BIOGRAPHICAL SKETCH

NAME Nir Giladi M.D.	POSITION TITLE Professor of Neurology Chairman of the Department of Neurology Tel Aviv Medical Center Director of the Department pf Neurology and Neurosurgery Sackler School of Medicine, Tel Aviv University Incumbent of the Sieratzki Chair in Neurology Sackler School of Medicine, Tel-Aviv University
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing. Include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Beer Sheba University, Israel	M.D.	1977-1983	Medicine
Passed the American Licensing Exam for Foreign Med. Graduates		1984	
Passed the Israeli Board Exams in Neurology	Cert. neurologist	1992	Neurology

A. Personal Statement

I am a neurologist, expert in movement disorders with many years of experience treating patients with Parkinson's disease. Currently I am the chairman of the department of Neurology at TASMC and as such have access to a large patient pool as well as all needed facilities and infrastructure to assist in this proposed research. For more than 20 years I am involved in research in PD with great interest in clinical management, gait and movement disorders, genetic aspects of PD, epidemiological studies and neuroimaging. In the past decade I managed, overlooked and carried out numerous clinical trials involving patients with PD with expertise in all medical, clinical and applicative aspects. I believe this innovative application has the ability to enhance patient well-being and quality of life. I have the expertise, leadership, motivation and am well positioned to collaborate on and contribute to this study.

B. Position and Honors

Clinical Positions:

1974-1977	Zahal Military Medic
1977-1983	Ben Gurion University Beer-Sheeba, Israel
1983-1984	Internship studies in Neurology in Haemek Hospital, Afula, Israel
1985-1989	Tel Aviv University Post Graduate Studies in Neurology
1989-1991	Columbia University, New York USA, Fellowship in Movement Disorders
1993-1996	Director of Movement Disorders Clinic, Carmel Medical Center, Technion School of Medicine, Haifa, Israel
1996-2007	Director of Movement Disorders Unit, Dpt. of Neurology at Tel Aviv Medical Center, Tel-Aviv, Israel
2007-	Chairman, Department of Neurology, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel
2014	Director of the Department of Neurology and Neurosurgery sackler School of Medicine, Tel Aviv University

Recent awards and other professional activities:

2004 Tel Aviv Sourasky Medical Center: Excellence for Medical Care Award of the General Director
2006 Tel Aviv University School of Allied Health : Excellence in teaching award
2007 Treasurer elect - The International Movement Disorders Society
2009-2011 Treasurer -The International Movement Disorders Society
2011-2013 Member of the Israeli Supreme Health Basket Committee
2012-2015 Chairman of the Sieratzki Neurological Research Cathedral, Tel Aviv University

C. Contribution to Science

As a clinician I have been interested in understanding and exploring the most optimal therapeutic approaches to treat PD and have been involved in many clinical trials as a Principle Investigator. My early research focused on investigating pharmacological agents for alleviating motor symptoms (both continuous and episodic) as well as non-motor symptoms such as sleep and cognitive impairments. In recent years I am leading a nationwide epidemiological study to assess the prevalence and incidence of PD in Israel, which demonstrated that the prevalence of the disease in Israel is two times higher than that of European countries or the United States. This information has led to a shift in clinical care. [*Giladi et al*. Acta Neurol Scand 2003;108(5):368-73; *Giladi et al.* Mov Disord 2007;22(16):2398-404; *Giladi et al*. Mov Disord 2008;23 Suppl 2:S482-S488; *Giladi et al*. J Neural Transm 2010;117(12):1395-9; *Inzelberg et al*. J Neural Transm. 2011;118(8):1199-207; *Chillag-Talmor* et al. J Neurol. 2013 Jan;260(1):62-70; *Giladi et al*. Parkinsonism Relat Disord 2014;20(12):1345-51; *Poewe et al*. Lancet Neurol 2015;14(2):145-52.]

In the past 10 years I have been leading a large-scale research endeavor to clinically and epidemiologically characterize the Ashkenazi Jewish PD population in Israel and to identify genes that influence the risk in this population. In recent years we have contributed groundbreaking research on the influence of two major disease genes - LRRK2 and GBA. Our research was first aimed at identifying the frequency of these genes in patients with PD and explore differences in phenotype. It then evolved to include first degree relatives of these patients to explore markers of disease in healthy asymptomatic carriers. In addition to exploring the contribution of risk mutations we also investigated the existence of protective haplotypes or genes. We recently showed that the immune system particularly the B cells involved in Parkinson's disease and may contribute to the protection from the disease or influence its progression. The above described research has opened new avenues of exploring disease progression and disease identification and could impact treatments in PD. [*Sidransky et al*. N Engl J Med; 361(17):1651-61; 2009; *Mirelman et al.* Ann Neurol. 2011 Jan;69(1):193-7; *Van Nuenen et al.* Brain. 2012 Dec;135(Pt 12):3687-3698; *Thaler et al.* Cortex. 2013 Jan 7. pii: S0010-9452(12)00374-; *Gan-Or et al.* Neurology. 2015 Mar 3;84(9):880-7; *Mirelman et al Mov Disord 2015 March 21*].

I also have a keen interest in understanding the relationship between cognitive functions and quality of gait, as well as the risk of falling and the neurophysiological basis of the phenomenon of Freezing of Gait (FOG) in Parkinsonism. My early work on identifying and quantifying FOG resulted in a standardized validated and widely used questionnaire (FOGQ). In addition, using accelerometers and gyroscopes we record gait during usual activities in both the laboratory setting as well as in the home environment to understand changes in performance during daily and medication cycles and behavior. Using specified indices, we have identified the importance of variance between different steps, as a measure for early detection of risk of falls, and as a sensitive measure of sub-clinical changes, susceptibility to cognitive loads and perhaps a marker of disease. [*Giladi et al*. Mov Disord 24(5):655-61;2009; *Giladi et al.* Adv Neurol 2001;87:191-7; *Giladi et al.* J Neural Transm 2007;114(10):1241-2; *Weiss et al.* J. Neurorehabil and Neural Repair, 2011;25(9):810-8; *Mirelman et al.* PLoS One. 2012;7(6):e40297; *Giladi et al.* Mov Disord 2013 15;28(11):1469-73; *Nieuwboer et al.* Mov Disord 2013 15;28(11):1509-19]

Complete List of Published Work in Pubmed: http://www.ncbi.nlm.nih.gov/pubmed/?term=Nir+Giladi

D. Ongoing Research Support

Michael J Fox Foundation, USA (Co-PI)   2011-2016
The Parkinson's Disease, Ashkenazi Jews and LRRK2 Consortium – a longitudinal extension
Goal: To characterized PD in AJ patients Clinico- genetics

European Union 7th Framework Program   (Co-Investigator)   2011-2015
Virtual reality-Treadmill combined Intervention for enhancing Mobility and reducing falls in the Elderly

National Parkinson Foundation, USA (PI)   2013- 2018
NPF Center of Excellence, Support Care and Outreach
Goal: To improve patients care

Michael J Fox Foundation, USA (PI)   2013-2018
PPMI – Biological Markers in Asymptomatic carriers of G2019s mutations in the LRRK2 gene
Goal: To collect prospective data on early PD patients and subject of risk