BIOGRAPHICAL SKETCH

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NAME: Mitchell Taylor Wallin

eRA COMMONS USER NAME (credential, e.g., agency login):MWALLIN

POSITION TITLE: Associate Professor of Neurology, George Washington University School of Medicine & University of Maryland School of Medicine

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

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Wheaton College, Wheaton, IL	BS	05/1984	Biology
University of Minnesota, Minneapolis, MN	MD	06/1990	Medicine
Northwestern University, Chicago, IL		06/1991	Medicine Internship
University of Minnesota Hospitals, Minneapolis, MN		06/1994	Neurology Residency
Johns Hopkins University, Baltimore, MD	MPH	06/1996	Public Health Preventive Medicine

A. Personal Statement

My research and writing over the past 20 years has focused on multiple sclerosis (MS), neuroepidemiology, and neuroinfections. Through funding from the National MS Society, VA Merit Review system and NIH, I have learned to appreciate the power of large population datasets in addressing clinical and epidemiological problems and have published over 60 peer-reviewed articles and book chapters. I have been working with the VA MS Center of Excellence (MSCoE) since it was launched in 2004. I currently direct the MSCoE-East and received the Mark Wolcott Award for Clinical Leadership for innovations in MS care including telemedicine tools and my efforts in authoring, and gaining VA Central Office approval for the MS Policy Directive which outlines the national standard of care for MS in the VA health care system. I am based at the VAMC-Washington, DC and have faculty appointments at George Washington University and the University of Maryland School of Medicine. Current non-VA roles include chairing of the US MS Prevalence Project funded by the National MS Society and serving as a neurology consultant to the Global Burden of Disease (GBD) Study Group funded by the Gates Foundation. A series of three papes updating a novel approach for evaluating prevalence and an updated MS prevalence estimate for the US will be featured in the March 5, 2019 issue of *Neurology*. Neurological disease was highlighted as producing the highest level of disability worldwide among all disorders in the 2015 GBD study and a series of papers providing details about specific disorders, including MS, are being featured in a special *Lancet Neurology* issue in 2019.

My experience in analyzing large government (VA, Medicare and Medicaid) and private insurance datasets and leading large project teams have prepared me to lead this proposal. As PI, I will be responsible for overseeing all aspects of the project, and lead the data assembly and analytic team members to ensure timely completion of the aims.

Recent publications:

Wallin MT, Culpepper WJ, GBD 2015 Multiple Sclerosis Collaborators. Global, regional, and national burden of multiple sclerosis1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neurol* 2019; e-publication, http://dx.doi.org/10.1016/ S1474-4422(18)30443-5.

Bove R, Bevan C, Crabtree E, Zhao C, Gomez R, Garcha P, Morrissey J, Dierkhising J, Green AJ, Hauser SL, Cree BA, **Wallin MT**, Gelfand JM. Toward a low-cost, in-home, telemedicine-enabled assessment of disability in MS. *Mult Scler* 2018 Aug 24;epub. PMID: 30141729.

Wallin MT. Rituximab is an acceptable alternative to ocrelizumab for treating multiple sclerosis - No. *Mult Scler* 2018 Aug;24(9):1159-1161. PMID: 29468931.

Time and Effort: Clinical: 30%, Research: 40%, Administrative: 20%, Teaching: 10%

B. Positions and Honors:

Positions and Employment

1996-	Chief, Neuroepidemiology & MS Clinic Director VA Medical Center, Washington, DC
2003-	Neurology Consultant War-Related Illness & Injury Study Center, VA Medical Center, Washington, DC
2000-04	Assistant Professor of Neurology, Georgetown University School of Medicine, Washington, DC
2004	Associate Director, Epidemiology & Outcomes VA MS Center of Excellence-East, Baltimore, MD
2005-	Associate Professor of Neurology Georgetown University School of Medicine, Washington, DC
2005-15	Clinical Associate Director VA MS Center of Excellence-East, Baltimore, MD
2005-14	Oral Board Examiner American Board of Psychiatry & Neurology
2006-11	Neurologist/MS Specialist Georgetown University MS Center, Washington, DC
2010-	Associate Professor of Neurology University of Maryland School of Medicine, Baltimore, MD
2010-	Neurology Consultant NIH/NIAID-Clinical Parasitology Section
2016-	Director VA MS Center of Excellence-East, Baltimore, MD

Honors & Awards

1990	MAP/Reader's Digest International Fellow-Kenya, East Africa
2008	Elected Active Member, American Neurological Association
2009	VA Wolcott Award for Clinical Leadership-received October 2010
2016	John Whitaker Memorial Lecture-University of Alabama-Birmingham

Other Experience and Professional Memberships

1997-	Consortium of Multiple Sclerosis Centers
1993-	American Academy of Neurology
2000-	VAMC Research & Development Committee Member
2003-	American College of Preventive Medicine
2003-	American College of Epidemiology
2008-	American Neurological Association (inducted as an active member in 2008)
2010-	Society for Epidemiologic Research

2015- Chair, NIH/NINDS DSMB for Idebenone and intrathecal rituximab MS trials

C. Contributions to Science:

In my role as Director of the MSCoE-East, MS case finding and adjudication of MS within the national VA databases was addressed in our VA Surveillance Registry paper. Optimizing the management of MS within the VA health care system was the subject of a paper in *JRRD* and highlighted the MS Policy Directive created by our group. The power and efficiency of telemedicine to conduct reliable MS cognitive assessments and influence medication adherence was shown in two subsequent papers.

a) Culpepper WJ, **Wallin MT**, Magder LS, Perencevich E, Royal W, Bradham DD, Cutter G, Bever CT. VHA Multiple Sclerosis Surveillance Registry and its similarities to other contemporary multiple sclerosis cohorts. *J Rehabil Res Dev* 2015;52:263-272.
b) **Wallin M**. Integrated multiple sclerosis care: new approaches and paradigm shifts. *J Rehab Res Dev.* 2010;47:5:ix-xiv.
c) Settle JR, Robinson SA, Kane R, Maloni HW, **Wallin MT**. Remote cognitive assessment for patients with multiple sclerosis: a feasibility study. *Mutl Scler*. 2015;21:1072-1079.
d) Settle JR, Maloni HW, Bedra M, Finkelstein J, Zhan M, **Wallin MT**. Monitoring medication adherence in multiple sclerosis using a novel web-based tool: A pilot study. *J Telemed Telecare*. 2016;22:225-233.

Early in my career, I was fortunate to be mentored by John Kurtzke, a pioneer in neuroepidemiology, and my focus centered on multiple sclerosis (MS). Recent work related to MS has focused on the assembly and characterization of the Gulf War MS cohort with active duty military service between 1990-2007. Major papers to date include the incidence of MS in the US from the population-based GW era MS cohort showing for the first time that blacks have higher rates of MS than whites. The morbidity of MS at diagnosis was documented in a recent publication showing more significant disability in blacks and males. Finally, the MS Prevalence Workgroup that I led has produced a new estimate for the US in a seminal publication to be released in the March 2019 *Neurology*.

a) **Wallin MT**, Culpepper WJ, Coffman P, Pulaski S, Maloni H, Mahan C, Haselkorn JK, Kurtzke JF. The Gulf War Era Multiple Sclerosis Cohort. 1. Age and Incidence Rates by Race, Sex and Service. *Brain.* 2012;135:1778-1785.
b) **Wallin MT**, Culpepper WJ, Maloni H, Kurtzke JF. The Gulf War multiple sclerosis cohort: 3. Early clinical features. *Acta Neurologica Scandinavica*. 2018;137:76-84.
c) **Wallin MT**, Culpepper WJ, Campbell JD, Nelson LM, Langer-Gould A, Marrie R, Cutter GRR, Kaye WE, Wagner L, Tremlett H, Buka SL, Dilokthornsakul P, Topol B, Chen LH, LaRocca N, on behalf of the US MuMS Prevalence Workgroup. The prevalence of MS in the United States: A population-based estimate using health claims data. *Neurology* 2019; in press.

My contributions to global neurology through clinical and epidemiological studies are highlighted by the papers below, which involve collaborations with investigators across the world. I have collaborated with colleagues in Peru and the US on the morbidity of neurocysiticercosis. I've also developed teaching materials for residents and medical trainees in Kenya, East Africa where I have served as a neurology consultant and lecturer.

a) Coyle CM, Mahanty S, Zunt J, **Wallin MT**, Cantey PT, White Jr AC, O'Neal S, Serpa JA, Southern PM, Wilkins P, McCarthy A, Higgs ES, Nash TE. Neurocysticercosis: Neglected but not forgotten. *PLoS NTD*. 2012;6(5)e1500.
b) **Wallin MT**, Pretell EJ, Bustos JA, Caballero M, Alfaro M, Kane R, Wilken J, Sullivan C, Fratto T, Garcia HH. Cognitive Changes and Quality of Life in Neurocysticercosis: A Longitudinal Study. *PLoS NTD*. 2012:6;e1493.
c) GBD 2015 Neurological Disorders Collaborator Group (**Wallin MT**). Global, regional, and national burden of neurological disorders during 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet Neurol*. 2017;15:877-897.

Partial List of Published Work in MyBibliography:
https://www.ncbi.nlm.nih.gov/labs/bibliography/1lc-Fvb3V5JQI/bibliography/public/

D. Additional Information: Research Support:

Ongoing Research Support

Lipoic Acid for the Treatment of Progressive Multiple Sclerosis (PI Spain, co-I Wallin)
Funding source: VA Merit Review, $460,000
Dates of Approval: 6/1/2018-5/30/2020, Project Number: NCT03161028
The purpose of this study is to determine if the oral antioxidant Lipoic Acid (LA) provides clinical benefits and reduces brain atrophy in progressive multiple sclerosis (PMS). The hypothesis is that daily LA will both maintain mobility and reduce whoe brain atrophy, thus paving the way for consideration of LA as a disease-modifying therapy (DMT) for PMS.

Multiple Sclerosis Telehealth Utilization Project (PI Wallin)
Funding source: National MS Society, $441,743.50
Dates of Approval/Proposed Project: 10/1/2017-9/30/2019, Project Number: HC-1610-25978
Telehealth, defined broadly as the use of telehealth technologies to provide clinical care when distance separates patients and providers, has the potential to fill some of the gap in the provision of specialty MS services. Our team will conduct a thorough evaluation of MS telehealth utilization within the US by analyzing national administrative databases and conducting a population-based and expert panel surveys of patients and providers.

What is the extent to which people with MS utilize complementary and alternative medicine?
(PI Minden, co-I Wallin)
Funding source: National MS Society, $411,387.20
Dates of Approval/Proposed Project: 10/1/2017-9/30/2019, Project Number: HC-1610-25995
The purpose of this project is to provide the National Multiple Sclerosis Society (NMSS) with the information it needs to formulate policy and advocate effectively for improved access to and payer coverage for complementary and alternative medicine (CAM) and integrative care.

Identification and characterization of a novel risk factor for multiple sclerosis (PI Feinstein, co-I Wallin)
Funding source: VA Merit Review Grant Program, $650,000.00
Dates of Approved/Proposed Project: 11/1/2015-10/30/2019, Project Number: I-01BX002625
The role of LKB1 in neither MS nor its mouse model EAE has not been examined; in preliminary data we found that LKB1 expression is decreased in the spinal cord during chronic EAE. These results raise our major hypothesis that deficiencies in LKB1, due to familial mutations or to reduced expression during disease, contribute to EAE and MS pathogenesis.

United States MS Prevalence Project (PI Wallin)
Funding Source: National Multiple Sclerosis Society, $1,100,000.00
Dates of Approved/Proposed Project: 01/01/2015-12/31/2019, Project Number HC-1508-05693
There has not been a national study of incidence and prevalence of MS in the US since 1975. To address this gap the NMSS initiated the MS Prevalence Work Group that evolved into a full collaborative study group. The goal of this project is to provide a scientifically sound and economically feasible estimate of the prevalence of MS in the US. Dr. Wallin chairs this group of neurologists, epidemiologists, scientists and policy advocates.

Recently Completed Research Support

The Gut Microbiome in Spinal Cord Injury and Multiple Sclerosis (PI Clare-Roughman, Co-PI Wallin)
Funding Source: VA Pilot Study, $50,000, Project Number: 001716
Dates of Approved Project Support: 6/1/2015-5/30/2016
This study assessed the gut microbiome of patients with spinal cord injury and multiple sclerosis with recurrent urinary tract infections to determine associations with colonization, therapy, and complications.

Physical Telerehabilitation in Veterans with Multiple Sclerosis (PI Finkelstein, Co-PI Wallin)
Funding Source: VA Merit Review, $823,000
Dates of Approved Project Support: 7/1/2012-6/30/2016, Project Number: I01BX007080
This randomized blinded clinical trial in patients with multiple sclerosis (MS) tested a home-based telemedicine exercise program and compared outcomes with routine care administered by physical therapists. Outcomes included timed walking tests, neurological disability, adherence, and overall feedback with the telemedicine system over the 3-month trial.