BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Levey, Allan I.	Professor and Chair of Neurology
eRA COMMONS USER NAME (credential, e.g., agency login) ALLANLEVEY	

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

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Michigan, Ann Arbor, MI	BS	1978	Zoology
University of Chicago, Chicago, IL	PhD	1982	Immunology
University of Chicago, Chicago, IL	MD	1984	Medicine
University of Chicago, Chicago, IL	Postdoc	1985	Pharmacology Physiol
Johns Hopkins Hospital, Baltimore, MD	Residency	1986 - 89	Neurology

A. Personal Statement

I am the Director of the Emory ADRC and founding director of the Center for Neurodegenerative Disease. I have extensive experience with my entire career as a basic and clinical researcher focusing on AD. I am also a board-certified neurologist and behavioral neurologist, continuing to see patients with cognitive disorders throughout my career. I also have extensive administrative experience including 10 years directing the ADRC and Chair of the Dept of Neurology, successfully recruiting and training investigators, organizing and leading team science initiatives, and securing and leveraging resources.

B. Positions and Honors

Positions and Employment

1984 - 85 Intern, Department of Medicine, Michael Reese Hospital, Chicago, IL
1988 - 89 Chief Resident, Department of Neurology, The Johns Hopkins Hospital, Baltimore, MD
1989 - 90 Special Volunteer, Lab. Molecular Biology, NINDS, NIH, Bethesda, MD
1989 - 91 Assistant Professor, Departments of Neurology & Pathology, Johns Hopkins Univ, Baltimore, MD
1990 - 91 Cognitive Neurology Subspecialty Training, Johns Hopkins Hospital, Baltimore, MD
1991 - 96 Associate Professor, Departments of Neurology and Psychiatry, Emory University, Atlanta, GA
1996 - Professor, Departments of Neurology, Pharmacology and Psychiatry, Emory University
2003 - Chairman, Department of Neurology, Emory University
2005 - Director, Emory Alzheimer's Disease Research Center
2012 - Betty Holland Chair for Alzheimer's Disease Research

Honors

Derek Denny-Brown Neurological Scholar Award, American Neurological Association, 1993; Heikkila Research Scholar Award, National Parkinson Foundation, 1995; ISI Highly Cited Researcher, Neuroscience, 2001; Health Advancement Research Award, Community Health Charities of Georgia, 2002; Team of Hope Award for Medical Leadership, Huntington's Disease Society of America, 2005; Best Doctors in America, 2005-present; Johns Hopkins Society of Scholars, 2010

Editorial Boards and Related Experience

Annals of Neurology Oversight Committee, 2010-2013; Experimental Neurology, 2002-present; Neuropsychopharmacology, 2003-present; Annals of the New York Academy of Sciences, The Year in Neurology, 2008-present; ASC Chemical Neuroscience, 2009-present; American Journal of Clinical Neurology, 2009-2010; American Journal of Translational Research, 2009-present; Annals of Neurology, 1999-2004

Other Experience and Professional Memberships

Director of Graduate Studies, Neuroscience Graduate Training Program, Emory Univ (1995-97); Director, Cognitive & Behavioral Neurology Program (1996-03); Vice-Chairman for Academic Affairs, Dept. of Neurology, Emory University, (1997-03); Director,MD/PhD Training Program, Emory University (1997-07); Director, Emory Neurodegenerative Disease Center (2000-present); Director, Emory Alzheimer's Disease Research Center (2005-present); Scientific Advisory Board, Coins for Alzheimer Research Trust (Rotary)

(2007-present); External Adivisory Committee, Johns Hopkins Alzheimer Disease Center (2009-present); Chair, External Advisory Committee, UC Davis Alzheimer Disease Center (2010-present); Councilor, American Neurological Association (2011-present); Steering Committee, NACC (2012–present); Scientific Advisory Board, Pat Summit Foundation (2014-present)

C. Selected Peer-reviewed Publications (from 293; H-Index 91)

Mesulam M-M, Mufson EJ, Wainer BH, **Levey AI** (1983) Central cholinergic pathways in the rat: an overview based on an alternative nomenclature (Ch1-Ch6). *Neurosci*. 10:1185-1201.

Levey AI (1996) Muscarinic acetylcholine receptor expression in memory circuits: implications for treatment of Alzheimer Disease, *Proc. Nat. Acad. Sci. (USA)* 93:13541-13546.

Davis AA, Fritz JJ, Wess J, Lah JJ, **Levey AI** (2010) Deletion of M1 muscarinic acetylcholine receptors increases amyloid pathology in vitro and in vivo. *J Neurosci* 30(12):4190–4196. PMID: 20335454; PMCID: PMC2855655

Wingo TS, Lah JJ, **Levey AI**, Cutler DJ (2012) Autosomal Recessive Causes Likely in Early-Onset Alzheimer Disease. *Arch Neurol* 69(1):59-64. PMID: 21911656; PMCID: PMC3332307

Steenland K, Karnes C, Seals R, Carnevale C, Hermida A, **Levey A** (2012) Late-life depression as a risk factor for mild cognitive impairment or Alzheimer's disease in 30 US Alzheimer's disease centers. *J Alzheimers Dis* 31(2):265-275. PMID: 22543846; PMCID: PMC3729228

Goldstein FC, **Levey AI**, Steenland NK (2013) High Blood Pressure and Cognitive Decline in Mild Cognitive Impairment. *J Am Geriatr Soc*. **61**(1):67-73. PMID: 23301925; NIHMS480994; PMC3699694

Chalermpalanupap T, Kinkead B, Hu WT, Kummer MP, Hammerschmidt T, Heneka MT, Weinshenker D, **Levey AI** (2013) Targeting norepinephrine in mild cognitive impairment and Alzheimer's disease. *Alzheimer's Research & Therapy* **5**:21, 1-9. PMID: 23634965; PMCID: PMC3706916

Jonsson T, Stefansson S, Steinberg S, Jonsdottir I, Jonsson PV, Snaedal J, Bjornsson S, Huttenlocher J, **Levey AI**, Lah JJ, Rujescu D, Hampel H, Giegling I, Andreassen OA, Engedal K, Ulstein I, Djurovic S, Ibrahim-Verbaas C, Hofman A, Ikram MA, van Duijn CM, Thorsteinsdottir U, Kong A, and Stefansson K (2013) Variant of TREM2 Associated with the Risk of Alzheimer's Disease. *New Eng J Med* 368(2):107-116. PMID: 23150908; PMC3677583.

Hu W, Watts K, Grossman M, Glass JD, Lah JJ, Hales C, Shelnutt M, Van Deerlin VM, Trojanowski JQ, **Levey AI** (2013) Reduced CSF p-Tau$_{181}$ to Tau ratio is a biomarker for FTLD-TDP. *Neurol* **81**(22):1945-1952. PMID: 24174584, PMC3843382

Steenland K, Zhao L, Goldstein FC, **Levey AI**. Statins and cognitive decline in older adults with normal cognition or mild cognitive impairment. *J Am Geriatr Soc* **61**:1449-1455, 2013. PMID: 24000778; PMCID: PMC3773248

Zola SM, Manzanares CM, Clopton P, Lah JJ, **Levey AI** (2013) A Behavioral Task Predicts Conversion to Mild Cognitive Impairment and Alzheimer's Disease. *Am J Alzheimers Dis Other Demen*. **28**(2):179-184. PMID: 23271330, PMC3670591

Herskowitz JH, Feng Y, Mattheyses AL, Hales CM, Higginbotham LA, Duong DM, Montine TJ, Troncoso JC, Thambisetty M, Seyfried NT, **Levey AI**, Lah JJ (2013) Pharmacologic Inhibition of ROCK2 Suppresses Amyloid-β Production in an Alzheimer's Disease Mouse Model. *J Neurosci* 33(49):19086-19098. PMID: 24305806

Bai B, Hales CM, Chen P-C, Gozal YM, Dammer EB, Fritz JJ, Wang X, Xia Q, Duong DM, Street RC, Cantero G, Cheng D, Jones DR, Wu Z, Li Y, Diner I, Heilman CJ, Rees HD, Wu H, Lin L, Szulwach KE, Gearing M, Mufson EJ, Bennett DA, Montine TJ, Seyfried NT, Wingo TS, Sun YE, Jin P, Hanfelt J, Wilcock DM, **Levey AI**, Lah JJ & Peng J (2013) U1 Small Nuclear Ribonucleoprotein Complex and RNA Splicing Alterations in Alzheimer's Disease. *Proc Natl Acad Sci* **110**(41):16562-16567. PMID: 24023061; PMCID: PMC3799305

Richardson JR, Roy A, Shalat SL, von Stein RT, Hossain MM, Buckley B, Gearing M, **Levey AI**, German DC (2014) Elevated Serum Levels of p,p'-DDE, the Metabolite of the Pesticide DDT, are Associated with Increased Risk for Alzheimer's Disease. *JAMA Neurol* **71**(3):284-290. PMID: 24473795

D. Research Support

Ongoing Research Support

P50AG025688 **Levey** (PI) 06/01/05 - 05/31/15
NIH-NIA
Emory Alzheimer's Disease Research Center seeks to establish clinical, pathologic, education, data management and administrative cores to support Alzheimer's disease research and to support individual research projects into MCI, Alzheimer's genetics and the application of proteomics technologies at Emory.
Role: PI

U01AG046161 **Levey** (PI) 09/01/13 - 08/31/18
NIH-NIA
Discovery of Novel Proteomic Targets for Treatment of Alzheimer's Disease is a multi-center project using advanced mass spectrometry, postmortem brain specimens from several unique longitudinal studies of aging, and systems biology to identify and validate protein changes that distinguish asymptomatic Alzheimer's disease from early symptomatic stages and normal aging, and to use experimental models to evaluate the most promising new therapeutic targets.
Role: PI

T32NS007480 **Levey** (PI) 07/01/06 - 06/30/16
NIH/NINDS
Training in Translational Research in Neurology
Role: PI

U01AG16976 Kukull (PI) 07/01/99 - 06/30/14
NIH/NIA
National Alzheimer's Coordinating Center (NACC). The subcontract provides the minimum common data set from subjects enrolled in the Emory Alzheimer's Disease Center.
Role: Emory site PI

U01AG024904 Weiner (PI) 07/01/05 - 08/31/15
NIH/NIA
UCSD Subcontract ADNI, ADNI-2, and ADNI-GO Alzheimer's Disease Neuroimaging Initiative
Role: Emory site PI

U01AG16976 Kukull (PI) 07/01/13 - 06/30/15
NIH/NIA
Validation of Non-Amyloid, Non-Tau CSF Biomarkers for Alzheimer's Disease This proposal will identify new biomarkers for Alzheimer's disease that can provide information on disease stage and rates of symptom progression.
Role: Co-investigator

R01EB014266-01A1 Agichtein (PI) 08/01/11 - 07/31/15
NIH/NIBIB
Automated Web-based Behavioral Diagnostics of Cognitive Impairment The goal of the study is to develop a highly sensitive and widely available method for detection and monitoring of even small degrees of memory loss using a preferential looking task adapted to web-based delivery.
Role: Co-PI

ADDF **Levey** (PI) 05/01/12 - 04/30/14
Alzheimer's Drug Discovery Foundation
A Phase IIa, Double-Blind, Placebo-Controlled, Biomarker Study of Atomoxetine in Subjects with Mild Cognitive Impairment. Investigator-initiated, single site trial of atomoxetine in subjects with mild cognitive impairment, with primary objectives to determine target engagement (norepinephrine transport inhibition) and effects on cerebrospinal fluid measures of inflammation.
Role: PI

Eisai Incorporated **Levey** (Site PI) 04/23/13 - 04/22/18
A Placebo-controlled, Double-blind, Parallel-group, Bayesian Adaptive Randomization Design and Dose Regimen-finding Study to Evaluate Safety, Tolerability and Efficacy of BAN2401 in Subjects With Early Alzheimer's Disease. Emory-site participation in a clinical trial of a monoclonal antibody to amyloid.

Role: Emory site PI

Merck Sharp & Dohme **Levey** (Site PI) 09/01/12 – 08/31/16
A Randomized, Placebo-Controlled, Parallel-Group, Double Blind Efficacy and Safety Trial of MK-8931 in Subjects with Mild to Moderate Alzheimer's Disease. Emory-site participation in a national trial of a beta-secretase inhibitor for treatment of Alzheimer's disease.
Role: Emory Site PI

NIH/NIA Mann (PI) 07/15/13 – 04/30/15
A Novel M1 Muscarinic Activator to Treat Memory Deficits in Alzheimer's Disease. The objective of this project is to develop new cholinergic based therapy to treat Alzheimer's disease.
Role: Co-PI

NeuroVision Imaging **Levey** (PI) 10/24/13 – 10/23/17
Imaging of Retinal Aß Plaques in Alzheimer's disease. Emory single-site trial to compares CSF Alzheimer's disease biomarkers with retina amyloid pathology using novel imaging technique.
Role: PI

Covance Inc. **Levey** (Site PI) 01/23/14 – 01/22/18
Covance Inc.
A Double Blind, Randomized, Placebo Controlled, Parallel Group Study to Simultaneously Qualify a Biomarker Algorithm for Prognosis of Risk of Developing Mild Cognitive Impairment due to Alzheimer's Disease (MCI due to AD). Emory-site participation in a clinical trial focused on prevention of cognitive decline in genetically high risk individuals for Alzheimer's disease.
Role: Emory site PI

Georgia Research Alliance **Levey** (PI) 11/16/06 – 06/30/15
Matching Funds
Role: PI

Completed Research Support (last 3 years)

R01NS30454 **Levey** (PI) 04/01/91 – 03/31/11
NIH-NINDS
Muscarinic Receptor Proteins in Alzheimer's Disease These studies aim to determine the cellular and molecular basis for changes in muscarinic receptor subtypes in Alzheimer's disease.
Role: PI

P01AG014449 Mufson (PI) 10/25/07 – 03/31/13
NIH-NIA Rush University Medical Center
Neurobiology and Cognitive Impairment Of The Elderly
Project 2: LRII, a novel receptor in MCI and AD progression (Lah)
Role: Co-Investigator of Project 2

ELN115727-301/302 **Levey** (PI) 05/05/08 – 2013
Elan Pharm
A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Efficacy and Safety Trial of Bapineuzumab in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E4 Non-Carriers (301) and Apolipoprotein E4 Carriers (302)
Role: Site PI

ELND005-AD201 **Levey** (PI) 09/30/08 – 2013
Elan Pharm
A Randomized, Double-Blind, Placebo-Controlled, Dose-Ranging, Safety and Efficacy Study of Oral ELND005 (AZD-103; scylloinositol) in Alzheimer's Disease
Role: Site PI

R37AG015473 Mayeux (PI) 12/01/98 – 01/31/15

NIH/NIA
Genetic Epidemiology of Alzheimer's Disease in Hispanics
Role: PI – Emory Subcontract