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	POSITION TITLE
Tsuang, Debby W.	Professor
eRA COMMONS USER NAME	
DTsuang	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Iowa College of Medicine, Iowa City, IA	MD	1988	Medicine
University of Iowa College of Medicine, Iowa City, IA	MSc	1992	Epidemiology

A. Personal Statement

The goal of the proposed research is to investigate genome-wide associations in Alzheimer's disease. As the Associate Director University of Washington Alzheimer's Disease Research Center, I have the expertise, leadership, and motivation to carry out the proposed work. Specifically, I am a board-certified geriatric psychiatrist with expertise in clinical phenotypes and psychiatric genetics. I have extensive research experience as a principal investigator and co-investigator in clinicopath and genetic studies of AD and related dementia. I will provide clinical expertise to define the clinical phenotype relevant to the proposed genetic studies.

B. Positions and Honors

Positions and Employment

1988–1992 Resident Physician, Dept of Psychiatry, University of Iowa, Iowa City, IA
1992–1995 Geriatric Psychiatry Fellow, Geriatric Research, Education, and Clinical Center, VA Puget Sound Health Care System, Seattle, WA
1994–1995 Medical Genetics Fellow, Dept of Internal Medicine, Div of Medical Genetics, University of Washington School of Medicine, Seattle, WA
1995–1999 Acting Assistant Professor, Dept of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA
1995–2004 Adjunct Assistant Professor, Dept of Epidemiology, University of Washington School of Public Health and Community Medicine, Seattle, WA
1995–present Staff Psychiatrist, Mental Health Service and Mental Illness Research, Education, and Clinical Center, VA Puget Sound Health Care System, Seattle, WA
1999–2004 Assistant Professor, Dept of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA
2001–present Member, Seattle Institute for Biomedical and Clinical Research, Seattle, WA
2004–2009 Associate Professor, Dept of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA
2004–2009 Adjunct Associate Professor, Dept of Epidemiology, University of Washington, Seattle, WA
2008–2009 Adjunct Associate Professor, Div of Medical Genetics, University of Washington, Seattle, WA
2007–present Co-Associate Director, Clinical Core, University of Washington Alzheimer's Disease Research Center, Seattle, WA
2009–present Professor, Dept of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA
2009–present Adjunct Professor, Dept of Epidemiology and Div of Medical Genetics, University of Washington, Seattle, WA

Other Experience and Professional Memberships

2005–present Scientific Advisory Council Member, Lewy Body Dementia Association
2006–present Review Committee Member, NIMH Behavioral Genetics and Epidemiology Study Section
2006–2008 Associate Editor, Journal of Alzheimer's Disease
2006–2009 Program Planning Committee Member, Society of Biological Psychiatry
2007–present Editorial Board, Am J Med Genet (Neuropsychiatric Section)
2006–present Executive Steering Committee, Behavioral Neuroscience Group, VAPSHCS

2006–present Committee Member, Dept of Psychiatry Research Task Force, University of Washington
2007–present Executive Board, University of Washington Parkinson's Disease Registry

Honors

1992 APA/Dista Product Resident Research Award
1992 Second Prize, Winokur Resident Research Award
2001–2002 Browning Foundation Investigator

B. Selected peer-review publications (in chronological order; selected from 64 articles, 5 chapters, 1 book)

1. Levy-Lahad E, **Tsuang D**, Bird TD. Recent advances in the genetics of Alzheimer's disease. J Geriatr Psychiatry Neurol 11:42-54, 1998. PMID: 9877525.
2. Faraone SV, Tsuang MT, **Tsuang DW**. Genetics of mental disorders: What practitioners and students need to know. New York: Guilford Press, 1999.
3. **Tsuang D**, Almqvist E, Lipe H, Strgar F, DiGiacomo L, Hoff D, Eugenio C, Hayden MR, Bird TD. Familial aggregation of psychotic symptoms in Huntington's disease. Am J Psychiatry 157:1955-9, 2000. PMID: 11097960.
4. Poorkaj P, **Tsuang D**, Wijsman E, Steinbart E, Garruto T, Craig UK, Chapman N, Anderson A, Bird T, Plato C, Perl D, Weiderholt W, Galasko D, Schellenberg G. TAU as a susceptibility gene for amyotropic lateral sclerosis-parkinsonism dementia complex of Guam. Arch Neurol 58:1871-8, 2001. PMID: 11708997.
5. Bonner L, **Tsuang D**, Cherrier M, Eugenio C, Du J, Steinbart E, Limprasert P, La Spada A, Seltzer B, Bird T, Leverenz J. Familial dementia with Lewy bodies with an atypical clinical presentation. J Geriatr Psychiatry Neurol 16:59-64, 2003. PMC: 1482838.
6. **Tsuang D**, Bird T. Genetics of dementia. In Sadavoy J, Jarvik L, Grossberg G, Meyers B. Comprehensive Textbook of Geriatric Psychiatry, Third edition. New York: W.W. Norton and Company, 2004.
7. Ohtake H, Limprasert P, Fan Y, Onodera O, Kakita A, Igarashi S, Takahashi H, Bonner LT, **Tsuang DW**, Murray IVJ, Lee VMY, Trojanowski JQ, Ishikawa A, Idezuka J, Murata M, Toda T, Bird TD, Leverenz JB, Tsuji S, La Spada AR. Beta-synuclein gene alterations in dementia with Lewy bodies. Neurology 63:805-11, 2004. PMCID: 1808539.
8. **Tsuang DW**, Wilson RK, Lopez OL, Luedecking-Zimmer EK, Leverenz JB, DeKosky ST, Kamboh M Ilyas, Hamilton RL. Genetic association between the APOEε4 allele and Lewy bodies in Alzheimer disease. Neurology 64:509-13, 2005. PMCID: 1487185.
9. **Tsuang DW**, Simpson K, Larson EB, Peskind ER, Kukull W, Bowen JB, McCormick W, Teri L, Montine T, Thompson, ML Leverenz JB. Predicting Lewy body pathology in a community-based sample with clinical diagnosis of Alzheimer's disease. J Geriatr Psychiatry Neurol, 19:195-201, 2006. PMID: 17085757.
10. Zabetian CP, Lauricella CJ, **Tsuang DW**, Leverenz JB, Schellenberg GD, Payami H. Analysis of the LRRK2 G2019S mutation in Alzheimer's disease. Arch Neurol 63:156-7, 2006. PMID: 16401756.
11. Calkins ME, Dobie DJ, Cadenhead KS, Olincy A, Freedman R, Green MF, Greenwood TA, Gur RE, Light GA, Mintz J, Nuechterlein KH, Schork NJ, Seidman LJ, Siever LJ, Silverman JM, Stone WS, Swerdlow NR, **Tsuang DW**, Tsuang MT, Turetsky BI, Braff DL. The Consortium on the Genetics of Endophenotypes in Schizophrenia (COGS): Model Recruitment, Assessment, and Endophenotyping Methods for a Multi-Site Collaboration. Schizophr Bull 33:33-48, 2007. PMCID: 2632302
12. Yu CE, Seltman H, Peskind ER, Galloway N, Zhou PX, Rosenthal E, Wijsman E, **Tsuang DW**, Devlin B, Schellenberg GD. Comprehensive Analysis of APOE and Selected Proximate Markers for Late-onset Alzheimer Disease: Pattern of Linkage Disequilibrium. Genomics. 89:655-65, 2007. PMCID: 1978251.
13. Greenwood TA, Braff DL, Cadenhead KS, Calkins ME, Dobie DJ, Freedman R, Green MF, Gur RE, Light GA, Mintz J,Nuechterlein KH, Olincy A, Radant AD, Seidman LJ, Siever LJ, Silverman JM, Stone WS, Swerdlow NR, **Tsuang DW**, Tsuang MT, Turetsky BI, Schork NJ. Initial Heritability Analyses of Endophenotypic Measures for Schizophrenia: The Consortium on the Genetics of Schizophrenia (COGS). Arch Gen Psych, 64:1242-50, 2007. PMID: 17984393.
14. Mata IF, Samii A, Schneer SH, Roberts JW, Griffith A, Leis BC, Schellenberg GD, Sidransky E, Bird TD, Leverenz JB, **Tsuang D**, Zabetian CP. Glucocerebrosidase gene mutations: a risk factor for Lewy body disorders. Arch Neurol. 65:379-82, 2008. PMID: 18332251.
15. Zabetian CP, Yamamoto M, Lopez AN, Ujike H, Mata IF, Izumi Y, Kaji R, Maruyama H, Morino H, Oda M, Hutter CM, Edwards KL, Schellenberg GD, **Tsuang DW**, Yearout D, Larson EB, Kawakami H. LRRK2 mutations and risk variants in Japanese patients with Parkinson's disease. Mov Disord 24:1034-41, 2009. PMID: 19343804.

16. **Tsuang D**, Larson EB, Bolen E, Thompson ML, Peskind E, Bowen J, McCormick W, Teri L, Kukull W, Vavrek D, Montine T, Leverenz JB. Visual Hallucinations in Dementia: A Prospective Community-Based Study with Autopsy. Am J Geriatr Psychiatry 17:317-23, 2009. PMCID: 2742470.

C. Research Support

Ongoing Research Support

RO1 MH65558 A1 **Tsuang (PI)** **05/01/03–02/29/10 (no cost extension)**
NIH/NIMH
Consortium on the Genetics of Endophenotypes and Schizophrenia
This multi-site project investigates neurophysiological and neuropsychological endophenotypes in schizophrenia to discover if neurobiological deficits reflect a common underlying heritable dysfunction. Role: PI

Merit Review **Tsuang (PI)** **10/01/08–09/30/12**
Department of Veterans Affairs
Identification of Copy Number Variations in Schizophrenia
This project seeks to identify, catalog, and verify common CNVs that may be enriched and associated with schizophrenia using the Illumina 1M BeadChip array. Role: PI

NARSAD **Tsuang (PI)** **10/01/2009–09/30/2011**
Deep Sequencing in Schizophrenia
This project seeks to use second-generation deep sequencing technology to sequence the exomes of 50 schizophrenia subjects and 300 controls to identify genetic variants associated with schizophrenia. Role: PI

U01 AG032984 **Tsuang (Co-PI)** **03/01/09–02/29/12**
NIH/National Institute on Aging
Clinical Case-Control Genome Wide Association Studies
Alzheimer's Disease Genetics Consortium (Gerard Schellenberg, PI)
This project conducts genome-wide association studies in neuropathologically confirmed cases with Alzheimer's disease and controls to identify SNPs associated with AD. Role: Co-PI

P50 AG05136 **Raskind (PI)** **05/01/05–04/30/10**
NIH/National Institute on Aging (NIA)
Alzheimer's Disease Research Center
Core C – Clinical Core (PI: Elaine R. Peskind, MD). This project aims to (1) characterize and regularly evaluate patients with Alzheimer's disease for ADRC research projects and (2) characterize and regularly evaluate age-matched normal control subjects for ADRC research projects. Role: Associate Director, Clinical Core

1 U01 HG04610 **Larson (PI)** **10/01/07–09/30/11**
NIH/National Human Genome Research Institute (NHGRI)
Development and Use of Network Infrastructure for High-Throughput GWA study (GWAS)
This study will utilize electronic medical records to generate a wide range of phenotypes for GWASs. Role: Co-Investigator

Completed Research Support

Merit Review **Schellenberg (PI)** **10/01/00–09/30/09**
Department of Veterans Affairs
Genomic Analysis of Schizophrenia
This project initiated a genome-wide scan in a VA Cooperative sample for genetic linkage of schizophrenia, with the goal of eventual identification and cloning of susceptibility genes for schizophrenia. Role: Investigator

RO1 NS048595 **Montine (PI)** **09/30/03–07/31/08**
NIH/National Institute of Neurological Disorders and Stroke (NINDS)
Characterization of Dementia with Lewy Bodies (DLB): A Collaborative Study
This multiple-ADRC collaboration aimed to determine the genetic, neuropathological, and clinical characteristics of DLB. Postmortem brain tissue was collected, and the clinical characteristics of AD cases with and without concomitant LB pathology was systematically reviewed. Role: Investigator

UO1-AG16976 **Tsuang (PI)** **07/01/03–06/30/07**
NIH/National Alzheimer's Coordinating Center (NACC)
Clinical, Pathologic, and Genetic Characteristics of DLB

This multi-site pilot investigated the cliniconeuropathological correlations and genetic risk factors of DLB. It also sought to determine the genetic and familial characteristics of DLB. Role: Consortium Principle Investigator

RO1 AG 08419 Raskind (PI) 09/30/01–06/30/07
NIH/National Institute on Aging (NIA)
Psychopathology of Alzheimer's: APOE and the HPA Axis
This study sought to determine the effect of APOE genotype on CSF cortisol concentrations in persons with AD, nondemented older persons, and young and middle-aged persons; and the effect of CSF cortisol concentrations in cognitive decline. Role: Investigator