

CURRICULUM VITAE

JOEL S. PERLMUTTER

Date: April 6, 2020

PLACE OF BIRTH: St. Louis, Missouri

CITIZENSHIP: USA

BUSINESS ADDRESS:

Radiological Sciences
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PRESENT POSITION: Elliot H Stein Family Professor of Neurology, Professor of Radiology, Neuroscience, Physical Therapy and Occupational Therapy.

EDUCATION:

1975 A.B. (Biochemistry), Princeton University
Princeton, New Jersey

1979 M.D., University of Missouri-Columbia
School of Medicine
Columbia, Missouri

1978 Psychiatry externship
Menninger Foundation
Topeka, Kansas

ACADEMIC APPOINTMENTS:

1979 - 1980 Intern, Internal Medicine
University of Missouri-Columbia Medical School, Columbia, Missouri

1980 - 1983 Resident in in Neurology; Department of Neurology
Washington University School of Medicine, St. Louis, Missouri

1983 Visiting Research Registrar, Department of Neurology (under Dr. CD Marsden)
Institute of Psychiatry and King's College Hospital, London, England

1983 - 1984 Post Doctoral Fellow (NINCDS), Department of Neurology
Washington University School of Medicine, St. Louis, Missouri

- 1983 - 1985 Research Instructor/Instructor
Department of Neurology and Mallinckrodt Institute of Radiology
Washington University School of Medicine, St. Louis, Missouri
- 1985 - 1990 Assistant Professor
Department of Neurology and Mallinckrodt Institute of Radiology
Washington University School of Medicine, St. Louis, Missouri
- 1990 - 1999 Associate Professor
Department of Neurology and Mallinckrodt Institute of Radiology
Washington University School of Medicine, St. Louis, Missouri
- 1998 - Member Division of Biology & Biological Sciences
Washington University School of Medicine, St. Louis, Missouri
- 1999 - 2008 Associate Professor, Department of Anatomy & Neurobiology
Washington University School of Medicine, St. Louis, Missouri
- 1999 - Professor, Department of Neurology and Mallinckrodt Institute of Radiology
Washington University School of Medicine, St. Louis, Missouri
- 2003 - Professor, Program of Physical Therapy
Washington University School of Medicine, St. Louis, Missouri
- 2003 - Elliot H. Stein Family Chair of Neurology
Washington University School of Medicine, St. Louis, Missouri
- 2007 - Professor, Program of Occupational Therapy
Washington University School of Medicine, St. Louis, Missouri
- 2009 - Professor, Neuroscience, Washington University in St. Louis

APPOINTMENTS/COMMITTEES:

- 1984 - 1985 Neurologist, St. Louis City Hospital, St. Louis, Missouri
- 1986 - 1992 Utilization Review/Medical Records Committee, Barnes Hospital
St. Louis, Missouri
- 1985 - 1996 Consulting Staff - Department of Neurology, Jewish Hospital of St. Louis, MO.
- 1985 - 1997 Consulting Neurologist, St. Louis Regional Medical Center, St. Louis, Missouri
- 1993 - 1994 Survival Surgery Committee, Washington U. School of Medicine, St. Louis, MO
- 1992 - 1995 Utilization Review Committee, Barnes Hospital, St. Louis, Missouri
- 1992 - 1996 Medical Records Committee, Barnes Hospital, St. Louis, Missouri

- 1994 - 1996 Conflict-of-Interest/Standards Committee of the Parkinson Study Group
- 1984 - Neurologist, Barnes (-Jewish) Hospital, Washington University School of Medicine, St. Louis, Missouri
- 1989 - Consulting Staff Neurologist, St. Louis Children's Hospital, St. Louis, Missouri
- 1996 - 2003 Medical Records Committee, Barnes-Jewish Hospital, St. Louis, Missouri
- 1993 - 1998 Animal Studies Committee
Washington University School of Medicine, St. Louis, Missouri
- 1997 - Executive Committee, Department of Neurology, Washington University
- 1997 Parkinson's Study Group: Nominating Committee
- 1997 Washington University Electronic Medical Records Committee
- 1997 - 2002 American Academy of Neurology: Movement Disorders Research Award Subcommittee
- 1997 Washington U. Steering Committee for Review of Grants Management
- 1997 - Liason Committee between the Executive Faculty & Division of Comparative Medicine at Washington University Medical School
- 1998 - 2002 Liason/Coordinator for the Dystonia Medical Research Foundation and the DMRF Core Consortium.
- 1998-2000 Clinical Representative to the Executive Committee of the Faculty Council at Washington University School of Medicine
- 1998 Research Integrity Inquiry Panel for Washington University School of Medicine
- 1998 - Member Scientific Advisory Board of the American Parkinson Disease Association
- 1999 - 2004 Chair, Standards Committee of the Parkinson Study Group
- 1996 - CSF Repository Committee of the Parkinson Study Group
- 1998 Member of the Steering Committee for Pfizer initiative with the Parkinson's disease Study Group
- 1999 - Director, Computer Support Group for the Division of Radiological Sciences and the Neuroimaging Laboratories; Mallinckrodt Institute of Radiology, Washington University School of Medicine
- Jan 4-6, 2000 Member of the NINDS panel to devise a 5-10 yr plan Parkinson disease research efforts for NIH

2000 Clinical Research Committee, Washington University School of Medicine

2000 - Promotions Committee, Department of Neurology, Washington University

2001 - 2010 Member, Board of Directors, Jewish Center for the Aged, St. Louis, Missouri

2001 Director, NeuroClinical Research Unit planning committee, Department of Neurology, Washington University

2001 Program Planning Committee (topic chair of Neuroimaging) for American Academy of Neurology

2003 Director, Task Forces of the Jewish Center for the Aged Board of Directors Mission Assessment

2003 - 2005 Member, Executive Committee for the Parkinson Study Group
2009 - 2012

2003 - 2006 Member, Standards Committee, Huntington Study Group
2009 - Chair of Standards Committee
2009 - Member, Bioethics Committee, Huntington Study Group
2013 – 2014 Member, Nominating Committee, Huntington Study Group
2018 - Membership, Performance & Compensation Committee, Huntington Study Group

2006 – 2009 Co-Chair Mentoring Committee, Parkinson Study Group
2009 - 2012 Chair, Mentoring Committee

2006 - Member, Scientific Advisory Board, Dystonia Medical Research Foundation

2007- Member, Executive Committee (& Chair of Communications subcommittee) of the Movement Disorders Section of the American Academy of Neurology

2000 - 2001 Coordinator, Core Consortium of the Dystonia Medical Research Foundation

2002 - 2006 External Advisor for “Molecular Etiology of Early Onset Torsion Dystonia,” PI: XO Breakfield, Massachusetts General Hospital, Boston, MA.

2007 - 2009 Chair, Scientific Advisory Board; Multicenter Investigation of Multisystems Atrophy. Original PPG PI: Cliff Shults (deceased)

2007 - 2009 Member, Gender Equity Committee, Washington University in St. Louis

2007 - 2009 Member, Conflict of Interest Working Committee of the Institute of Medicine

2010 – 2013 Member, Scientific Program Advisory Committee, American Neurological Association

- 2011 - 2016 Chair, Scientific Advisory Board, Multisystems Atrophy Program Project (PO1 NS4 4233; PI: Low).
- 2012 – 2017 Member, American College of Radiology Panel on Appropriateness Criteria – Neuroradiology.
- 2012 - Chair, Scientific Review & Publication Committee, ENROLL-HD (international observational study of Huntington Disease).
- 12/7/2012 Member, External Scientific Board for the Northwest Udall Center, Seattle, WA
- 2013-2014 Member, nominating committee for the Huntington Study Group
- 2013-2015 Member, nominating committee for the American Neurological Association
- 2014 -2023 Member, Scientific Review Committee, Parkinson Study Group
Co-chair (2016-2019)
Chair (2020 – 2023)
- 2015 - 2022 Member, Peripheral & Central Nervous System Drugs Advisory Committee Roster, Food & Drug Administration (FDA), Washington DC
- 2015-2016 Member, Lewy Body Dementias Session of the Alzheimer's disease-related dementias 2016 Summit at NINDS, Bethesda, MD
- 2016 - Member, PERCS (Positron Emitting Radionuclides/Cyclotron Safety) Subcommittee, Washington University in St. Louis
- 2015 - 2016 Member, NeuroNext-CTSA liason committee
- 2018 - Member, Research/Autopsy subcommittee of the Office of Decedent Affairs Steering Committee (member) of Barnes-Jewish Hospital
- 2019 – 2023 Director, Medical Scientific Advisory Committee of the Dystonia Medical Research Foundation
- 2019-2021 Member, Education Committee of the Huntington Study Group

LICENSURE/CERTIFICATION:

Diplomat, National Board of Medical Examiners
Missouri Board of the Healing Arts
Diplomat, American Board of Neurology and Psychiatry (1985)

AWARDS

March of Dimes Research Fellowship, 1976; University of Missouri-Columbia
Columbia, Missouri

Dean's Award, 1976; Student Research Forum, University of Missouri-Columbia School of Medicine, Columbia, Missouri

Mattie Lou Koster Scholar 1991, (of the Benign Essential Blepharospasm Research Foundation)

"Vibration-Induced Blood Flow Responses in Dystonia;" Joel S. Perlmutter, Principal Investigator, McDonnell Center for the Study of Higher Brain Function, 9/1/89 - 8/31/91

"Missouri Chapter of Dystonia Medical Research Foundation: Honoree for 1991"

James A. Shannon Award, "PET Investigations of Dystonia" Joel S. Perlmutter, Principal Investigator NINDS, NIH, 9/24/92 - 9/23/94, NIH 1 R55 NS31001-01

The Eliasson Award (Neurology Professor of the Year for Resident Teaching), 1992, 1998 Washington University School of Medicine

Outstanding Young Physician Award 1998; given by Medical Alumni Organization and the University of Missouri School of Medicine

"Dystonia Doctor of Excellence" Award from the Dystonia Medical Research Foundation, 23 Sept., 2000, Chicago, Il.

"Best 100 doctors of St. Louis" (3 neurologists named), 2001, St. Louis Magazine.

"Best Doctors for 2001-2002" Best Doctors, Inc., South Carolina

"Celebration of Hope" honoree by the Huntington's Disease Society of America, St. Louis, Missouri (Sept, 2002)

"America's Top Doctors" for 2001 – 2019 by Castle Connolly Medical Ltd.

"Best Doctors in St. Louis for 2003 - 2020" St. Louis Magazine.

"Who's Who in Medicine and Healthcare" (Marquis) for 2004 – 2005

Mentor Award from the Academic Women's Network of the Washington University School of Medicine for 2004

2005 Dynamic Image of the Year, CTI/Concorde, Knoxville, Ky.

Special Recognition Mentor Award for Graduate Student Education 2005, Washington University School of Arts and Science.

"Distinguished Service Teaching Award" for class of 2004 at Washington University School of Medicine in St. Louis, Missouri (awarded 2002)

"Distinguished Service Teaching Award" for class of 2005 at Washington University School of Medicine in St. Louis, Missouri (awarded 2003)

“Distinguished Service Teaching Award” for class of 2008 at Washington University School of Medicine in St. Louis, Missouri (awarded 2006)

“Distinguished Service Teaching Award” for class of 2011 at Washington University School of Medicine in St. Louis, Missouri (awarded 2009)

“Distinguished Service Teaching Award” for class of 2012 at Washington University School of Medicine in St. Louis, Missouri (awarded 2010)

U.S. News top 1% of physicians in 2012

Alpha Omega Alpha Honorary Society, University of Missouri Alumni

Richard W. Brand Award (2016) from the Program in Physical Therapy at Washington University in St. Louis

2017 Mentor of the Year Award from the Clinical Research Training Center at Washington University in St. Louis.

EDITORIAL RESPONSIBILITIES:

Associate Editor: Neurology Network Commentary (1996 - 1999)

Associate Editor: Lancet Neurology Network (2000 - 2005)

Editorial Board:

Movement Disorders (2003 - 2007)

Neurology (2007 -)

Ad hoc reviewer for:

Annals of Neurology

Archives of General Psychiatry

Archives of Neurology

Biological Psychiatry

Brain

Experimental Neurology

Human Brain Mapping

Journal of Cerebral Blood Flow and Metabolism

J Neurology Neurosurgery & Psychiatry

J Neurophysiology

Journal of Neuroscience

J Neurosurgery

J Nuclear Medicine

Movement Disorders

National Institutes of Health (NINDS & NIMH)

National Science Foundation

Neurobiology of Disease

Neuroimage

Neurology

Neuropsychopharmacology
Neuroscience

Section Editor: Current Opinion in Neurology (Neuroimaging, 1993)

Site visitor for:

National Institutes of Health: NINDS
National Institute of Mental Health

Chairman: NIMH Intramural Neuroimaging Program Review, March, 1994

SOCIETIES

St. Louis Society of Neurological Science
American Academy of Neurology (Fellow)
American Academy of Neurology (Movement Disorders Section)
American Neurological Association (Fellow)
American Parkinson Disease Association (Scientific Advisory Board)
Dystonia Medical Research Foundation-Missouri Chapter (Medical Advisor)
International Society of Cerebral Blood Flow and Metabolism
Missouri State Neurological Association
Parkinson Study Group
St. Louis Gem and Mineralogical Society
Greater St. Louis Chapter of the APDA (Director, Medical Advisory Board)
Parkinson Disease Information & Referral Center (Medical Director)
American Neurological Association (fellow)
International Basal Ganglia Society
Huntington Study Group
Dystonia Study Group

INVITED PRESENTATIONS (since 1994):

- 3/17/94 Visiting Professor, St. Louis University Medical Center including invited talk, "PET Investigations of Cerebral Dopamine Pathways." St. Louis, MO.
- 5/1/94 American Academy of Neurology, Scientific Basis of Neurology Course, "PET Investigations of Dopaminergic Pathways," Washington D.C.
- 5/4/94 American Academy of Neurology, Co-chairman of Movement Disorders: Neuroimaging Session, Washington D.C.
- 6/9/94 "PET Studies of Parkinson's disease" U. Missouri-Columbia Medical School Grand Rounds, Columbia, Missouri
- 7/18/94 "PET Investigations of Dopamine Receptor Subtype Pathways" Upjohn International Dopamine Symposium, Kalamazoo, Michigan

- 9/10/94 "Current Treatment of Dystonia" and "Clinical Manifestations and Differential Diagnosis of Parkinsonism" at Continuing Medical Education Seminar at Washington University, St. Louis, MO. Course Director: J.S. Perlmutter
- 2/11/95 "PET Investigations of Blepharospasm & Dystonia" Benign Essential Blepharospasm Research Foundation Workshop, at National Institutes of Health, Bethesda, Maryland
- 3/22/95 Chaired the Scientific Session for the Great Lakes Regional Symposium of the Dystonia Medical Research Foundation and presented "PET Investigations of Dystonia," St. Louis, Missouri
- 5/9/95 American Academy of Neurology, Co-chairman of Movement Disorders: Neuroimaging Session, Seattle, Washington.
- 5/15/95 "Parkinson's Disease: New & Emerging Therapies," Continuing Medical Education at Washington University Medical Center, St. Louis, Missouri
- 4/25/96 "PET Evaluation of Dopaminergic Pathways" Invited Presentation at the Western Pennsylvania Psychiatric Institute at the University of Pittsburgh
- 5/13/96 "PD & Dystonia: New Therapies" Continuing Medical Education at Washington University Medical Center, St. Louis, Missouri
- 10/10/96 Chaired Session of Neuroimaging of Dystonia at the 3rd International Dystonia Symposium, Miami, Florida
- 4/3/97 "Pathophysiology and Management of Dystonia" & Visiting Professor at University of Missouri-Columbia, Missouri
- 4/7/97 "New Treatments of Parkinson's Disease" Continuing Medical Education at Washington University Medical Center, St. Louis, Missouri
- 8/23/97 "PET Investigations of Blepharospasm" International Meeting of the Benign Essential Blepharospasm Society, Columbus, OH.
- 3/5/98 "Pathophysiology of Dystonia" St. Louis University, St. Louis, MO.
- 3/29/98 PET Investigations of Idiopathic Dystonia, Dystonia Medical Research Foundation, Chicago Chapter, Chicago, IL
- 4/7/98 "Huntington's Disease", Medical Genetics Rounds, Washington University, St. Louis, MO
- 4/18/98 "Pathophysiology of Dystonia", Northwest Regional Dystonia Medical Research Foundation Symposium, Seattle, Washington
- 4/30/98 "Highlights of Hyperkinetic Movements Disorders & Neuroimaging" at the American Academy of Neurology 50th Annual Meeting, Minneapolis, Mn

- 6/16/98 "PET Investigations of the Pathophysiology of Dystonia" Parkinson's Disease Institute of California, Sunnyvale, CA
- 6/18/98 "Clinical and Research Electronic Medical Records" at Electronic Media and Applications in Biomedical Research & Laboratory Animal Science and Management, St. Louis, MO.
- 6/25/98 "Dystonia" Grand Rounds at The Ohio State University, Columbus, Ohio
- 8/22/98 Director of the Scientific Program for the 16th Annual International Conference of the Benign Essential Blepharospasm Foundation, St. Louis, MO.
- 8/22/98 "Clinical Manifestations of BEB and Dystonia" & "Pathophysiology of BEB & Dystonia" at the 16th Annual International Conference of the Benign Essential Blepharospasm Foundation, St. Louis, MO.
- 9/14/98 "Parkinson's disease & Dystonia" Practical Anatomy & Surgical Technique Workshop, St. Louis University School of Medicine, St. Louis, MO.
- 10/15/98 "Update on Parkinson's Disease" Parkinson Education Program and Greater St. Louis Chapter of the American Parkinson's Disease Association, St. Louis, MO.
- 2/5/99 "PET Investigations of the Pathophysiology of Dystonia" Dystonia Study Group Meeting at the 1999 meeting of the Dystonia Medical Research Foundation, Atlanta, GA.
- 6/3/99 "Medical Database Systems for Movement Disorders" Massachusetts General Hospital, Boston, MA.
- 6/25/99 "PET Investigations of Dopaminergic Pathways" Featured Speaker, 11th International Symposium on Radiopharmacology. St. Louis, MO.
- 7/19/99 "Neuroimaging of Dopamine Pathways" Neuroradiology Grand Rounds at Washington University, St. Louis, MO.
- 9/18/99 "Brain Mechanisms of Blepharospasm" 17th International Conference of the Benign Essential Blepharospasm Research Foundation, Asilomar, CA.
- 10/14/99 "Electronic Records Systems for Movement Disorders" University of Rochester, Rochester, NY
- 10/15/99 "Pathophysiology of Dystonia" Grand Rounds, University of Rochester, Rochester, NY
- 11/21/99 "New Research in Dystonia" Missouri Chapter of the Dystonia Medical Research Foundation, St. Louis, MO.
- 3/21/00 "PET Investigations of Movement Disorders" Singapore National Neuroscience Institute, Singapore

- 3/21/00 "Neuroimaging of Dopaminergic Pathways" Medical Research in the New Millennium: A Symposium, sponsored by Washington University and the National University of Singapore, Singapore.
- 4/5/00 "Pathophysiology of Dystonia" Grand Rounds, Department of Otolaryngology, Washington University, St. Louis, MO.
- 5/3/00 Chair, Neuroimaging of Movement Disorders Session at the American Academy of Neurology Meeting 2000, San Diego, CA.
- 11/17/00 "Pathophysiology of Dystonia: Clues from Neuroimaging" 2nd International Workshop on Benign Essential Blepharospasm" Bethesda, MD.
- 1/26/01 "Clinical Research in Movement Disorders" Clinical Research Opportunities, Washington University School of Medicine, St. Louis, MO.
- 2/12/01 "Altered Cortical Blood Flow Responses to L-DOPA in Chronically DOPA-treated Parkinson disease" 7th International Basal Ganglia Society Meeting, Waitangi, New Zealand.
- 4/29/01 "Pathophysiology & New Treatments of Dystonia" Missouri Chapter of the DMRF, St. Louis, MO.
- 5/5/01 "Movement Disorders in the 21st Century" Cape Girardeau Medical Society, Cape Girardeau, MO.
- 5/8/01 Chair of Session: "Parkinsonism: Neuroimaging" at the American Academy of Neurology Meeting, Philadelphia, Pa.
- 7/19/2001 Visiting Professor and Grand Rounds: "Parkinson disease: New Research in Pathophysiology and Treatment", University of Arkansas, Little Rock, Arkansas.
- 10/28/01 "New Research in Parkinson disease" Parkinson Education Program, St. Louis, MO.
- 4/18/02 Chair of Session: "Parkinson disease: Neuroimaging" at the American Academy of Neurology Meeting, Denver, Co.
- 4/18/02 "Neuroimaging Highlights" American Academy of Neurology Annual Meeting, Denver, Co.
- 6/4/02 "Research Advances in Parkinson Disease" Washington University MiniMedical School, St. Louis, Mo.
- 6/14/02 "Dysfunction of Dopamine Pathways in Dystonia" Plenary talk at 4th International Dystonia Symposium, Atlanta, Ga.
- 8/13/02 "Parkinson disease: What's Shaking & Shocking?" Frail, Elderly Symposium at University of Missouri, Columbia.

- 9/29/02 "Parkinson disease" Parkinson Education Program community lecture series, St. Louis, Missouri.
- 11/9/02 "Causes of Dystonia" and "Understanding the Relationships of the Dystonias" at the Worldwide Dystonia Symposium, Miami, Florida.
- 6/19/03 "10-Minute Neurological Exam" Missouri Academy of Family Practice, Osage Beach, Missouri.
- 6/19/03 "What's Shaking in Parkinson Disease?" Missouri Academy of Family Practice, Osage Beach, Missouri.
- 6/20/03 "PET Investigations of Movement Disorders" at the Society of Nuclear Medicine workshop "Modern Imaging Technology" New Orleans, Louisiana
- 8/23/03 "PET Investigations of Blepharospasm" at International Conference of the Benign Essential Blepharospasm Foundation, Philadelphia, Pennsylvania..
- 9/19/03 "Parkinson disease or How the Basal Ganglia Can Shake You Up" The Steve Rose Symposium in the Program on Physical Therapy at Washington University in St. Louis, MO.
- 9/25/03 "Parkinson Disease & Visual Impairments" Lions Club of Missouri, St. Louis, MO.
- 2/18/04 "Parkinson Disease: New Pathophysiological Investigations" St. Johns Hospital Neuroscience Grand Rounds, St. Louis, MO.
- 3/31/04 "PET Studies of Movement Disorders" at Academy of Molecular Imaging, Orlando, Florida
- 6/14/04 "Functional Imaging of the Basal Ganglia" plenary lecture at the 8th International Congress of Parkinson's Disease and Movement Disorders, Rome, Italy
- 10/29/04 "Basic Science & Research in Molecular & Functional Imaging of Parkinson Disease" at the Brain Imaging Council of the Society of Nuclear Medicine Symposium at the Society of Neuroscience Annual Meeting, San Diego, CA.
- 11/14/04 "The Shocking Truth About Parkinson Disease" Parkinson Education Program, St. Louis, MO.
- 12/2/04 "Parkinson Disease Research" 16th Annual Gerontological Nursing Association Meeting, Columbia, MO.
- 2/17/05 "To Scan or Not To Scan: The Role of Neuroimaging in Movement Disorders" 20th Anniversary Symposium in Movement Disorders; U Calgary, Calgary, Alberta, Canada

- 2/26/05 "Parkinson Disease: Clinical Manifestations and Treatment" PD Seminar for Occupational & Physical Therapists; Garden Villas, Chesterfield, MO.
- 3/11/05 "Current Controversies in Parkinson Disease" The Scripps Lecturer at Neurofest, U. Cincinnati, Cincinnati, OH.
- 4/13/05 Chaired session: "Neuroimaging of Movement Disorders" at the American Academy of Neurology Annual Meeting, Miami, FL.
- 6/23/05 "Dystonia: Neuroimaging Clues to Pathophysiology" NINDS Conference on Spasmodic Dysphonia, Bethesda, MD.
- 10/29/05 "Have neuroimaging and brain mapping identified the source of oscillation in Essential Tremor?" NINDS Conference on Essential Tremor, Bethesda, MD.
- 1/30/06 "Population Studies of Dystonia" at Genetics Advances in Dystonia Workshop, Phoenix, Az.
- 2/25/06 "Neuroimaging Biomarkers of PD Progression," World Congress of Parkinson Disease, Washington D.C.
- 6/5/06 "Dystonia: Neuroimaging Clues to Pathophysiology," NINDS/DMRF Symposium on Dystonia, Bethesda, Md.
- 8/21/06 "Mechanisms of Deep Brain Stimulation" Neural Interface Meeting, NINDS Workshop, Bethesda, Md.
- 9/1/06 "Rationale for Targeting DBS for Tourette's syndrome" Tourette's Society Workshop, Stresa, Italy
- 9/2/06 "Multicenter Database System for Tourette's syndrome DBS Experience" Tourette's Society Workshop, Stresa, Italy
- 9/28/2006 "Neuroimaging of Blepharospasm" Benign Essential Blepharospasm Research Foundation Workshop, Houston, Tx.
- 10/30/06 "Neuroimaging Biomarkers for Movement Disorders Research," 10th International Congress on Parkinson's Disease and Movement Disorders, Kyoto, Japan
- 11/16/06 "PET Studies of Dystonia" Bachmann-Strauss Foundation Think Tank, NYC.
- 2/11/07 "Neuroimaging of Parkinson Disease Progression" ISCTM and Michael J Fox Foundation Meeting for Neuroprotective Clinical Trials in Parkinson Disease, Washington, D.C.
- 4/29/2007 "Neuroimaging Biomarkers" Parkinson Study Group at the American Academy of Neurology, Boston, MA

- 4/30/2007 "Starting a Clinical Research Career" Parkinson Study Group at the American Academy of Neurology, Boston, MA
- 5/25/2007 "Neuroimaging Biomarkers of PD: Facts & Fantasy" Grand Rounds, Emory University, Atlanta, Ga.
- 6/3/2007 "Imaging the Dopamine System" Opening Symposium lecture at the 11th International Movement Disorders Congress, Istanbul, Turkey
- 6/5/2007 "Neuroimaging Outcomes for Clinical Trials of PD" Plenary Lecture at the 11th International Movement Disorders Congress, Istanbul, Turkey
- 6/14/2007 "Imaging Parkinson Disease Progression", Ceregene Scientific Advisory Board Meeting, San Diego, CA.
- 3/6/2008 "Mechanisms of Deep Brain Stimulation" Neuroscience Research Seminar, U. Rochester, Rochester, NY
- 3/7/2008 "Cerebral Mitochondrial Function in PD & HD" Grand Rounds, U. Rochester, Rochester, NY.
- 3/18/2008 "Investigations of Deep Brain Stimulation" Research Seminar, North Shores Hospital, New York
- 4/14/2008 Chaired "Integrated Neuroscience Session: New Methods in Imaging" at the American Academy of Neurology, Chicago, Il.
- 4/14/2008 "PET Investigations of Dopaminergic Pathways" Invited lecture at the American Academy of Neurology Meeting, Chicago, Il.
- 4/15/2008 "Starting a Clinical Research Career" Parkinson Study Group Mentoring Symposium, Chicago, Il.
- 5/8/2008 "Mentoring the Mentors" Annual Parkinson Study Group Meeting, San Diego, CA
- 5/8/2008 "Biomarkers for PD Progression" Chaired session, Annual Parkinson Study Group Meeting, San Diego, CA.
- 6/14/2008 "DAT Imaging does not provide clinically useful information" Society of Nuclear Medicine Meeting, New Orleans, La.
- 9/13/2008 "Diagnostic Testing in PD: Is it Useful?" in Movement Disorders Society sponsored course on "De Novo Parkinson Disease: Diagnosis & Treatment," San Francisco, CA
- 4/1/2009 "Neuroimaging Clues to the Pathophysiology of Movement Disorders: Facts & Fantasy" Grand Rounds, Weil Cornell Medical College, New York City, NY.

- 4/27/09 "Starting a Clinical Research Career" PSG symposium at the American Academy of Neurology Annual Meeting, Seattle, WA.
- 5/28/09 "Training Mentors to be Mentors" PSG Annual Meeting, San Diego, CA.
- 6/11/09 "PET, SPECT with a focus on clinical & diagnostic applications to parkinsonism: What do we really know?" The 13th International Congress of Parkinson's Disease and Movement Disorders; Paris, France.
- 8/11/09 "Neuroimaging of Dopaminergic Neurons: Evidence for Clinical Utility" Food * & Drug Administration (FDA), invited expert testimony, Silver Springs, Md.
- 9/10/09 "PD: What Can Scans Teach Us?" PD Foundation of Saskatoon Community Lecture with Telehealth extension throughout Saskatchewan. Canada
- 9/11/09 "Neuroimaging Clues to the Pathophysiology of Movement Disorders" Grand Rounds, Neuroscience Group, University of Saskatoon, Saskatchewan, Canada
- 12/10/09 "STN DBS Effects on Motor & Nonmotor Aspects of PD" invited lecture at the American College of Neuropsychopharmacology, Hollywood, FL.
- 3/24/2010 "Neuroimaging of Parkinson disease: Clinical Utility?" Neurology Grand Rounds, University of Maryland, Baltimore, Md.
- 3/24/2010 "Neurological Abnormalities of Voice" Visiting Professor lecture at University of Maryland, Baltimore, Maryland.
- 4/12/2010 "Starting a Clinical Research Career: Clues for Success," PSG/PDF sponsored lecture at the American Academy Neurology Annual Meeting, Toronto, Canada
- 4/23/2010 "PET Investigations into the Pathophysiology of PD Dementia," Toronto Western Hospital, Toronto, Canada.
- 5/14/2010 "Training Mentors to be Mentors," Parkinson Study Group Annual Meeting, Irving, Tx.
- 6/16/2010 "The Use of Surrogate Imaging & Biomarkers in PD Clinical Trials," invited talk at International Movement Disorders Meeting in Buenos Aires, Argentina.
- 11/1/2010 "Overlap between Parkinson disease and Dystonia" Bachmann-Strauss Foundation International Think Tank, NYC, New York
- 2/19/2011 "Blepharospasm: New Frontiers in Pathophysiology" Benign Essential Blepharospasm Research Foundation Symposium, St. Louis, MO.
- 2/21/2011 "Functional Imaging of Movement Disorders" invited lecture at University of Louisville, Louisville, KY.

- 4/11/2011 "Dementia & PD: New Insights from PET Studies" Invited Lecture and chaired session on "Neuroimaging of Parkinson disease: Are we there yet?" Chaired session; American Academy of Neurology Annual meeting, Honolulu, Hawaii
- 4/11/2011 "Starting a Clinical Research Career: Clues for Success" invited lecture in the Futures in Clinical Research Session at the American Academy of Neurology Annual meeting, Honolulu, Hawaii
- 5/20/2011 "Pathophysiology of Dystonia: Clues from Neuroimaging" Tyler's Hope Think Tank, Gainesville, Florida.
- 10/21/2011 "Functional Anatomy of Dystonia," Chaired this session at the Fifth International Dystonia Symposium, Barcelona, Spain
- 11/9/2011 "Neuroimaging of Parkinsonism," Grand Rounds at Brown University, Providence, Rhode Island.
- 12/8/2011 Neuroimaging of Parkinson disease: What's Shaking & What's Not," Grand Rounds at Medical University of South Carolina, Charleston, South Carolina
- 3/23/2012 Neuroimaging Biomarkers for PD: the Good, the Bad & the Ugly. Neurosciences graduate seminar, Emory University, Atlanta
- 4/23/2012 "Clues to Starting a Clinical Research Career" invited lecture in the Futures in Clinical Research Session at the American Academy of Neurology Annual meeting, New Orleans, Louisiana
- 9/22/2012 "Dystonia Coalition Investigations of Focal Dystonia" at the National Spasmodic Dysphonia Association meeting in St. Louis, MO.
- 10/7/2012 "Molecular Imaging of Brain Networks: Facts & Fantasy" invited lecture at the American Neurological Association Annual Meeting, Boston, MA.
- 10/7/2012 Chaired the "Imaging to Explore Neural Networks" symposium at the American Neurological Association Annual Meeting, Boston, MA.
- 10/13/2012 Chaired Symposium "Dopamine: Translational Investigations" at the Society of Neuroscience Annual Meeting, New Orleans, La.
- 10/24/2012 "Validation of Neuroimaging Biomarkers for Nigrostriatal Neurons" at the 6th Annual Parkinson's Disease Therapeutics Conference. sponsored by the MJ Fox Foundation and the NY Academy of Sciences; New York City, NY.
- 12/3/2012 "Validation of PET Measures of Striatal Uptake of FDOPA" MJ Fox Foundation; New York City, NY.
- 1/8/2013 Neuroimaging of Parkinson disease: Facts & Fantasy, Grand Rounds, Neuroscience, University of Iowa, Iowa City, Ia

- 2/12/2013 "Parkinson disease: What's Shaking?" Grand Rounds, St. Lukes Hospital, St. Louis, MO
- 3/18/2013 "Starting a Clinical Research Career" invited lecture in the Futures in Clinical Research Session at the American Academy of Neurology Annual meeting, San Diego, CA
- 3/20/2013 Chaired "Movement Disorders Imaging" and gave summary talk at the American Academy of Neurology Annual Meeting, San Diego, CA
- 6/19/2013 "Dopamine deficiency: age-dependent parkinsonism or dystonia" invited talk at the International Movement Disorders Annual Meeting, Sydney, Australia
- 10/14/2013 Chaired Session "Deep Brain Stimulation for PD: GPi or STN?" at American Neurological Association Annual Meeting, New Orleans, LA
- 10/14/2013 "Neuroimaging in Parkinson disease" invited talk at American Neurological Association Annual Meeting, New Orleans, LA
- 10/15/2013 Chaired "Health Policy Symposium" at the American Neurological Association Annual Meeting, New Orleans, LA.
- 2/27/2014 "D2-like Receptor Abnormalities in Dystonia and How this Relates to Brain Networks" at the Dystonia Medical Research Foundation Symposium on "Receptor Pharmacology of Dystonia," Miami, FL
- 3/7/2014 "Functional Imaging of Dystonia" at Neurobiology & Neuroscience of Highly Skilled Motor Performance in Musicians," Rochester, NY
- 4/4/2014 "Neuroimaging Biomarkers of Parkinson Disease: Facts & Fantasy" Neurological Institute, Columbia University, New York, NY
- 4/28/2014 "Starting a Clinical Research Career" invited talk at American Academy of Neurology Annual Meeting, Philadelphia, PA.
- 9/11/2014 "Update on Parkinson disease Research" invited talk at the American Parkinson Disease Association meeting in Newport Beach, CA.
- 10/24/2014 "Neuroimaging of Parkinson Disease" invited talk at Alumni Day, University of Missouri, Columbia, MO.
- 10/30/2014 Chaired "Integrative Approaches to Dystonia" sponsored by the Dystonia Medical Research Foundation, Chicago, IL.
- 11/14/2014 "Dystonia: Clinical Characteristics, Pathophysiology & Treatment" Indiana Neurologic Society, Indianapolis, IN.
- 11/16/2014 "Development of Neuroimaging Biomarkers for PD: Pitfalls & Potential" Society of Neuroscience Annual Meeting, Biomarkers Nanosymposium, Washington DC

- 11/21/2014 "Neuroimaging Investigations of Deep Brain Stimulation" Beth Israel Deaconess Hospital, Harvard Medical School, Boston, MA.
- 3/3/2015 "Conflict of Interest in Medical Education, Research & Practice" Capstone lecture series, St. Louis University School of Medicine, St. Louis, MO.
- 3/5/2015 "Neuroimaging Biomarkers of Parkinson Disease" Invited Grand Rounds at St. Louis University School of Medicine, St. Louis, MO.
- 4/15/2015 "Imaging Biomarkers of Parkinson disease: Facts & Fantasy" Grand Rounds, University of Michigan, Ann Arbor, MI
- 4/20/2015 "Starting a Clinical Research Career: Clues for Success" invited lecture in the Futures in Clinical Research Session at the American Academy of Neurology Annual meeting, Washington DC
- 7/24/2015 "PD Research at the APDA Advanced Research Center at Washington University," APDA National Conference, Chicago, IL.
- 3/4/2016 "Functional Imaging of Limb Dystonia," Dystonia Coalition Annual Meeting, Washington DC.
- 3/28/2016 "Update on Neuroimaging of Lewy Body Dementias," Alzheimer disease and Related Dementia Summit, National Institutes of Health, Washington DC.
- 6/9/2016 "Dystonia in non-Parkinson disease parkinsonian conditions," Parkinson Disease Foundation Symposium on Dystonia and Parkinsonism, Chicago, IL.
- 11/14/2016 Chaired session "Structural Changes, Connectivity and Deep Brain Stimulation Treatment in Parkinson Disease" at the Society of Neuroscience annual meeting 2016, San Diego, CA.
- 1/15/2017 "The Science Behind DAT Imaging" and "Current Limitations & Future Approaches for Imaging in PD" invited talks at American Academy of Neurology Breakthroughs in Neurology Conferences, Phoenix, AZ.
- 3/8/2017 "Neuroimaging biomarkers of PD: Facts & Fantasy" University of Florida, Gainesville.
- 4/27/2017 "The Science Behind DAT Imaging" and "Current Limitations & Future Approaches for Imaging in PD" invited talks at American Academy of Neurology Annual Meeting, Boston, MA
- 10/12/2017 "Young onset Parkinson disease" webinar sponsored by the American Parkinson Disease Association.
- 4/12/2018 "Dystonia: Some New Twists" St. Louis University Neurology Grand Rounds, St. Louis, MO

- 4/25/2018 "History of Positron Emission Tomography" American Academy of Neurology, invited talk. Los Angeles, CA
- 10/29/2018 "Dystonia Research Resources" NINDS think tank on Dystonia Research Priorities, Rockford, Washington DC
- 3/27/2019 "Neuroimaging Biomarkers of Parkinson disease" Grand Rounds at University of Pennsylvania, Department of Neurology, Philadelphia, Pa.
- 5/16/2019 "Parkinson Research at the WU APDA Advanced Research Center" APDA Scientific Advisory Board Meeting, Newark, NJ
- 5/22/2019 "Neuroimaging Biomarkers of Parkinson Disease: Facts & Fantasy" the Druker Lecture at Beth Israel Hospital, Harvard Medical School, Boston, MA
- 8/2/2019 "The Dystonia Coalition" Dystonia Medical Research Foundation Board meeting, Chicago, Il.
- 10/12/2019 "Validation of Molecular Imaging for Nigrostriatal Neurons: Caveat Emptor" at 4th China-America Nuclear Medicine Academic Forum & 2nd International Conference on Ultrahigh Sensitivity PET and Neuroimaging, Linyi, China
- 10/17/2019 "Neuroimaging of Dopaminergic Pathways" at Frontier Symposium on Molecular Imaging, Huashan Hospital, Shanghai Jiaotong University, Shanghai, China
- 10/19/2019 "Validation of Neuroimaging Biomarkers for Nigrostriatal Neurons" at International Molecular Imaging Summit 2019, Xiamen University, Xiamen, China
- 10/21/2019 "Neuroimaging Biomarkers of Parkinson Disease: Facts & Fantasy" Departments of Radiology & Neurology, Peking University First Hospital, Beijing, China
- 10/23/2019 "Quantitative Multimodal Neuroimaging in Neurodegenerative Diseases" Departments of Radiology & Nuclear Medicine, Xuanwu Hospital, Beijing Capitol Medical University, Beijing, China

CONSULTING RELATIONSHIPS/BOARD MEMBERSHIPS:

- 1992-1997 Consultant: Michigan Alzheimer's Disease Research Center (Sid Gilman, P.I.)
- 1985 - Medical Advisory Board of the Greater St. Louis Chapter of the American Parkinson Disease Association
- 1985 - 2010 Medical Advisory Board (Director) of the Missouri Chapter of the Dystonia Medical Research Foundation
- 1996 External Review Committee for the University of Michigan Alcohol Research Center

- 1997 - 2001
2006 - Member, Scientific Advisory Board, Dystonia Medical Research Foundation.
- 1997 - 2002 Co-Chair (from 2000-2002), Board of Scientific Counselors for National Institute for Neurological Disease and Stroke, National Institutes of Health.
- Jan. 2001 Special Program Reviewer. National Institute of Neurological Disease and Stroke, NIH.
- 2001 - Member, Scientific Advisory Board, American Parkinson Disease Association, New York
- 1998 - 2001 Consultant for Medsys Technologies, a computer consulting firm for development of medical software applications
- 2001 - 2010 Member, Board of Directors, Jewish Center for the Aged, St. Louis, Missouri
- 2008 – 2013 Member, Advisory Board of the Bander Center for Business Medical Ethics at St. Louis University, St. Louis, MO.
- 2014 - Member, Research Center Advisory Committee, Parkinson Disease Foundation, New York
- 2015 - Member, External Advisory Board, Northwest Udall Center, Stanford, Ca.
- 2019 - 2023 Scientific Director and Chair of the Medical & Scientific Advisory Committee of the Dystonia Medical Research Foundation.

CLINICAL TITLE:

- 1991 - Head, Section of Movement Disorders
Department of Neurology, Washington University School of Medicine
- 2006 - Director, NeuroClinical Research Unit; Washington University in St. Louis
- 2007 - Director: Brain, Behavior & Performance Unit of the Institute of Clinical & Translational Studies at Washington University in St. Louis

PUBLICATIONS (Peer Reviewed):

1. Schroeder W, Perlmutter J, Glaser M, Vagelos R: Isolation and characterization of subcellular membranes with altered phospholipid compositions from cultured fibroblasts. *J Biol Chem* 251:5015-26, 1976.
2. Perlmutter J, Martinez R: The chronically reserpinized rat as a possible model for cystic fibrosis VII. Alterations in the secretory response to CCK and to secretin from the pancreas, in vivo. *Pediatr Res* 12:188-194, 1978.

3. Perlmutter JS, Raichle ME: Pure hemidystonia with basal ganglion abnormalities on positron emission tomography. *Ann Neurol* 15:228-233, 1984.
4. Fox PT, Perlmutter JS, Raichle ME: A stereotactic method of anatomical localization for positron emission tomography. *J Comput Assist Tomogr* 9:141-153, 1985.
5. Perlmutter JS, Raichle ME: Regional blood flow in hemiparkinsonism. *Neurology* 35:1127-1134, 1985.
6. Perlmutter JS, Herscovitch P, Powers WJ, Fox PT, Raichle ME: Standardized mean regional method for calculating global positron emission tomographic measurements. *J Cereb Blood Flow Metabol* 5:476-480, 1985.
7. Reiman E, Raichle ME, Butler FK, Herscovitch P, Robins E, Fox P, Perlmutter J: The application of positron emission tomography to the study of panic disorder. *Am J Psychiatry* 143:469-477, 1986.
8. Perlmutter JS, Larson KB, Raichle ME, Markham J, Mintun MA, Kilbourn MR, Welch MJ: Strategies for the in vivo measurement of receptor binding using positron emission tomography. *J Cereb Blood Flow Metabol* 6:154-169, 1986.
9. Perlmutter JS, Raichle ME: In vitro or in vivo receptor binding: where does the truth lie? *Ann Neurol* 19:384-385, 1986.
10. Perlmutter JS, Power WJ, Herscovitch P, Fox PT, Raichle ME: Regional asymmetries of cerebral blood flow, blood volume, oxygen utilization and extraction in normal subjects. *J Cereb Blood Flow Metabol* 7:64-67, 1987.
11. Perlmutter JS, Kilbourn MR, Raichle ME, Welch MJ: MPTP induced up-regulation of in vivo dopaminergic radioligand-receptor binding in man. *Neurology* 37:1575-1579, 1987.
12. Videen TO, Perlmutter JS, Herscovitch P, Raichle ME: Brain blood volume, flow and oxygen utilization measured with O-15 radiotracers and positron emission tomography: revised metabolic computations. *J Cereb Blood Flow Metabol.* 7:513-516, 1987.
13. Welch MJ, Katzenellenbogen JA, Mathias CJ, Brodack JW, Carlson KE, Chi DY, Dence CS, Kilbourn MR, Perlmutter JS, Raichle ME, Ter-Pogossian MM: N-(3-[F-18]fluoropropyl)-spiperone: the preferred F-18 labeled spiperone analog for positron emission tomographic studies of the dopamine receptor. *Int J Nucl Med Biol.* 15:83-97, 1988.
14. Perlmutter, JS: New insights into the pathophysiology of Parkinson's Disease: the challenge of positron emission tomography. *Trends Neurosciences* 11:203-208, 1988.
15. Videen TO, Perlmutter JS, Mintun MA, Raichle ME: Regional correction of positron emission tomography data for the effects of cerebral atrophy. *J Cereb Blood Flow Metabol.* 8:662-670, 1988
16. Perlmutter JS, Kilbourn MR, Welch MJ, Raichle ME: Nonsteady-state measurement of in vivo receptor binding with positron emission tomography: "dose-response" analysis. *J Neurosci.*

9:2344-2352, 1989.

17. Bushmann M, Dobmeyer SM, Leeker L, Perlmutter JS: Swallowing abnormalities and their response to treatment in Parkinson's disease. *Neurology* 39:1309-1314, 1989.

18. Parkinson Study Group: DATATOP: A multi-center controlled clinical trial in early Parkinson's disease. *Arch Neurol* 46:1052-1060, 1989.

19. Parkinson Study Group: Effect of deprenyl on the progression of disability in early Parkinson's disease. *N Engl J Med* 321:1364-1371, 1989.

20. Tempel LW, Perlmutter JS: Abnormal vibration-induced cerebral blood flow response in dystonia. *Brain* 113:691-707, 1990.

21. Green MA, Mathias CJ, Welch MJ, Fernandez-Rubio F, Perlmutter JS, Raichle ME, Bergmann SR: [⁶²Cu]-labeled pyruvaldehyde Bis(N⁴-methylthisemicarbazonato)copper(II): Synthesis and evaluation as a positron emission tomography tracer for cerebral and myocardial perfusion. *J Nucl Med* 31:1989-1996, 1990.

22. Perlmutter JS, Lich LL, Margenau W, Buchholz S: PET measured evoked cerebral blood flow responses in an awake monkey. *J Cereb Blood Flow Metab* 11:229-235, 1991.

23. Moerlein SM, Perlmutter JS: Central serotonergic S₂ binding in *Papio anubis* measured in vivo with N-w-[¹⁸F]fluoroethylketanserin and PET. *Neurosci Ltr* 123:23-26, 1991.

24. Perlmutter JS, Moerlein SM, Huang D-R, Todd R: Non-steady-state measurement of in vivo radioligand binding with positron emission tomography: specificity analysis and comparison with in vitro binding. *J Neurosci* 11:1381-1389, 1991.

25. Powers WJ, Perlmutter JS, Videen TO, Herscovitch P, Griffeth LK, Royal HD, Siegel BA, Morris JC, Berg L: Blinded clinical evaluation of positron emission tomography for diagnosis of Alzheimer's disease. *Neurology*, 42:765-770, 1992.

26. Moerlein SM, Perlmutter JS: Binding of 5-(2'-[¹⁸F]fluoroethyl)flumazenil to central benzodiazepine receptors measured in living baboon with positron emission tomography. *Eur J Pharmacol*, 218:109-115, 1992,

27. Perman WH, Gado MH, Larson KB, Perlmutter JS: Simultaneous MR acquisition of arterial and brain signal-time curves. *Magnetic Resonance in Medicine* 28:74-83, 1992.

28. Tempel LW, Perlmutter JS: Vibration-induced regional CBF responses in healthy aging. *J Cereb Blood Flow Metabol* 12:554-561, 1992.

29. Moerlein SM, Perlmutter JS: Specific binding of 3N-(2'-[¹⁸F]fluoroethyl)benperidol to primate cerebral dopaminergic D₂ receptors demonstrated *in vivo* by PET. *Neurosci Lett* 148:97-100, 1992.

30. Parkinson Study Group (including JS Perlmutter) Effects of tocopherol and deprenyl on the progression of disability in early Parkinson's disease. *N Engl J Med* 328:176-183, 1993.

31. Tempel LW, Perlmutter JS: Abnormal cortical responses to vibration in patients with writer's cramp. *Neurology* 43:2252-2257, 1993.
32. Perman WH, El-Ghazzawy O, Gado MH, Larson KB, Perlmutter JS: A half-fourier gradient echo technique for dynamic MR imaging. *Magnetic Resonance Imaging* 11:357-366, 1993.
33. Larson KB, Perman WH, Perlmutter JS, Gado MH: Tracer-kinetic analysis for measuring regional cerebral-blood flow by dynamic nuclear magnetic resonance imaging. *J Theoretical Biology* 170:1-14, 1994.
34. Moerlein SM, Perlmutter JS, Welch MJ, Raichle ME: First-pass extraction fraction of iodine-123 labeled perfusion tracers in living primate brain. *Nucl Med Biol* 21:847-855, 1994.
35. Martin WRW, Perlmutter JS: Assessment of Fetal Transplantation in Parkinson's Disease: Does PET Play a Role? *Neurology* 44:1777-1780, 1994.
36. Moerlein SM, Perlmutter JS, Welch MJ: USP Standards for Raclopride C11 Injection. *Pharm Forum* 21:172-176, 1995.
37. Moerlein SM, Perlmutter JS, Welch MJ: Specific, reversible binding of [¹⁸F]benperidol to baboon D₂ receptors: PET evaluation of an improved ¹⁸F-labeled ligand. *Nucl Med Biol.* 22:809-815, 1995.
38. Parkinson Study Group: Cerebrospinal fluid homovanillic acid in the DATATOP study on Parkinson's disease. *Arch Neurol* 52:237-245, 1995.
39. Black KJ, Videen TO, Perlmutter JS: A metric for testing the accuracy of cross-modality image registration: validation and application. *J Comput Assist Tomogr.* 20:855-861, 1996.
40. Parkinson's Study Group: Effect of lazabemide on the progression of disability in early Parkinson's disease. *Ann Neurol.* 40:99-107, 1996.
41. Todd RD, Carl J, Harmon S, O'Malley KL, Perlmutter JS: Dynamic changes in striatal dopamine D₂ and D₃ receptor protein and mRNA in response to MPTP denervation in baboons. *J Neurosci* 16:7776-7782, 1996.
42. Perlmutter JS: Positron emission tomographic imaging of serotonin activation effects on prefrontal cortex in healthy volunteers: a commentary. *Neurology Network Commentary* 1:57-61, 1996.
43. Perlmutter JS, Stambuk MK, Markham J, Black KJ, McGee-Minnich L, Jankovic J, Moerlein SM: Decreased [¹⁸F]spiperone binding in putamen in idiopathic focal dystonia. *J Neurosci* 17:834-842, 1997.
44. Black KJ, Gado MH, Perlmutter JS: PET measurement of dopamine D₂ receptor-mediated changes in striatopallidal function. *J Neurosci.* 17:3168-3177, 1997.
45. Black KJ, Perlmutter JS: Septuagenarian Sydenham's: recurrence of chorea with secondary

hypomania after 61 asymptomatic years. *Neuropsychiatry Neuropsychology Behavioral Neurology* 10(2):147-150, 1997.

46. Moerlein SM, Perlmutter JS, Cutler PD, Welch MJ: Radiation dosimetry of [¹⁸F](n-methyl)benperidol as determined by whole-body pet imaging of primates. *Nucl Med Biol.* 24:311-318, 1997.

47. Moerlein SM, Perlmutter JS, Welch MJ: In vivo kinetics of [¹⁸F](N-methyl)benperidol: a novel PET tracer for assessment of dopaminergic D2 receptor binding. *J Cereb Blood Flow Metab.* 17:833-845, 1997.

48. Perlmutter JS, Tempel LW, Black KJ, Parkinson D, Todd RD: MPTP induces dystonia & parkinsonism: clues to the pathophysiology of dystonia. *Neurology* 49:1432-1438, 1997.

49. Black KJ, Gado JH, Videen TO, Perlmutter JS: Baboon basal ganglia stereotaxy using internal MRI landmarks: validation and application to PET imaging. *J Comput Assist Tomogr* 21:881-886, 1997.

50. Black KJ, Perlmutter JS: Can FDOPA PET help determine disease status in familial Parkinson's disease? *Neurology Network Commentary.* 1:308-314, 1997.

51. Racette BA, Laurysen C, Perlmutter JS: Preoperative botulinum toxin injection permit cervical fusion in dystonic cerebral palsy. *J Neurosurg* 88:328-330,1998.

52. Todd RD, Perlmutter JS: Mutational and biochemical analysis of dopamine in dystonia: evidence for decreased dopamine D₂ receptor inhibition. *Mol Neurobiol.* 16:135-147 1998.

53. Moerlein SM, Mintun MA, Perlmutter JS, Welch MJ, Siegel BS: USP Standards for flumazenil C11 injection. *Pharmacopeial Forum* 24:6360-6365,1998.

54. Black KJ, Perlmutter JS, BA Racette: Preventing contractures in NMS/dystonia. *Am J Psychiatry* 155(9),1298-1299, 1998.

55. Black KJ, Ongur D, Perlmutter JS: Putamen volume in idiopathic focal dystonia. *Neurology,* 51:819-824, 1998.

56. Hershey T, Perlmutter JS: Estimating the parkinsonian preclinical period using positron emission tomography. *Neurology Network Commentary.* 1998.

57. Racette BA, Perlmutter JS: Levodopa responsive parkinsonism in an adult with Huntington disease. *J Neurol Neurosurg Psychiatr* 65(4):577-9, 1998.

58. Van Mier H, Tempel LW, Perlmutter JS, Raichle ME, Petersen SE: Changes in brain activity during maze tracing measured with PET. *J Neurophysiol.* 80(4):2177-99, 1998.

59. Hershey T, Black KJ, Stambuk MK, Carl JL, McGee-Minnich L, Perlmutter JS: Altered thalamic response to levodopa in Parkinson's disease patients with dopa-induced dyskinesias. *Proc Natl Acad Sci,* 95:12016-12021, 1998.

60. Parsian A, Racette B, Rundle M, Zhang ZH, Charkraverty S, Goate A, Perlmutter JS: Mutation, sequence analysis of associate studies of alpha-synuclein in familial and sporadic Parkinson's disease. *Neurology* 51:1757-1759, 1998.
61. Feiwell RJ, Black KJ, McGee-Minnich LA, Snyder AZ, MacLeod AK, Perlmutter JS: Diminished regional blood flow response to vibration in patients with blepharospasm. *Neurology*, 52:291-297, 1999.
62. Racette BA, Rundle M, Parsian A, Perlmutter JS: Evaluation of a Screening Questionnaire for Genetic Studies of Parkinson's Disease. *American Journal of Medical Genetics* 88:539-543, 1999.
63. Mink JW, Perlmutter JS: Functional Imaging of Brain Mechanisms in Dopa-Induced Dyskinesia. *Neurology Network Commentary* 3:22-26,1999.
64. Racette BA, Gokden M, Tychsens L, Perlmutter JS: Convergence insufficiency in idiopathic Parkinson's disease responsive to levodopa. *Strabismus* 7:169-174, 1999.
65. Racette BA, McGee-Minnich L, Perlmutter JS. Efficacy and safety of a new bulk toxin of botulinum toxin in cervical dystonia: A blinded evaluation. *J Clin Neuropharmacol.* 22:337-339, 1999.
66. Miyawaki E, Perlmutter JS, Troster AI, Videen TO, Koller WC. The Behavioral Complications of Pallidal Stimulation: A Case Report. *Brain Cogn* 42:417-434, 2000.
67. Black, KJ, Hershey T, Gado M, Perlmutter JS. A dopamine D1 agonist activates temporal lobe structures in primates *J Neurophysiol.* 84:549-557, 2000.
68. Revilla FJ, Racette BA, Perlmutter JS. Chorea and jaw opening dystonia as a manifestation of NeuroBehcet's Syndrome. *Movement Disorders*, 15:741-744, 2000.
69. Hershey T, Black KJ, Carl JL, Perlmutter JS. Dopa-induced blood flow responses in non-human primates: *Exp Neurol.*, 166:342-349, 2000.
70. Parkinson's Study Group: A multicenter randomized controlled trial of remacemide hydrochloride as monotherapy for PD. *Neurology*, 54:1583-1588, 2000.
71. Racette BA, McGee-Minnich L, Moerlein SM, Mink JW, Videen TO, Perlmutter JS: Welding related parkinsonism: clinical features, treatment and pathophysiology. *Neurology* 56:8-13, 2001.
72. Black KJ, Snyder AZ, Koller JM, Gado MH, Perlmutter JS: Template images for nonhuman primate neuroimaging:1. *Baboon*. *Neuroimage*, 14(3):736-743, 2001.
73. Racette B, Perlmutter JS. Late-onset neurodegeneration with brain iron accumulation type 1: Expanding the clinical spectrum. *Mov Disord.*, 16:1148-1152, 2001.
74. Parsian A, Perlmutter JS. Point mutations in the alpha-synuclein gene. *Methods Mol Med* 62:3-11, 2001.

75. Black KJ, Koller JM, Snyder AZ, Perlmuter JS: Template images for nonhuman primate neuroimaging: 2. *Macaque*. *Neuroimage*, 14:744-748, 2001.
76. Zackowski K, Bastian A, Hakimian S, Mink JW, Perlmuter JS, Koller WC, Thach WE. Thalamic stimulation reduces essential tremor but not delayed antagonist muscle timing. *Neurology* 58:402-10, 2002.
77. Racette BA, Rundle M, Wang JC, Goate A, Saccone NL, Farrer M, Lin J, Suarez B, Parsian A, Perlmuter JS: A multi-incident, Old-Order Amish family with Parkinson disease. *Neurology* 58:568-574, 2002.
78. Parsian A, Racette B, Zhang Z, Rundle M, Perlmuter JS: Parkinson's Disease and Apolipoprotein E: Possible Association with Dementia but not Age at Onset. *Genomics*, 79(3):458-61, 2002.
79. Racette BA, Hartlein JM, Hershey T, Mink JW, Perlmuter JS, Black KJ: Clinical features and comorbidity of mood fluctuations in Parkinson's disease. *J Neuropsychiatry Clin Neurosci.*, 14:438-42, 2002.
80. Racette BA, Stambuk M, Perlmuter JS. Secondary non-responsiveness to new bulk botulinum toxin A. *Movement Disorders*, 17:1098-100,2002.
81. Perlmuter JS, Mink JW, Bastian AJ, Zackowski K, Hershey T, Miyawaki E, Koller W, Videen TO. Blood flow responses to deep brain stimulation of thalamus. *Neurology*, 58:1388-1394, 2002.
82. Racette A, Lopate G, Good L, Sagitto S, Perlmuter JS: Ptosis as a Remote Effect of Therapeutic Botulinum Toxin B Injection. *Neurology*, 59:1445-7, 2002.
83. Shults CW, Oakes D, Kieburtz K, Beal F, Haas R, Plumb S, Juncos JL, Nutt J, Shoulson I, Carter J, Kompoliti K, Perlmuter JS, Reich S, Stern M, Watts RL, Kurlan R, Molho E, Harrison M, Lew M, and the Parkinson Study Group. Effects of coenzyme Q10 in early Parkinson disease: evidence of slowing of the functional decline. *Archives of Neurology*, 59:1541-1550, 2002.
84. Black KJ, Hershey T, Koller JM, Videen TO, Price JL, Perlmuter JS: Prefrontal and limbic effects of a D3-preferring dopamine agonist: a possible substrate for dopamine-related changes in mood and behavior. *Proc Natl Acad Sci.*, 99:17113-17118, 2002.
85. Kaufman JA, Phillips-Conroy JE, Black KJ, Perlmuter JS: Asymmetric regional cerebral blood flow in sedated baboons. *Am J Physical Anthropology* 121(4):369-77, 2003.
86. Bastian AJ, Kelly VE, Perlmuter JS, Mink JW. Effects of pallidotomy and levodopa on walking and reaching in Parkinson disease. *Movement Disorders* 18:1008-17, 2003.
87. Bastian AJ, Kelly VE, Revilla F, Perlmuter JS, Mink JW. Different effects of unilateral versus bilateral subthalamic nucleus stimulation on reaching and walking in Parkinson disease. *Movement Disorders* 18:1000-7, 2003.

88. Hershey T, Black KJ, Carl JL, McGee-Minnich LA, Snyder AZ, Perlmutter JS: Long term treatment and disease severity change brain responses to levodopa in Parkinson disease. *J Neurol Neurosurg Psychiatr* 74:844-851, 2003.
89. Racette BA, Good L, Sagitto S, Perlmutter JS. Botulinum toxin B reduces sialorrhea in parkinsonism. *Movement Disorders*. 18:1059-61,2003.
90. Black KJ, Carl JL, Hartlein JM, Warren SL, Hershey T, Perlmutter JS: Rapid intravenous loading of levodopa for human research: Clinical results. *J. Neurosci. Methods* 2003; 127(1):19-29.
91. Hershey T, Revilla FJ, Loepker A, McGee-Minnich L, Antenor JA, Videen TO, Rich KM, Dowling JL, Mink JW, Perlmutter JS. Cortical and subcortical blood flow effects of subthalamic nucleus stimulation in PD. *Neurology* 61:816-821,2003.
92. Karamohamed S, DeStefano A, Wilk J, Shoemaker C, Golbe L, Mark M, Lazzarini A, Guttman M, Montgomery E, Baker K, Lew M, Singer C, Watts R, Currie L, Wooten GF, Saint-Hilaire M, Feldman R, Sullivan K, Xu G, Racette B, Perlmutter J, Parsian A, Suchowersky O, Lafontaine A, Labelle N, Growdon J, Vieregge P, Pramstaller P, Klein C, Stacy M, Gusella J, Fink S, Myers R, Herbert A. A haplotype in the PARK3 locus influences onset age for Parkinson disease: The *GenePD* study. *Neurology* 61:1557-1561,2003.
93. Parsian A, Racette B, Zhang Z, Rundle M, Perlmutter JS: Association of variations in monoamine oxidases a and b with Parkinson's disease subgroups. *Genomics* 83:454-60, 2004.
94. Hershey T, Black KJ, Hartlein J, Barch DM, Braver TS, Carl JL, Perlmutter JS: Cognitive-pharmacologic fMRI in Tourette syndrome: A pilot study. *Biol Psychiatry*, 55:916-925, 2004.
95. Moerlein SM, Perlmutter JS, Welch MJ: Radiosynthesis of (N-[¹¹C]Methyl)benperidol for PET Investigation of D2 Receptor Binding. *Radiochim Acta* 92:1-7,2004.
96. Hershey T, Revilla F, Wernle A, Schneider-Gibson P, Dowling J, Perlmutter JS: Stimulation of STN impairs aspects of cognitive control in PD. *Neurology* 62:1110-114,2004.
97. Parsian A, Sinha R, Racette BA, Zhao JH, Perlmutter JS: Association of a variation in the promoter region of the brain-derived neurotrophic factor gene with familial Parkinson's disease. *Parkinsonism and Related Disorders*, 10:213-9,2004.
98. Racette BA, Esper GJ, Antenor J, Black KJ, Burkey A, Moerlein SM, Videen TO, Kotagal V, Ojemann J, Perlmutter JS: Pathophysiology of parkinsonism due to hydrocephalus. *J Neurol Neurosurg Psychiatr* 75(11):1617-9, 2004.
99. Ushe M, Mink JW, Revilla F, Wernle A, Schneider-Gibson P, McGee-Minnich L, Hong M, Rich KM, Lyons KE, Pawha R, Perlmutter JS: The effect of stimulation frequency on tremor suppression in essential tremor. *Mov Dis* 19:1163-1168, 2004.
100. Hershey, T., Black, K.J., Hartlein, J., Braver, T., Barch, D.M., Carl, J.L., Perlmutter, J.S. Dopaminergic modulation of response inhibition: An fMRI study. *Cognitive Brain Research*, 20(3):438-48, 2004.

101. Pastor P, Ezquerra M, Perez JC, Chakraverty S, Norton J, Racette BA, Perlmutter JS, McKeel D, Tolosa E, Goate AM. Novel haplotypes in 17q21 are associated with progressive supranuclear palsy. *Ann Neurol.*, 56:249-258,2004.
102. Van Mier HI, Perlmutter JS, Petersen SE. Functional changes in brain activity during acquisition and practice of movement sequences. *Motor Control*, 8(4),500-520,2004.
103. Racette BA, Antenor J, McGee-Minnich L, Moerlein SM, Videen TO, Goldman J, Kotagal V, Perlmutter JS: [¹⁸F]FDOPA PET and clinical features in parkinsonism due to manganism. *Mov Dis*, 20(4):492-6. 2005.
104. Racette BA, Tabbal SD, Jennings D, Good L, Perlmutter JS, Evanoff B: Prevalence of parkinsonism and relationship to exposure in a large cohort of welders. *Neurology* 64(2):230-5,2005.
105. Black KJ, Hershey T, Hartlein JM, Carl JL, Perlmutter JS: Levodopa challenge neuroimaging of levodopa-related mood fluctuations in Parkinson disease. *Neuropsychopharmacology* 30(3):590-601;2005.
106. Karamohamed S, Golbe LI, Mark MH, Lazzarini AM, Suchowersky O, Labelle N, Guttman M, Currie LJ, Wooten GF, Stacy M, Saint-Hilaire M, Feldman RG, Liu J, Shoemaker CM, Wilk JB, Destefano AL, Latourelle JC, Xu G, Watts R, Growdon J, Lew M, Waters C, Vieregge P, Pramstaller PP, Klein C, Racette BA, Perlmutter JS, Parsian A, Singer C, Montgomery E, Baker K, Gusella JF, Herbert A, Myers RH. Absence of previously reported variants in the SCNA (G88C and G209A), NR4A2 (T291D and T245G) and the DJ-1 (T497C) genes in familial Parkinson's disease from the GenePD study. *Mov Dis*, 20(9):1188-1191, 2005.
107. Sinha R, Racette BA, Perlmutter JS, Parsian A: Prevalence of parkin gene mutations and variations in idiopathic Parkinson's disease. *Parkinsonism Related Disorders*. 11(6):341-7, 2005.
108. Karamohamed S, Latourelle JC, Racette BA, Perlmutter JS, Wooten GF, Lew MF, Klein C, Shill H, Golbe LI, Mark MH, Guttman M, Nicholson G, Wilk JB, Saint-Hilaire MH, DeStefano AL, Prakash R, Williamson S, Tobin J, Suchowersky O, Labelle N, Growdon JH, Singer C, Watts RL, Goldwurm S, Pezzoli G, Baker KB, Giroux ML, Pramstaller PP, Burn DJ, Chinnery PF, Sherman S, Vieregge P, Litvan I, Gusella JF, Myers RH, Parsian A. BDNF genetic variants are associated with onset-age of familial Parkinson's disease: GenePD study. *Neurology* 65:1823-1825, 2005.
109. Racette BA, Tabbal S, Perlmutter JS, Evanoff B: A rapid method for mass screening for parkinsonism. *Neurotoxicology*. 27(3):357-61, 2006.
110. Racette BA, Good L, Antenor J, McGee-Minnich L, Moerlein SM, Videen TO, Rich J, Perlmutter JS: [¹⁸F]FDOPA PET as an endophenotype for PD linkage studies. *Am J Med Genet B Neuropsychiatr Genet*. 141(3):245-9, 2006
111. Sun M, Latourelle JC, Wooten GF, Lew MF, Klein C, Shill HA, Golbe LI, Mark MH, Racette BA, Perlmutter JS, Parsian A, Guttman M, Nicholson G, Xu G, Wilk JB, Saint-Hilaire MH, DeStefano AL, Prakash R, Williamson S, Suchowersky O, Labelle N, Growdon JH, Singer C, Watts RL, Goldwurm S, Pezzoli G, Baker KB, Pramstaller PP, Burn DJ, Chinnery PF, Sherman S, Vieregge P, Litvan I, Gillis T, MacDonald ME, Myers RH, Gusella JF. Heterozygosity for

Parkin Mutation Influences Onset Age in Familial Parkinson's Disease: The *GenePD* Study. *Arch Neurol* 63:826-832, 2006.

112. Weiss EM, Hershey T, Karimi M, Racette BA, Tabbal SD, Paniello Mink JW, Perlmutter JS: Relative risk of spread of symptoms among the focal onset primary dystonias. *Mov Disord*, 21:1175-81, 2006.

113. Ushe M, Mink JW, Tabbal SD, Hong M, Schneider Gibson P, Rich KM, Lyons KE, Pahwa R, Perlmutter JS: Postural tremor suppression is dependent on thalamic stimulation frequency. *Mov Disord*, 21:1290-92, 2006.

114. Karimi M, Carl JL, Loftin S, Perlmutter JS: Modified HPLC method for plasma measurement of levodopa, 3-O-methyldopa, dopamine, carbidopa and DOPAC. *J Chromatogr B Analyt Technol Biomed Life Sci.* 636,120-123, 2006.

115. Tabbal SD, Mink JW, Antenor J, Carl JL, Moerlein SM, Perlmutter JS. MPTP-induced acute transient dystonia in monkeys associated with low striatal dopamine. *Neuroscience* 141:1281-1287, 2006.

116. Wilk JB, Tobin JE, Suchowersky O, Shill HA, Klein C, Wooten GF, Lew MF, Mark MH, Guttman M, Watts RL, Singer C, Growdon JH, Latourelle JC, Saint-Hilaire MH, DeStefano AL, Prakash R, Williamson S, Berg CJ, Sun M, Goldwurm S, Pezzoli G, Racette HA, Perlmutter JS, Parisan A, Baker KB, Irous ML, Litvan I, Pramstaller PP, Nicholson G, Burn DJ, Chinnery PH, Vieregge P, Slevin JT, Cambi F, MacDonald ME, Gusella JF, Myers RH, Golbe LI. Herbicide exposure modifies GSTP1 haplotype association to Parkinson onset age: The *GenePD* Study. *Neurology* 67:2206-2210, 2006.

117. Racette BA, Bradley A, Wrisberg CA, Perlmutter JS: The impact of litigation on neurologic research *Neurology*, 67:2124-8, 2006.

118. Hong M, Perlmutter JS, Earhart GM. Podokinetic after-rotation in Parkinson disease. *Brain Res.*, 1128:99-106, 2006. [PMC1828875](#)

*119. Earhart GM, Stevens ES, Perlmutter JS, Hong M: Perception of active and passive turning in Parkinson disease. *Neurorehab Neural Repair*, June 21(2):116-22, 2007.

*120. Parsian AJ, Racette BA, Zhao JH, Sinha R, Patra B, Perlmutter JS, Parisan A. Association of alpha-synuclein gene haplotypes with Parkinson's disease. *Parkinsonism Relat Disord* Aug;13(6):343-7. 2007.

121. Powers WJ, Videen TO, Markham J, McGee-Minnich L, Antenor-Dorsey JAV, Hershey T, Perlmutter JS. Selective defect of in vivo glycolysis in early Huntington disease striatum. *Proc Natl Acad Sci* 104:2945-2949, 2007. [PMC1797149](#)

122. Hong M, Perlmutter JS, Earhart GM: Enhancement of rigidity in Parkinson disease with activation. *Mov Disord* 22:1164-1168, 2007.

123. Powers WJ, Haas RH, Le T, Videen TO, Hershey T, McGee-Minnich L, Perlmutter JS. Normal platelet complex I activity in Huntington's disease. *Neurobiology Disease*, 27(1):99-101.

2007. PMC2140002

124. Tabbal SD, Revilla FJ, Mink JW, Schneider-Gibson P, Wernle AR, de Erausquin GA, Perlmutter JS, Rich KM, Dowling JL. Safety and efficacy of subthalamic nucleus deep brain stimulation performed with limited intraoperative mapping for treatment of Parkinson disease. *Neurosurgery* 61:119-127, 2007.

125. Earhart GM, Hong M, Perlmutter JS: Effects of thalamic stimulation frequency on intention and postural tremor. *Exp Neurol.* 208:257-263,2007. PMC2203380

126. Videen TO, Campbell MC, Tabbal SD, Karimi M, Hershey T, Perlmutter JS. Validation of a fiducial-based atlas localization method for deep brain stimulation contacts in the area of the subthalamic nucleus. *J Neurosci Methods* 168:275-281,2008. PMC2267480

127. Foster ER, Black KJ, Antenor J, Perlmutter JS, Hershey T. Motor asymmetry and substantia nigra volume are related to spatial delayed response performance in Parkinson disease. *Brain and Cognition* 67:1-10,2008.

128. Antenor-Dorsey JV, Laforest R, Moerlein SM, Videen TO, Perlmutter JS. Radiation dosimetry of N-([¹¹C]methyl)benperidol as determined by whole-body PET imaging of primates. *Eur J Nucl Med Mol Imaging* 35:771-778,2008.

129. Hershey T, Wu J, Weaver PM, Perantie DC, Karimi M, Tabbal SD, Perlmutter JS. Unilateral vs. bilateral STN DBS effects on working memory and motor function in Parkinson disease. *Exp Neurol* 211:234-242, 2008. PMC2346537

130. Tobin JE, Latourelle JC, Lew MF, Klein C, Suchowersky O, Shill HA, Golbe LI, Mark MH, Growdon JH, Wooten GF, Racette BA, Perlmutter JS, Watts R, Guttman M, Baker KB, Goldwurm S, Pezzoli G, Singer C, Saint-Hilaire M-H, Hendricks AE, Williamson S, Nagle MW, Wilk JB, Massood T, Laramie JM, DeStefano AL, Litvan I, Nicholson G, Corbett AJ, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Sherman S, Al-hinti J, Drasby E, Nance M, Moller AT, Ostergaard K, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH. Haplotypes and gene expression implicate the MAPT region for Parkinson disease: The GenePD Study. *Neurol.* 71:28-34, 2008. PMC2654275.

131. Li Y, Grupe A, Rowland C, Holmans P, Segurado R, Abraham R, Jones L, Catanese J, Ross D, Mayo K, Martinex M, Hollingworth P, Brayne C, Rubinsztein DC, Cairns NJ, Racette BA, Perlmutter JS, O'Donovan MC, Morris JC, Lovestone S, Thal LJ, Owen MJ, Goate A, Williams J. Evidence that common variation in NEDD9 is associated with susceptibility to late-onset Alzheimer's and Parkinson's disease. *Hum Mol Genet.* 17:759-767, 2008.

132. Antenor-Dorsey JV, Markham J, Moerlein SM, Videen TO, Perlmutter JS. Validation of the reference tissue model for estimation of dopaminergic D2-like receptor binding with [¹⁸F](N-Methyl)Benperidol in humans. *Nucl Med Biol.* 35:335-341,2008. PMC2390782

133. Tabbal S, Ushe M, Mink JW, Revilla FJ, Wernle A, Hong M, Karimi M, Perlmutter JS: Unilateral STN stimulation has a measurable ipsilateral effect on rigidity and bradykinesia in Parkinson disease. *Exp Neurol* 210:402-408,2008. PMC2413293

134. McNicoll CF, Latourelle JC, MacDonald ME, Lew MF, Suchowersky O, Klein C, Golbe LI, Mark MH, Growdon JH, Wooten GF, Watts RL, Guttman M, Racette BA, Perlmutter JS, Ahmed A, Shill HA, Singer C, Saint-Hilaire MH, Massood T, Huskey KW, DeStefano AL, Gillis T, Chinnery PF, Pramstaller PP, Al-hinti J, Moller AT, Ostergaard K, Sherman SJ, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH. Huntington CAG repeat size does not modify onset age in familial Parkinson's disease: The GenePD Study. *Mov Dis.*23:1596-1601,2008. PMC2655323

135. Powers WJ, Videen TO, Markham J, Black KJ, Golchin N, Perlmutter JS. Cerebral mitochondrial metabolism in early Parkinson disease. *J Cereb Blood Flow Metab.* 28:1754-60,2008. PMC2597083

136. Destefano AL, Latourelle J, Lew MF, Suchowersky O, Klein C, Golbe LI, Mark MH, Growdon JH, Wooten GF, Watts R, Guttman M, Racette BA, Perlmutter JS, Marlor L, Shill HA, Singer C, Goldwurm S, Pezzoli G, Saint-Hilaire MH, Hendricks AE, Gower A, Williamson S, Nagle MW, Wilk JB, Massood T, Huskey KW, Baker KB, Itin I, Litvan I, Nicholson G, Corbett A, Nance M, Drasby E, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Al-Hinti J, Moller AT, Ostergaard K, Sherman SJ, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH: Replication of association study between ELAVL4 and Parkinson disease: the GenePD study. *Human Genetics* June 29, 2008 [Epub ahead of print]. PMID: PMC2716559

137. Campbell MC, Karimi M; Weaver P;Wu J; Perantie D;Golchin N; Tabbal; Perlmutter JS, Hershey T. Neural correlates of STN DBS-induced cognitive variability in Parkinson disease. *Neuropsychologia* 46:3162-9, 2008. PMC2570107

138. Karimi M, Golchin N, Tabbal S, Hershey T, Videen TO, Wu J, Ushe M, Revilla F, Hartlein J, Wernle A, Mink JW, Perlmutter JS: Subthalamic nucleus stimulation-induced regional blood flow responses correlate with improvement of motor signs in Parkinson disease *Brain* 131:2710-19, 2008. PMC2724898

139. Latourelle JC, Sun M, Lew MF, Suchowersky O, Klein C, Golbe LI, Mark MH, Growdon JH, Wooten GF, Watts RL, Guttman M, Racette BA, Perlmutter JS, Ahmed A, Shill HA, Singer C, Goldwurm S, Pezzoli G, Zini M, Saint-Hilaire MH, Hendricks AE, Williamson S, Nagle MW, Wilk JB, Massood T, Huskey KW, Laramie JM, Destefano AL, Baker KB, Itin I, Litvan I, Nicholson G, Corbett A, Nance M, Drasby E, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Al-Hinti J, Moller AT, Ostergaard K, Sherman SJ, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH. The Gly2019Ser mutation in LRRK2 is not fully penetrant in familial Parkinson's disease: the GenePD study. *BMC Med.* 6:32, 2008. PMC2596771

140. Hong M, Perlmutter JS, Earhart GM. A kinematic and electromyographic analysis of turning in people with Parkinson disease. *Neurorehabil Neural Repair.* 23:166-176, 2009. PMC2649739

141. Patra B, Parsian AJ, Racette BA, Zhao JH, Perlmutter JS, Parsian A. LRRK2 gene G1920S mutation and SNPs [haplotypes] in subtypes of Parkinson's disease. *Parkinson Relat Disord.* 15:175-180,2009. PMID: PMC2761091

142. Earhart GM, Tabbal SD, Clark BR, Perlmutter JS. Gait and balance in essential tremor: variable effects of bilateral thalamic stimulation. *Mov Disord.* 24:386-91, 2009. PMID: PMC28812155

143. Kumar N, Lee JJ, Perlmutter JS, Derdeyn CP. Cervical carotid and Circle of Willis arterial anatomy of Macaque monkeys: A comparative anatomy study. *Anatomic Record*. 292:976-84,2009. PMID:PMC2743742
144. Xiao J, Bastian RW, Perlmutter JS, Racette BA, Tabbal SD, Karimi M, Paniello RC, Blitzer A, Batish SD, Wszolek ZK, Uitti RJ, Hedera P, Simon DK, Tarsy D, Truong DD, Frei KP, Pfeiffer RF, Gong S, Zhao Y, LeDoux MS. High-Throughput Mutational Analysis of TOR1A in Primary Dystonia. *BMC Med Gen*, 10:24 2009. PMID:2661056
145. Racette BA, Good LM, Kissel AM, Criswell SR, Perlmutter JS. A population based study of parkinsonism in an Amish community. *Neuroepidemiology* 33:225-230,2009. PMID:2826445
146. Xu J, Chu W, Tu Z, Jones LA, Luedtke RR, Perlmutter JS, Mintun MA, Mach RH. [³H]4-(Dimethylamino)-N-[4-(4-(2-methoxyphenyl)piperazin-1-yl)butyl]benzamide, a selective radioligand for dopamine D(3) receptors. I. In vitro characterization. *Synapse* 63:717-728, 2009.PMID: PMC2783604
147. Paniello RC, Edgar JD, Perlmutter JS: Vocal exercise vs voice rest following botulinum toxin injections: a randomized crossover trial. *Ann Otol Rhino Laryngo*. 18:759-783., 2009. PMID: PMC3065292
148. Simon-Sanchez J, Schulte C, Bras JM, Sharma M, Gibbs JR, Berg D, Paisan-Ruiz C, Lichtner P, Scholz SW, Hernandez DG, Kruger R, Federoff M, Blein C, Goate A, Perlmutter J, Racette BA, Bonin M, Nalls MA, Illig T, Gieger C, Houlden H, Steffens M, Okun MS, Cookson M, Foote KD, Fernandez HH, Traynor GJ, Schreiber S, Arepalli S, Zonozi R, Gwinn K, van der Brug M, Lopez G, Chanock SJ, Schatzkin A, Park Y, Hollenbeck A, Gao J, Huang X, Wood NW, Lorenz D, Deuschl G, Chen H, Riess O, Hardy JA, Singleton AB, Gasser T. Genome-wide association study reveals genetic risk underlying Parkinson's disease. *Nature, Genetics* Dec;41(12):1308-12. 2009 Nov 15. PMID: PMC2787725
149. Burack M, Hartlein J, Flores H, Taylor-Reinwald L, Perlmutter JS, Cairns NE. In vivo amyloid imaging in autopsy confirmed Parkinson disease with dementia. *Neurology*, 74:77-84, 2010. PMID:2809026
150. Xu J, Chu W, Tu Z, Jones LA, Luedtke RR, Perlmutter JS, Mintun MA, Mach RH. [³H]4-(Dimethylamino)-N-[4-(4-(2-methoxyphenyl)piperazin-1-yl)butyl]benzamide, a Selective Radioligand for Dopamine D3 receptors. II. Quantitative Analysis of Dopamine D3 and D2 Receptor Density Ratio in the Caudate-Putamen. *Synapse*, 64:449-459. 2010.PMID: 20175227
151. Xiao J, Bastian RW, Perlmutter JS, Racette BA, Tabbal SD, Karimi M, Paniello RC, Wszolek ZK, Uitti RJ, Van Gerpen JA, Simon DK, Tarsy D, Hedra P, Truong DD, Frei KP, Batish SD, Blitzer A, Pfeiffer RF, Gong S, LeDoux MS: Novel THAP1 sequence variants in primary dystonia. *Neurology*, 74:229-238,2010. PMID: PMC2809032
152. Hershey T, Campbell MC, Videen TO, Lugar HM, Weaver PM, Hartlein J, Karimi M, Tabbal S, Perlmutter JS. Mapping go-no-go performance within the subthalamic nucleus region. *Brain* 133:3625-34 2010. PMID:2995882

153. Foster ER, Campbell MC, Burack MA, Hartlein J, Flores HP, Cairns NJ, Hershey T, Perlmutter JS. Amyloid imaging of Lewy body-associated disorders. *Mov Disord.*, 25(15):2516-23, 2010. PMC2978796.
154. Xiao J, Bastian RW, Perlmutter JS, Racette BA, Tabbal SD, Karimi M, Paniello R, Blitzer A, Batish SD, Wszolek ZK, Uitti RJ, Van Gerpen JA, Hedera P, Simon DK, Tarsy D, Truong DD, Frei KP, Pfeiffer RF, Gong S, LeDoux MS. Novel human pathological mutations. Gene symbol: THAP1. Disease: Dystonia 6. *Human Genet* 127:470, 2010. PMID: 21488297 (PubMed – indexed for MEDLINE)
155. Karimi M, Moerlein SM, Videen TO, Luetke RR, Taylor M, Mach RH, Perlmutter JS. Decreased striatal dopamine receptor binding in primary focal dystonia: a D2 or D3 defect? *Mov Disord*, 26:100-6., 2011. PMCID: PMC3025272
156. Powers WJ, Haas RH, Le T, Videen TO, Markham J, Perlmutter JS. Platelet mitochondrial complex I and I+III do not correlate with cerebral mitochondrial oxidative metabolism. *J Cereb Blood Flow Metab.* 2011 Jan;31(1):e1-5 [Epub ahead of print, Jan]. PMCID: PMC3049467
157. Criswell SR, Perlmutter JS, Videen TO, Moerlein SM, Flores HP, Racette BA. Reduced uptake of [¹⁸F]FDOPA PET in asymptomatic welders with occupational manganese exposure. *Neurology* 76:1296-12301,2011. PMCID: PMC3090062
158. Mach RH, Tu Z, Xu J, Shihong L, Jones LA, Taylor M, Luedtke RR, Derdeyn CP, Perlmutter JS, Mintun MA. Endogenous Dopamine Competes with the Binding of Radiolabeled D₃ Partial Agonists *In Vivo*: A Positron Emission Tomography Study. *Synapse* 65(8):724-32, 2011. PMCID: PMC3107898 (available on 2012/8/1)
159. Xiao J, Zhao Y, Bastian RW, Perlmutter JS, Racette BA, Tabbal SD, Karimi M, Paniello RC, Wszolek ZK, Uitti RJ, Van Gerpen JA, Simon DK, Tarsy D, Herdera P, Truong DD, Frei KP, Blitzer A, Pfeiffer RF, Rudzinska M, Le C, Akano E, LeDoux MS. The c.-237_236GA>TT THAP1 sequence variant does not increase risk for primary dystonia. *Mov Disord* 26:549-553, 2011. PMCID: PMC3171986
160. International Parkinson Disease Genomics Consortium (including JS Perlmutter) Imputation of sequence variants for identification of genetic risks for Parkinson 's disease: a meta-analysis of genome-wide association studies. *Lancet* 377:641-649, 2011. PMID: 21292315 PMCID: PMC3696507
161. Powers WJ; Videen TO; Markham J; Walter V; Perlmutter, JS. Metabolic Control of Resting Hemispheric Cerebral Blood Flow is Oxidative, not Glycolytic. *J Cereb Blood Flow Metab.* 31(5):1223-8, 2011. PMCID: PMC3099643
162. Tu Z, Fan J, Li S, Jones LA, Cui J, Padakanti PK, Xu J, Zeng D, Shoghi KI, Perlmutter JS, Mach RH. Radiosynthesis and in vivo evaluation of [¹¹C]MP-10 as a PET probe for imaging PDE10A in rodent and nonhuman primate brain. *Bioorganic Med Chem* 19:1666-1673, 2011. PMCID: PMC3056285
163. McNeely ME, Tabbal SD, Campbell MC, Karimi M, Hartlein JM, Lugar HM, Hershey T, Revilla FJ, Perlmutter JS, Earhart GM. Effects of dorsal versus ventral subthalamic nucleus

deep brain stimulation on gait in Parkinson disease. *J Neurol Neurosurg Psychiatr* 82(11):1250-5, 2011. PMID: PMC 3250990

164. Willis A, Schootman M, Evanoff BA, Perlmutter JS, Racette BA. Neurologist Care in Parkinson Disease: A Utilization, Outcomes and Survival Study. *Neurology* 77(9):851-7, 2011. PMID: PMC3162639 (available on 2012/8/30)

165. International Parkinson's disease Genomics Consortium (IPDGC), Wellcome Trust Case Control Consortium (including JS Perlmutter): A Two-stage meta-analysis identifies several new loci for Parkinson's disease. *PLoS Genetics* e1002142, Jun 30, 2011 [Epub]. PMID: PMC3128098

166. Nopoulos P, Epping E, Wissink T, Schlaggar BL, Perlmutter JS. Correlation of CAG repeat length between the maternal and paternal allele of the Huntingtin gene: evidence for assortative mating. *Behavioral and Brain Functions* 7:45, 2011. PMID: PMC3219594

167. Campbell MC, Black KJ, Weaver PM, Lugar H, Videen TO, Tabbal SD, Karmi M, Perlmutter JS, Hershey T. Acute mood responses to deep brain stimulation of the subthalamic nucleus in Parkinson disease. *J Neuropsychiatry Clinical Neurosci*, 24(1):28-36,2012.PMID: PMC3354989

168. Criswell SR, Perlmutter JS, Cripin JS, Videen TO, Moerlein SM, Flores HP, Birke BA, Racette BA. Reduced uptake of FDOPA PET in end stage liver disease with elevated manganese levels. *Arch Neurol*. 69:394-397, 2012. PMID: PMC3644556

169. Willis AW, Schootman M, Kung NH, Evanoff B, Perlmutter JS, Racette B. Predictors of survival in Parkinson disease. *Arch Neurol* 69(5):601-7, 2012. PMID: PMC3599783.

170. *Tian L, *Karimi M, Loftin SK, Brown CA, Xia H, Xu J, Mach RH, Perlmutter JS. No differential regulation of dopamine transporter (DAT) and vesicular monoamine transporter type 2 (VMAT2) in a primate model of Parkinson disease. *PLoS ONE* 7(2): e31439, 2012. PMID: PMC3281061 (*co-first authors).

171. Lee JK, Mathews K, Schlaggar B, Perlmutter JS, Paulsen JS, Epping E, Burmeister L, Nopoulos P. Measures of Growth in Children at Risk for Huntington Disease. *Neurology*, 79(7):668-74, 2012. PMID: PMC3414667

172. Xiao J, Uitti RJ, Zhao Y, Vemula SY, Perlmutter JS, Wszolek ZK, Maraganore DM, Auburger G, Luebe B, Lehnhoff K, LeDoux MS. Mutations in the *CiZ1* cause adult-onset primary cervical dystonia. *Ann Neurol*, 71(4):458-469, 2012. PMID: PMC3334472

173. Criswell S, Perlmutter JS, Huang J, Golchin N, Flores H, Hobson A, Aschner M, Erikson K, Checkoway H, Racette B. Basal ganglia intensity indices and diffusion weighted imaging in manganese exposed welders. *Occup Environ Med*, 69(6):437-43, 2012. PMID: 22447645, PMID: PMC3651997

174. Eisenstein SA, Koller JM, Piccirillo M, Kim A, Antenor-Dorsey JV, Videen TO, Snyder AZ, Karimi M, Moerlein SM, Black KJ, Perlmutter JS, Hershey T. Characterization of Extrastriatal D2 In vivo binding of [¹⁸F]N-methylbenperidol using PET. *Synapse*, 66(9):770-80, 2012. PMID: PMC3389593

175. Brown CA, Campbell MC, Karimi M, Tabbal SD, Loftin SK, Tian LL, Moerlein SM, Perlmutter JS. Dopaminergic dysfunction in the nucleus accumbens and ventral tegmental area predicts increased apathetic behavior in MPTP-treated primates. *Exp Neurol*, 236(1):190-7, 2012. PMID: PMC3367030.
176. Kotzbauer PT, Cairns NJ, Campbell MC, Willis AW, Racette BA, Tabbal S, Perlmutter JS. Pathological accumulation of α -synuclein and A β in Parkinson disease patients with dementia. *JAMA Neurology* 69(10):1326-1331, 2012. PMID: PMC3616136.
177. Willis AW, Schootman M, Tran R, Kung N, Evanoff BA, Perlmutter JS, Racette BA. Neurologist Associated Reduction in PD Cost and Disease Related Hospitalizations. *Neurology*. 79(17):1774-80, 2012. PMID: PMC3475618
178. Tabbal SD, Tian L, Karimi M, Brown C, Xia H, Loftin SK, Perlmutter JS. Low nigrostriatal reserve for motor behavior in non-human primates. *Exp Neurol* 237(2):355-362, 2012. PMID: PMC344332
179. Hacker C, Perlmutter JS, Criswell S, Ances B, Snyder AJ. Resting state fMRI studies of Parkinson disease. *Brain* 135(Pt 12):3699-711, 2012. PMID: PMC3525055
180. Racette BA, Criswell S, Lundin JI, Hobson A, Seixas N, Kotzbauer PT, Evanoff BA, Sheppard L, Perlmutter JS, Checkoway H. Increased risk of parkinsonism associated with welding exposure. *Neurotoxicology* 33(5):1356-61, 2012. PMID: PMC3651999.
181. Hill K, Campbell M, McNeely M, Karimi M, Ushe M, Tabbal S, Hershey T, Flores H, Hartlein J, Lugar H, Revila F, Videen T, Earhart G, Perlmutter JS. Cerebral blood flow responses to dorsal and ventral STN DBS correlate with gait and balance response in Parkinson disease. *Exp Neurol*. 241:105-12, 2012. PMID:PMC3570746.
182. Sun J, Xu J, Cairns NJ, Perlmutter JS, Mach RH. Striatal and extrastriatal dopamine D1, D2, and D3 receptors, vesicular monoamine transporter type 2 (VMAT2) and dopamine transporter (DAT) densities in human brain. *PLoS One* 7(11):e49483 2012. PMID: PMC3504049
183. Ushe M, Perlmutter JS. Oromandibular and lingual dystonia associated with spinocerebellar ataxia type 8. *Mov Disord* Dec;27(14):1741-3. 2012. PMID: PMC3539208
184. Harms MB, Neumann D, Benitez B, Cooper B, Carrell D, Perlmutter JS, Racette BA, Loftin S, Goate A, Cruchaga C. Parkinson disease is not associated with C90RF72 repeat expansions. *Neurobiol Aging* 34: May 2013, Pages 1519.e1–1519.e2, 2013. PMID: PMC3566343.
185. Bagchi D, Yu L, Perlmutter JS, Xu J, Mach R, Tu Z, Kotzbauer P, "Binding of the Radioligand SIL234 to alpha-synuclein fibrils in Parkinson disease brain tissue establishes feasibility and screening approaches for developing a Parkinson disease imaging agent." *PLoS One* 8(2), e55031, 2013. PMID: PMC3566091.
186. Xu J, Vangveravong S, Li S, Fan J, Jones L, Cui J, Wang R, Tu Z, Chu W, Perlmutter JS, Mach R. Positron emission tomography imaging of dopamine D2 receptors using a highly

selective radiolabeled D2 receptor partial agonist. *Neuroimage* 71:168-174, 2013. PMID: 23333701 PMCID: PMC3756817

187. Karimi MK, Tian L, Brown CA, Flores HP, Loftin SK, Videen TO, Moerlein SM, Perlmutter JS: Validation of nigrostriatal positron emission tomographic measures: critical limits. *Ann Neurol* 73:390-6, 2013. PMCID: PMC3631302.

188. Campbell MC, Markham J, Flores H, Hartlein J, Goate A, Cairns NJ, Videen TO, Perlmutter JS. Principal component analysis of PiB distribution in Parkinson and Alzheimer diseases. *Neurology* 81(6):520-7, 2013 PMCID: PMC3775684

189. Eisenstein SA, Antenor-Dorsey JV, Gredysa DM, Koller JM, Bihun EC, Ranck SA, Arbelaez AM, Klein S, Perlmutter JS, Moerlein SM, Black KJ, Hershey T. A comparison of D2 Receptor Specific binding in obese and normal weight individuals using PET with (N-[¹¹C]methyl)benperidol. *Synapse* 67(11):748-56, 2013 PMCID: PMC3778147

190. Brown CA, Karimi MK, Tian L, Flores H, Su Y, Tabbal SD, Loftin SK, Moerlein SM, Perlmutter JS. Validation of midbrain PET measures for nigrostriatal neurons in macaques. *Ann Neurol* 74(4):602-10, 2013 [PMCID: PMC3800272

191. Sun J, Xu J, Cairns NJ, Perlmutter JS, Mach RH. Regulation of dopamine D3 receptor in the striatal regions and substantia nigra in diffuse lewy body disease (DLBD). *Neuroscience* S0306-4522(13)00481-8, 2013. PMCID: PMC3796121

192. Li J; Zhang X; Zhang Z; Padakanti P; Jin H; Cui J; Li A; Zeng D; Rath N; Flores H; Perlmutter JS; Parsons S; Tu, Z. Heteroaromatic and aniline derivatives of piperidines as potent ligands for vesicular acetylcholine transporter. *J Med Chem* 56(15):6216-33, 2013 PMID: 23802889, PMCID: PMC3804129

193. Peterson, DS, Pickett, KA, Duncan, RP, Perlmutter, JS, Earhart, GM. Brain activity during complex imagined gait tasks in Parkinson disease. *Clin Neurophysiol*, 125(5):995-1005, 2013. PMCID: PMC3981914

194. Karimi M, Moerlein SM, Videen TO, Flores HP, Perlmutter JS. Normal striatal D1-like receptor binding in primary focal dystonia. *Mov Disord.* 28: 2002-6, 2013 PMCID: PMC4086787

195. Armstrong RA, Kotzbauer PT, Campbell M, Perlmutter JS, Schmidt R, Hurth K, Cairns, N. A quantitative study of alpha-synuclein pathology in fifteen cases of dementia associated with Parkinson disease. *J Neural Transm* 121:171-181, 2014. PMCID: PMC4041534

196. Willis A, Schootman M, Hung N, Wang X-Y, Perlmutter JS, Racette BA. Disparities in deep brain stimulation surgery among insured elders with Parkinson disease. *Neurology*, 82(2):163-71, 2014. PMID: 24336138; PMCID: PMC3897433

197. Black KJ, Snyder AZ, Mink JW, Tolia VN, Revilla FJ, Moerlein SM, Perlmutter JS. Spatial reorganization of putaminal dopamine-D2-like receptors in cranial and hand dystonia. *PLoS One* 9(2), e88121, Feb 10, 2014. PMCID: PMC3919754

198. Vemula SR, Xiao J, Zhao Y, Bastian R, Perlmutter JS, Racette F, Paniello R, Wszolek Z, Uitti R, Van Gerpen J, Hedera P, Truong D, Blitzer A, Rudzinska M, Momcilovic D, Hinnah H, Frei K, Pfeiffer R, LeDoux M. A Rare Sequence Variant in Intron 1 of THAP1 is Associated with Primary Dystonia. *Mol Gen Genomic Med* May;2(3):261-72., 2014. PMID: PMC4049367
199. Peterson DS; Pickett K; Duncan R; Perlmutter J; Earhart G, Gait-Related Brain Activity in People with Parkinson Disease with Freezing of Gait. *PLoS One* Mar 3;9(3):e90634 2014 PMC: 3940915
200. Norris S, Derdeyn C, Perlmutter JS. Hemiparkinsonism secondary to cystic expansion from a coiled cerebral aneurysm. *J Neuroimaging* 25:316-8, 2015. PMID: PMC4418521
201. Semrau JA, Perlmutter JS, Thoroughman KA. Visuomotor adaptation in Parkinson disease: effects of perturbation type and medication state. *J Neurophysiology* 111:2675-87, 2014 PMID: PMC4044437
202. Fan J, Zhang X, Li J, Jin H, Padakanti PK, Jones LA, Flores HP, Su Y, Perlmutter JS, Tu Z. Radiosyntheses and in vivo evaluation of carbon-11 PET tracers for PDE10A in the brain of rodent and nonhuman primate. *Bioorg Med Chem.* May 1;22(9):2648-54, 2014. PMID: PMC4054929
203. Padakanti PK, Zhang X, Li J, Parsons SM, Perlmutter JS, Tu Z. Syntheses and radiosyntheses of two Carbon-11 labeled potent and selective radioligands for imaging vesicular acetylcholine transporter. *Molecular Imaging Biology* 16:765-72 2014 PMID: 24875230
204. The Parkinson Study Group QE3 Investigators, Beal MF, Oakes D, Shoulson I, Henchcliffe C, Galpern WR, Haas R, Juncos JL, Nutt JG, Voss TS, Ravina B, Shults CM, Helles K, Snively V, Lew MF, Griebner B, Watts A, Gao S, Pourcher E, Bond L, Kompoliti K, Agarwal P, Sia C, Jog M, Cole L, Sultana M, Kurlan R, Richard I, Deeley C, Waters CH, Figueroa A, Arkun A, Brodsky M, Ondo WG, Hunter CB, Jimenez-Shahed J, Palao A, Miyasaki JM, So J, Tetrud J, Reys L, Smith K, Singer C, Blenke A, Russell DS, Cotto C, Friedman JH, Lannon M, Zhang L, Drasby E, Kumar R, Subramanian T, Ford DS, Grimes DA, Cote D, Conway J, Siderowf AD, Evatt ML, Sommerfeld B, Lieberman AN, Okun MS, Rodriguez RL, Merritt S, Swartz CL, Martin WR, King P, Stover N, Guthrie S, Watts RL, Ahmed A, Fernandez HH, Winters A, Mari Z, Dawson TM, Dunlop B, Feigin AS, Shannon B, Nirenberg MJ, Ogg M, Ellias SA, Thomas CA, Frei K, Bodis-Wollner I, Glazman S, Mayer T, Hauser RA, Pahwa R, Langhammer A, Ranawaya R, Derwent L, Sethi KD, Farrow B, Prakash R, Litvan I, Robinson A, Sahay A, Gartner M, Hinson VK, Markind S, Pelikan M, Perlmutter JS, Hartlein J, Molho E, Evans S, Adler CH, Duffy A, Lind M, Elmer L, Davis K, Spears J, Wilson S, Leehey MA, Hermanowicz N, Niswonger S, Shill HA, Obradov S, Rajput A, Cowper M, Lessig S, Song D, Fontaine D, Zadikoff C, Williams K, Blindauer KA, Bergholte J, Propsom CS, Stacy MA, Field J, Mihaila D, Chilton M, Uc EY, Sieren J, Simon DK, Kraics L, Silver A, Boyd JT, Hamill RW, Ingvaldstad C, Young J, Thomas K, Kostyk SK, Wojcieszek J, Pfeiffer RF, Panisset M, Beland M, Reich SG, Cines M, Zappala N, Rivest J, Zweig R, Lumina LP, Hilliard CL, Grill S, Kellermann M, Tuite P, Rolandelli S, Kang UJ, Young J, Rao J, Cook MM, Severt L, Boyar K. A Randomized Clinical Trial of High-Dosage Coenzyme Q10 in Early Parkinson Disease: No Evidence of Benefit. *JAMA Neurol.* 2014 2014 Mar 24. doi: 10.1001/jamaneurol.2014.131.[Epub Ahead of Print]

205. Tian L*, Karimi M*, Brown CA, Loftin SK, Perlmutter JS. In vivo and in vitro measures of nigrostriatal neuron response to unilateral MPTP treatment. *Brain Res* 1571:49-60, 2014. (*co-first authors). PMID: PMC4104119
206. Padakanti PK, Zhang X, Jin H, Cui J, Wang R, Li J, Flores HP, Parsons SM, Perlmutter JS, Tu Z. In vitro and in vivo characterization of two carbon-11 labeled PET tracers for vesicular acetylcholine transporter. *Molecular Imaging Biology* 16:765-72, 2014. PMID: PMC4414325
207. Eisenstein SA.; Koller JM; Black KD; Ushe M; Tabbal SD; Karimi M; Campbell MC; Lugar HM; Hershey T; Perlmutter JD; Black KJ. Functional anatomy of subthalamic nucleus stimulation in Parkinson disease. *Ann Neurol* ;7(5):701-8, 2014 PMID: PMC4172323. doi: 10.1002/ana.24204
208. Eisenstein SA, Dewispelaere WB, Campbell MC, Lugar HM, Perlmutter JS, Black KJ, Hershey T. Acute changes in mood induced by subthalamic deep brain stimulation in Parkinson disease are modulated by psychiatric diagnosis. *Brain Stimul* 7(5):701-8, 2014 PMID: PMC4167923
209. Nalls M, Nathan Pankratz, Christina Lill, Chuong B Do, Dena G. Hernandez, Mohamad Saad, Anita DeStefano, Eleanna Kara, Jose Bras, Manu Sharma, Claudia Schulte, Margaux Keller, Sampath Arepalli, Christopher Letson, Connor Edsall, Xinmin Liu, Hannah Pliner, Joseph Lee, Rong Cheng, IPDGC, PSG-PROGENI, 23andMe, GenePD, NGRC, HIHG, CHARGE, NABEC, UKBEC, GPDC, M. Arfan Ikram, John P.A. Loannidis, Georgios M. Hadjigeorgiou, Joshua C. Bis, Maria Martinez, **Joel S. Perlmutter**, Alison Goate, Karen Marder, Brian Fiske, Margaret Sutherland, Georgia Xiromerisiou, Richard H. Myers, Lorraine N Clark, John A. Hardy, Peter Heutink, Honglei Chen, Nicholas W. Wood, Henry Houlden, Haydeh Payami, Alexis Brice, William K Scott, Thomas Gasser, Lars Bertram, Nicholas Eriksson, Tatiana Foroud, Andrew B Singleton Large scale meta-analysis of genome-wide association data in Parkinson's disease reveals 28 distinct risk loci. *Nature, Genetics* 46:989-93, 2014, PMID: PMC4146673
210. Dugan L, Tian L, Quick KL, Hardt JI, Karimi M, Brown C, Loftin S, Flores H, Moerlein S, Polich J, Tabbal SD, Mink JW, Perlmutter JS. C3 provides effective neuroprotection after the onset of degeneration in a primate model of Parkinson disease *Ann Neurol* 76(3):393-402, 2014, PMID: PMC4165715
211. Buddhala C, Campbell MC, Perlmutter JS, Kotzbauer PT. Correlation between decreased CSF levels of alpha-synuclein and A β ₁₋₄₂ in Parkinson disease. *Neurobiol Aging* 36:476-84, 2015, PMID:25212463, PMID: PMC4268043
212. Stewart SB, Koller JM, Campbell MC, Perlmutter JS, Black KJ. Additive global cerebral blood flow normalization in arterial spin labeling perfusion imaging. *PeerJ* 17;3:e834. doi: 10.7717/peerj.834. eCollection 2015. PMID: PMC4369335
213. Jin H, Fan J, Zhang X, Li J, Flores HP, Perlmutter JS, Parson S, Tu Z. Radiosynthesis and *in vivo* evaluation of a novel σ_1 selective PET ligand. *Med Chem Comm*, 5(11):1669-1677 2014. PMID: PMC4288033
214. Comella CL, Fox SH, Bhatia KP, Perlmutter JS, Jinnah HA, Zuowski M, McDonald WM, Marsh L, Rosen AR, Waliczek T, Wright LJ, Galpern WR, Stebbins GT. Development of the

comprehensive cervical dystonia rating scale: methodology. *Mov Disord Clin Pract.* Ju;2(2) 135-141, 2015. PMID: PMC482715

215. Campbell MC, Koller JM, Snyder AZ, Buddhala C, Kotzbauer P, Perlmutter JS. CSF proteins and resting-state functional connectivity in Parkinson disease. *Neurology* 84:2413-21, 2015 15. PMID: PMC4478033

216. Earhart GM, Duncan RP, Huang JL, Perlmutter JS, Pickett KA. Comparing interventions and exploring neural mechanisms of exercise and Parkinson disease. *BMC Neurology* Feb 5; 15(1):9. 2015 [Epub ahead of print] PMID: PMC4326476.

217. Yan L, Hicks M, Winslow K, Comella C, Ludlow C, Jinnah HA, Rosen AR, Wright L, Galpern WR, Perlmutter JS. Secured web-based video repository for multicenter studies. *Parkinsonism Related Disord* 21:366-71, 2015, PMID: PMC4372455

218. Liu H, Jin H, Li J, Zhang X, Kaneshige K, Parsons SM, Perlmutter JS, Tu Z. *In vitro* and *ex vivo* characterization of (-)-TZ659 as a ligand for imaging the vesicular acetylcholine transporter. *Eur J Pharmacol* 752:18-25. 2015 PMID: PMC4369186

219. Eisenstein SA, Bischoff AN, Gredysa DM, Antenor-Dorsey J, Koller JM, Al-Lozi A, Pepino MY, Klien S, Perlmutter JS, Moerlein SM, Black KJ, Hershey T. Emotional eating phenotype is associated with striatal dopamine D2R receptor binding. *Sci Rep* Jun 12;5:11283. doi: 10.1038/srep11283. 2015. PMID: PMC4464302

220. Lucero C, Campbell MC, Flores H, Maiti B, Perlmutter JS, Foster ER. Cognitive reserve and amyloid-beta pathology in Parkinson disease. *Parkinsonism Related Disord* 21:899-904, 2015 PMID: PMC4509801

221. Tu Z, Zhang Z, Jin H, Yue X, Padakanti PK, Yu L, Liu H, Flores HP, Kaneshige K, Parson SM, Perlmutter JS. Synthesis and Biological Characterization of a Promising F-18 Tracer for Vesicular Acetylcholine Transporter. *Bioorg Med Chem.*, 23:4699-709, 2015 PMID: PMC4524497.

222. Tian L, Xia Y, Flores HP, Campbell MC, Moerlein SM, Perlmutter JS. Neuroimaging analysis of the dopamine basis for apathetic behaviors in an MPTP-lesioned primate model. *PLoS One* Jul 2;10(7):e0132064. doi: 10.1371/journal.pone.0132064. eCollection 2015. PMID: PMC4489892

223. , Eisenstein SA, Gredysa DM, Antenor-Dorsey J, Green L, Arbelaez AM, Koller JM, Black KJ, Perlmutter JS, Moerlein SM, Hershey T. Insulin, central dopamine D2 receptors, and monetary reward discounting in obesity. *PLoS ONE* Jul 20;10(7):e0133621. DOI: 10.1371/journal.pone.0133621. eCollection 2015 PMID: PMC4507849

224. Liu H, Jin H, Yue Z, Zhang X, Yang H, Li J, Flores H, Su Y, Perlmutter JS, Tu Z. Preclinical evaluation of a promising C-11 labeled PET tracer for imaging phosphodiesterase 10A in the brain of living subjects. *Neuroimage*, 121:253-262, 2015, PMID:26216275, PMID: PMC4604036

225. Buddhala C, Loftin S, Kuley B, Cairns N, Perlmutter JS, Kotzbauer P. Dopaminergic, serotonergic and noradrenergic deficits in Parkinson disease. *Ann Clin Transl Neurol* Oct;2(10):949-59, 2015 PMID: PMC4603378
226. Yue X, Bogner C, Zhang X, Gaehle G, Moerlein SM, Perlmutter JS, Tu Z. Automated Production of [18F]VAT Suitable for Clinical PET Studies of Vesicular Acetylcholine Transporter. *Appl Rad Isot.* 107:40-46, 2015 PMID: 26408913. PMID: PMC4681605
227. Davis AA, Andruska KG, Benitez BA, Racette BA, Perlmutter JS, Cruchaga C. Variants in GBA, SNCA and MAPT influence Parkinson disease risk, age at onset and progression. *Neurobiol Aging*, 37 209.e1-298,e7, 2016. PMID: PMC4688052
228. Li J, Zhang X, Jin H, Fan J, Flores H, Perlmutter JS, Tu Z. Synthesis of fluorine-containing PDE10A inhibitors and the in vivo evaluation of F-18 labeled PDE10A PET tracers in rodent and nonhuman primate. *J Med Chem* 2015 Oct 2 [Epub ahead of Print]. PMID: 26430878, PMID: PMC4697445
229. Siddiqi SH, Geiger CL, Abraham MK, Devine C, Karimi M, Perlmutter JS, Black KJ. The human experience with intravenous levodopa. *Frontiers in Pharmacology* doi: 10.3389/fphar.2015.00307, 2016. PMID: PMC4688052
230. Karimi M, Tu Z, Yue X, Zhang X, Jin H, Perlmutter JS, Laforest R. Radiation dosimetry of [18F]VAT in nonhuman primates. *EJNMMI Res* 5:73, DOI 10.1186/s13550-015-0149-4, 2015. PMID: PMC4675760
231. Jin H, Zhang X, Yue X, Liu H, Li J, Yang H, Flores H, Parson SM, Perlmutter JS, Tu Z. Kinetic modeling and occupancy studies of novel C-11 PET tracer for VAcHT in nonhuman primates, *Nucl Med Biol* 43:131-9, 2016, PMID: PMC4753027
232. LeDoux MS, Vemula SR, Xiao J, Thompson MM, Perlmutter JS, Wright LJ, Hinnah HA, Rosen AR, Hedera P, Comella CL, Weissbach A, Jankovic J, Barbano RL, Reich SG, Rodriguez RL, Berman BD, Chouinard S, Severt L, Agarwal P, Stover NP, Dystonia Coalition investigators, Dystonia Genetic Consortium. Clinical and Genetic Features of Cervical Dystonia in a large multi-center cohort. *Neurology: Genetics* Apr 11;2(3):e69, 2016 PMID: PMC4830199
233. Carlozzi N, Schilling SG, Lai, J-S, Perlmutter JS, Nance MA, Waljee JF, Miner JA, Barton SK, Goodnight SM, Dayalu P. HDQLIFE: The development of two new computer adaptive tests for use in Huntington disease, Speech Difficulties and Swallowing Difficulties. *Quality Life Res*, 25:2417-27, 2016. PMID: PMC5011441
234. Comella CL, Perlmutter JS, Jinnah HA, Waliczek TA, Rosen AR, Galpern WR, Adler CA, Barbano RL, Factor SA, Goetz CG, Jankovic J, Reich SG, Rodriguez RL, Severt WL, Zuowski M, Fox SH, Stebbins TG. Clinimetric testing of the comprehensive cervical dystonia rating scale. *Mov Disord* 31:563-9, 2016, PMID: PMC4833533
235. Benitez BA, Davis AA, Jin SC, Ibanez L, Ortega-Cubero S, Pastor P, Choi J, Cooper B, Perlmutter JS, Cruchaga C. Resequencing analysis of five Mendelian genes and the top genes from genome wide association studies in Parkinson disease. *Molec Neurodegen* 11:29, 2016. PMID: PMC4837564

236. Carlozzi NE, Schilling SG, Lai JS, Paulsen JS, Hahn EA, Perlmutter JS, Ross CA, Downing NR, Kratz AL, McCormack MK, Nance MA, Quaid KA, Stout JC, Gershon RC, Ready RE, Miner JA, Barton SK, Perlman SL, Rao SM, Frank S, Shoulson I, Marin H, Geschwind MD, Dayalu P, Goodnight SM, Cella D. HDQLIFE: Development and assessment of a health-related quality of life in Huntington Disease. *Quality Life Res*, 25:2441-55, 2016, PMID: 27522213.
237. Eisenstein SA, Bogdan R, Koller JM, Black KJ, Moerlein SM, Perlmutter JS, Barch DM, Hershey T. Prediction of striatal D2 receptor binding by DRD2/ANKK1 TaqIA allele status. *Synapse* 70:418-31, 2016. PMCID: PMC4980198
238. Pepino MY, Eisenstein S, Bischoff A, Klein S, Moerlein S, Perlmutter JS, Black KJ, Hershey T. Sweet dopamine: sucrose preferences related differentially to striatal D2 receptor binding and age in obesity. *Diabetes* 65:2618-23, 2016. PMCID: PMC5001180
239. Carlozzi NE; Downing NR; McCormack MK; Schilling SG; Perlmutter JS; Hahn EA; Lai J-S; Frank S; Quaid KA; Paulsen JS; Cella D; Goodnight SM; Miner JA; Nance MA. A new measure to capture end of life concerns in Huntington disease: Meaning and Purpose and Concern with Death and Dying from HDQLIFE (a patient reported outcomes measurement system). *Quality of Life Research*, 25:2403-15, 2016, PMCID: PMC5011453
240. Norris S, Hicks M, Perlmutter JS, Shinawi M. Adult-onset dystonia with marfanoid features. *Neurology: Clin Pract* Sept 2, 2016.
241. Liu H, Jin H, Yue X, Han J, Hao Y, Flores H, Su Y, Alagille D, Perlmutter JS, Tamagnan G. Comparison of [11C]TZ1964B and [11C]MN1659 for PET imaging brain PDE10A in non-human primates. *Pharmacol Res Perspect* Aug 26; 4(5):e00253, 2016 PMCID:PMC5045939
242. Norris SA, Jinnah HA, Espay AJ, Klein C, Bruggemann N, Barbano RL, Malaty I, Rodriguez RL, Vidailhet M, Roze E, Reich SG, Berman BD, LeDoux MS, Richardson SP, Agarwal P, Mari Z, Ondo W, Shih LC, Fox S, Berardelli A, Teta CM, Fung CSC, Truong D, Nahab F, Xie T, Hallett M, Rosen AR, Wright LJ, Perlmutter JS. Clinical and demographic characteristics related to onset site and spread of cervical dystonia. *Mov Disord* Oct 18, 2016. PMCID: PMC5154862
243. Peterson D, Littlewort G, Bartlett M, Macerollo A, Perlmutter JS, Jinnah HA, Hallett M, Sejnowski T. Objective, computerized video-based rating of blepharospasm severity, *Neurology* 87:2146-2153, 2016. PMCID: PMC5109937
244. McGarry A, McDermott M, Kieburz K, de Blicke EA, Beal F, Marder K, Ross C, Shoulson I, Gilbert P, Mallonee WM, Guttman M, Wojcieszek J, Kumar R, LeDoux MS, Jenkins M, Rosas HD, Nance M, Biglan K, Como P, Dubinsky RM, Shannon KM, O'Suilleabhain P, Chou K, Walker F, Martin W, Wheelock VL, McCusker E, Jankovic J, Singer C, Sanchez-Ramos J, Scott B, Suchowersky O, Factor SA, Higgins DS Jr, Molho E, Revilla F, Caviness JN, Friedman JH, **Perlmutter JS**, Feigin A, Anderson K, Rodriguez R, McFarland NR, Margolis RL, Farbman ES, Raymond LA, Suski V, Kostyk S, Colcher A, Seeberger L, Epping E, Esmail S, Diaz N, Fung WL, Diamond A, Frank S, Hanna P, Hermanowicz N, Dure LS, Cudkowicz M; Huntington Study Group 2CARE Investigators and Coordinators.. A randomized, double-blind, placebo-controlled trial of coenzyme Q10 in Huntington disease. *Neurology*. 88:152-9, 2017 PMCID: PMC5224719

245. Eisenstein SA, Bogdan R, Moerlein SM, Black KJ, Perlmutter JS, Hershey T, Barch DM. Preliminary evidence that negative symptoms severity relates to genetic dopamine signaling capacity and D2 receptor binding in healthy controls and in schizophrenia. *J Psychiatr Res.* 86:9-17, 2017. PMID: PMC5272837
246. Laforest R, Karimi M, Moerlein SM, Xu, J, Flores HP, Bogner C, Li A, Mach RH, Perlmutter JS, Tu Z. Absorbed radiation dosimetry of the D3-specific PET radioligand [¹⁸F]FluorTriopride estimated using rodent and nonhuman primate. *Am J Nucl Med Molec Imaging* 6(6):301-309, 2016 PMID: PMC5218859
247. Lee JK, Ding Y, Conrad A, Cattaneo E, Epping E, Mathews K, Gonazalez-Elegre P, Cahill L, Magnotta V, Schlaggar BL, Perlmutter JS, Kim R EY, Dawson JD, Nopoulos P. Sex specific effects of CAG repeat in the wild-type Huntington's gene on normal neurodevelopment. *J Neurosci Res* 95:398-408, 2017.
248. Yue X, Jin H, Luo Z, Liu H, Zhang X, Kaneshige K, Tian L, Flores HP, Perlmutter JS, Parsons SM, Tu Z. Chiral resolution of serial potent and selective σ 1 ligands and bioactivity evaluation of an anenatiomeric fluorine-18 PET radiotracer *in vivo*. *Bioorg Medicinal Chem.* Jan 16 PMID: 28129990, 2017. [Epub ahead of print].
249. Han UJ, Liu H, Liu C, Jin H, Perlmutter JS, Egan TM, Tu Z. In vitro and in vivo characterization of P2X7R-specific radioligand, [¹¹C]GSK1482160 for neuroinflammatory response. *Nucl Med Commun* Mar 23, 2017 [Epub ahead of press].
250. Martin WRW, Hartlein J, Racette BA, Cairns N, Perlmutter JS. Pathology correlates of supranuclear gaze palsy with parkinsonism. *Parkinsonism Rel Disord*, 38:68-71, 2017. PMID: PMC5397329.
251. Ibanez L, Dube U, Budde J, Black K, Medvedeva A, Davis AA, Perlmutter JS, Benitez BA, Cruchaga C. TMEM230 in Parkinson disease. *Neurobiol Aging* Mar 16, 2017 [Epub ahead of print]. PMID: PMC5526081
252. Berman BD, Junker J, Shelton E, Sillau SH, Jinnah HA, Perlmutter JS, Espay AJ, Jankovic J, Vidaihet M, Bonnet C, Ondo W, Malaty IA, Rodriguez R, McDonald WM, Marsh L, Zurowski M, Baumer T, Bruggemann N. Psychiatric associations of adult-onset focal dystonia phenotypes, *J Neurol Neurosurg Psychiatry* 88(7):595-602, 2017 PMID: 28438790, PMC5659143.
253. Downing NR, Goodnight S, Chae S, Perlmutter JS, McCormack M, Hahn E, Barton SK, Carlozzi N. Factors Associated with end of life planning in Huntington Disease. *Am J Hosp Palliat Care.* 35(3):440-447, 2018, PMID: 28655280, PMC6074046
254. Yue Z, Jin H, Liu H, Luo Z, Zhang Z, Kaneshige K, Flores HP, Perlmutter JS, Parson SM, Tu Z. Synthesis, resolution, and in vitro evaluation of three vesicular acetylcholine transporter ligands and evaluation of the lead fluorine-18 radioligand in a nonhuman primate. *Organic Biomolec Chem* 15(24):5197-5209. Jun 7. doi: 10.1039/c7ob00854f, PMID: 28590490, 2017. PMID: PMC5561660.

255. Criswell S, Nielsen SS, Perlmutter JS, Moerlein SM, Flores HP, Huang J, Sheppard L, Seixas N, Checkoway H, Racette BA. [18F]FDOPA positron emission tomography in manganese-exposed workers. *Neurotoxicology* 64:43-49, 2017. PMC5758438.
256. Norris SA, Pogarcic A, Hick M, Perlmutter JS, Shinawi M. Adult-onset dystonia with Marfanoid features. *Neurol Clin Pract*. Aug. 7(4):e31-e34. 2018, PMC5566795
257. Jin H, Han J, Resing D, Liu H, Yue X, Miller RL, Schoch KM, Miller TM, Perlmutter JS, Egan TM, Tu Z. Synthesis and in vitro characterization of a P2X7 radioligand [123I]TZ6019 and its response to neuroinflammation in mouse model of Alzheimer Disease. *Eur J Pharm*. 820:8-17, 2018, PMC5767129
258. Morris AE, Norris SA, Perlmutter JS, Mink JW. Quantitative, clinically-relevant acoustic measurements of focal embouchure dystonia. *Mov Disord*. 33(3):449-458, 2018, PMID: 29460980, PMC5839997
259. Milchenko M, Norris S, Poston K, Campbell M, Ushe M, Perlmutter JS, Snyder. 7T MRI STN Atlas for Use with 3T MRI. *J Med Imaging Jan*; 5(1):015002. doi: 10.1117/1.JMI.5.1.015002. Epub 2018 Jan 8. 2018. PMCID: PMC5757662
260. Ibanez L, Dube U, Saef B, Budde J, Black K, Medvedeva A, Del-Aguila J, Davis AA, Parkinson's Progression markers Initiative (PPMI), Perlmutter JS, Harari O, Benitez BA, Cruchaga C. Parkinson disease polygenic risk score is associated with Parkinson disease status and age at onset but not with alpha-synuclein CSF levels. *BMC Neurology* Nov 15;17(1):198. doi: 10.1186/s12883-017-0978-z. 2017 PMCID: PMC5688622
261. Carlozzi NE, Hahn EA, Frank SA, Perlmutter JS, Downing ND, McCormack MK, Barton S, Nance MA, Schilling SG, HDQLIFE Site Investigators and Coordinators. A new measure for end of life planning, preparation, and preferences in Huntington disease: HDQLIFE end of life planning. *J Neurol*. 265:98-107, 2018 doi: 10.1007/s00415-017-8677-7. PMCID: PMC5762414
262. Fritz M, Boileau N, Stout JC, Ready B, Perlmutter JS, Paulsen J, Quaid K, Barton S, McCormack MK, Perlman S, Carlozzi N. Relationships among apathy, health-related quality of life and function in Huntington's disease. *J Neuropsychiatr Clin Neurosci Summer*; 30(3):194-201. doi: 10.1176/appi.neuropsych.17080173. 2018, PMC6081241
263. Hardt JI, Perlmutter JS, Smith CJ, Quick KL, Wei L, Chakraborty SK, Dugan L. Pharmacokinetics and toxicology of the neuroprotective carboxyfullerene C3 in mice and primates. *Eur J Drug Metab Pharmacokinetics*, 43(5):543-554. 2018, NIHMSID: 978534, PMC6128740
264. Jin H, Yue X, Liu H, Han J, Flores H, Su Y, Parsons SM, Perlmutter JS, Tu Z. Kinetic modeling of [18F]VAT, a radioligand for PET imaging vesicular acetylcholine transporter (VACHT) in nonhuman primate brain. *J Neurochem* 144(6):791-804, 2018, PMID: 29315563, PMC5897141
265. Duncan RP, Van Dillen LR, Garbutt J, Earhart GM, Perlmutter JS. Physical therapy and deep brain stimulation in Parkinson disease: protocol for a pilot randomized controlled trial. *Pilot Feasibility Stud* Feb 21;4:54. doi: 10.1186/s40814-018-0243-2. eCollection 2018. PMC5822622

266. Gourisankar A, Eisenstein SA, Trapp NT, Koller JM, Campbell MC, Ushe M, Perlmutter JS, Hershey T, Black KJ. Mapping movement, mood, motivation, and mentation in the subthalamic nucleus. *Royal Soc Open Sci* 2018; 5(7):171177. PMID: PMC6083651, DOI: 10.1098/rsos.171177
267. Liu H, Jin H, Luo Z, Yue Z, Zhang X, Flores H, Su Y, Perlmutter JS, Tu Z. In vivo characterization of two ¹⁸F-labeled PDE10A PET radioligands in nonhuman primate brain. *ACS Chem Neurosci*. 9:1066-1073, 2018 PMID: 29400443, PMID: PMC5955820
268. Mahajan A, Jankovic J, Marsh L, Patel A, Jinnah HA, Comella C, Barbano R, Perlmutter JS, Patel N. Cervical dystonia and substance abuse. *J Neurol* Apr;265(4):970-975. 2018. PMID: 29569175
269. Ibanez L, Dube U, Davis AG, Fernandez MV, Budde J, Cooper B, Diez-Fairen M, Ortega-Cubero S, Pastor P, Perlmutter JS, Cruchaga C, Benitez BA. Pleiotropic effects of variants in dementia genes in Parkinson disease. *Frontiers Neurosci* 2018 Apr 10;12:230. doi: 10.3389/fnins.2018.00230. eCollection 2018. PMID: PMC5902712
270. Carlozzi NE, Boileau N, Perlmutter JS, Chou KL, Stout JC, Paulsen JS, McCormack MK, Cella D, Nance MA, Lai L-S, & Dayalu P. Agreement between clinician-rated versus patient-reported outcomes in Huntington disease. *J Neurol*. 2018 Apr 23. doi: 10.1007/s00415-018-8852-5. [Epub ahead of print] PMID: 29687215, PMID: PMC5992091
271. Gratton C, Koller JM, Shannon W, Greene DJ, Maiti B, Snyder AZ, Petersen SE, Perlmutter JS, Campbell MC. Emergent functional network effects in Parkinson disease. *Cereb Cortex* 29:2509-2523, 2019 doi: 10.1093/cercor/bhy121. PMID: 29878081, PMID: PMC6519699
272. Ludlow CL, Domangue R, Sharma D, Jinnah HA, Perlmutter JS, Berke G, Sapienza C, Smith ME, Blumin JH, Kalata CE, Blindauer K, Johns M, Hapner E, Harmon A, Paniello R, Adler CH, Crujido L, Lott DG. Attributes for identifying patients with spasmodic dysphonia and other voice disorders. *JAMA Otolaryngology*. 144:657-665, 2018. PMID: 29931028, PMID: PMC6143004
273. Criswell S, Warden M, Searles Nielsen S, Perlmutter JS, Moerlein SM, Sheppard L, Lenox-Krug J, Seixas N, Checkoway H, Racette BA. Selective D2 receptor PET in manganese-exposed workers. *Neurology* 91:e1022-e1030, 2018. PMID: 30097475, PMID: PMC6140373
274. Jinnah HA, Comella C, Perlmutter JS, Lungu C, Hallett M. Longitudinal studies of botulinum toxin in cervical dystonia: why do so many patients discontinue therapy? *Toxicon* Jun 1;147:89-95. 2018 PMID: 28888929.
275. Wesson, M., Boileau, N.R., Perlmutter, J.S., Paulsen, J.S., Barton, S.K., McCormack, M.K., & Carlozzi, N.E. Suicidal ideation assessment in individuals with premanifest and manifest Huntington disease. *J Huntington Dis* 7(3):239-249. doi: 10.3233/JHD-180299, 2018. PMID: PMC6108173

276. Shimony JS, Rutlin J, Karimi M, Tian L, Snyder AZ, Loftin S, Norris SA, Perlmutter JS. Validation of DTI measures of nigrostriatal neurons in Macaques. *PLoSOne* 2018 Sep 5;13(9):e0202201. doi: 10.1371/journal.pone.0202201. eCollection 2018, PMID: 30183721, PMC6124722.
277. Luo Z, Liu H, Jin H, Gu J, Yu Y, Kaneshige K, Perlmutter JS, Parsons SM, Tu Z. Exploration of new sulfur-containing analogues to identify a PET radiotracer for imaging vesicular acetylcholine transporter in the brain. *Chem Med Chem*, 13:1978-1987, 2018. doi: 10.1002/cmdc.201800411. PMID: PMC6422167
278. Junker J, Brandt VC, Berman B, Vidalet M, Roze E, Weissbach A, Comella CL, Malaty IA, Jankovic J, LeDoux MS, Berardelli A, Barbano RL, Reich SG, Perlmutter JS, Jinnah HA, Bruggemann N. Predictors of alcohol responsiveness in dystonia. *Neurology* 91:e2020-e2026, 2018, PMID: PMC6260199
279. Milchenko M, Snyder AZ, Campbell MC, Dowling JL, Rich KM, Perlmutter JS, Norris SA. ESM-CT: a precise method for localization of DBS electrodes in CT images *J Neurosci Methods*, 308:366-376, 2018, PMID: PMC6205293
280. Yue X, Luo Z, Lui H, Jin H, Kaneshiga K, Parsons SM, Perlmutter JS, Tu Z. Radiosynthesis and evaluation of a fluorine-18 labeled radioligand targeting vesicular acetylcholine transporter. *Bioorgan Med Chem Letters* 28: 3425-2430, 2018, doi: 10.1016/j.bmcl.2018.09.030. PMID: 30274694, PMC6221475
281. Luo Z, Han J, Liu H, Rosenberg AJ, Chen DL, Gropler RJ, Perlmutter JS, Tu Z. Syntheses of in vitro biological evaluation of S1PR1 ligands and PET studies of four F-18 labeled radiotracers in the brain of nonhuman primates. *Org Biomol Chem*. 16:9171-9184, 2018. PMID, PMC6561338
282. Younce, JR, Campbell MC, Perlmutter JS, Norris SA. Thalamic and ventricular volumes predict response to deep brain stimulation for Parkinson disease. *Parkinsonism Rel Disord*. 61:64-69, 2019 PMID: PMC6488428.
283. Rawson KS, McNeely ME, Duncan RP, Pickett KA, Perlmutter JS, Earhart GM. Exercise and Parkinson disease: Comparing tango, treadmill and stretching. *J Neurol Phys Ther*, 43(1):26-32. 2019 doi: 10.1097/NPT.0000000000000245. PMID: 3053138, PMID: PMC6294320.
284. Duncan RP, Van Dillen LR, Garbutt JM, Earhart GM, Perlmutter JS. Low back pain related disability in Parkinson disease: impact on functional mobility, physical activity, and quality of life. *Phys Ther* Jul 25, 2019, PMID: 31343700. [Epub ahead of Print]
285. Yang, D, Deych E, Shands B, Campbell C, Perlmutter JS, Petersen S, Schlaggar B, Shannon W. Detecting associations between intact connectomes and clinical covariates using recursive partitioning object oriented data analysis. *Stats Med* 38(29):5486-5496. 2019.
286. Merola A, Dwivedi AK, Shaikh AG, Tareen TK, Da Prat GA, Kauffman MA, Hampf J, Mahajan A, Marsili L, Jankovic J, Comella CL, Berman BD, Perlmutter JS, Jinnah HA, Espay AJ.

Head tremor at disease onset: An ataxic phenotype of cervical dystonia. *J Neurol*.10.1007/s00415-019-09341-w. PMID: 31028543, 2019, PMCID: PMC6642013

287. Yu Y, Liang Q, Liu H, Luo Z, Hu H, Perlmutter JS, Tu Z. Development of a carbon-11 PET radiotracer for imaging TRPC5 in the Brain. *Org Biomol Chem*. 17(22):5586-5594, 2019, doi: 10.1039/c9ob00893d. PMID: 31115430, PMCID: PMC6582641

288. Carlozzi N, Boileau N, Paulsen J, Perlmutter JS, Lai J-S, Hahn EA, McCormack MK, Nance MA, Cella D, Barton SK, Downing NR. End of life measures in Huntington Disease: HDQLIFE meaning and purpose, concern with death and dying, and end of life planning. *J Neurol* 2019 Jun 12. doi: 10.1007/s00415-019-09417-7. [Epub ahead of print] PMID: 31190171

289. Luo Z, Gu J, Dennett RC, Gaehle GG, Perlmutter JS, Chen DL, Benzinger TLS, Tu Z. Automated production for a sphingosine-1 phosphate receptor 1 (S1PR1) PET radiopharmaceutical [¹¹C]S1P1 for human use. *Appl Rad Isotopes* 152:30-36. 2019 [Epub ahead of Print]. PMID: 31280104, PMCID: PMC6708718

290. Maiti B, Koller J, Snyder AZ, Tanenbaum AB, Norris SA, Campbell MC, Perlmutter JS. Cognitive correlates of cerebellar resting-state functional connectivity in Parkinson disease. *Neurology*, 94(4):e384-e396. PMID: 31848257 [Epub ahead of Print].

291. Han F, Perrin RJ, Wang Q, Wang Y, Perlmutter JS, Morris JC, Benzinger TLS, Xu J. Neuroinflammation and myelin status in Alzheimer's disease, Parkinson's disease and normal aging brains: a small sample study. *Parkinsons Dis*. 2019 Jul 4;2019:7975407. doi: 10.1155/2019/7975407. eCollection 2019. PMID: 31354934, PMCID: PMC6637678

292. Campbell MC, Jackson J, Koller J, Snyder A, Kotzbauer P, Perlmutter JS. Proteinopathy and longitudinal changes in functional connectivity networks in Parkinson disease. *Neurology* Dec 18, 2019 [Epub ahead of Print] PMID: 31852813

293. Carlozzi NE, Schiling SG, Boileau NR, Chou KL, Perlmutter JS, Frank S, McCormack MK, Stout JC, Paulsen JS, Lai J-S, Davalu P. How different aspects of motor dysfunction influence day-to-day function in Huntington disease. *Mov Disord* 2019 [Epub ahead of print] PMID: 31609508..

294. Li H, Yang P, Knight W, Guo Y, Perlmutter JS, Tammie BLS, Morris JC, Xu. The interactions of dopamine and oxidative damage in the striatum of neurodegenerative disease patients. *J Neurochem*. 2019 Oct 15. doi: 10.1111/jnc.14898. [Epub ahead of print]. PMID: 31613384.

295. Mitchell KT, Younce JR, Norris SA, Tabbal SD, Dowling JL, Rich KM, Perlmutter JS, Ushe M. Bilateral subthalamic nucleus deep brain stimulation in elderly patients with Parkinson disease. *Operative Neurosurg* 2019 (in press).

296. Yang P, Perlmutter JS, Benzinger TLS, Morris J, Xu J. Dopamine D3 receptor: a neglected participant in Parkinson Disease pathogenesis and treatment? *Ageing Res Revi*. Nov 22:100994. doi: 10.1016/j.arr.2019.100994. 31769089, [Epub ahead of print] 2019.

297. Liu H, Luo Z, Gu J, Su Y, Flores H, Parsons SM, Perlmutter JS, Tu Z. The impact of dopamine D2-like agonist/antagonist on [18F]VAT PET measurement of VAcHt in the brain of nonhuman primates. *Eur J Pharm Sci* 2019 Nov 15:105152. doi: 10.1016/j.ejps.2019.105152. PMID: 31848221 [Epub ahead of print].
298. White RL, Campbell MC, Yang D, Shannon W, Snyder AZ, Perlmutter JS. Little change in functional brain networks following acute levodopa in drug-naïve Parkinson disease. *Mov Disord* Dec 19, 2019 PMID: 31854465 [Epub ahead of Print]
299. Berman BD, Groth CL, Sillau SH, Agarwal P, Vidailhet M, Espay AJ, Klein C, Baumer T, Junker J, Bruggermann N, Reich S, Barbano R, Jinnah HA, Perlmutter JS. Risk of spread in isolated adult-onset focal dystonia” *J Neurol Neurosurg Psychiatr* Dec 17, 2019 PMID: 31848221, [Epub ahead of Print]
300. Davis A, Inman CE, Wargel ZM, Dube U, Freeberg BM, Galluppi A, Haines JN, Dhavale DD, Miller R, Choudhury FA, Sullivan PM, Cruchaga C, Perlmutter JS, Ulrich JD, Benitez BA, Kotzbauer PT, Holtzman DM. APOE genotype regulates pathology and disease progression synucleinopathy. *Sci Transl Med* Feb 5;12(529). pii: eaay3069. doi:10.1126/scitranslmed.aay3069. PMID:32024799
301. Chen Q, Peterson D, Vu J, Cisneros E, Benadof C, Zhang Z, Barbano R, Goetz C, Jankovic J, Jinnah H, Perlmutter JS, Appelbaum M, Stebbins G, Comella C. Postural directionality and head tremor in cervical dystonia Tremor Other Hyperkinetic Movements. Jan 20;10. doi: 10.7916/tohm.v0.745. eCollection PMC6988138 2020.
302. Carlozzi NE, Boileau NR, Paulsen JS, Downing NR, Ready R, Perlmutter JS, Cella D, Chou KL, McCormack MK, Barton S, Lai J-S. Psychometric properties and responsiveness of Neuro-QoL cognitive function in person with Huntington disease (HD). *Qual Life Res* Dec 18, 2019 PMID: 31852813, [Epub ahead of Print]
303. Mitchell K, Norris S, Tabbal S, Dowling J, Rich K, Perlmutter JS, Ushe M. Bilateral subthalamic deep brain stimulation in elderly patients with Parkinson disease. *Operative Neurosurgery* 2020 (in press).
304. Criswell SC, Searles Nielsen S, Warden MN, Perlmutter JS, Moerlein SM, Sheppard L, Lenox-Krug J, Checkoway H, Racette BA. [11C]dihydrotrabenazine Positron Emission Tomography in Manganese Exposed Workers. *J Occup Environ Med* (provisional acceptance), 2020.

CHAPTERS/REVIEWS/EDITORIALS/COMMENTARIES:

1. Perlmutter JS, Raichle ME: Can PET measurements of caudate metabolism identify Huntington’s Disease? *NEJM* 317:383, 1987.
2. Perlmutter JS, Raichle ME: Regional blood flow in dystonia: An exploratory study. In **Advances in Neurology**, 50:255-264, **Dystonia 2**. ed. S Fahn et al., Raven Press. NY 1988.
3. Strother S, Perlmutter JS: Headholders for functional brain imaging. In *Assessment of Goals*

and Obstacles in Data Acquisition and Analysis from Emission Tomography: Report of a Series of International Workshops. ed Mazziotta JC, Koslow SH. *J Cereb Blood Flow Metabol* 7:S16-S18, 1987.

4. Perlmutter JS: Dopamine receptor binding with positron emission tomography. In **Functional Imaging in Movement Disorders**. WRW Martin (ed), CRC Press, Boca Raton, pp. 83-99, 1990.

5. Perlmutter JS, Leenders KL: Positron emission tomographic studies of dystonia. In **Disorders of Movement** pp. 275-285, NP Quinn and P Jenner (eds), Academic Press. London 1989.

6. Perlmutter JS: Neuroimaging in Parkinson's Disease. In **Therapeutic Approaches to Parkinson's Disease**. pp. 95-120, W.C. Koller, G Paulson (eds), Marcel Dekker New York 1990.

7. Bushmann M, Dobmeyer SM, Leeker L, Perlmutter JS: Swallowing abnormalities and their response to treatment in Parkinson's disease. **Parkinson/Alzheimer Digest** 4:6-8, 1990.

8. Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology with Expert Panel Members (including Joel S. Perlmutter): Assessment: The clinical usefulness of botulinum toxin-A in treating neurological disorders. *Neurology*. 40:1332-6, 1990.

9. Perlmutter JS: PET measured brain blood flow responses in awake, trained nonhuman primates. in **Proceedings of the 3rd International Conference: Peace through Mind/Brain Science**. Hamamastu, Japan pp. 45-52, 1990.

10. Powers WJ, Berg L, Perlmutter JS, Raichle ME: Technology Assessment Revisited: Does Positron Emission Tomography Have a Proven Clinical Efficacy? *Neurology* 41:1339-40, 1991.

11. Perlmutter JS: Current animal studies with positron emission tomography. in **Proceedings of the 4th International Conference: Peace through Mind/Brain Science**. Hamamatsu, Japan 1994.

12. Perlmutter JS: MRI and PET Investigations of Parkinson's Disease. pp. 91-107, W.C. Koller, G Paulson (eds), Marcel Dekker New York 1995.

13. Perlmutter JS: New techniques in neuroimaging: when are pretty pictures clinically useful? *Current Opinion in Neurology & Neurosurgery*. 6(6): 889-890, (Neuroimaging section editor-J.S. Perlmutter) 1993.

14. Perlmutter JS: PET Investigations of Dopamine Function: Have We Learned Anything Yet? American Academy of Neurology Course Syllabus, *Scientific Basis of Neurology* (ed., S. Harik), 1994.

15. Perlmutter JS: PET Evaluation of Dopaminergic Pathways. *Clin Neuropharmacol* 18:S188-S194, 1995.

16. Perlmutter JS, Stambuk MK, Markham J, Black KJ, McGee-Minnich L, Jankovic J, Moerlein SM: Decreased [¹⁸F]spiperone binding in putamen in dystonia. *Adv Neurol* 78:161-168, 1998.

17. Perlmutter JS, Moerlein SM: PET measurements of dopaminergic pathways in the brain.

Quarterly Journal of Nuclear Medicine 43:140-154, 1999.

18. Hershey T, Perlmutter JS, Moerlein SM. PET Investigations of Parkinson Disease. in "Molecular Mechanisms of Neurodegenerative Diseases.", ed M-F Chesselet, Humana Press, New Jersey, USA, pp. 177-193, 2000.

19. Perlmutter JS, Landau WM: Deep-Brain Stimulation: The Sad Story. Lancet Neurology Network 4:1-6, 2000.

20. Perlmutter JS (invited book review): Review of "Movement Disorders in Clinical Practice (edited by Guy Sawle), Neurology 55:1943, 2000.

21. Parsian A, Perlmutter JS : Point mutations in the α -synuclein gene. in Parkinson's Disease: Methods and Protocols. ed by MM Mouradian (Ed.), pp. 1-18; Humana Press, 2001.

22. Perlmutter JS, Mink JW: The pathophysiology of dystonia: clues from neuroimaging. Medlink Neurology 2001.

23. Perlmutter JS, Mink JW: The pathophysiology of dystonia: clues from neuroimaging. Medlink (update) Neurology 2002.

24. Evinger C, Perlmutter JS: Blind Men and Blinking Elephants. (invited editorial) Neurology, 60:1732-3, 2003.

25. Perlmutter JS, Martin WRW: MRI and PET Investigations of Parkinson disease. in Therapy of Parkinson Disease (3rd edition) ed: Pahwa R, Lyons K, Koller W. Marcel Dekker, Inc., New York, 53-70, 2004.

26. Perlmutter JS, Mink JW: Dysfunction of dopaminergic pathways in dystonia. in "Dystonia 4" ed S Fahn. Adv Neurol 94:163-70, 2004.

27. Perlmutter JS, Mink JW: Functional Neuroimaging of Dystonia. Medlink Neurology, 2003.

28. Black KJ, Koller JM, Snyder AZ, Perlmutter JS: Atlas template images for nonhuman primate neuroimaging: baboon and macaque. In Conn PM (ed.), Imaging Methods Enzymol. Elsevier; 385:91-102, 2004.

29. Perlmutter JS, Tabbal SA: MPTP-induced nigrostriatal injury in nonhuman primates. in "Animal Models of Movement Disorders" ed., M LeDoux, Elsevier, San Diego, 139-148,2005.

30. Antenor J, Perlmutter JS. Neuroimaging of Essential Tremor. *In* Pahwa R, Lyons K (eds.) Handbook of Essential Tremor and other Tremor Disorders. New York, NY: Marcel Dekker, 2005.

31. Black KJ, Hershey T, Moerlein SM, Perlmutter JS: Neuroimaging. In: The Baboon in Biomedical Research. Edited by VandeBerg JL, Williams-Blangero S, Tardif SD. Springer, New York. 2007

32. Perlmutter JS, Mink JW. Deep Brain Stimulation. *Annu Rev Neurosci* 29:229-57, 2006. PMID: PMC4518728
33. Suchowersky O, Reich S, Perlmutter JS, Zesiewicz T, Gronseth G, Weiner WJ. Practice Parameter: Diagnosis and prognosis of new onset Parkinson disease. *Neurology*, 66:968-975, 2006.
34. Suchowersky O, Gronseth G, Perlmutter JS, Reich S, Zesiewicz T, Weiner WJ. Practice Parameter: Neuroprotective strategies and alternative therapies for PD: an evidence-based review. *Neurology*, 66:976-982, 2006.
35. Perlmutter JS, Thach WT. Writer's Cramp: Questions of Causation. (invited editorial) *Neurology*, 69:331-332, 2007.
36. Karimi M, Perlmutter JS. Deep Brain Stimulation: Report of an Urgent Case in Movement Disorders: 100 Instructive Cases (ed. S.G. Reich) Informa Healthcare, 2008.
37. Perlmutter JS. Assessment of Parkinson Disease Manifestations. *Current Protocols*, ed. C Gerfen. ch.10:Unit 10.1, 2009. PMC2897716
38. Ludlow CL, Adler CH, Berke GS, Bielałowicz SA, Blitzer A, Bressman SB, Hallett M, Jinnah HA, Juergens U, Perlmutter JS, Sapienza C, Singleton A, Tanner CM, Woodson GE. Research priorities in spasmodic dysphonia. *Otolaryngol Head Neck Surg*. 139:495-505, 2008. PMC2643054.
39. Torres-Russotto D, Perlmutter JS: Task specific dystonias: A review. *Annals NY Acad Sci*. 1142:179-199, 2008. PMC2652841
40. Torres-Russotto D, Perlmutter JS: Focal dystonias of the hand and upper extremity. *J Hand Surgery*, 33:1657-8, 2008. PMC2662617.
41. Lo B, Field MJ (editors); Committee on Conflict of Interest in Medical Research, Education and Practice; Institute of Medicine (including JS Perlmutter): Conflict of Interest in Medical Research, Education, and Practice. National Academies of Sciences Press, 2009.
42. Perlmutter JS: Expert testimony at the Food and Drug Administration: Who wants the truth? *Narrative Inquiry in Bioethics*. Editor: JM DuBois. Johns Hopkins University Press. 1.2:78-82, 2011.
43. Ushe M, Perlmutter JS: "Addicted to levodopa;" "I can't eat." in "Movement Disorders: 101 Challenging Cases" Editor: HH Fernandez and M Merello. demosMEDICAL, NYC, NY. 2011
44. Karimi M, Perlmutter JS. "MRI Measures Predict Progressive Supranuclear Palsy: Clinically Useful?" Invited Editorial, *Neurology* 77:1028-9, 2011.
45. Perlmutter JS, Eidelberg D. "To Scan or Not to Scan: DaT is the Question" Invited Editorial, *Neurology* 78(10):688-9, 2012.

46. Ushe M, Perlmutter JS. "Sex, drugs and Parkinson disease" Invited Editorial, *Brain* 136: 371-373, 2013. PMID: PMC3572930.
47. Jinnah HA, Berardelli A, Comella C, DeFazio G, DeLong M, Factor S, Galpern WR, Hallett M, Ludlow CL, Perlmutter JS, Rosen A, for the dystonia Coalition Investigators. The focal dystonias: current views and challenges for future research. *Mov Disord* Jun 15;28(7):926-43. 2013.
48. Perlmutter JS. fMRI biomarker for premanifest HD? (invited sidebar) *Neurology*, 83:71,2014. PMID: 24898927
49. Perlmutter JS. 2015. How do we define and modulate circuits in animals that are relevant to pathophysiology in humans? In: *Disease of the Nervous System: What Is to Be Done?* ed. K Nikolich and SE Hyman. Strungmann Fourm Reports, vol. 17, J Lupp, series editor. Cambridge, MA: MIT Press, 2015
49. Dolen G, Malenka RC, Perlmutter JS, Brose N, Frackowiak R, Cuthbert BN, Diester I, Mansuy I, Kroker KS, Boeckers TM, Pascual-Leone A, Feng G. Pathophysiological Toolkit: Genes to Circuits. In: *Disease of the Nervous System: What Is to Be Done?* ed. K Nikolich and SE Hyman. Strungmann Fourm Reports, vol. 17, J Lupp, series editor. Cambridge, MA: MIT Press, 2015
50. Hershey LA, Perlmutter JS. Where there is smoke there may not be fire: smoking and Parkinson disease. (invited editorial) *Neurology* Sept 12, 2014 [Epub ahead of print]. PMID: 25217061
51. Perlmutter JS, Norris S. Neuroimaging biomarkers for Parkinson disease: facts & fantasy. (invited Grand Rounds article) *Ann Neurol*. 76L769-83, 2014, PMID: PMC4245400
52. Wippold FJ, Brown DC, Broderick DF, Burns J, Corey AS, Deshmukh TK, Douglas AC, Holloway K, Jagadeesan DB, Jurgens JS, Kennedy TA, Petl ND, Perlmutter JS, Rosenow JM, Slavin K, Subramaniam RM. ACR appropriateness criteria: dementia and movement disorders. *J Am Coll Radiol* 12:19-28, 2015. PMID: 25557568
53. Karimi MK, Perlmutter JS. An update on the role of dopamine in dystonia: insights from neuroimaging. *Tremor and Other Hyperkinetic Movements*. Invited review Jan 29;5:280. doi: 10.7916/D8J101XV. eCollection 2015 PMID: 25713747. PMID: PMC4314610
54. Norris SA, Perlmutter JS. Functional imaging in dystonia. in *Treatment of Dystonia*. ed Dressler, Altenmuller, & Krauss, Cambridge University Press, Cambridge, UK. 2015
55. Ushe M, Perlmutter JS. Functional imaging in movement disorders. 7th ed Youmans and Winn "Neurological surgery" ed Richard Winn. 86-1 – 86-6, 2016.
56. Patel ND, Broderick DF, Burns J, Deshmukh TK, Fries IB, Harvey HB, Holly L, Hunt CH, Jagadeesan BD, Kennedy TA, O'Toole JE, Perlmutter JS, Policeni B, Rosenow JM, Schroeder JW, Whitehead MT, Cornelius RS, Corey AS. ACR Appropriateness Criteria Low Back Pain. *J Am Coll Radiol*. 13(9):1069-78, 2016

57. Strafella AP, Bohnen NI, Perlmutter JS, Eidelberg D, Pavese N, Van Eimeren T, Piccini P, Politis M, Thobois S, Ceravolo R, Higuchi M, Kaasinen V, Masellis M, Peralta MC, Obeso J, Pineda-Pardo JA, Cilia R, Ballanger B, Niethammer N, Stoessl AJ, on behalf of the IPMDS-Neuroimaging Study Group. Molecular Imaging from bench-to bedside to track Parkinson's disease and atypical parkinsonisms: new imaging frontiers. *Mov Disord.* 32:181-192, 2017.
58. Takeda A, Perlmutter JS. Striatal molecular imaging of presynaptic markers: Ready, Fire, Aim. (invited editorial) *Neurology* 88:1-2, 2017
59. Policeni B, Burns J, Conley DB, Crowley W, Harvey HB, Hoang J, Hunt CH, Jagadeesan BD, Juliano AF, Kennedy TA, Moonis G, Pannell JS, Patel ND, Perlmutter JS, Rosenow JM, Schroeder JW, Whitehead MT, Cornelius RS, Corey AS. ACR Appropriateness Criteria: Cranial Neuropathy. *J Am College Radiol* 14:S406-S420, 2017, PMID: 29101981
60. Richardson SP, Altenmuller E, Alter K, Alterman RL, Chen R, Frucht S, Furuya S, Jankovic J, Hinnah HA, Kimberley TJ, Lungu C, Perlmutter JS, Prudente CN, Hallett M. Research Priorities in Limb and Task-specific Dystonias, *Frontiers Neurol* May 3, 8:170, 2017, PMC5413505
61. Salmela MB, Mortazavi S, Jagadeesan BD, Broderick DF, Burns J, Deshmukh TK, Harvey HB, Hoang J, Hunt CH, Kennedy TA, Khalessi AA, Mack W, Patel ND, **Perlmutter JS**, Policeni B, Schroeder JW, Setzen G, Whitehead MT, Cornelius RS, Corey AS., ACR Appropriateness Criteria Cerebrovascular disease. Expert Panel on Neurologic Imaging. *J Am Coll Radiol.* 14:S34-S61, 2017. PMID: 28473091
62. Perlmutter JS. In Memoriam: William M Landau, MD (1924-2017), *Neurology*, 90:209-210, 2018.
63. Maiti B, Perlmutter JS. "PET imaging in Movement Disorders" *Semin Nucl Med.* 48:513-524, 2018. PMC6195228.
64. Perlmutter JS, Stoessl AJ. "Striatal DAT SPECT: Caveat Emptor!" (invited Editorial) *Mov Disord.* 34:1430-1432. 2019.
65. Norris SA, Perlmutter JS. "Neuroimaging in Movement Disorders" 8th ed Youmans and Winn "Neurological surgery" ed Richard Winn. 2019 (In press)
66. Lungu C, Ozelius L, Standaert D, Hallett M, Sieber B-A, Swanson-Fischer C, Berman BD, Calakos N, Moore, Perlmutter JS, Pirioli-Richardson S, Saunders-Pullman R, Scheinfeldt L, Sharma N, Sillitoe, Simonyan K, Starr P, Taylor A, Vitek J. Defining research priorities in dystonia. *Neurology* 2020 Feb 25. pii: 10.1212/WNL.0000000000009140. doi: 10.1212/WNL.0000000000009140. [Epub ahead of print] Review.
67. Maiti B, Perlmutter JS. A clinical trial of isradipine: what went wrong? (invited editorial) *Ann Internal Med.* Mar 31. doi: 10.7326/M20-1023. [Epub ahead of print] 2020.

VIDEOTAPES/COMPUTER PROGRAMS:

1. Perlmutter, JS: Blepharospasm: "In Search of a Cure" Produced by the Benign Essential Blepharospasm Foundation, 1992.
2. Perlmutter, JS, Klumpp K: Medical Automated Records Systems (MARS), an electronic medical record system for clinical care and research in neurology. 1994.
3. Caring for a Nursing Home Resident with Parkinson's Disease (Videotape produced by the Greater St. Louis Chapter of the American Parkinson's Disease Association), 1998.
4. Kastelein N, Perlmutter JS: "PiquePerfect" (An electronic medical records system for chemodervation) developed with Medsys Technologies, St. Louis, MO. 2000.

TRAINEES:

Fellows:

Current Positions:

1988-1992	Tempel, LW	Retired Movement Disorders Neurologist, in St. Louis County, MO
1990-1991	Rowe, C	Professor, Director of Dept of Nuclear Medicine at Austin Health, Melbourne, Australia
1994-1997	Black, KJ	Professor of Psychiatry & Radiology at Washington University School of Medicine, St. Louis, Missouri
1996-1998	Mink, JW	Professor and Director of Pediatric Neurology, Vice-Chair of Neurology at University of Rochester, Rochester, New York
1997-1999	Racette, BA	Professor of Neurology; Executive Vice-Chair of Neurology at Washington University School of Medicine, St. Louis, Missouri
1997-1998	Feiwell, R	Clinical Attending Professor of Radiology at University of California at San Francisco, San Francisco, California
1997-2001	Hershey, T	Professor in Psychiatry, Director of the Neuroimaging Labs in Radiology, Psychiatry, & Neurology at Washington University School of Medicine, St. Louis, Missouri
1999-2001	Revilla, F	Medical Director of the Neurological Institute at the Greenville Health System, Greenville, South Carolina (Obtained AAN fellowship)
1999-2000	Babcock, D	Program Director of Behavior & Cognitive Neuroscience at National Institute of Neurological Diseases and Stroke, Bethesda, Md. (Clinical training only for one year)
2004-2007	Karimi, M	Assistant Professor in Neurology, Washington University School of Medicine in St. Louis, Missouri (deceased, 2016).

2006-2007	Burack, M	Assistant Professor in Neurology, University of Rochester School of Medicine in Rochester, New York
2007 - 2008	Torres, D.	Associate Professor & Director of the Movement Disorders In Neurology, University of Nebraska, Nebraska
2007 – 2009	Criswell, S.	Associate Professor in Neurology, Washington University School of Medicine in St. Louis, Missouri; co-mentored with Dr. Brad Racette
2009 – 2011	Willis, A.	Assistant Professor in Neurology, University of Pennsylvania; co-Mentored with Dr. Brad Racette
2010 - 2012	Tian, L	Research Instructor (MD, PhD), Washington University in St. Louis
2010 – 2013	Pickett, K	Assistant Professor, University of Wisconsin; co-mentored with Dr. Gammon Earhart
2011 - 2013	Ushe, M.	Assistant Professor in Neurology (MD), Washington University (obtained AAN fellowship)
2012 - 2014	Norris, S.	Assistant Professor in Neurology (MD) (obtained DMRF fellowship; Dystonia Coalition Award; had T32 post-doc award)
2013 – 2014	Eisenstein, S.	Assistant Professor in Psychiatry (PhD), co-mentored with Dr. T Hershey
2013 - 2015	Yamasaki, T.	Assistant Professor in Neurology, University of Kentucky (MD, PhD) (had T32 & obtained KL2 at U Kentucky. Co-mentored her with Marc Diamond.
2014 - 2016	Maiti, B.	Assistant Professor in Neurology (Movement Disorders) (MD, PhD) (Greater APDA fellowship; Barnes-Jewish Hospital Foundation Fellowship – Oertli Foundation Fellow)
2015 - 2017	Davis, A.	Assistant Professor in Neurology (Movement Disorders) (MD, PhD) (departmental T32, obtained AAN fellowship), Co-mentored with Dr. Brad Racette (clinically) and David Holtzman (research).
2017 -	O'Donnell, J	post-doctoral fellow in Neurology (Movement Disorders) PhD (NIH F32)
2018 -	Younce, J.	post-doctoral fellow in Neurology (Movement Disorders) (MD) (T32 in Radiology – neuroimaging)

Graduate students:

1997	Stambuk, M	Fellow in Neurology at Washington University School of Medicine, St. Louis, Missouri (Master's thesis advisor)
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2002- 2005	Ushe, M	Medical Scientist Training Program at Washington University School of Medicine, St.Louis, MO (Master's & PhD thesis advisor)
2003- 2008	Hong, M	Movement Science Program in Physical Therapy at Washington University in St. Louis, St. Louis, MO (PhD advisor)
2006 – 2011	Hackney, M	Movement Sciences Program in Physical Therapy at Washington University in St. Louis, St. Louis, MO (co-advisor for PhD)
2007-2011	McNeely M	Movement Sciences Program in Physical Therapy at Washington University in St. Louis, St. Louis, MO (co-advisor for PhD)
2009-2013	Peterson, D	Movement Sciences Program in Physical Therapy at Washington University in St. Louis, St. Louis, MO (co-advisor for PhD)
2011	Hacker, C	Medical Scientist Training Program at Washington University School of Medicine, St.Louis, MO (prolonged lab rotation)
2015	Brier, L	Medical Scientist Training Program at Washington University School of Medicine, St. Louis, MO (lab rotation)
2015-	Morris, A	Medical Scientist Training Program at U Rochester, NY, (Co-mentored for PhD with Dr Jonathan Mink)

Currently mentored K-awardees:

2016-	Duncan, R	DPT Physical Therapist (movement disorders specialist)
2019-	Maiti, B	MD, PhD (Neurologist) Assistant Professor, Wash U

Past mentored K-awardees:

1996-2001	Black, K	MD, Neuropsychiatrist (Professor of Psychiatry, Wash U)
2001-2006	Hershey, T	PhD, Neuropsychologist (Professor Psychiatry, Wash U)
2002-2007	Racette, B	MD, Neurologist (Professor Neurology, Wash U)
2005-2009	Kotzbauer, P	MD, PhD, Neurologist (Assoc Professor, Neurology, Wash U)
2004-2009	Earhart, G	PhD, Movement Scientist, (Professor, Director PhysTher, Wash U)
2011-2015	Foster, E	OTD, PhD Occupational therapist specializing in PD & research, Assistant Professor, Wash U)
2011-2016	Karimi, M	MD, Neurologist (Assistant Professor Neurology, Wash U) – (deceased - 2016)
2012-2017	Criswell, S	MD, Neurologist (Assoc Professor, Neurology, Wash U) (co-mentored with Dr. Brad Racette)