

## CURRICULUM VITAE

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**Date of Birth**                      April 14, 1966  
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### Education

Ph.D.                      August, 1993, University of Kansas, Lawrence, Kansas.  
Area: Experimental/Cognitive Psychology  
Dissertation Title: "Semantic Memory Impairments With Alzheimer's Disease:  
Loss of Semantic Information or Inefficient Lexical Access"

M.A.                      December, 1990, University of Kansas, Lawrence, Kansas.  
Area: Experimental/Cognitive Psychology  
Thesis Title: "Variability in Aging and Lexical Processing"

B.A.                      January, 1988, University of Kansas, Lawrence, Kansas. Major: Psychology

### Professional Experience

7/11-present      Research Professor of Neurology and Director of Research and Education, Parkinson's Disease and Movement Disorder Center, University of Kansas Medical Center, Kansas City, Kansas

5/03-7/11        Research Associate Professor of Neurology and Director of Research and Education Parkinson's Disease and Movement Disorder Center, University of Kansas Medical Center, Kansas City, Kansas

1/02- 5/03        Voluntary Faculty, Assistant Professor, Department of Neurology University of Kansas Medical Center, Kansas City, Kansas

1/00-5/03        Research Assistant Professor, Department of Neurology, University of Miami Medical Center, Miami, Florida.

1/98-1/00        Assistant Professor, Department of Neurology, University of Kansas Medical Center, Kansas City, Kansas.

11/95-01/98     Instructor, Department of Neurology, University of Kansas Medical Center, Kansas City, Kansas.

4/93-11/95      Post-Doctoral Research in Neurodegenerative Disease, Department of Neurology, University of Kansas Medical Center, Kansas City, Kansas.

- 1991-1993 Graduate Instructor - Introductory Psychology, University of Kansas, Lawrence, Kansas.  
 1992-1992 Graduate Research Assistant - Psycholinguistics and Alzheimer's Disease, University of Kansas, Lawrence, Kansas.  
 1990-1991 Teaching Assistant - Statistics, Psychology of Sleep and Dreaming, University of Kansas, Lawrence, Kansas.  
 Graduate Research Assistant - Psycholinguistic abilities, inter- and intra-individual differences in performance and attention in older adults, University of Kansas, Lawrence, Kansas.  
 1989-1990 Teaching Assistant - Statistics, Graduate Statistical Methods (II) University of Kansas, Lawrence, Kansas.  
 Graduate Research Assistant - Aging and semantic memory, University of Kansas, Lawrence, Kansas.  
 1988-1989 Teaching Assistant - Introductory Psychology, Honors Statistics, University of Kansas, Lawrence, Kansas.

### **Professional Service**

- 2009-present Co-Editor, International Journal of Neuroscience  
 2009-2012 Parkinson Study Group, Scientific Review Committee  
 2008-present President, International Essential Tremor Foundation  
 2008-2012 Movement Disorder Society, Website Editorial Board  
 2007-present Movement Disorder Society Journal CME Chair and Editor  
 2007-2009 Movement Disorder Society Web Site Committee  
 2006-2009 Parkinson Study Group, Credentials Committee  
 2006-2007 Movement Disorder Society Journal CME Subcommittee Chair  
 2005-present WE MOVE, Education Committee  
 2005-2007 American Academy of Neurology Subcommittee on Education for Non-Neurologists  
 2002-2010 Steering Committee, PROGENI – Parkinson's Research: The Organized Genetics Initiative – Parkinson Study Group  
 2002-2008 First Vice President, International Essential Tremor Foundation  
 2002-2009 Movement Disorder Society, Education Committee  
 2001-present Secretary/Treasurer, Tremor Research Group  
 2000-2003 IRB for the Protection of Human Subjects in Research – University of Miami  
 2000-2002 Secretary, International Tremor Foundation  
 1997-present Board of Directors, International Tremor Foundation  
 1997-present Coordinator, Movement Disorders Review Courses  
 1997-1999 Research Board of Directors, John Knox Village  
 1996-1999 Editor, *Parkinson's Update*, Parkinson's Association of Greater KC  
 1994-present Facilitator, Parkinson's support group (John Knox Village)  
 1994-2000 Board of Directors, Parkinson's Association of Greater Kansas City

### **Affiliations**

American Academy of Neurology  
 International Essential Tremor Foundation  
 Movement Disorder Society  
 National Parkinson Foundation

Parkinson Study Group  
Tremor Research Group  
WE MOVE

### **Books**

1. Hauser RA, **Lyons KE**, Pahwa R, Zesiewicz TA. *Parkinson's Disease Questions and Answers (4th Edition)*. Merit Publishing International: West Palm Beach, Florida, 2003.
2. Pahwa R, **Lyons KE**. *Management of Early Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY, 2009.
3. Pahwa R, **Lyons KE**. *Treatment Decisions in Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY, 2010.
4. Pahwa R, **Lyons KE**. *Early Recognition and Diagnosis in Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY, 2011.
5. Pahwa R, **Lyons KE**. *Recognition and Treatment of Non-Motor Symptoms of Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY, 2011.
6. Pahwa R, **Lyons KE**. *Management of Motor Fluctuations and Dyskinesia in Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY 2012.
7. Pahwa R, **Lyons KE**. *Diagnostic and Treatment Guidelines for Parkinson's Disease, Oxford American Pocket Notes*. Oxford University Press: New York, NY, 2013.

### **Edited Books**

1. Pahwa R, **Lyons KE**, Koller WC. *Handbook of Parkinson's Disease (3<sup>rd</sup> Edition)*. Marcel Dekker: New York, NY, 2003.
2. Pahwa R, **Lyons KE**, Koller WC. *Therapy of Parkinson's Disease (3<sup>rd</sup> Edition)*. Marcel Dekker: New York, NY, 2004.
3. **Lyons KE**, Pahwa R. *Handbook of Essential Tremor and Other Tremor Disorders*. Taylor & Francis: Boca Raton, FL, 2005.
4. Pahwa R, **Lyons KE**. *Handbook of Parkinson's Disease (4<sup>th</sup> Edition)*. Informa Healthcare: New York: 2007.

### **Peer Reviewed Publications**

1. Kemper S, Anagnopoulos C, **Lyons K**, Heberlein W. Speech accommodations to dementia. *J Gerontol* 1994;49:P223-P229.
2. **Lyons KE**, Kemper S, LaBarge E, Ferraro FR, Balota D, Storandt M. Oral language and Alzheimer's disease: a reduction in syntactic complexity. *Aging and Cognition* 1994;1:271-281.
3. Kemper S, **Lyons KE**, Anagnopoulos C. Joint story-telling by Alzheimer's patients and their spouses. *Discourse Processes* 1995;20:205-217.
4. **Lyons KE**, Kellas G, Martin M. Inter- and intra-individual differences in semantic priming among young and older adults. *Exp Aging Res* 1995;21:221-237.
5. Troster AI, Paolo AM, **Lyons KE**, Glatt SL, Hubble JP, Koller WC. The influence of depression on cognition in Parkinson's Disease: A pattern of impairment distinguishable from Alzheimer's Disease *Neurology* 1995;45:672-676.
6. Anouti A, Schmidt K, **Lyons KE**, Hubble JP, Schellenberg G, Golbe LI, Lang AE, Galvez-Jimenez

- N, Hershey L, Koller WC. Normal distribution of Apolipoprotein E alleles in Progressive Supranuclear Palsy. *Neurology* 1996;46:1156-1157.
7. Busenbark K, Barnes P, **Lyons K**, Ince D, Villagra F, Koller WC. Accuracy of reported family history of essential Tremor. *Neurology* 1996;47:264-265.
  8. Glatt SL, Hubble JP, **Lyons K**, Paolo A, Troster AI, Hassanein RES, Koller WC. Risk factors for dementia in Parkinson's disease: effect of education. *Neuroepidemiology* 1996;15:20-25.
  9. Hubble JP, Busenbark KL, Wilkinson S, Penn RD, **Lyons K**, Koller WC. Deep brain stimulation for essential Tremor. *Neurology* 1996;46:1150-1153.
  10. Pahwa R, **Lyons K**, McGuire D, Dubinsky R, Hubble JP, Koller WC. Early morning akinesia in Parkinson's disease: effect of standard carbidopa/ levodopa and sustained-release carbidopa/ levodopa. *Neurology* 1996;46:1059-1062.
  11. Pahwa R, Marjama J, McGuire D, **Lyons K**, Zwiebel F, Silverstein P, Ward R, Koller WC. Pharmacokinetic comparison of sinemet and atamet (Generic Carbidopa/ levodopa): a single dose study. *Mov Disord* 1996;11:427-430.
  12. Burns JM, Wilkinson S, Overman J, Kieltyka J, Lundsgaarde T, Tollefson T, Koller WC, Pahwa R, Troster AI, **Lyons KE**, Batnitzky S, Wetzel L, Gordon MA. Magnetic resonance image evaluation of pallidotomy lesions: a volumetric and shape analysis. *Neurosurg Focus* 1997;2:Article 3.
  13. Burns JM, Wilkinson S, Kieltyka J, Overman J, Lundsgaarde T, Tollefson T, Koller WC, Pahwa R, Troster AI, **Lyons KE**, Batnitzky S, Wetzel L, Gordon MA. Analysis of pallidotomy lesion positions using three-dimensional reconstruction of pallidal lesions, basal ganglia and optic tract. *Neurosurgery* 1997;41:1303-1318.
  14. Hubble JP, Busenbark KL, Pahwa R, **Lyons K**, Koller WC. Clinical expression of essential tremor: effects of gender and age. *Mov Disord* 1997;12:969-972.
  15. Hubble, JP, Busenbark KL, Wilkinson S, Pahwa R, Paulson GW, **Lyons K**, Koller WC. Effects of thalamic deep brain stimulation (DBS) based on tremor type and diagnosis. *Mov Disord* 1997;12:337-341.
  16. **Lyons KE**, Pahwa R, Troster AI, Koller WC. A comparison of Parkinson's disease symptoms and self-reported functioning and well being. *Parkinsonism Relat Disord* 1997;3:207-209.
  17. Miyawaki E, **Lyons K**, Pahwa R, Troster AI, Hubble J, Smith D, Busenbark K, McGuire D, Michalek D, Koller WC. Motor complications of chronic levodopa therapy in Parkinson's disease. *Clin Neuropharmacol* 1997;20:523-530.
  18. Pahwa R, **Lyons K**, McGuire D, Silverstein P, Zwiebel F, Robischon M, Koller WC. Comparison of standard carbidopa/levodopa and sustained-release carbidopa/levodopa in Parkinson's disease: Pharmacokinetic and quality of life measures. *Mov Disord* 1997; 12:677-681.
  19. Pahwa R, Wilkinson S, Smith D, **Lyons K**, Miyawaki E, Koller WC. High frequency stimulation of the globus pallidus for the treatment of Parkinson's disease. *Neurology* 1997;49:249-253.
  20. Small JA, Kemper S, **Lyons K**. Sentence comprehension Alzheimer's disease: effects of grammatical complexity, speech rate, and repetition. *Psychol Aging* 1997;12:3-11.
  21. Small JA, **Lyons K**, Kemper S. Grammatical abilities in Parkinson's disease: evidence from written sentences. *Neuropsychologia* 1997;35:1571-1576.
  22. Troster AI, Fields JA, Wilkinson SB, Pahwa R, Miyawaki E, **Lyons KE**, Koller WC. Unilateral pallidal stimulation for Parkinson's disease: neurobehavioral functioning before and 3 months after electrode implantation. *Neurology* 1997;49:1078-1083.
  23. Ellis RJ, Jan K, Kawas C, Koller WC, **Lyons KE**, Jeste DV, Hansen LA, Thal LJ. Diagnostic validity of the dementia questionnaire for Alzheimer's disease. *Arch Neurol* 1998;55:360-365.
  24. Goodman SH, Wilkinson S, Overman J, Koller WC, Troster A, Pahwa R, **Lyons K**, Kieltyka J, Burns

- J, Gordon M. Lesion volume and clinical outcome in stereotactic pallidotomy and thalamotomy. *Stereotact Funct Neurosurg* 1998;71:164-172.
25. **Lyons KE**, Hubble JP, Troster AI, Pahwa R, Koller WC. Gender differences in Parkinson's disease. *Clin Neuropharmacol* 1998;21:118-121.
  26. **Lyons KE**, Pahwa R, Busenbark KL, Troster AI, Wilkinson S, Koller WC. Improvements in daily functioning after deep brain stimulation of the thalamus for intractable tremor. *Mov Disord* 1998;13:690-692.
  27. Pahwa R, **Lyons K**, Hubble JP, Busenbark K, Rienenrth JD, Pahwa A, Koller WC. Double-blind controlled trial of gabapentin in essential tremor. *Mov Disord* 1998;13:465-467
  28. Tollefson TT, Burns J, Wilkinson S, Overman J, Kieltyka J, Goodman SH, Koller WC, Troster A, **Lyons K**, Pahwa R, Batnitzky S, Wetzel L, Gordon M. Comparative magnetic resonance image-based evaluation of thalamotomy and pallidotomy lesion volumes. *Stereotact Funct Neurosurg* 1998;71:131-144.
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  30. Hogan T, Grimaldi R, Dingemans J, Martin M, **Lyons K**, Koller W. The Parkinson's Disease Symptom Inventory (PDSI): a comprehensive and sensitive instrument to measure disease symptoms and treatment side-effects. *Parkinsonism Relat Disord* 1999;5:93-98.
  31. Koller WC, **Lyons KE**, Wilkinson SB, Pahwa R. Efficacy of unilateral deep brain stimulation of the VIM nucleus of the thalamus for essential head tremor. *Mov Disord* 1999;14:847-850.
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  33. Pahwa R, **Lyons KE**, Wilkinson SB, Carpenter MA, Troster AI, Searl JP, Overman J, Pickering S, Koller WC. Bilateral thalamic stimulation for the treatment of essential tremor. *Neurology* 1999;53:1447-1450.
  34. Troster AI, Fields JA, Pahwa R, Wilkinson SB, Straits-Troster KA, **Lyons K**, Kieltyka J, Koller WC. Neuropsychological and quality of life outcome after thalamic stimulation for essential tremor. *Neurology* 1999;53:1774-1780.
  35. Dubinsky RM, Stein AC, **Lyons K**. Practice parameter: risk of driving and Alzheimer's disease (an evidence-based review) Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2000;54:2205-2211.
  36. Hristova A, **Lyons K**, Troster AI, Pahwa R, Wilkinson SB, Koller WC. Effect and time course of deep brain stimulation of the globus pallidus and subthalamus on motor features of Parkinson's disease. *Clin Neuropharmacol* 2000;23:208-11.
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  38. Milanov I, Kmetski T, **Lyons KE**, Koller WC. Prevalence of Parkinson's disease in Bulgarian gypsies. *Neuroepidemiology* 2000;19:206-209.
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  41. Montgomery EB, **Lyons K**, Koller WC. Early detection of probable idiopathic Parkinson's disease:

- II. A prospective application of a diagnostic test battery. *Mov Disord* 2000;15:474-478.
42. Small JA, Kemper S, **Lyons K**. Sentence repetition and processing resources in Alzheimer's disease. *Brain Lang* 2000;75:232-258.
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  48. **Lyons KE**, Koller WC, Wilkinson SB, Pahwa R. Long term safety and efficacy of unilateral deep brain stimulation of the thalamus for parkinsonian tremor. *J Neurol Neurosurg Psychiatry* 2001;71:682-684.
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  51. Pahwa R, **Lyons KE**, Wilkinson SB, Troster AI, Overman J, Kieltyka J, Koller WC. Comparison of thalamotomy to deep brain stimulation of the thalamus in essential tremor. *Mov Disord* 2001;16:140-143.
  52. Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, **Lyons K**, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen FH, Goetz CG, Small GW, Masterman D, Mastaglia F, Laing NG, Stajich JM, Slotterbeck B, Booze MW, Ribble RC, Rampersaud E, West SG, Gibson RA, Middleton LT, Roses AD, Haines JL, Scott BL, Vance JM, Pericak-Vance MA. Complete genomic screen in Parkinson disease. *JAMA* 2001;286:2239-2244.
  53. 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* 2001;57:1389-1391.
  54. Woods SP, Fields JA, **Lyons KE**, Koller WC, Wilkinson SB, Pahwa R, Troster AI. Neuropsychological and quality of life changes following unilateral thalamic deep brain stimulation in Parkinson's disease: a one-year follow-up. *Acta Neurochir* 2001;143:1273-1278.
  55. **Lyons KE**, Wilkinson SB, Troster AI, Pahwa R. Long-term efficacy of globus pallidus stimulation

- for the treatment of Parkinson's disease. *Stereotact Funct Neurosurg* 2002;79:214-220.
56. Pahwa R, **Lyons KE**, Kempf L, Wilkinson SB, Koller WC. Thalamic stimulation for midbrain tremor after partial hemangioma resection. *Mov Disord* 2002;17:404-407.
  57. Troster AI, Woods SP, Fields JA, **Lyons KE**, Pahwa R, Higginson CI, Koller WC. Neuropsychological deficits in essential tremor: an expression of cerebello-thalamo-cortical pathophysiology? *Eur J Neurol* 2002;9:143-151.
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  60. **Lyons KE**, Pahwa R, Comella CL, Eisa MS, Elble RJ, Fahn S, Jankovic J, Juncos JL, Koller WC, Ondo WG, Sethi KD, Stern MB, Tanner CM, Tintner R, Watts RL. Benefits and risks of pharmacological treatments for essential tremor. *Drug Saf* 2003;26:461-81.
  61. Oliveira SA, Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, **Lyons KE**, Pahwa R, Stern MB, Hiner BC, Jankovic J, Ondo WG, Allen FH Jr, Scott BL, Goetz CG, Small GW, Mastaglia FL, Stajich JM, Zhang F, Booze MW, Reaves JA, Middleton LT, Haines JL, Pericak-Vance MA, Vance JM, Martin ER. Association study of Parkin gene polymorphisms with idiopathic Parkinson disease. *Arch Neurol* 2003;60:975-80.
  62. Pahwa R, **Lyons KE**. Essential tremor: differential diagnosis and current therapy. *Am J Med* 2003;115:134-142.
  63. Pahwa R, **Lyons KE**. Mirtazapine in essential tremor: a double-blind, placebo-controlled pilot study. *Mov Disord* 2003;18:584-587.
  64. Pahwa R, Wilkinson SB, Overman J, **Lyons KE**. Bilateral subthalamic stimulation in patients with Parkinson disease: long-term follow up. *J Neurosurg* 2003;99:71-77.
  65. Troster AI, Fields JA, Wilkinson S, Pahwa R, Koller WC, **Lyons KE**. Effect of motor improvement on quality of life following subthalamic stimulation is mediated by changes in depressive symptomatology. *Stereotact Funct Neurosurg* 2003;80:43-47.
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  69. Hauser RA, **Lyons KE**. Future therapies for Parkinson disease. *Neurol Clin* 2004;22(3 Suppl):S149-S166.
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- subthalamic stimulation: a series of 160 procedures. *Neurology* 2004;63:612-616.
72. Okun MS, Fernandez HH, Pedraza O, Misra M, **Lyons KE**, Pahwa R, Tarsy D, Scollins L, Corapi K, Friehs GM, Grace J, Romrell J, Foote KD. Development and initial validation of a screening tool for Parkinson disease surgical candidates. *Neurology* 2004;63:161-163.
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  82. Benabid AL, Deuschl G, Lang AE, **Lyons KE**, Rezai AR. Introduction: deep brain stimulation for Parkinson's disease. *Mov Disord* 2006;21(suppl 14):S168-S170.
  83. 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.
  84. Deuschl G, Herzog J, Kleiner-Fisman G, Kubu C, Lozano AM, **Lyons KE**, Rodriguez-Oroz MC, Tamma F, Troster AI, Vitek JL, Volkmann J, Voon V. Deep brain stimulation: postoperative issues. *Mov Disord* 2006;21(suppl 14):S219-S237.
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### **Invited Publications and Chapters**

1. Kemper S, Lyons KE. The effects of Alzheimer's dementia on language and communication. In



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