

CURRICULUM VITAE
Ray L. Watts, MD, FANA, FAAN
November 2022

University of Alabama at Birmingham
1720 2nd Avenue South
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Birmingham, Alabama 35294
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PERSONAL DATA

Date of Birth: December 18, 1953

Place of Birth: Birmingham, Alabama

Marital Status: Married, five adult children and nine grandchildren

PRESENT & RECENT FACULTY / PROFESSIONAL / LEADERSHIP POSITIONS

2/13-Present President, University of Alabama at Birmingham (UAB)

2/13-Present Chair, Board of Directors of UAB Health System (governing entity for UAB Hospital, UAB Highlands Hospital, Callahan Eye Foundation Hospital, The Kirklin Clinic, and UAB satellite clinics)

10/05-Present Executive Committee, UAB Health System

2020-Present UAB/Ascension St. Vincent's Alliance Board, Chair

11/22-Present Inaugural holder of the Charles S. Ackerman Endowed Professorship in Parkinson's Disease, Department of Neurology, UAB Heersink School of Medicine

7/03-Present Professor, Department of Neurology, UAB Heersink School of Medicine

9/06-Present Sr. Scientist, UAB Comprehensive Neuroscience Center

3/11-Present Sr. Scientist, UAB Center for Exercise Medicine

2/13-Present Chair, Southern Research Board of Directors

2022-Present Chair, UAB Arts Corporate Board of Directors

2018-Present Chair, Innovation Depot Board of Directors, Executive Committee

2015-2017 Chair, Birmingham Business Alliance (two consecutive terms)

2020-Present Member, Live HealthSmart Alabama (UAB Grand Challenge) Board of Directors

2/13-Present Member, Innovation Depot Board of Directors

2013-Present Member, Birmingham Business Alliance Board of Directors

2020-Present Member, Prosper Birmingham Board of Directors

2010-Present Member, Viva Health Board of Directors

2021-Present Member, Emergency Health Care Task Force

- 2013-Present Member, Leadership Birmingham Board of Trustees
- 2012-2021 Member, Community Foundation of Greater Birmingham Board of Directors
- 2009-2013 Member, Alabama Symphony Orchestra (ASO) Board of Directors
(Co-Founder/Chair, Doctors for ASO)

PRIOR EXECUTIVE LEADERSHIP POSITIONS/RESPONSIBILITIES

- 9/10-2/13 Sr. Vice President & Dean, James C. Lee Endowed Chair, UAB School of Medicine
- 10/05-9/10 President, University of Alabama Health Services Foundation (Multi-specialty group practice of the over 1,200 physicians who comprise the full-time clinical faculty of UAB School of Medicine; over \$500 million in annual revenue and net assets over \$500 million)
- 1/08-9/08 Interim CEO, UAB Health System
- 10/05-2/13 Board of Directors, University of Alabama Health Services Foundation (UAHSF)
- 10/05-2/03 Board of Directors, UAB Health System
- 2013-2018 Campaign for UAB – Led successful \$1 billion campaign (Naming gifts: Heersink School of Medicine, \$95M; O’Neal Comprehensive Cancer Center, \$30M; Collat School of Business, \$25M; Gorrie Hall, \$10M.
- 10/05-2/13 Joint Operating Leadership Group, UAB Medical Center (comprising the Senior VP/Dean of UAB School of Medicine, CEO of UAB Health System, and President of UAHSF)
- 9/10-2/13 Chair, UAB School of Medicine Executive Committee
- 9/10-2/13 Chair, Finance Committee, UAB Health System
- 9/10-2/13 Vice Chair, Board of Directors, UAB Health System
- 10/05-9/10 Chair, Executive Committee, University of Alabama Health Services Foundation
- 10/05-9/10 Chair, Medical Leadership Committee, UAB Health System
- 7/03-9/10 Professor and John N. Whitaker Endowed Chair, UAB Department of Neurology
- 7/03-9/10 Chief, Neurology Service, UAB Hospital
- 10/05-9/10 President, University of Alabama Health Services Foundation (two consecutive terms)

PREVIOUS FACULTY/PROFESSIONAL POSITIONS

- 7/86-6/03 Director, Movement Disorders Program, Emory University
- 9/00-6/03 A. Worley Brown Endowed Professor in Neurology, Emory University
- 9/98-6/03 Vice chair, Department of Neurology, Emory University
- 9/98-6/03 Professor, Department of Neurology, Emory University

9/01-6/03 Director, Clinical Trials Office, School of Medicine, Emory University

1990-2003 Co-Director, APDA Advanced Center for Parkinson Research at Emory University

9/98-6/03 Chief, Neurology Service, Emory University Hospital

9/98-6/03 Chief, Neurology Service, Wesley Woods Geriatric Center (Emory Healthcare)

9/98-6/03 Associate Section Head, Section of Neurology, The Emory Clinic, Inc.

2/02-6/03 Member, Executive Committee, Institutional Review Board, Emory University

9/87-6/03 Medical Director, American Parkinson Disease Association (APDA) Information and Referral Center, Emory University

7/87-6/03 Affiliate Scientist, Division of Neurobiology, Yerkes Regional Primate Research Center, Emory University

7/86-6/03 Attending Neurologist, Emory University Affiliated Hospitals, the Emory Clinic and Wesley Woods Geriatric Hospital

9/92-9/98 Associate Professor, Department of Neurology, Emory University

7/86-8/92 Assistant Professor, Department of Neurology, Emory University

EDUCATIONAL BACKGROUND

1972-76 UAB School of Engineering, B.S.E. (Biomedical and Electrical Engineering) with Honors

1976-80 Washington University School of Medicine (St. Louis, MO.), M.D. with Highest Honors

POST GRADUATE TRAINING

1980-81 First Year Medical Resident, Massachusetts General Hospital, Clinical Fellow in Medicine, Harvard Medical School, Boston, MA

1981-84 Neurology Resident, Massachusetts General Hospital, Clinical Fellow in Neurology, Harvard Medical School

1982-83 Electromyography and Motor Control Fellow, Clinical Neurophysiology Laboratory, Massachusetts General Hospital

1982-84 Resident Member, Movement Disorders Clinic, Massachusetts General Hospital (part-time)

1983-84 Chief Resident, Neurology, Massachusetts General Hospital

1984-86 Medical Staff Fellow, NIMH Laboratory of Neurophysiology, National Institutes of Health, Bethesda, MD. (Motor Control and Movement Disorders)

BOARD CERTIFICATION

American Board of Psychiatry and Neurology (Neurology), November, 1985-Present

MEDICAL LICENSURE

Alabama (active); Georgia (active); Massachusetts (inactive); Washington, D.C. (inactive); Virginia (inactive); Maryland (inactive)

HONORS AND AWARDS**Professional**

- CEO of the Year Award, Birmingham Business Journal, 2021
- University of Alabama Medical Alumni Association Distinguished Service Award, 2014
- Alabama Symphony Orchestra Elton B. Stephens Service Award, 2010
- UAB Distinguished Alumni Award, 2007
- Raymond D. Adams Lecture, Harvard/Massachusetts General Hospital, March 11, 2004

Research, Teaching and Clinical

- America's Top Doctor's, Castle and Connolly, 2000-present
- Best Doctor's in America, Woodward and White, 1994-present
- Birmingham's Best Doctors, Birmingham Magazine, 2003-present
- Who's Who in Health Care, Birmingham Business Journal, 2007
- Atlanta's Best Doctors, Atlanta Magazine, 2001-2003
- Health Care Hero Award, Physician nominee, sponsored by Atlanta Business Chronicle, 1999
- John N. Whitaker Endowed Chair in Neurology, University of Alabama at Birmingham, 2003-2010
- A. Worley Brown Endowed Professor in Neurology, Emory University, 2000-2003
- Fellow, American Neurological Association, 1985-Present
- Dr. George Cotzias Memorial Research Fellowship Award, American Parkinson Disease Association, "Pathophysiology and Treatment of Experimental Parkinsonism" (\$150,000, 7/1/89 - 6/30/92)
- Outstanding Neurology Professor, 1998 (Teaching award; chosen by Emory neurology residents)
- Favorite Neurobiology Professor, Emory University School of Medicine, 1991(chosen by freshman medical school class)

Medical School

- Valedictorian, Class of 1980
- Alpha Omega Alpha Senior Book Award, 1980 (Presented to Valedictorian)

- Dr. Irwin Levy Senior Prize in Neurology and Neurological Surgery, 1980
- Dr. Richard Brookings Medical School Prize for Outstanding Junior Student, 1978-79
- Student Research Fellowship, 1979-1980 (Neurophysiology)
- Alpha Omega Alpha, Medical Honor Society, 1979 (Junior Year Inductee)
- Student Research Fellowship, Summer, 1977 (Neurochemistry)

Undergraduate

- Valedictorian, Class of 1976
- Student Engineer of the Year for Alabama, 1974-75, Alabama Society of Professional Engineers
- Omicron Delta Kappa, National Honorary Leadership Society (President, UAB Chapter)
- Phi Kappa Phi, National Honor Society
- Merit Scholarship, UAB, 1972-76
- Most Outstanding Undergraduate Student, UAB, 1976
- Dean's Award, UAB School of Engineering, 1976

RESEARCH GRANT AWARDS

1. Biomedical Research Support Grant (Emory University), NIH BRSG SO7 RR05365. "Study of Pathophysiology and the Effects of Treatment in MPTP Parkinsonian Monkeys." P.I.- Ray L. Watts, one-time award of \$15,000 used to purchase laboratory computer; 6/20/86-6/19/88
2. United Parkinson Foundation Research Grant Award. "Study of Pathophysiology and the Effects of Treatment in MPTP Parkinsonian Monkeys." P.I.- Ray L. Watts; direct costs \$20,000; 1/1/87-12/31/87
3. NIH RO1 NS24312. "Pathophysiology of MPTP Parkinsonians." P.I.- Ray L. Watts; 75% effort; direct costs \$264,000; 1/1/87-12/31/89
4. Alzheimer's Disease and Related Disorders Research Grant Award. "Objective Assessment of Parkinsonian Features in Alzheimer's Disease." Co-Investigator: Ray L. Watts, (P.I.- Susan M. Ditter); direct costs \$20,000; 11/1/87-11/30/88
5. American Parkinson Disease Association Research Grant Award. "Investigation of Surgical Technique in the Treatment of Parkinsonism." Co-Investigator: Ray L. Watts, (P.I.- Roy A. E. Bakay); direct costs \$20,000; 7/1/88-6/30/89

6. NIH RO1 NS24340. "CNS Grafting for Parkinsonism." Co-Investigator: Ray L. Watts (P.I. - Roy A.E. Bakay); annual total costs \$290,752; 4/1/89-3/31/92
7. Emory University Research Committee Research Grant, Emory University, "Assessment of Changes of Motor Performance Related to Normal Aging and Early Parkinson Disease." Co-P.I., Ray L. Watts (Co-P.I., Alan Freeman); \$10,000; 7/90-6/91
8. VA Merit Award #0001. "Safety and Efficacy of Neural Grafting for the Treatment of Parkinson Disease"; Co-Investigator - Ray L. Watts (P.I. - Roy A.E. Bakay) \$149,000, 4/1/91-3/31/94
9. VA Merit Award #5747-4. "Cytoskeletal Pathology in Alzheimer's Disease - Parkinson's Disease Features in Alzheimer's Disease Patients." Co-Investigator - Ray L. Watts (P.I. - S.S. Mirra); \$85,420/year; 10/1/90-9/30/95
10. Hoffman-LaRoche, Inc., Protocol NN14104-ROADS/Parkinson Study Group. "Determination of the Dose Response and Plasma Concentration Response of Lazabemide (Ro 19-6327) in Delaying the Time until Treatment with Levodopa/Carbidopa is Required in Parkinson's Disease Patients" (ROADS - Ro 19-6327 Assessment and Dose-finding Study). P.I.-Ray L. Watts; \$128,620/yr; 3/18/92 - 3/17/93
11. NIH U10N531321-01. The Parkinson's Institute (subcontract at Emory). "Detecting Preclinical Parkinsonism in Humans." Co-Inv., Ray L. Watts; \$276,712/yr total, \$36,396/yr subcontract only; 7/1/92 - 6/30/95
12. American Parkinson Disease Association Research Grant Award. "Analysis of New Electrophysiological Techniques for Preclinical and Early Detection of Human Parkinsonism." P.I.: Ray L. Watts. \$24,975/yr; 9/1/93-8/30/94
13. Foundation for Physical Therapy Grant. "Early Electrophysiologic Detection of Human Parkinsonism." Co-Inv. & Faculty Sponsor: Ray L. Watts (P.I.: Claire L. Maier, Neuroscience Ph.D. student) \$5,000; 9/1/93-8/31/94
14. NIH 1U10NS31321-01, "Twin Studies in Parkinson Disease." Emory Investigator: Ray L. Watts (P.I.: Caroline M. Tanner) \$5,000/year, 7/1/92-3/31/95
15. Cytotherapeutics, Inc. "Cellular Transplants in Experimental Parkinsonism." P.I.: Ray L. Watts (Co-P.I.: Roy A.E. Bakay); \$137,012, 1/92-12/95

16. The Upjohn Company, Protocol M/2730/0001. "Double-blind, Placebo-controlled, Parallel-group Comparison to Assess the Safety, Tolerance, and Efficacy of Pramipexole in Early Parkinson's Disease (Part I) and to Assess Long Term Safety with Open-label Pramipexole (Part II)" (Pramipexole Study)." P.I.: Ray L. Watts; \$56,400/yr; 8/20/93 - 12/31/97
17. Hoffman-LaRoche, Inc, Protocol NZ14653. "A Dose-Response Efficacy Study of Tolcapone (Ro 40-7592) Compared with Placebo in Parkinson's Disease Patients Who are Stable Responders to Levodopa/Carbidopa (Sinemet)" (Tolcapone Study) P.I.: Ray L. Watts; \$123,533, 2/14/94-12/31/97 (Extension)
18. Ross Products Division, Abbott Laboratories. "The Use of a Very Low Protein Supplement in a Parkinson's Disease Population." P.I.: Ray L. Watts, M.D.; \$50,000, 8/26/94-8/25/95.
19. Eli Lilly & Co. "Effects of m5 Muscarinic & AMPA Compounds on Motor Performance in Hemi-Parkinsonian Monkeys." P.I.s: Allan I Levey, Ray L. Watts; \$68,700; 9/15/94 - 12/31/95
20. NIH RO1-NS-24340. "CNS Grafting for Parkinsonism." Co-Inv: Ray L. Watts (P.I.: Roy A.E. Bakay); direct costs - \$151,422/yr.; 4/1/93-3/31/99
21. NIH P30 AG 10130. Alzheimer's Disease Center, (P.I. - Suzanne S. Mirra). Co-Investigator, Ray L. Watts: Clinical Core; \$181,430/yr; 9/30/91 - 6/30/99
22. Duke University Medical Center (Deane Laboratory). Parkinson disease genetic collaborative study. Emory P.I.: Ray L. Watts, M.D. \$120,000, 1/1/96 – 12/31/01
23. Athena Neurosciences, Inc. "A Double-Blind, Placebo-Controlled, Single Dose, Dose-finding Safety, Tolerability and Preliminary Efficacy Study of BotB (Botulinum Toxin Type B) in Patients with Idiopathic Cervical Dystonia." Co-Investigator: Ray L. Watts, M.D. (P.I.: Alan Freeman, M.D.); \$54,160, 6/30/97 – 12/31/00
24. Theracell, Inc. "Intrastriatal implantation of retinal pigmented epithelial cells in parkinsonian monkeys: a pilot study" (Emory/Theracell 001). P.I.: Ray L. Watts, M.D.; \$69,842, 11/1/96-11/7/97
25. Theracell, Inc. "Intrastriatal implantation of retinal pigmented epithelial cells in parkinsonian monkeys: a pivotal study" (Emory/Theracell 002). P.I.: Ray L. Watts, M.D.; \$513,809, 1/1/97-06/30/00

26. Theracell, Inc. "Assessment of dopamine transporter in retinal pigmented epithelial (RPE) cells and immunological consequences of intrastriatal implantation of xenogeneic (RPE) cells in hemiparkinsonian rats" (Emory/Theracell 003). P.I.: Ray L. Watts, M.D.; \$19,628, 1/1/97 - 5/1/97
27. Pharmacia & Upjohn. The effect of pramipexole on depressive symptoms in Parkinson's disease patients. P.I.: Ray L. Watts, M.D.; \$66,300, 4/1/99 – 3/31/00
28. NIH R01 NS36711/Boston University School of Medicine. Genetic linkage study in Parkinson's disease. Emory P.I.: Ray L. Watts, M.D.; Project P.I.: R.H. Myers, PhD; total project costs \$2,999,535; 7/1/97 – 6/30/02
29. Novartis Pharmaceuticals. A prospective, randomized, parallel-group, double-blind, placebo-controlled, multi-center study to evaluate the short-term and safety of Entacapone administered together with levodopa in subjects with Parkinson' disease without motor fluctuations. Emory P.I.: Ray L. Watts, M.D.; \$83,013; 10/1/97 – 6/30/00
30. Amgen, Inc. Randomized, double-blind, placebo-controlled, 6-month safety, efficacy, and neuroimaging trial of the neuroimmunophilin AMG-474-000 in the treatment of patients with Parkinson's disease (Protocol: 2000105). P.I. Ray L. Watts, MD; \$58,000; 9/1/00-12/31/01
31. SmithKline Beecham, Inc. A double-blind, multicentre, flexible dose, l-dopa controlled study of ropinirole to investigate A) neuroprotective effect as measured by 3D PET scanning, and B) ophthalmological safety, in patients with early Parkinson's disease (Requip) P.I.: Ray L. Watts, M.D.; \$1,078,364, 11/1/97 - 12/31/01 (blinded phase); \$31,127, 10/1/01-9/30/04 (open-label phase)
32. Diacrin, Inc. A double-blind, randomized, controlled multicenter clinical trial of the safety and efficacy of transplanted fetal porcine cells in patients with Parkinson's disease. Emory P.I.: Ray L. Watts, M.D.; \$1,253,413, 12/1/97 – 2/10/02
33. SmithKline Beecham Pharmaceuticals. Double-blind, placebo-controlled, parallel group study of ropinirole vs. placebo in Restless Leg Syndrome. P.I.: Ray L. Watts, M.D.; \$334,880, 8/1/98 – 12/31/01
34. NIH R01NS34796/Columbia University/Parkinson Study Group (PSG), a multi-center study, "Earlier vs. later levodopa in Parkinson's disease" (The ELLDOPA Study), Emory P.I.: Ray L. Watts, M.D. (P.I. Stanley Fahn, M.D.), \$89,760, 4/1/99-3/31/02
35. NIH R01NS36714/University of California – San Diego. Effects of CoEnzyme Q10 in early Parkinson's disease. Emory P.I.: Ray L. Watts, M.D, (P.I. Cliff Shults, MD): \$90,040, 4/1/99 – 3/31/02

36. NIH 1R44NS39211/Titan Pharmaceuticals, Inc. Stereotactic intrastriatal transplantation of Spheramine™ in advanced Parkinson's disease patients: a pilot study of tolerability and efficacy. P.I.: Ray L. Watts, M.D., \$640,692, 1/25/00-7/24/02
37. Schwarz Biosciences, Inc. A multicenter, multinational, phase III, randomized, double blind, placebo controlled trial of the efficacy and safety of the rotigotine CDS patch in subjects with early stage idiopathic Parkinson's disease. P.I.: Ray L. Watts, M.D; \$78,780; 3/1/03-3/31/04.
38. Merck KgaA. A multicenter, multinational, randomized, double-blind, placebo-controlled, parallel-group, dose-finding study to investigate the anti-dyskinetic efficacy and safety of Sarizotan in Parkinson patients with L-dopa induced dyskinesia (EMR 62 225-006). P.I.: Ray L. Watts, M.D; \$62,400; 7/1/02-6/30/04
39. Kyowa Pharmaceutical, Inc. A 12-Week, Double-Blind, Placebo-Controlled, Randomized, Multicenter Study of the Efficacy of 40 mg/day KW-6002 as Treatment for Parkinson's Disease in Patients with Motor Response Complication on Levodopa/Carbidopa Therapy. P.I.: Ray L. Watts, M.D; \$66,000; 5/1/02-4/30/04
40. Pharmacia/Pfizer Pharmaceuticals. A Phase III, Multi-center, Randomized, Double-blind, Placebo-controlled, Fixed Dose Response Study Comparing the Efficacy and Safety of Sumanitrole versus Placebo in Patients with Early Parkinson's Disease. P.I.: Ray L. Watts, MD; \$111,332; 07/01/03-08/01/04
41. Kyowa Pharmaceuticals. A long-term, open-label safety study with oral 20 or 40mg/d doses of KW-6002 (Istradefylline) as treatment of Parkinson's disease in patients with motor response complications on levodopa therapy. PI: Ray L. Watts, MD; \$33,750; 01/01/05-12/31/06
42. Merck KgaA. Open-label, multicenter, multinational, phase III follow-up study to investigate the long-term safety and efficacy of Sarizotan HCl 1 mg. Bid in patients with Parkinson's disease suffering from treatment-associated dyskinesia (PADDY-O). PI: Ray L. Watts, MD and Natividad Stover, MD; \$24,907; 05/02/05-05/31/08
43. Schwarz Biosciences. A multicenter, multinational, phase 3B, open-label extension trial to assess the safety and tolerability of long-term treatment of rotigotine patch in subjects with idiopathic Parkinson's disease. PI: Ray L. Watts, MD; \$52,020; 05/05/05-06/30/08
44. Advanced Neuromodulation Systems, Inc. Clinical evaluation of the ANS Totally Implantable Deep Brain Stimulation System for the suppression of tremor in the upper extremities of patients with essential tremor. PI: Ray L. Watts and Barton Guthrie, MD; \$11,892; 06/22/05-06/22/10

45. Kyowa Pharmaceutical, Inc., A phase II, double-blind, placebo-controlled, randomized, parallel-group, multicenter study of the efficacy and safety of 40mg/day KW-6002 (Istradefylline) as monotherapy in subjects with Parkinson's disease. PI: Ray L. Watts; \$26,440; 07/15/05-01/14/0
46. Teva Neuroscience. Multicenter, double-blind, randomized start, placebo-controlled, parallel-group study to assess Rasagiline as a disease modifying therapy in early Parkinson's disease subjects (ADAGIO). PI: Ray L. Watts, \$20,168; 12/20/05-06/19/08
47. Berlex Laboratories, Inc., Study of the safety, tolerability and efficacy of Spheramine® implanted bilaterally into the postcommissural putamen of patients with advanced Parkinson's disease. PI: Ray L. Watts, MD; \$594,140, 12/02/03 – 09/30/12
48. Kyowa Pharmaceutical, Inc., An Open-Label Multicenter Study of the Continued Safety of istradefylline (KW-6002) in Subjects With Parkinson's Disease Who Have Recently Completed One Year of Treatment With istradefylline. PI: Ray L. Watts, MD, \$13,500, 03/10/06 – 01/12/09
49. NIH1U10 NS44547 / UAB Parkinson's Disease Neuroprotection Clinical Trial Center. P.I: Ray L. Watts, M.D.; \$290,969, 12/01/07 – 11/30/2012
50. Investigator Initiated (funded by GlaxoSmithKline), The occurrence of cardiac valve regurgitation in Parkinson Disease patients treated with ropinirole. Co-investigator: Ray L. Watts; \$79,000, 01/24/06 – 05/31/09.
51. Ceregene, Inc., A multicenter, randomized, double-blind, sham surgery-controlled study of CERE-120 (Adeno-associated virus serotype 2[AAV2]-neurturin [NTN]) to assess the efficacy and safety of bilateral intraputamin (IPu) delivery in subjects with idiopathic Parkinson's disease. P.I.: Ray L. Watts, M.D.; \$201,680, 03/14/07-03/13/10
52. Alseres Pharmaceuticals, Inc., 123 I-ALTROPANE® reference image acquisition in subjects with diagnostically uncertain tremor (AIM). P.I.: Ray L. Watts, M.D.; \$29,890, 12/10/07 – 06/30/09
53. Ceregene, Inc., Extended observation study to assess the safety and efficacy of Idiopathic Parkinson's Disease patients treated with CERE-120 (Adeno-Associated Virus Serotype 2[AAV2]-Neurturin[NTN]). P.I.: Ray L. Watts, M.D.; \$298,778, 03/14/08 – 3/13/20
54. Chelsea Therapeutics, Inc., Droxidopa-302, A multi-center, double-blind, randomized, placebo-controlled, parallel-group withdrawal-design study to assess the clinical effect of droxidopa in subjects with primary

autonomic failure, dopamine beta hydroxylase deficiency or non-diabetic neuropathy and symptomatic neurogenic orthostatic hypotension. P.I.: Ray L. Watts, M.D.; \$76,325, 09/20/08 – 09/20/12

55. Chelsea Therapeutics, Inc., A multi-center, open-label study with a two week randomized, placebo-controlled withdrawal period to assess the long-term safety and clinical benefit to droxidopa in subjects with primary autonomic failures, dopamine beta hydroxylase deficiency or non-diabetic neuropathy and symptomatic neurogenic orthostatic hypotension. P.I.: Ray L. Watts, M.D.; \$37,164, 09/20/08 – 09/20/12
56. Alzheimer's Disease Cooperative Study/ National Institute on Aging (ADCS/NIA) CTA12-UAB (NGF) M-00ADCS / Ceregene, Inc, A double-blind, placebo-controlled (sham surgery), randomized, multicenter study evaluating CERE-110 gene delivery in subjects with mild to moderate Alzheimer's disease. P.I.: Ray L. Watts, M.D.; \$178,273, 06/11/09 – 06/10/12
57. Teva Pharmaceutical Industries LTD, An open-label, multi-center, follow-up study designed to evaluate the long-term effects of rasagiline in Parkinson's disease subjects who participated in the ADAGIO Study. Co-P.I.: Ray L. Watts, M.D.; \$24,000, 09/22/2009-12/31/2012
58. Ceregene, Inc., A phase 1 / 2 trial assessing the safety and efficacy of bilateral intraputamin and intranigral administration of CERE-120 (Adeno-Associated Virus Serotype 2 [AAV2]-Neurturin [NTN]) in subjects with idiopathic Parkinson's disease, P.I.: Ray L. Watts, M.D. \$500,343, 06/03/2010-06/02/2015

CENTER GRANTS

1. AMERICAN PARKINSON DISEASE ASSOCIATION INFORMATION AND REFERRAL CENTER GRANT. Medical Director, Ray L. Watts. M.D.; direct costs \$30,000 per year (renewed annually); 9/1/87- 6/30/03
2. CENTER FOR AGE-RELATED NEUROLOGICAL DISEASES GRANT; P.I., Ray L. Watts, MD; \$450,000; Anonymous Private Foundation, 1988-1991
3. ADVANCED CENTER FOR PARKINSON RESEARCH GRANT, American Parkinson Disease Association, Emory University School of Medicine, Co-P.I., Ray L. Watts (P.I., Mahlon R. DeLong), \$105,000/year, 1990- 2003 (renewable annually)
4. PARKINSON DISEASE CENTER CAMPAIGN, Emory University School of Medicine, Ray L. Watts, MD, Chair;1999-2003; \$10,000,000 goal reached

5. ALZHEIMER'S DISEASE RESEARCH CENTER GRANT: CLINICAL CORE. NIH/NIA; University of Alabama at Birmingham; Co-PI: Ray L. Watts, MD; \$1,901,558; 04/04/04 – 03/31/09
6. ADVANCED CENTER FOR PARKINSON RESEARCH GRANT, American Parkinson Disease Association, University of Alabama at Birmingham, Co-PI, Ray L. Watts (PI, David G. Standaert), \$130,000/year, 2006-present (renewable annually)

COMMITTEE ASSIGNMENTS

1. Emory University School of Medicine Long-Range Planning Committee, 1988-90
2. Emory University School of Medicine Curriculum Committee/Subcommittee on Computers and Technology, 1990-91
3. American Academy of Neurology Education Committee/Medical Student Essay Award Subcommittee, 1988-1991
4. Medical Association of Atlanta Communications Committee, 1989-92
5. At-Large Member, Executive Committee, The Emory Clinic, 1991-1993 (changed from partnership to non-profit corporation 1993)
6. Organizing Committee - Parkinson Study Group/Movement Disorders Society 6th Annual Symposium on the Etiology, Pathogenesis, and Prevention of Parkinson's Disease, Toronto, Canada, 1992; 7th Annual Symposium on the Etiology, Pathogenesis, and Prevention of Parkinson's Disease, Boston, MA, 1993
7. Clinical Operations Committee, Department of Neurology, Emory University, 1992-2003; Chair, 1998-2003
8. International Scientific Program Committee, 3rd International Congress of Movement Disorders, Orlando, FL, November 1994
9. Finance Team, The Emory Clinic Project 2000; Board of Directors, The Emory Clinic, 1995
10. Finance Committee, The Emory Clinic, Inc., 1996-1998
11. Leadership Council, The Emory Clinic, Inc. - 1996-2003
12. Academic Enrichment Fund Subcommittee, Finance Committee, The Emory Clinic, Inc. 1996-97
13. Department of Rehabilitation Medicine Chair Search Committee, Emory University School of Medicine, 1996-1997
14. Nominating Committee, Movement Disorders Section, American Academy of Neurology, 1996-97
15. Executive Committee, Department of Neurology, Emory University, 1998-2003

16. Professional Services Committee, Emory University Hospital, 1998-2003
17. Clinical Operations Committee, The Emory Clinic, 1998-2000
18. Medical Leadership Committee, Wesley Woods Center, 1998-2003
19. Executive Committee, Center for Geriatrics, Emory University, 5/99-6/03
20. Leadership Committee for Assessment of Strategy and Reorganization, Emory Healthcare, 6/99-9/99
21. Clinical Research Decision Team, Emory Healthcare, 2001-2003
22. Research Advisory Committee, Emory University School of Medicine, 2001-2003
23. Medical Executive Committee, UAB Hospital and Health System, 2003 – 2013
24. Executive Committee, UAB School of Medicine, 2003 – 2013, Chair, 2010-2013
25. University of Alabama Health Services Foundation (UAHSF) Advisory Committee, 2003 – 2005
26. Medical Leadership Committee, UAB Health System, 2003 – Present; Chair, 2005-2010
27. UAHSF Investment Committee, 2003 – 2010
28. Chair, UAB Department of Psychiatry Chair Search Committee, 2004-2005
29. UAHSF Executive Committee 2005-2013
30. UAHSF General Endowment Fund Committee, 2005- 2010
31. UAHSF Administrative Services Committee, 2005- 2010
32. UAB Health System, Compensation Committee, 2005- Present
33. UAB Health System, Executive Committee, 2005-Present
34. UAB Health System, Finance Committee, 2005-Present, Chair, 2010-2013
35. UAB Health System, Audit and Compliance Committee, 2005-Present
36. Steering Committee (2006-2010) and Founding Member (2006-Present), UAB Comprehensive Neuroscience Center, 2006-Present
37. Finance Committee, American Neurological Association, 2009-2010
38. Finance Committee, Alabama Symphony Orchestra, 2009-Present
39. UAB Health System, Board of Directors, Chair, 2013-Present

PROFESSIONAL AFFILIATIONS

American Neurological Association; American Academy of Neurology; Society for Neuroscience; Alpha Omega Alpha; Movement Disorders Society; International Brain Research Organization; Medical Association of State of Alabama; Alabama Academy of Neurology

ADVISORY BOARDS/DIRECTORSHIPS/COMMUNITY SERVICE

Board of Directors, Innovation Depot (Technology Start Up Company Incubator for Birmingham, AL), 2013-Present

Board of Directors, Community Foundation of Greater Birmingham, 2012-Present

Board of Directors, Alabama Symphony Orchestra (ASO), 2009-2017

Chair, *Doctors for the Alabama Symphony Orchestra* Giving Society, 2009-2013

Corporate Advisory Board, Alys Stephens Center (ASC) for Performing Arts at UAB, 2009-Present

Co-Chair, Medical Arts Alliance for the ASC Performing Arts Center, 2009-2011

Tocqueville Society Cabinet, United Way of Central Alabama, 2009-2011

Board of Directors, UAB Research Foundation, 2009-Present

Medical Advisory Board, International Essential Tremor Foundation, 2007-2013

International Advisory Board, Parkinson Disease Therapeutics and Cell Therapy, Bayer Schering Pharma, 2007-2009

Data Safety Monitoring Board, Solstice Pharmaceuticals, “Myobloc for Sialorrhea” Clinical Development Program, 2007-2009

International Advisory Board, Parkinson Disease Therapeutics, Schwarz Pharma, 2002-2008

Data and Safety Monitoring Board, Multicenter Cooperative Study on “A Comparison of Best Medical Therapy and Deep Brain Stimulation of Subthalamic Nucleus and Globus Pallidus for the Treatment of Parkinson’s Disease”, CSP # 468, U.S. Department of Veterans Affairs, 2002-2003

Founding Member, Tremor Research Group (National), 2001-present; President, 2001-2004

Global Advisory Board, Parkinson Disease Therapeutics, Pharmacia Inc, 2001- 2003

Global Advisory Board, Parkinson Disease Therapeutics, GlaxoSmithKline, 2000 - 2008

Medical and Scientific Advisory Board, American Parkinson Disease Association, New York, NY, 1992-2010

Data & Safety Monitoring Committee, Guilford Pharmaceuticals GPI 1485 Clinical Trial Protocol 0501-0201, 2003 – 2005

Peer Review Board for Research Grants, Benign Essential Blepharospasm Research Foundation, Inc. 1990-1994

Elected At-Large Member, Board of Directors, The Emory Clinic, Inc., 1993-1996

Medical Advisor, Board of Directors, American Parkinson Disease Association, Atlanta Chapter, Atlanta, GA, 1987-2003

EDITORIAL BOARDS

Movement Disorders Journal, 1990-1994; Neurology Chronicle Journal, 1992-1994

REVIEWER

Neurology; Annals of Neurology; New England Journal of Medicine; Movement Disorders; Clinical Neurophysiology; Clinical Neuropharmacology; Trends in Neurosciences; The Gerontologist; NIH Neurology A Study Section and General Clinical Research Center (GCRC) Study Sections; United Parkinson Foundation Research Grant Applications; University Research Committee Grant Applications/Emory University; Veterans Affairs Research Grants; Abstract Review Committee, Movement Disorders Section, American Academy of Neurology Annual Scientific Meetings, 1992, 1994, 1995

TEACHING ASSIGNMENTS**Emory University:**

1. Lecturer/Small Group Discussion Leader: Courses taught include Neurobiology (15+ years),
2. Physiology (6+ years), Biology of Motor Control I & II (8+ years), Pathology (11+ years), Introduction to Clinical Methods (10+ years), Neurological Pathophysiology (5+ years), Neurology Clerkship and Electives (15+ years)
3. Coordinator - Neurology Senior Clerkship Course and Electives, 1987-1989
4. Advisor/Mentor: Ph.D. Advisor, Allen Mandir, M.D., Ph.D., Neuroscience, 1989; Claire L. Maier, Ph.D., Neuroscience, 1999. Mentor for numerous medical students, graduate students, Neurology residents, and postdoctoral fellows (research and clinical training)
5. Ph.D. Dissertation Committee Member, John H. Lawrence, Ph.D., successful defense, May 1994
6. Grand Rounds/Teaching Conferences: Invited Speaker in the Departments of Neurology, Medicine, Neurosurgery, Rehabilitation Medicine, and Psychiatry (several times/year)
7. Faculty Coordinator, Neurology Grand Rounds - 1986-88
8. Curriculum Committee/Subcommittee on Computers and Technology, EUSM, 1990-91
9. Mini-Medical School/Evening at Emory Continuing Education: Lecture on "The Brain and
10. Nervous System and Neurological Disorders" (>6 years)
11. CME Programs - Course Director, Parkinson Disease/Movement Disorders Symposia (annual); Lecturer, Neurology and Neurosurgery Update (annual), Internal Medicine Board Review Course (annual)

University of Alabama at Birmingham (UAB):

1. CME Programs - Course Director, Parkinson Disease/Movement Disorders Symposia (annual)
2. Grand Rounds/Seminars/Teaching Conferences - Invited Speaker in the Departments of Neurology, Neurobiology, and Cell Biology

3. Medical Neuroscience Course (First year medical students) – Lecturer/Presenter
4. Annual “Update in Neurology CME Program” – UAB Department of Neurology and Alabama Academy of Neurology (2004, 2005, 2006, 2007)

Community/Lay and Professional Organizations (Local, National, and International):

1. Lay Organizations: Medical Director, American Parkinson Disease Association (APDA) Information and Referral Center at Emory University (serving Southeastern USA) and Medical Advisor, APDA Atlanta Chapter and Support Group (11+ years) - Guest speaker at monthly Education and Support Group Meetings; Keynote Speaker, American Parkinson Disease Association National Conferences (8 times over 10+ years); Member, APDA National Scientific Advisory Board (1992-2003); Keynote Speaker - Parkinson Disease Support Groups throughout USA
2. Professional Organizations: American Academy of Neurology: Education Committee/Medical Student Essay Award Subcommittee, 1988-1991; Annual Scientific Meeting Abstract Review Committee, 1992-1995; Program Director, 11th Annual Benign Essential Blepharospasm Research Foundation International Symposium, 1993, Atlanta, GA; Scientific Program Committee, 3rd International Congress of Movement Disorders, Orlando, FL, 1994; Organizing Committee, Movement Disorders Society Annual Symposium on the “Etiology, Pathogenesis and Prevention of Parkinson’s Disease,” Toronto, Canada, 1992 and Boston, MA, 1993; Organizing Committee and Lecturer, International Tremor Foundation Movement Disorders Review Course, 1 Day CME Program, 1997, Chicago, New York, Philadelphia, Atlanta, Los Angeles, San Francisco; Guest Speaker, Annual Scientific Sessions of the Georgia Neurological Society, Alabama Academy of Neurology, South Carolina Neurological Society, et al.; Communications Committee, Medical Association of Atlanta, 1989-92; Course Director, “Movement Disorders: An Update and Case Presentations.” Held in major U.S. cities throughout the year; sponsored by Emory University, We Move, and University of Alabama at Birmingham, 1997-Present; Visiting Professor (over 100) at: Universities throughout USA (Harvard, Duke, Stanford, U. Pennsylvania, Columbia, Washington U., U. Michigan, U. Pittsburgh, UCLA, etc.) and International Universities (U. of Lund, Sweden; Hospital Salpêtrière, Paris; National Hospital for Neurology and Neurosurgery, London; University of Navarra, Pamplona, Spain; U. of Tel Aviv, Israel).

BOOKS

1. Watts, RL, Koller WC, eds. Movement Disorders: Neurologic Principles and Practice, McGraw-Hill Publishers: New York, 1997, 779 pages.

2. Watts, RL, Koller WC, eds. Movement Disorders: Neurologic Principles and Practice, Second Edition, McGraw-Hill Publishers: New York, 2004, 859 pages
3. Watts, RL, Standaert, DG, Obeso, JA, eds, Movement Disorders: Neurologic Principles and Practice, Third Edition, McGraw-Hill Publishers: New York, 2012, 1033 pages

PUBLICATIONS

1. Navar LG, PD Bell, RW White, **RL Watts**, RH Williams. Evaluation of the single nephron glomerular filtration coefficient in the dog. *Kidney Intern* 12:137- 149, 1977
2. Wiegner AW, **RL Watts**. Elastic properties of muscles measured at the elbow in man. I. Normal controls. *J Neurol Neurosurg Psychiat* 49:1171- 1176, 1986
3. **Watts RL**, Wiegner AW, Young RR. Elastic properties of muscles measured at the elbow in man. II. Patients with Parkinsonian rigidity. *J Neurol Neurosurg Psychiat* 49:1177-1181, 1986
4. Pullman S, **Watts RL**, Juncos JL, Chase TM, Sanes JN. Dopaminergic effects on simple and choice reaction time performance in Parkinson's disease. *Neurology* 38:249-254, 1988
5. **Watts RL**. Parkinson's Disease: Current understanding and future directions. *Emory Univ J Med* 2 (Apr-Jun):119-127, 1988
6. Tanner CM, **Watts RL**, Bakay RAE, KC Petruk. Adrenal medulla autografts in patients with Parkinson disease. *New Eng J Med* 321:325, 1989
7. **Watts RL**, R Dubinsky, W Koller. Objective assessment of motor disability (Chap. 2). In: Koller W, Paulson G., eds. Therapeutic Approaches in Parkinson's Disease. Marcel Dekker: New York, 1989
8. Faraj BA, Camp VM, **Watts RL**. Effect of adrenal-caudate transplantation on CSF levels of salsolinol sulfate in patients with Parkinson's disease. *J Neural Transm Suppl.* 1990; 32:481-4

9. Bakay RAE, **RL Watts**, A Freeman, PM Iuvone, N Watts, and SD Graham. Preliminary report on adrenal-brain transplantation for parkinsonism in man. *Stereotactic and Functional Neurosurgery* 54/55:312-323, 1990
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11. Watts NB, RV Clark, **RL Watts**, SD Graham, and RAE Bakay. Changes in endocrine function after adrenal medullary transplantation to the central nervous system. *J Clin Endocrine Metab* 70:773-776, 1990
12. Pullman S, **RL Watts**, JL Juncos, JN Sanes. Movement amplitude choice reaction time performance in Parkinson's disease may be independent of dopaminergic status. *J Neurol Neurosurg Psych* 53:279-283, 1990
13. Greene PE, S Fahn, AE Lang, **RL Watts**, et al. What Is It? Case 1, 1990. Progressive unilateral rigidity, bradykinesia, tremulousness, and apraxia, leading to fixed postural deformity of the involved limb - Cortical-Basal Ganglionic Degeneration. *Movement Disorders J* 5:341-351, 1990
14. **Watts RL**, RAE Bakay, A Freeman, S Graham. Assessment of autologous adrenal-to-caudate for parkinsonism in man. *International Journal of Neurology*, 23-24:78-88, 1989-90.
15. **Watts RL**, RAE Bakay. Autologous adrenal medulla-to-caudate grafting for parkinsonism in humans and in nonhuman primates. *Frontiers in Neuroendocrinology* 12 (No. 4):357-378, 1991
16. Shults CW, DT O'Conner, A Baird, R Hill, CG Goetz, **RL Watts**, HL Klawans, PM Carvey, RAE Bakay, FH Gage, SU Hoi. Clinical improvement in parkinsonian patients undergoing adrenal to caudate transplantation is not reflected by chromogranin A or basic fibroblast growth factor in ventricular fluid. *Exp Neurol* 111:276-281, 1991
17. Shoffner J, **RL Watts**, JL Juncos, A Torroni, D Wallace. Mitochondrial oxidative phosphorylation defects in Parkinson's disease. *Ann Neurol* 30:332-339, 1991

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