Genetics of Parkinson Disease

What is Parkinson Disease?
Parkinson Disease (PD) was first described by James Parkinson in 1817. It is the second most common neurodegenerative disorder affecting about 1% of the population older than 50 years of age. PD is a complex disease indicating that different factors may play a role in its development. Known factors include the environment, age and genetic factors.

What are genetic factors?
Genetic factors or genes contain genetic information that is important for normal body and organ function. Genetic information is read by the organism and translated into a purpose or function very much like reading a book. One will only understand what is written in a book, if the book is complete without missing pages and/or typos. Our organism has about 25,000 different genes in every single cell. Genes are always present in two identical copies with one copy being inherited from the mother and the other being inherited from the father.

What are mutations?
Mutations are typos in genes that may be either inherited from the parents or occur spontaneously. Mutations may change the information in a way that the organism can no longer read and use the information. Mutations may therefore cause genetic diseases or make a person more likely to develop a disease such as PD.

How common are mutations in these genes in patients with PD?
Only 6-10% of patients with PD carry (a) mutation(s) in one of these genes. However the frequency for mutations in the LRRK-2 and GBA genes may be as high as 30% for Ashkenazi Jewish individuals with PD.

When should a patient with PD be considered for genetic testing?
Any patient with an early onset of PD (< 50 years of age) and/or a family history for PD should be considered for genetic testing. Importantly, all patients with PD undergoing genetic testing need to have pre-testing genetic counseling so that all concerns can be addressed and questions answered. Patients need to understand the limitations and consequences of genetic testing.

Genetic counseling can be arranged with a board certified Geneticist and Genetics Counselor at the University of Miami.

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Parkinson’s Disease & Movement Disorders Center
1150 NW 14 Street, Suite 401
Miami, Florida 33136
Neurology Clinic Suite 609

To make an appointment call (305) 243-3100 or (305) 243-6732
Message from Dr. Singer

We welcome this New Year with our center in full gear. In this issue, Dr. Bodamer provides us with a wonderful introduction to genetic aspects of Parkinson’s disease (PD). Thanks to Dr. Bodamer and his capable team, we can now offer this additional counseling service to our patients.

We will soon have two trials for treatment of PD. One of the trials will be focusing on treatment of low blood pressure problems in Parkinson patients. The other trial will be studying a medication to determine if it can slow down the progression of PD in its early stages in patients who are not yet being treated with other medications. In addition, we will soon be joining other colleagues in assessing the use of telemedicine in PD, as part of our on-going collaboration with the National Parkinson Foundation (NPF).

We continue running a very busy clinical service including the provision of social services to our patients regardless of economic status. We have clinics in Boca Raton, Hialeah and Kendall in addition to our Miami campus clinic at the Professional Arts center. We are here for you. We wish you all a very happy New Year!

Mark Your Calendar!

Parkinson’s Disease 101 (In Spanish)

Tuesday February, 25 and March 4, 2014
(This event is a free two day educational series that includes lunch and free valet parking)
Time: 10:00AM—12:30PM
Presenters Henry P. Moore, MD & George Dumenigo, LCSW, Licensed Clinical Social Worker
New Location: The Palace Coral Gables, One Andalusia Ave., Coral Gables, FL 33134

Parkinson’s Disease 101 (In English)

Fall 2014
(This event is a free two day educational series that includes lunch)
Time: 10:00AM—12:30PM
Presenters Angela Russell, Ph.D., ARNP-BC & George Dumenigo, LCSW, Licensed Clinical Social Worker
Location: TBA

Parkinson’s Disease Support Group/Exercise Class

Group meets the first Wednesday of each month at 1:00pm

Location: St. Catherine’s West Rehabilitation Hospital, 8850 NW 122 St., Hialeah Gardens, FL

*Exercise Class will be for 30 minutes prior to Support Group. Exercise Class starts at 1pm.
*Refreshments Provided and Free Parking is Available.
Carlos Singer, MD in Miami Location

Dr. Carlos Singer sees patients Monday thru Thursdays at our UHealth offices in the Professional Art Center, 1150 NW 14 Street, Room 609, Miami, Fl, 33136
St. Catherine’s Rehab Hospital, Multidisciplinary Clinic, 3rd Thursday of each month.
For appointments or additional information: (305) 243-3100 or (305) 243-6732

Henry P. Moore, MD in Boca Raton, Hialeah and Miami Location

Dr. Henry P. Moore sees patients at our UHealth Boca Raton location every Monday and Thursday
Address: 3848 FAU Blvd., Suite 305, Boca Raton, FL 33431
Miami location every Tuesday and Wednesday
Address: Professional Arts Center, 1150 NW 14 St., Suite 609, Miami, FL 33136
Hialeah location every 2nd Wednesday of each month.
Address: 7000 West 12th Avenue, Suite 4, Hialeah, FL 33014
For appointments or additional information: (305) 243-3100 or (305) 243-6732

Corneliu C. Luca, M.D., Ph.D. in Kendall and Miami Location

Dr. Luca sees patients at our UHealth Miami location every Thursday
Address: Professional Arts Center, 1150 NW 14 St., Suite 609, Miami, FL 33136
Kendall location every 2nd and 4th Tuesday of the month
Address: 8932 SW 97 Ave., Miami, FL 33176
For appointments or additional information: (305) 243-3100 or (305) 243-6732

Angela Russell, ARNP, Ph.D. in Miami Location

Dr. Angela Russell, Ph.D., ARNP-BC sees follow-up patients as scheduled at our UHealth and St. Catherine’s Rehabilitation Hospital in North Miami, FL
Miami location on Tuesday and Wednesdays
Our offices in the Professional Art Center, 1150 NW 14 Street, Room 609, Miami, FL, 33136
For appointments or additional information: (305) 243-3100 or (305) 243-6732

George Dumenigo, LCSW, MSW in Miami Location

George Dumenigo, LCSW sees patients at our UHealth Miami Location every Monday thru Friday
Address: Profession Arts Center, 1150 NW 14 St., Suite 604, Miami, FL, 33136
For appointment call George directly at (305) 243-1865 or E-mail: gdumenigo@med.miami.edu
Dear 2013 Moving Day Participants:

Moving Day Miami 2014
Sunday, October 5th
Bayfront Park

Plans are underway for Moving Day Miami 2014 and we hope that you'll join us once again with Team UM in the fight against Parkinson’s disease!

We are grateful to the NPF for their support of the Parkinson Insider.