

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Pahwa, Rajesh	POSITION TITLE Professor of Neurology		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Seth G.S. Medical College, Univ.of Bombay,India	M.D.	1983	Medicine
KEM Hospital, Bombay, India	Resident	1985	Medicine
Baylor College of Medicine, Houston	Internship	1988	Medicine
Baylor College of Medicine, Houston	Resident	1991	Neurology
University of Kansas, School of Medicine, K.C.	Fellowship	1992	Movement Disorders

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

Positions

1992-1993 Instructor, University of Kansas Medical Center, Dept. of Neurology, Kansas City, KS
 1992-1997 Staff Neurologist, Veterans Administration Medical Center, Topeka, KS
 1992-1997 Staff Neurologist, Veterans Administration Medical Center, Kansas City, MO
 1993-1999 Assistant Professor, University of Kansas Medical Center, Dept. of Neurology, K.C., KS
 1999-2004 Associate Professor, University of Kansas Medical Center, Dept. of Neurology, K.C., KS
 2004-present Professor, University of Kansas Medical Center, Dept. of Neurology, K.C., KS

Other Experience and Professional Memberships

1999-present Director, Parkinson's Disease and Movement Disorder Center, KUMC, Neurology, KC, KS
 1999-present Medical Director, Movement Disorder Surgery Program, Kansas University Hospital, KC, KS
 1989-present Member, American Academy of Neurology
 1992-present Member, Movement Disorder Society
 1992-present Member, Kansas City Neurology Neurosurgery Society (President 1998-1999)
 1994-present Member, Parkinson Study Group
 2000-present Member, Tremor Research Group

Honors

2002 Top 10 Research Faculty by University of Kansas Research Institute
 2003 Kansas Biomedical Research Infrastructure Network (K-Brin) Faculty Scholar Award for Excellence in Research, Teaching and Service to the University (University of Kansas)
 2005 Inaugural Laverne and Joyce Rider Professor of Neurology, KU School of Medicine, K.C. KS

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

(selected from 150 peer reviewed publications)

1. Pankratz N, et al and the Parkinson Study Group – PROGENI Investigators. Presence of an APOE4 allele results in significantly earlier onset of Parkinson's disease and a higher risk with dementia. *Mov Disord* 2006;21:45-49.

2. Parkinson Study Group. A randomized controlled trial of etilevodopa in patients with Parkinson disease who have motor fluctuations. *Arch Neurol* 2006;63:210-216.
3. Tilley BC, et al on behalf of the NET-PD Investigators. Optimizing the ongoing search for new treatments for Parkinson disease using futility studies. *Neurology* 2006;66:628-633.
4. The NINDS NET-PD Investigators. A randomized, double-blind, futility clinical trial of creatine and minocycline in early Parkinson disease. *Neurology* 2006;66:664-671.
5. Lyons KE, **Pahwa R**. Effects of bilateral subthalamic nucleus stimulation on sleep, daytime sleepiness, and early morning dystonia in patients with Parkinson disease. *J Neurosurg* 2006;104:502-505.
6. **Pahwa R**, Lyons KE, Wilkinson SB, Simpson RK, Ondo WG, Tarsy D, Norregaard T, Hubble JP, Smith DA, Hauser RA, Jankovic J. Long-term evaluation of deep brain stimulation of the thalamus. *J Neurosurg* 2006;104:506-512.
7. **Pahwa R**, Factor SA, Lyons KE, et al. Practice parameter: treatment of Parkinson disease with motor fluctuations and dyskinesia (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2006;66:983-995.
8. Lyons KE, **Pahwa R**. Conversion from sustained release carbidopa/levodopa to carbidopa/levodopa/entacapone (Stalevo) in Parkinson disease patients. *Clin Neuropharmacol* 2006; 29:73-76.
9. Liu W, McIntire K, Kim SH, Zhang J, Dascalos S, Lyons KE, **Pahwa R**. Bilateral subthalamic stimulation improves gait initiation in patients with Parkinson's disease. *Gait Posture* 2006;23:492-498.
10. Goetz CG, Schwid SR, Eberly SW, Oakes D, Shoulson I and the Parkinson Study Group TEMPO and PRESTO Investigators. Safety of rasagiline in elderly patients with Parkinson disease. *Neurology* 2006;66:1427-1429.
11. Biglan KM, et al and the Parkinson Study Group. Rasagiline improves quality of life in patients with early Parkinson's disease. *Mov Disord* 2006;21:616-623.
12. Eng ML, Lyons KE, Greene MS, **Pahwa R**. Open-label trial regarding the use of acupuncture and yin tui na in Parkinson's disease outpatients: a pilot study on efficacy, tolerability, and quality of life. *J Altern Complement Med* 2006;12:395-399.
13. Davis JT, Lyons KE, **Pahwa R**. Freezing of gait after bilateral subthalamic nucleus stimulation for Parkinson's disease. *Clin Neurol Neurosurg* 2006;108:461-464.
14. Louis ED, Vonsattel JPG, Honig LS, Ross GW, Lyons KE, **Pahwa R**. Neuropathologic findings in essential tremor. *Neurology* 2006;66:1756-1759.
15. Lyons KE, **Pahwa R**. Efficacy and tolerability of levetiracetam in Parkinson disease patients with levodopa-induced dyskinesia. *Clin Neuropharm* 2006;29:148-153.
16. Lang AE, Houeto JL, Krack P, Kubu C, Lyons KE, Moro E, Ondo W, **Pahwa R**, Poewe W, Troster AI, Uitti R, Voon V. Deep brain stimulation: preoperative issues. *Mov Disord* 2006;21(suppl 14):S171-S196.
17. Kleiner-Fisman G, Herzog J, Fisman DN, Tamma F, Lyons KE, **Pahwa R**, Lang AE, Deuschl G. Subthalamic nucleus deep brain stimulation: summary and meta-analysis of outcomes. *Mov Disord* 2006;21(suppl 14):S290-S304.
18. Volkmann J, Moro E, **Pahwa R**. Basic algorithms for the programming of deep brain stimulation in Parkinson's disease. *Mov Disord* 2006;21(suppl 14):S284-S289.
19. Lyons KE, Wilkinson SB, **Pahwa R**. Stimulation of the motor cortex for disabling essential tremor. *Clin Neurol Neurosurg* 2006;108:564-567.
20. Ushe M, Mink JW, Tabbal SD, Hong M, Gibson PS, Rich KM, Lyons KE, **Pahwa R**, Perlmuter JS. Postural tremor suppression is dependent on thalamic stimulation frequency. *Mov Disord* 2006;21:1290-1292.
21. Foroud T, Pankratz N, Martinez M and the PROGENI/GSPD-European Consortium. Chromosome 5 and Parkinson disease. *Eur J Hum Genet* 2006;14:1106-1110.
22. Elble RJ, Pullman SL, Matsumoto JY, Raethjen J, Deuschl G, Tintner R and the Tremor Research Group. Tremor amplitude is logarithmically related to 4- and 5-point tremor rating scales. *Brain* 2006;129:2660-2666.
23. Pankratz N, et al and the Parkinson Study Group – PROGENI Investigators. Mutations in DJ-1 are rare in familial Parkinson disease. *Neurosci Lett* 2006;408:209-213.
24. Pankratz N, et al and the Parkinson Study Group – PROGENI Investigators. Mutations in LRRK2 other than G2019S are rare in a North American-based sample of familial Parkinson's disease. *Mov Disord* 2006;21:2257-2260.
25. Elble RJ for the Tremor Research Group and Conference Attendees. Report from a U.S. conference on essential tremor. *Mov Disord* 2006;21:2052-2061.
26. Eng ML, Lyons KE, **Pahwa R**. Prevalence of bone mineral density screening in Parkinson's disease clinic outpatients. *Mov Disord* 2006;21:2265-2266.
27. NINDS NET-PD Investigators. A randomized clinical trial of coenzyme Q10 and GPI-1485 in early Parkinson disease. *Neurology* 2007;68:20-28.
28. Ishihara L, Gibson RA, Warren L, et al. Screening for Lrrk2 G2019S and clinical comparison of Tunisian and North American Caucasian Parkinson's disease families. *Mov Disord* 2007;22:55-61.
29. Lyons KE, Davis JT, **Pahwa R**. Subthalamic nucleus stimulation in Parkinson's disease patients intolerant to levodopa. *Stereotact Funct Neurosurg* 2007;85:169-174.
30. **Pahwa R**, Stacy MA, Factor SA, Lyons KE, et al. Ropinirole 24-hour prolonged release: randomized, controlled study in advanced Parkinson disease. *Neurology* 2007;68:1108-1115.
31. LeWitt PA, Lyons KE, **Pahwa R** on behalf of the SP-650 Study Group. Advanced Parkinson disease treated with

rotigotine transdermal system: PREFER study. *Neurology* 2007;68:1262-1267.

32. Singer C, Lamb J, Ellis A, Layton G on behalf of the Sumanitrole for Early Parkinson's Disease Study Group. A comparison of sumanitrole versus placebo or ropinirole for the treatment of patients with early Parkinson's disease. *Mov Disord* 2007;22:476-482.
33. Stacy MA, Elble RJ, Ondo WG, Wu S-C, Hulihan J, TRS Study Group. Assessment of interrater and intrarater reliability of the Fahn-Tolosa-Marin tremor rating scale in essential tremor. *Mov Disord* 2007;22:833-838.
34. Elm JJ, Kamp C, Tilley BC, Guimaraes P, Frasier D, Deppen P, Brocht A, Weaver C, Bennett S for NINDS NET-PD Investigators and Coordinators. Self-reported adherence versus pill count in Parkinson's disease: The NET-PD experience. *Mov Disord* 2007; 22: 822-827.
35. Lew MF, **Pahwa R**, Leehey M, Bertoni J, Kricorian G, The Zydis Selegiline Study Group. Safety and efficacy of newly formulated selegiline orally disintegrating tablets as an adjunct to levodopa in the management of 'off' episodes in patients with Parkinson's disease. *Curr Med Res Opin* 2007;23(4):741-750.
36. Parkinson Study Group. Pramipexole in levodopa-treated Parkinson disease patients of African, Asian and Hispanic heritage. *Clin Neuropharmacol* 2007;30:72-85.

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Ongoing Research Support

5 U10 NS044469-03

2002 – 2007

NINDS/NIH PD Cooperative Studies

KU Center for Neuroprotection in Parkinson's Disease

Study 1: NPDCS (NET-PD FS01-2002) FS1- A Multicenter, Double-Blind, Futility Study of Minocycline and Creatine in subjects with early untreated Parkinson's Disease (PD).

Study 2: NPDCS (NET-PD FS02-2003) FS Too - A Multicenter, Double-Blind, Pilot Study of CoQ₁₀ and GPI 1485 in subjects with early untreated Parkinson's Disease (PD)

Study 3: NS43128 (NET-PD) A Multicenter, double-blind, parallel group, placebo controlled study of creatine in subjects with treated Parkinson's disease (PD) LS-1

Role: Site PI

NIH RO1 NS 37167-01 (T. Foroud, Ph.D.)

09/01/1999 – 09/31/10

NIH/Indiana University in collaboration with the Parkinson Study Group

PROGENI - Parkinson's Research: The Organized Genetics Initiative

The major goals of this project are to identify the gene(s) which predispose individuals to develop PD

Role: Site PI

SP650

2002 – Present

Schwarz Pharma

A Multicenter, multinational, phase III, randomized, double-blind, parallel group, placebo controlled trial of the efficacy and safety of rotigotine CDS patch (2 target doses) in subjects with advanced stage, idiopathic Parkinson's disease who are not well controlled on levodopa.

The major goals of this study are to show that rotigotine CDS is efficacious in advanced stage Parkinson's disease patients as an adjuvant therapy and to demonstrate the tolerability and safety of rotigotine CDS.

Role: Site PI

305405 (STEPS)

2003 – Present

Schering/Berlex

Study of the safety, tolerability and efficacy of Spheramine @implanted bilaterally into the postcommissural putamen of patients with advanced Parkinson's disease.

The major goals of this study are to evaluate the safety, tolerability and efficacy of bilateral intrastriatal Spheramine implants in patients with advanced Parkinson's disease compared to placebo

Role: Site PI

6002-INT-001 & 6002-US-025 (open label extension) 2004 – Present
Kyowa
A Long-Term, Multicenter, Open-Label Safety Study with Oral 20 or 40 mg/d Doses of KW-6002 (Istradefylline) as Treatment for Parkinson's Disease in Patients with Motor Response Complications on Levodopa Therapy.
The major goals of this study are to confirm the long-term safety and tolerability of oral 20 or 40 mg/d doses of istradefylline.
Role: Site PI

CELC20042401/2939107 2004 – Present
Novartis
A long term, double-blind, randomized, parallel-group, carbidopa/levodopa controlled, multi-center study to evaluate the effect of Stalevo™ in patients with Parkinson's disease requiring initiation of levodopa therapy (STRIDE-PD).
The major goals of this study are to evaluate the effect of Stalevo™ in patients with Parkinson's disease requiring initiation of levodopa therapy.
Role: Site PI

ACP-103-006 & ACP-103-010 (open label) 2005 – Present
Acadia
A Phase II, Multi-Center, Placebo-Controlled, Double-Blind Trial of ACP-103 in the Treatment of Psychosis in Parkinson's Disease.
The major goals of this study are to demonstrate that ACP-103 is well tolerated by, and will not worsen parkinsonism in patients with Parkinson's disease and psychosis.
Role: Site PI

TVP 1012/500 (ADAGIO) 2005 – Present
Teva
A Multicenter, Double-Blind, Randomized Start, Placebo-Controlled, Parallel-Group Study to Assess Rasagiline as a Disease Modifying Therapy in Early Parkinson's Disease Subjects (ADAGIO).
The goal of this study is to assess rasagiline as a disease modifying therapy in early PD.
Role: Site PI

248.619 (Dominion) 2006 - Present
Boehringer Ingelheim
A cross-sectional, retrospective screening and case-control study examining the frequency of and risk factors associated with impulse control disorders in Parkinson's disease patients treated with Mirapex (pramipexole) and other anti-parkinsonian agents.
The goal of this study is to examine impulse control disorders in patients on dopaminergic therapy.
Role: Site PI

E2007-A001-302 2006 - Present
Eisai
A multi-center, randomized, double-blind, placebo-controlled, parallel group study of the efficacy, safety and tolerability of E2007 in levodopa treated Parkinson's disease patients with motor fluctuations.
The goal of the study is to examine the safety, efficacy and tolerability of E2007
Role: Site PI

S308.3.001 & S308.3.006 (open label) Rembrant 2006 - Present
Solvay Pharmaceuticals
A randomized, double-blind, placebo-controlled parallel-group fixed and flexible SLV308 dose arm study to assess efficacy and safety of SLV308 monotherapy in the treatment of patients with early stage Parkinson's disease.
The goal of this study is to examine the safety and efficacy of SLV308 both short and longterm
Role: Site PI