Capital Area Parkinson's Society

July 2014 Newsletter

P.O. Box 27565, Austin, Texas 78755-2565 **www.capitalareaparkinsons.org**

Leave the Brain out of it: Spinal Stimulation Could Offer an Alternative to Treat Parkinson's Motor Symptoms

Michael J. Fox Foundation, Maggie McGuire, March 10, 2014

Deep brain stimulation is a game changer for many Parkinson's disease (PD) patients. This therapy can alleviate motor symptoms and improve quality of life, but it does require brain surgery and is not a possibility for all people with PD.

A group of researchers from Duke University and the Edmond and Lily Safra Institute of Neuroscience of Natal in Brazil is working toward the same end result without the need for such an invasive procedure. These investigators made a splash earlier this year when they published in *Scientific Reports* that spinal cord stimulation in pre-clinical models improved motor symptoms and showed neuronal protection.

The Michael J. Fox Foundation (MJFF) did not fund that study, but we have funded research from this same group of investigators to test spinal stimulation in a more advanced model. The MJFF-supported study is not testing the neuroprotective effect.

"This is an exciting time for, what we call, neuromodulation," says Maurizio Facheris, MD, MSc, associate director of research programs at MJFF. "While deep brain stimulation has helped many people living with Parkinson's disease, there are limitations to its use. Spinal stimulation could extend this therapeutic approach to many more."

For deep brain stimulation (DBS), a surgeon implants a thin electrode into the brain, targeting motor circuits that are not functioning properly. Small electrical pulses from a device similar to a cardiac pacemaker block the signals that cause some Parkinson's motor symptoms. Spinal stimulation uses the same technique, but rather than blocking the signals where they begin, the therapy blocks them further downstream. The electrodes are implanted in the dura, the outermost of three layers that surround the spinal cord.

Spinal cord stimulation is already used to treat chronic pain. Researchers are fine-tuning the application to work on the neurons that misfire to create Parkinson's motor symptoms. If successful, this procedure would be an alternative for patients who may not be able to have DBS because of vascular problems, mood disorders or aversion to brain surgery.

Through another grant, MJFF is supporting researchers from the University of California, San Francisco to develop a method to record brain activity during DBS so the stimulation can take place only when needed instead of continuously. The same enhancements could be used in spinal stimulation.

Power for Parkinson's – Changes Indicated with **

Power for Parkinson's is officially offering ten free classes a week in the Austin/Round Rock area! For those of you considering Power for Parkinson's, we hope you'll join us—NO experience is necessary! We're here to help you stay active, have fun, make friends and fight PD! Although PD is a struggle at times, we have a great group of people to share your experiences and exercise within a relaxed and fun atmosphere. For more details, see www.powerforparkinsons.org

South – New Class
Wellmed Senior Community Center
706 Ben White Blvd., Suite 100
**** Move and Shout (Lauren Lewis)***
**** Wednesdays 1:30–2:30 p.m.**
Dancing with Parkinson's
Thursdays 2:00–3:00 p.m.

East/Central
Healthsouth Rehab Hospital
1215 Red River, 1st Floor Annex
Dancing with Parkinson's
Mondays 1:30–2:30 p.m.
Strength & Conditioning
Fridays 2:00–3:00 p.m.

North Central – New Name & Time
Covenant Presbyterian Church
3003 Northland Drive, 2222 & MOPAC
Fitness for Parkinson's
Tuesdays 11:30 a.m.–12:30 p.m.
**** Balls & Balance***
**** Thursdays 11:30 a.m.–12:30 p.m.**

North Central
Jewish Community Center of Austin,
7300 Hart Lane, Far West & MOPAC
**** Walking Group***
**** No Classes in July and August**

Northwest Austin
Unity Church of the Hills
9905 Anderson Mill Road,
Unity Oaks Room 201
Movement & Balance
Mondays 10:30–11:30 a.m.
Dancing with Parkinson's
Wednesdays 1:30–2:30 p.m.

Round Rock – New Location, Class and Time
2111 Sam Bass Road
**** Fitness for Parkinson's (Kristi Richards)***
**** Thursdays 1:00–2:00 p.m. starting July 10th**

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July Membership Meeting

Saturday, July 19 ■ 2:00 p.m.
Medical Office Building, St. David's Medical Center
5th Floor Conference Room, 3000 N. IH-35

ICE CREAM SOCIAL

Sue Orr, Registered Dietitian with Reliant Rehabilitation Hospital in Round Rock, will be joining us during our Annual Ice Cream Social to share important nutrition information. This information is important to help us stay as healthy as we can be. We will also enjoy delicious ice cream donated by Amy's! What a great way to spend a summer afternoon with friends!