

## **CURRICULUM VITAE**

**Samuel M. Goldman, MD, MPH**

### **The Parkinson's Institute**

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## **EDUCATION**

1977-1982	University of Michigan, Ann Arbor	BS, Psychology
1983-1987	University of Texas, Houston	MD
1987-1988	Mt. Zion Hospital, San Francisco, CA	Internship, Internal Medicine
1992-1993	University of California, Berkeley	MPH, Environmental Health
1992-1994	University of California, Berkeley	Residency, General Preventive Medicine

## **LICENSURE**

California Medical License: A45062

Board Certification: American Board of Preventive Medicine and Public Health

## **PROFESSIONAL APPOINTMENTS**

2008-present	Associate Professor, Clinical Research, Parkinson's Institute, Sunnyvale, CA
2008-present	Adjunct Instructor of Medicine, University of California, San Francisco
1998-2008	Clinical Instructor of Medicine, Division of Occupational and Environmental Medicine, University of California, San Francisco
1998-2008	Senior Consulting Scientist, Clinical Research, Parkinson's Institute, Sunnyvale, CA
1996-1998	Associate Director of Clinical Affairs, Parkinson's Institute, Sunnyvale, CA
1993-1996	Research Scientist, Clinical Research, Parkinson's Institute, Sunnyvale, CA
1990-1992	Staff Physician, Good Samaritan Medical Associates, Campbell, CA
1988-1990	Medical Director, West Berkeley Health Center, Berkeley, CA

## **ACADEMIC HONORS AND AWARDS**

Regents Alumni Merit Scholarship (University of Michigan)  
Michigan Competitive Scholarship (University of Michigan)  
Honors Convocation Award (University of Michigan)  
Alpha Omega Alpha Medical Honor Society (University of Texas)  
Highest Achievement in Pharmacology (University of Texas)  
Housestaff Teaching Award (University of California, San Francisco)

## **PROFESSIONAL SOCIETIES**

American Academy of Neurology  
American Association for the Advancement of Science  
American College of Preventive Medicine  
Alpha Omega Alpha Honor Medical Society  
California Academy of Preventive Medicine  
Movement Disorders Society  
World Federation of Neurology, Neuroepidemiology Research Group  
Society for Epidemiologic Research

**PEER REVIEWER**

American Academy of Neurology  
Annals of Neurology  
BMC Neurology  
Brain  
Environmental Health Perspectives  
European Journal of Neurology  
Michael J. Fox Foundation  
Movement Disorders  
Neurology  
Neuroscience Letters  
Neurotoxicology  
Parkinsonism and Related Disorders

**INVITED LECTURES**

Swiss Society of Neurology Annual Meeting, Geneva, Switzerland, 2004.  
Mickey Leland National Urban Air Toxics Research Center Symposium. Effects of Air Pollution on the Health of Older Adults. Arlington, VA, 2005.  
Scandinavian Neurology Congress, Uppsala, Sweden, 2005.  
Parkinson's Disease and Environment Consensus Conference, Sunnyvale, CA, 2007.  
8<sup>th</sup> Asia/Oceania Regional Congress of Gerontology and Geriatrics, Beijing, China, 2007.  
National Parkinson Foundation's 6th Annual Young-Onset Parkinson Network Conference, Atlanta GA, 2008.  
XVIII WFN World Congress on Parkinson's Disease and Related Disorders, Miami, FL, 2009.

**CURRENT GRANT AND CONTRACT SUPPORT**

01/01/2009-12/13/2010	Michael J. Fox Foundation <i>Assessing Heart Rate Variability (HRV) in the Parkinson's Associated Risk Study (PARS) Cohort</i> Role: Co-Investigator
09/30/2009 – 09/29/2011	AHRQ R01 HS018413 <i>Diagnostic Error in Dystonia</i> Role: Co-Investigator
05/01/2008 -- 05/1/2010	Michael J. Fox Foundation <i>Building a new approach for PD clinical research and personalized medicine/social networking: Development and validation of web based</i>

- assessment tools.*  
Role: Co-PI  
04/1/04 -- 03/1/11 Department of Defense, W81XWH-0410490  
*Polychlorinated Biphenyls, Organochlorines, and PD Risk: A Case Control Study in Alaskan Natives*  
Role: Consulting scientist  
09/23/05 – 06/30/10 NINDS, NIH, RO1 NS046340-01A1  
*Epidemiology of Dystonia in a Multi-Ethnic Population*  
Role: Consulting scientist  
03/01/07– 02/28/11 Dept. of Defense, W81XWH-07-1-0001  
*Registry of Parkinsonism Cases among Alaska Native People living in Alaska*  
Role: Consulting scientist

## **PUBLICATIONS.**

### **PEER REVIEWED ARTICLES**

1. Potter WZ, Hsaio JK, Goldman SM: Effects of renal clearance on plasma concentrations of homovanillic acid. Archives of General Psychiatry, 46:558-562, 1989.
2. Tanner CM, Goldman SM: Epidemiology of movement disorders. Current Opinion in Neurology, 7:340-345, 1994.
3. Tanner CM, Goldman SM: Epidemiology of Parkinson's disease. Neurologic Clinics, 14:317-335, 1996.
4. Tanner CM, Goldman SM: Epidemiology of Tourette syndrome. Neurologic Clinics, 15:395-402, 1997.
5. Zola J, Smith N, Goldman S, Woodruff BA. Attitudes and Educational Practices of Obstetric Providers Regarding Infant Hepatitis B Vaccination. Obstetrics and Gynecology 89:61-64, 1997.
6. Tanner CM, Ottman R, Goldman SM, Ellenberg J, Chan P, Mayeux R., Langston JW, Parkinson Disease in Twins: An Etiologic Study. JAMA 281: 341-346, 1999.
7. Tanner CM, Goldman SM, Lyons KE, Aston DA, Tetrud JW, Welsh MD, Langston JW, Koller WC. Essential tremor in twins. An assessment of genetic vs. environmental determinants of etiology. Neurology 57:1389-1391, 2001.
8. Tanner CM, Goldman, SM, Aston DA, Ottman R, Ellenberg J, Mayeux R, Langston JW. Smoking and Parkinson's disease in twins. Neurology 58:581-588, 2002.
9. Hollblad-Fadiman K, Goldman SM. American College of Preventive Medicine Practice Policy Statement: screening for Chlamydia trachomatis. American Journal of Preventive Medicine, 24(3): 27-92, 2003.
10. Marras C, Goldman SM, Smith A, Barney P, Aston DA, Comyns K, Korell M, Langston JW, Ross GW, Tanner CM. Smell identification ability in twin pairs discordant for Parkinson's Disease. Movement Disorders, 20(6): 687-693, 2005.
11. Goldman SM, Tanner CM, Olanow CW, Watts RL, Field RD, Langston JW. Occupation and parkinsonism in three movement disorders clinics. Neurology, 65(9):1430-5, 2005.
12. Goldman SM, Tanner CM, Oakes D, Bhudhikanok GS, Gupta A, Langston JW. Head injury and Parkinson's disease risk in twins. Annals of Neurology, 60(1): 65-72, 2006.
13. Kamel F, Tanner CM, Umbach DM, Hoppin JA, Alavanja MCR, Blair A, Comyns K, Goldman SM, Korell M, Langston JW, Ross GW, Sandler DP. Pesticide Exposure and Self-

- Reported Parkinson's Disease in the Agricultural Health Study. American Journal of Epidemiology, 165(4): 364-374, 2007.
14. Bronstein J, Carvey P, Chen H, Cory-Slechta D, DiMonte D, Duda J, English P, Goldman S, Grate S, Hansen J, Hoppin J, Jewell S, Kamel F, Koroshetz W, Langston JW, Logroscino G, Nelson L, Ravina B, Rocca W, Ross GW, Schettler T, Schwarzschild M, Scott B, Seegal R, Singleton A, Steenland K, Tanner CM, Van Den Eeden S, Weisskopf M. Consensus statement: Parkinson's disease and the environment. Environmental Health Perspectives, 2008.
  15. Valappil RA, Black JE, Broderick MJ, Carrillo O, Frenette E, Sullivan SS, Goldman SM, Tanner CM, Langston JW. Exploring the electrocardiogram as a potential tool to screen for pre-motor Parkinson's disease. Movement Disorders, 2010, *in press*.

### **BOOK CHAPTERS**

1. Goldman SM, Tanner CM: The etiology of Parkinson's disease. IN: Parkinson's Disease and Movement Disorders, 3rd Edition, Jankovic J and Tolosa E (eds.). Williams and Wilkins, Baltimore, 1998.
2. Tanner CM, Goldman SM, Ross GW. The etiology of Parkinson's disease. IN: Parkinson's Disease and Movement Disorders, 4<sup>th</sup> Edition, Jankovic J and Tolosa E (eds.). Lippincott Williams and Wilkins, New York, 2003.
3. Goldman SM: Industrial and Occupational Exposures and Parkinson's Disease. IN: Parkinson's Disease, 2<sup>nd</sup> Edition, Pfeiffer RF, Ebadi M, Wszolek ZK (eds.). Taylor and Francis, Boca Raton, Florida, *in press*.

### **EDITORIALS**

1. Goldman SM. Trichloroethylene and Parkinson's disease: dissolving the puzzle. Expert Reviews in Neurotherapeutics, 2010, *in press*.

### **ABSTRACTS**

1. Tanner CM, Ottman R, Ellenberg JH, Goldman SM, et al: Parkinson's disease concordance in elderly male monozygotic and dizygotic twins. Neurology 48: A333, 1997.
2. Petzinger GM, Lewis P, Goldman SM, Tetrud JW, Langston JW, Forno LS: Accurate clinical diagnosis of idiopathic Parkinson's disease and its variants. Movement Disorders 12, Suppl 1:104,1997.
3. Tanner CM, Ottman R, Ellenberg JH, Goldman SM, Mayeux R, Chan P, Langston JW. Parkinson's disease concordance in elderly male monozygotic and dizygotic twins. Neurology 48:A333,1997.
4. Tanner CM, Goldman SM, Langston JW, Ottman R, Ellenberg J. Smoking and Risk of Parkinson's Disease in Twins Discordant for Parkinson's Disease. Neurology 50 (Suppl 4):A373, 1998.
5. Tanner CM, Koller WC, Goldman SM, Lyons KE, Aston DA, Tetrud JW, Welsh MD, Langston JW. Shared Determinants of Essential Tremor (ET) and Parkinson's Disease (PD): a study in twins. Neurology 54 (Suppl 3):A237, 2000.
6. Tanner CM, Ross GW, Goldman SM, Aston DA, Langston JW. Progressive Supranuclear Palsy and Multiple Systems Atrophy in Twins. Neurology 56 (Suppl 3):A221, 2001.

7. Kamel F, Tanner CM, Hoppin J, Umbach D, Goldman SM, Aston DA, Ross GW, Alavanja CR, Langston JW, Blair A, Sandler DP. Pilot study of PD in the Agricultural Health Study. Neurology 58 (Suppl 3):A408, 2002.
8. Goldman SM, Kusumi M, Aston DA, Langston JW, Tanner CM. Dietary intake of isoquinolines derivatives (IQs) and PD: a study in twins. Neurology 58 (Suppl 3):A409, 2002.
9. Goldman SM, Marras C, Tanner CM. Head injury and Parkinson's disease risk in twins. Neurology 60 (Suppl 1): A415, 2003.
10. Tanner CM, Goldman SM, Quinlan P, Field R, Aston DA, Comyns K, Smith A, Meng C, Wang Z, Marras C, Korell M, Langston JW. Occupation and risk of Parkinson's disease: a preliminary investigation of standard occupational codes (SOC) in twins discordant for disease. Neurology, 60 (Suppl 1): A415, 2003.
11. Goldman SM, Field RD, Olanow CW, Langston JW, Tanner CM. Occupation and Parkinson's disease (PD) onset age in a movement disorders clinic. Neurology 62 (Suppl 5): A90, 2004.
12. Goldman SM, Quinlan P, Smith AR, Langston JW, Tanner CM. Manganese exposure and risk of Parkinson's disease in twins. Movement Disorders 19 (Suppl 9): S162, 2004.
13. Goldman, SM, Smith A, Comyns K, Korell M, Quinlan P, Langston JW, Tanner CM. Welding and risk of Parkinson's disease. Neuroepidemiology 23(3): 154, 2004.
14. Chade AR, Goldman SM, Kasten M, Bhudhikanok G, Gupta A, Tanner CM. Olfaction in Twins Discordant for Essential Tremor. Movement Disorders 20 (Suppl 9): 1240-1241, 2005.
15. Chade AR, Goldman SM, Ross GW, Oakes D, Langston JW, Tanner CM. Clinical features in twins concordant for Parkinson's disease. Movement Disorders 21 (Suppl 13): S83, 2006.
16. Chade AR, Tanner CM, Goldman SM, Bhudhikanok G, Oakes D, Langston JW. Determinants of parkinsonian features in persons without PD. Neurology 66 (Suppl 2): A261, 2006.
17. Goldman SM, Tanner CM, Bhudhikanok G, Comyns K, Kusumi M, Gupta A, Meng C, Langston JW. Dietary risk factors for Parkinson's disease (PD) in twins. Neurology 66 (Suppl 2): A213, 2006.
18. Goldman SM, Tanner CM, Schuele B, Doostzadeh J, Comyns K, Gupta A, Sterling L, Bhudhikanok G, Langston JW. Failure to detect sequence variants associated with monogenic parkinsonism genes in twins. Neurology A192, 2007.
19. Bhudhikanok G, Kamel F, Umbach D, Korell M, Meng C, Hoppin J, Goldman SM, Comyns K, Langston JW, Sandler D, Blair A, Tanner CM. Agreement for recall of past pesticide use after nine years is comparable to agreement after one year. Neuroepidemiology 2007.
20. Tanner CM, Goldman SM, Marek K, Ross GW, Marras C, Seibyl J, Jennings D, Comyns K, Gupta A, Meng C, Bhudhikanok G, Chade A, Kasten M, Fernandez H, Cambi F, Oakes D, Langston JW. Follow-up of elderly male twin pairs discordant for Parkinson's disease (PD). Neurology A86, 2007.
21. Chade AR, Goldman SM, Comyns K, Gupta A, Kasten M, Meng C, Bhudhikanok G, Ross GW, Oakes D, Langston JW, Tanner CM. Premorbid personality in twins discordant for Parkinson's disease. Neurology A86, 2007.
22. Tanner CM, Kukull W, Shults C, Comyns K, Bhudhikanok G, May S, Goldman SM, Meng C, Gilman S, Chade A, Kasten M, Colcher A, Huang N, Jankovic J, Low P, Marshall F,

- Novak P, Ondo W, Racette B, Reich S, Sandroni P, Stern M, Wooten GF. Head injury with amnesia and risk of multiple system atrophy (MSA). Neurology A49, 2007.
23. Tanner CM, Giacomini K, Nelson L, Kamel F, Bhudhikanok G, Van Den Eeden S, Umbach D, Korell M, Topol B, Goldman S, Hoppin J, Taylor T, Floren LC, Yee SW, Blair A, Ross GW, Langston JW. OCT2 and Parkinson's Disease (PD) Risk. Movement Disorders 2008, 23 (Suppl1): S244.
  24. Hoppin JA, Kamel F, Korell M, Umbach DM, Ross GW, Goldman S, Bhudhikanok GS, Blair A, Sandler DP, Tanner CM. Blood metal levels in Parkinson's Disease. American Journal of Epidemiology 2008, 167(Suppl):S1-S167.
  25. Kamel F, Korell M, Umbach DM, Ross GW, Goldman S, Bhudhikanok GS, Blair A, Sandler DP, Tanner CM. Blood metal levels in Parkinson's Disease. Neuroepidemiology 2008.
  26. Goldman SM, Tanner CM, Korell M, Bhudhikanok GS, Schuele B, Hoppin JA, Sterling L, Umbach DM, Ross GW, Blair A, Langston JW, Kamel F. -Synuclein (SNCA) variants and Parkinson's disease susceptibility. Movement Disorders 2008, 23 (Suppl1): S33.
  27. Liang G, Tanner CM, Ludlow C, Finnegan K, Lo R, Fross F, Huang N, Leimpeter A, Albers K, Comyns K, Bernstein A, Klingman J, Goldman S, Ozelius L, Marras C, Bressman S, Comella C, Risch N, Nelson L, Van Den Eeden S. Assessment of a pilot voice recording screening tool for spasmodic dysphonia (SD). Movement Disorders 2008, 23 (Suppl1): S244.
  28. Lo RY, Tanner CM, Gu Z, Albers KB, Leimpeter AD, Fross R, Comyns K, Liang G, Bernstein A, Klingman J, Goldman S, Ozelius L, Marras C, Bressman S, Comella C, Risch N, Nelson LM, Ludlow C, McGee BS, Van Den Eeden SK. Minimum Incidence of Primary Spasmodic Dysphonia. Neurology 2009, 72 (Suppl3) A273.
  29. Goldman SM, Kamel F, Bhudhikanok GS, Korell M, Hoppin JA, Sterling L, Umbach DM, Ross GW, Sandler DP, Blair A, Langston JW, Tanner CM.  $\alpha$ -Synuclein (SNCA) Genotype Modifies the Association Between Head Injury and Parkinson's Disease (PD). Neurology 2009, 72 (Suppl3): A258.
  30. Goldman SM, Tanner CM, Meng C, Bhudhikanok G, Quinlan P, Comyns K, Korell M, Priestley B, Langston JW. Parkinson's disease risk is increased in discordant twins exposed to specific solvents. Neurology 2010, 74 (Suppl2): A104.
  31. Kamel F, Goldman SM, Umbach D, Hoppin J, Richards M, Korell M, Bhudhikanok G, Meng C, Ross GW, Blair A, Langston JW, Sandler D, Tanner C. *PONI* Polymorphisms, Organophosphate Exposure, And Parkinson's Disease (PD). Neurotoxicology 2010, *in press*.