.com
Alex Andron at 610-389-4316
or alexander_andron@yahoo.com

**Participant Organized Parkinson's
Singing Group – Wednesdays 12:30-1:30pm**
Unity Church of the Hills, Unity Oaks Bldg.
9905 Anderson Mill Road
Austin, TX 78750

For more information, visit www.capitalareaparkinsons.org.

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October Membership Meeting

Saturday, October 17 ■ 2:00 p.m.
Medical Office Building, St. David's Medical Center
5th Floor Conference Room, 3000 N. IH-35

Memory Loss: Everything You Want to Know but Forget to Ask

Ronald Devere, MD is a board certified neurologist and fellow of the American Academy of Neurology. He has been in private neurology practice for over 30 years with a special interest in the cognitive function of the brain, especially memory. He was named one of three top neurologists by the Austin Monthly magazine. He founded the Alzheimer's Disease and Memory Disorders Center in 1993 and continues this center since 2002.

He is a member of the Texas Council on Alzheimer's Disease, governor appointed, and chair of the committee establishing the new guidelines for Alzheimer's Disease for the state of Texas. He is currently board chairman of the Capital of Texas (Austin) chapter of the national Alzheimer Association. He is the author of two books: *Navigating: "Taste and Smell Disorders"* and *Memory Loss: Everything You Want to Know but Forget to Ask*. Both books are available on Amazon. He is committed to addressing public fears on Alzheimer's disease and to broaden the understanding that memory changes can be due to many causes, not just Alzheimer's disease.

