

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME Kaye, Jeffrey A.	POSITION TITLE Professor of Neurology and Biomedical Engineering		
eRA COMMONS USERNAME KAYEJE			
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
Amherst College, Amherst, MA	B.A.	1976	Independent Scholar
New York Medical College, Valhalla, NY	M.D.	1980	Medicine
Hartford Hospital, Hartford, CT		1980-81	Internship
Boston University, Boston, MA		1981-84	Residency in Neurology

A. Positions

- 1983-84 Chief Resident in Neurology, Boston University Affiliated Hospitals, Boston, Massachusetts
 1984-85 Fellow in Movement Disorders and Neuropharmacology, Boston University School of Medicine, Boston, Massachusetts
 1984-85 Instructor in Neurology, Boston University School of Medicine, Boston, Massachusetts
 1985-88 Medical Staff Fellow, Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, Bethesda, Maryland
 1988-93 Assistant Professor of Neurology, Oregon Health & Science University, Portland, Oregon
 1988- Director, Geriatric Neurology, Oregon Health & Science University and VA Medical Center, Portland, Oregon
 1993-98 Associate Professor of Neurology, Oregon Health & Science University, Portland, Oregon
 1996- Director, Layton Aging and Alzheimer's Disease Center, Oregon Health & Science University, Portland, Oregon
 1998- Professor of Neurology, Oregon Health & Science University, Portland, Oregon
 2003- Professor, Department of Biomedical Engineering, OGI, Oregon Health & Science University, Portland, Oregon
 2005-Director, Oregon Center for Aging and Technology ("ORCATECH"), Oregon Health & Science University, Portland, Oregon

Other Experience and Professional Memberships

- 1999-02 Executive Committee, NIH Alzheimer's Disease Centers Directors
 1999-03 Executive Committee, National Alzheimer's Coordinating Center (NACC)
 2000-03 Executive Committee Chair, National Alzheimer's Disease Centers Directors
 2000 Advisory Panel on Exceptional Longevity, National Institute on Aging
 2001 Chair, Medical Research Advisory Group, Geriatrics, Department of Veteran's Affairs
 2001 Co-chair, National Institute on Aging Panel on Characterization of Participants in Studies of Exceptional Survival in Humans
 2005- Neuroscience of Aging Review Committee, NIA-N, National Institute on Aging
 2006- Chair, Work Group on Technology, National Alzheimer's Association
 2007-8 Co-Chair, Work Group, Guidelines for Clinical Care for Dementia, U.S. Dept. of Veterans Affairs
 2007- Commissioner, Center for Aging Services and Technologies

Honors

- 2001 Charles Dolan Hatfield Award for Alzheimer's Research,
 2003- Best Doctors in America,
 2004- Fellow, American Academy of Neurology

B. Publications (Selected from over 160 publications)

- Kaye JA, Swihart T, Howieson D, Dame A, Moore MM, Karnos T, Camicioli R, Ball M, Oken B, Sexton G. Volume loss of the hippocampus and temporal lobe in healthy elderly destined to develop dementia. *Neurology*; 48: 1297-1304, 1997.
- Kaye, JA Oldest old healthy brain function: The genomic potential. *Archives of Neurology*; 54:1217-21, 1997.
- Mueller, E, Moore, M, Howieson, D, Kerr, D, Camicioli, RM, Quinn, J, Sexton, G, Kaye, JA. Brain volume is preserved in healthy elderly through the eleventh decade. *Neurology*; 51:1555-1562, 1998.
- Kaye, JA Methods for discerning disease modifying effects in Alzheimer's disease treatment trials. *Archives of Neurology*; 57:312-314, 2000.
- Gonzales McNeal M, Zarepari S, Camicioli, R, Dame A, Howieson D, Quinn J, Ball M, Kaye J, Payami H. Predictors of healthy brain aging. *Journal of Gerontology: Biological Science*; 56A(7):B294-B301, 2001.
- Quinn, J and Kaye, J. The neurology of aging. *The Neurologist*; 7:98-112, 2001.
- Marquis, S, Moore, M, Howieson, D, Sexton, G, Payami, H, Kaye, J, Camicioli, R. Independent predictors of cognitive decline in the healthy elderly. *Archives of Neurology*; 59:601-606, 2002.
- Kaye, J, Healthy brain aging. *Archives of Neurology*; 59:1721-1723, 2002.
- Howieson, DB, Camicioli R, Quinn ., Silbert LC, Care B, Moore MM, Dame A, Sexton G, Kaye JA. Natural history of cognitive decline in the old old. *Neurology*, 2003. 60(9):1489-94.
- Silbert LC, Quinn JF, Moore MM, Corbridge E, Ball MJ, Murdoch, G, Sexton, G, Kaye, JA. Changes in premorbid brain volume predict Alzheimer's disease pathology. *Neurology*; 61(4):487-492, 2003.
- Quinn JF, Montine K, Moore M, Morrow J, Kaye J, and. Montine T. Suppression of longitudinal increase in CSF F₂-isoprostanes in Alzheimer's Disease. *Journal of Alzheimer's Disease*; 6(1):93-7, 2004.
- Adak, S, Lillouz, K, Gorman, W, Tandon, R, Zimmerman E, Guariglia, R, Moore, M, Kaye, J. Predicting the rate of cognitive decline in aging and early Alzheimer's disease. *Neurology*, 63(1):108-114, 2004.
- Tractenberg R, Singer C, Kaye J. Symptoms of sleep disturbance in persons with Alzheimer's disease and normal elderly. *Journal of Sleep Research*; 14(2):177-185, 2005.
- Zhang J, Goodlett D, Quinn J, Peskind E, Kaye J, Zhou T, Pan C, Yi E, Eng J, Wang Q, Aebersold R, Montine T. Quantitative proteomics of cerebrospinal fluid from patients with Alzheimer's disease; *Journal of Alzheimer's Disease*; 7(2): 125-133, 2005.
- Reddy P, Mani G, Park B, Jacques J, Murdoch G, Whetsell Jr. W, Kaye J, Manczak M. Differential loss of synaptic dysfunction. *Journal of Alzheimer's Disease*; 7(2): 103-117, 2005.
- Robertson J, Curley J, Kaye J, Quinn J, Pfankuch T, Raber J. ApoE isoforms and measures of anxiety in probable AD patients and ApoE⁻/mice. *Neurobiology of Aging*; 26(5): 637-643, 2005.
- Kaye JA, Moore MM, Dame A, Quinn J, Camicioli R, Howieson D, Corbridge E, Care B, Nesbit G, Sexton G. Asynchronous regional brain volume losses in presymptomatic to moderate AD. *J Alzheimers Dis.* Sep;8(1):51-6, 2005.
- Kaye J, Hayes T. Home Health Monitoring: A system to assess motor and cognitive function. *Generations*, 30(2):61-63, 2006.
- Tractenberg R, Singer C, Kaye J. Characterizing sleep problems in persons with Alzheimer's disease and normal elderly. *Journal of Sleep Research*; 15:97-103, 2006
- Tandon R, Adak S, Kaye J. Neural Networks for Longitudinal Studies in Alzheimer's Disease. *Artificial Intelligence in Medicine*; 36(3):245-255, 2006.
- Erten-Lyons D, Howieson D, Moore MM, Quinn J, Sexton G, Silbert L, Kaye, J. Brain volume loss in MCI predicts dementia. *Neurology*; 66:233-235, 2006.
- Silbert LC, Nelson C, Holman S, Eaton R, Oken BS, Lou JS, Kaye JA. Cortical excitability and age-related volumetric MRI changes. *Clin Neurophysiol.* May;117(5):1029-36, 2006.
- Kaye J, Moore M, Galasko D, Craig U, Adonay R, Silbert L. Brain volumes in Guam dementia vs. Parkinson dementia complex vs. aging Chamorro adults. *Neurology*, 69: 196-199, 2007.
- Sumic A, Michael YL, Carlson NE, Howieson DB, Kaye JA. Physical activity and the risk of dementia in oldest old. *Journal of Aging and Health*, 19(2): 242-259, 2007.
- Kaye J. Home-based technologies: A new paradigm for conducting dementia prevention trials. *Alzheimer's & Dementia* 4:S60-66, 2008.

Principal Investigator/Program Director(Last, First, Middle): Kaye, Jeffrey A.

Kaye J, Hayes T, Zitzelberger T, Yeagers J, Pavel M, Jimison H, Larimer N, Payne-Murphy J, Earl E, Wild K, Boise L, Williams D, Lundell J, Dishman E. Deploying wide-scale in-home assessment technology. Technology and Aging (IOS Press), In press, 2008.

C. Research Support

Ongoing Research Support

R01 AG024059 Kaye (PI) 05/01/2006 - 04/30/2011
NIH/NIA

Bioengineering Research Partnership: Intelligent Systems for Detection of Aging Changes

The aims of this project are to: 1) Determine if continuous, unobtrusive monitoring of motor and cognitive activities detects incident cognitive decline in seniors living in typical community settings; 2) Develop novel algorithms and assessment techniques for detecting motor and cognitive change in these community settings and in the context of the ongoing BRP, to test evolving sensor technology; and 3) Identify the monitoring needs of, and optimal communication channels, for lay individuals and health care professionals. The goals will be achieved through a unique bioengineering research partnership organization.

Role: PI

P30 AG008017 Kaye (PI) 07/06/90-03/31/10
NIH/NIA

Oregon Alzheimer Disease Center

The major goals of this project are to facilitate research in Alzheimer's disease by providing the core resources for clinical and basic research. Six cores (Administrative, Data, Clinical, Genetic, Neuropathology and Education) provide well-characterized subjects and standardized patient and family data, tissue and biological samples for use in a wide range of research projects.

Role: Center Director

P30 AG024978 Kaye (PI) 09/30/04-07/31/09
NIH/NIA

Oregon Roybal Center for Translational Research on Aging

The goals of this center are to: 1) develop basic social, behavioral and biological knowledge about independent aging using technology and engineering; 2) Establish a living laboratory for technology-based health monitoring and independent aging support, utilizing both individual residences and communities together with advances in ubiquitous computing and; 3) Accelerating the development and translation of knowledge gained in this living laboratory through innovative public-private partnerships, cross-disciplinary collaborations and recruitment of new talent into the field.

Role: Center Director

Merit Review Grant Kaye (PI) 04/01/91 - 03/31/11
Department of Veterans Affairs
Oregon Brain Aging Study

The major goal of the Oregon Brain Aging Study (OBAS) is to identify predictors of healthy brain aging in the elderly using clinical, cognitive, physiological, genetic and quantitative imaging markers.

Role: PI

R01 NS48595 Montine (PI) 09/01/03 - 08/31/08
NIH/NINDS (UW subcontract)

Characterization of DLB: a collaborative project between OHSU and the University of Washington, Seattle. The goal is to collect clinical and neuropathological data and banked tissue from Alzheimer disease patients, patients with Dementia with Lewy bodies and age-matched controls in order study how DLB differs from AD.

Role: OHSU PI

U01 AG10483 Thal (PI) 10/01/06 - 06/30/11
NIH/NIA Alzheimer's Disease Cooperative Study (UCSD subcontract)

Principal Investigator/Program Director(Last, First, Middle): **Kaye, Jeffrey A.**

Instrument Protocol

The goals of the ADCS include developing instruments for use in clinical trials.

Role: Home-Based Assessment Co-Investigator

R01 AG026916 Kramer (PI)

09/15/05 - 06/30/09

NIH/NIA

Genetic Associations with Alzheimer-free Survival

The goal of this study is to identify genetic variants associated with age at onset of Alzheimer's disease (AD) and genetic variants associated with AD neuropathology among individuals who survive to advanced age without clinical symptoms of AD. In addition, a SNP genotype registry will be created for all subjects and will be available for dissemination to the research community.

Role: Investigator

K23 AG024826 Silbert (PI)

07/15/04 - 05/31/09

NIH/NIA

White Matter Change and CNS Process in the Elderly

This mentored study proposes to examine the role of white matter change on cognitive and motor performance in the elderly through use of Transcranial Magnetic Stimulation (TMS) and white matter changes on brain MRI's,

Role: Mentor

U01 AG016976 Kukull (PI)

07/01/99-06/30/09

NIH/NIA/NACC (UW subcontract)

National Alzheimer's Coordinating Center

The major goal of this project is to collect data from all NIH Alzheimer's Disease Centers.

Role: OHSU PI

Completed Research Support (within the last 3 years)

P01 AG014382 Galasko (PI)

03/01/02 - 05/31/07

NIH/NIA (UCSD subcontract)

Age related neurodegenerative diseases in Micronesia. Project 3: Neuroimaging in aging and neurodegenerative disease among Chamorros (PI: Kaye)

The goal of this project is to establish whether regional brain volume changes assessed with magnetic resonance imaging (MRI) can distinguish among the major forms of dementia (parkinsonism-dementia complex or Mariana dementia) likely to affect the Chamorro people of Guam.

Role: Project 3 PI