Department of Neurology

Neurology concerns itself with the diseases of brain, spinal cord, peripheral nerves and muscles. An introduction to the anatomy and physiology of the nervous system is presented in the first-year neuroscience course by faculty from the Department of Neuroscience (http://neurosci.wustl.edu), with participation of faculty from the Department of Neurology (http://neuro.wustl.edu). A first-year selective titled Clinical Correlations in Neurosciences (FYSelect 5017) is available, which is an opportunity for interested students to shadow physicians in neuro-related fields and attend basic science or clinical conferences. Another first-year selective titled Alzheimer's Disease (AD) in the Clinic and the Lab is also available, which is an opportunity for interested students to get an overview of the most exciting areas of AD clinical and science research. In the second year, the Department of Neurology presents the course Diseases of the Nervous System (Neurol 632) in conjunction with the departments of Pathology & Immunology (http://pathology.wustl.edu), Neurosurgery (http://neurosurgery.wustl.edu) and Ophthalmology & Visual Sciences (http://ophthalmology.wustl.edu). The course emphasizes the pathophysiology, pathology, clinical manifestations and treatment of the major neurological and neurosurgical diseases. The department also participates in the Practice of Medicine course, providing lectures, demonstrations and teaching exercises with patients in neurological physical diagnosis.

For more information about the Department of Neurology and its thirteen divisions, please visit the department website.

Website: https://neuro.wustl.edu/education

Degrees & Requirements

While the Department of Neurology does not offer its own degree, some of the department’s courses are open to students in the MD and MSTP (MD/PhD) programs. Further information about the MD and MSTP degrees can be found in the Degrees & Programs Offered (http://bulletin.wustl.edu/medicine/degrees) section of this Bulletin.

Research

M35 Neurol 900

In the fourth year, opportunities exist for many varieties of advanced clinical or research experience.

Beau Ances, MD
Taylor Avenue Building Extension, 2nd Floor
Phone: 314-747-8423
Neuroimaging of Neurodegenerative Disorders. Students can work in a neuroimaging laboratory that is focused on translational discovery of neuroimaging biomarkers for neurodegenerative diseases. The laboratory focuses on the pathogenesis of Alzheimer's disease (AD) and HIV-associated neurocognitive disorders (HAND). We are investigating the effects of neurodegenerative diseases on brain network level using functional (blood oxygen level dependent imaging, arterial spin labeling), structural (volumetrics, diffusion tensor imaging), and metabolic (PET amyloid and tau). Multiple projects that involve bioengineering, neuroimaging, and infectious disease are available depending on the interest of the student.

Randall Bateman, MD
Biotechnology Center, Room 304
Phone: 314-747-7066
Central nervous system protein metabolism in aging and dementia. This research elective will expose the student to translational research in the study of Alzheimer's disease. The student will participate in multiple areas of the research including participant consent, enrollment, and admission to a research hospital unit. Lumbar catheter placement and CSF sample collection will be demonstrated. The student will participate in sample analysis including processing for mass spectrometry quantitation, ELISA, and western gel methods. Quantitation, analysis and modeling of the data will be taught in the context of data interpretation and study design.

Anne H. Cross, MD, and Laura Piccio, MD, PhD
McMillan, 3rd Floor
Phone: 314-747-4591 or 314-747-0405
Understanding interactions of the immune system with the central nervous system as it relates to multiple sclerosis and other neuroimmunological disorders. Our goal is to understand how immune cells cross the blood-brain barrier and initiate the cascade of events leading to lesions of multiple sclerosis. We are also funded to study the effects of diet and adipokines on neuroinflammation. Depending upon the time commitment of the student and their individual interests and goals, they will either assist with ongoing projects or be given a laboratory project on which to work. Projects may involve animal models for MS, cell culture or studies of human samples (CSF, blood, autopsied specimens). Interested students should contact Dr. Cross (crossa@neuro.wustl.edu) or Dr. Piccio (picciol@neuro.wustl.edu) several weeks in advance before signing up for this research to allow for sufficient planning.

Robert T. Naismith, MD
McMillan, Room 310B
Phone: 314-747-0432
Clinical Imaging Research in Multiple Sclerosis (8 weeks). The student will learn about neuroimaging, imaging analyses, data collection, data management, and clinical study endpoints in multiple sclerosis (MS). They will observe patient participants undergoing a detailed evaluation of disability measures, such as ambulation, symptom scales, cognition, vision, upper extremity function, etc. They will witness the entire process of image acquisition, processing, analyses, and data extraction. They...
will have the opportunity to interact with many people who are vital to the research, including research coordinators, imaging technologists, imaging physicists/chemists, and specialized research clinicians (i.e., neurocognitive and physical therapy research specialists).

The student will assist with hands-on clinical investigative research. They will gain an excellent appreciation of MS, from its pathophysiology within the central nervous system, to how it affects the neurological function of individuals. Through detailed and quantitative imaging analysis, the student will become very adept at analyzing brain MRI scans. They will mark and track lesions, determine their effects on clinical function, normal appearing white matter, cortex and gray-matter structures. They will become familiar with Amira Imaging Analysis Software, SPSS Statistical Analysis Software, SIENA Volume Analysis Software, and Matlab Imaging Analysis Software.

Steven E. Petersen, PhD
East Building, Room 2108
Phone: 314-362-3319
This lab is interested in brain organization and function, particularly for language, attention, and memory. Our main approaches to these issue is through functional MRI and large-scale network analysis.

Joel S. Perlmutter, MD
East Building, 2nd Floor
Phone: 314-362-6026
Pathophysiology of Movement Disorders. The lab is primarily interested in etiology, pathophysiology and treatment of basal ganglia disorders. We have several studies of PD. We investigate mechanisms of action of deep brain stimulation, a dramatic new treatment. These studies combine PET, cognitive testing and quantified measures of movement. We also test new drugs that might rescue injured nigrostriatal neurons (a model of PD). For these, we use PET to measure dopamine pathways and also quantify motor behavior. We also have an active program developing and validating neuroimaging biomarkers for PD and integrity of the nigrostriatal pathway that includes studies in people and animal models of PD. We have an active program combining a variety of approaches to develop biomarkers and investigate the pathophysiology of dementia associated with PD. We use PET to measure radioligand binding and sensorimotor processing in dystonia. We developed a new animal model of dystonia to investigate pharmacologic and physiologic changes. We use PET to investigate drug-mediated pathways in the brain and parse out the effects of selective dopaminergic agonists. We also are working to develop MR-based methods including DTI and resting-state functional connectivity to investigate brain mechanisms underlying PD and dystonia.

Brad A. Racette, MD
McMillan, 9th Floor
Phone: 314-362-5291
Our lab is primarily interested in environmental risk factors associated with Parkinson's disease. We use a variety of techniques to study these risk factors, including traditional field epidemiology in which we evaluate workers exposed to metals in the U.S. and residents living near a smelter in South Africa, neuroimaging where we study the pathophysiology of toxin-mediated parkinsonism, geographic information systems research where we associate environmental toxin exposures with incident and prevalent Parkinson's disease in the U.S. and Finland, and neuropathologic studies in manganese-exposed workers from South Africa. There are numerous opportunities available for students to be involved with any of these projects. Students will have some clinical exposure, as well, to familiarize them with pertinent clinical syndromes.

Marcus E. Raichle, MD
Neuro Imaging Laboratory – East Building, 2nd Floor
Phone: 314-362-6907
In vivo brain hemodynamic, metabolic and functional studies of human cognition and emotion using cyclotron-produced isotopes and emission tomography (PET) as well as functional magnetic resonance imaging (fMRI) in humans. Refer also to the listing on this page for Steven E. Petersen, PhD.

Gregory Wu, MD, PhD
McMillan, 3rd Floor
Phone: 314-362-3293
Understanding how immune responses are generated that target the central nervous system. Specifically, studies on antigen presentation cell contributions to autoimmune animal models of multiple sclerosis. Our goal is to understand what cellular interactions are critical to the development of immune-mediated demyelination.

Faculty
Department Chair
David Holtzman, MD
Visit our website for more information about our faculty (https://neuro.wustl.edu/about-us/physician-faculty-directory) and their appointments.

A
Aninda Bhat Acharya, MD, MD1
Instructor in Clinical Neurology (primary appointment)
MD University of Kansas 1996
MD1 University of Kansas 1996
BS University of Kansas 1992

Muhammad Taher Al-Lozi, MD, MS
Professor of Neurology (primary appointment)
BA University of Panjab 1976
MD University of Panjab 1980
MS University of Jordan 1985

Denis Ian Altman, MBBCH
Associate Professor of Clinical Neurology (primary appointment)
Assistant Professor of Clinical Pediatrics
MBBCH University of the Witwatersra 1975

**Lizette Alvarez-Montero, MD**
Instructor in Clinical Neurology (primary appointment)
MD School Not Listed 1991
BA Washington Univ in St. Louis 1987

**Beau Mark Ances, PHD, MD, MS**
Daniel J Brennan MD Professor of Neurology (primary appointment)
Professor of Biomedical Engineering
Professor of Radiology
BS University of Pennsylvania 1993
PHD University of Pennsylvania 2000
MD University of Pennsylvania 2001
MS London School of Economics 1994

**Gabriel C Araujo, PHD, BA1, MS**
Instructor in Clinical Neurology (primary appointment)
BA California State University 2004
PHD Washington Univ in St. Louis 2011
BA1 California State University 2004
MS Washington Univ in St. Louis 2007

**Sylvia Awadalla, MD**
Professor of Neurology (primary appointment)
MD Ohio State University 1985

**Ganesh M Babulal, MS, PHD, MS**
Instructor in Neurology (primary appointment)
MS Washington Univ in St. Louis 2015
PHD Washington Univ in St. Louis 2014
MS University of Minnesota 2010
BS University of Minnesota 2008

**Robert H Baloh, PHD, MD1, MD**
Adjunct Assistant Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2005
MD1 Washington Univ in St. Louis 2001
MD Washington Univ in St. Louis 2001
BS Brown University 1995

**Randall John Bateman, BS1, MD**
Professor of Neurology (primary appointment)
Charles F and Joanne Knight Distinguished Professor of Neurology
BS1 Washington Univ in St. Louis 1995
BS Washington Univ in St. Louis 1995
MD Case Western Reserve Univ 2000

**Max Prely Benzaquen**
Instructor in Clinical Neurology (primary appointment)

**Mary Ellen Bertrand, MD**
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
MD Southern Illinois University 1993

BS McKendree College 1987

**Alan J Birtwistle**
Assistant Professor of Clinical Neurology (primary appointment)

**Joseph T Black, MD**
Professor of Clinical Neurology (primary appointment)
MD School Not Listed 1965
BA University of Rochester 1961

**Lynn Bennett Blackburn, PHD, MA**
Assistant Professor of Clinical Neurology (primary appointment)
PHD Indiana University Bloomington 1972
MA Indiana University Bloomington 1970
BS Univ of Wisconsin Madison 1968

**James Scott Bonner, MD**
Instructor in Clinical Neurology (primary appointment)
BA Drury College 1976
MD University of Missouri 1980

**Christopher C. Bosworth, PHD**
Assistant Professor of Clinical Neurology (primary appointment)
BA Southern Illinois University 2002
PHD University of Texas Southwest 2014

**David L Brody, MD, PHD**
Adjunct Associate Professor of Neurology (primary appointment)
MD Johns Hopkins University 2000
BA Stanford University 1992
PHD Johns Hopkins University 2000

**Janice E Brunstrom-Hernandez, MD**
Adjunct Associate Professor of Neurology (primary appointment)
MD University of Virginia 1987

**Robert Charles Bucelli, PHD, MD**
Associate Professor of Neurology (primary appointment)
PHD State Univ of NY Buffalo 2007
MD State Univ of NY Buffalo 2007
BS Canisius College 2001

**Virginia D Buckles, MS, PHD**
Professor of Neurology (primary appointment)
MS California St Poly Pomona 1977
BS California St Poly Pomona 1974
PHD Univ of Wisconsin Madison 1981

**Michelle A. Burack, PHD, MD**
Adjunct Instructor in Neurology (primary appointment)
PHD University of Virginia 2000
BS Duke University 1990
MD Washington Univ in St. Louis 2002

**Garrett C Burris, MD**
Associate Professor of Clinical Neurology (primary appointment)
Associate Professor of Clinical Pediatrics
MD Saint Louis University 1968
BS School Not Listed 1964
C

Nigel John Cairns, PHD
Professor of Neurology (primary appointment)
Professor of Pathology and Immunology
PHD University of London 1995

David J Callahan, MD
Assistant Professor of Clinical Neurology (primary appointment)
Assistant in Clinical Pediatrics
MD Washington Univ in St. Louis 1986
BS University of Notre Dame 1982

Alejandra Camacho-Soto, MD
Instructor in Neurology (primary appointment)
MD University of Pittsburgh 2011
BA Georgetown University 2005

Meghan Clark Campbell, PHD
Associate Professor of Neurology (primary appointment)
Associate Professor of Radiology
PHD Indiana State University 2004
BS University of Illinois 1999

Russell C. Cantrell, MD
Instructor in Clinical Neurology (primary appointment)
MD University of Tennessee 1989
BS School Not Listed 1985

David A Carpenter, MD
Professor of Neurology (primary appointment)
BS Amherst College 1979
MD Washington Univ in St. Louis 1983

Alexandre Carter, PHD, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Occupational Therapy
PHD Harvard University 2003
MD Harvard University 2003
BS Brandeis University 1991

Salim Chahin, MS, MD
Assistant Professor of Neurology (primary appointment)
MS University of Pennsylvania 2013
MD Damascus University 2004

Yasheng Chen, PHD, MA
Assistant Professor of Neurology (primary appointment)
BA Tianjin University 1993
PHD Washington Univ in St. Louis 2002
MA Washington Univ in St. Louis 2002

Luqi Chi, MD, MA
Associate Professor of Neurology (primary appointment)
MD Huabei Medical College for Coa 1984
MA University of Pennsylvania 2009

John R. Cirrito, PHD
Associate Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2004

BA Boston College 1998

David B Clifford, MD
Melba and Forest Seay Professor of Clinical Neuropharmacology in Neurology (primary appointment)
Professor of Medicine
MD Washington Univ in St. Louis 1975
BA Southwestern University 1971

Anne Maureen Connolly, MD
Professor of Neurology (primary appointment)
Professor of Pediatrics
MD Indiana University Bloomington 1984
BS Saint Mary’s College 1980

Maurizio Corbetta, MD
Norman J. Stupp Professor of Neurology (primary appointment)
Associate Professor of Psychological & Brain Sciences
Professor of Neuroscience
Professor of Radiology
MD University of Pavia 1985

Susan R Criswell, MD
Associate Professor of Neurology (primary appointment)
BS University of Nebraska 1997
MD University of Nebraska 2001

Dorothy Anne Cross, MD
Professor of Neurology (primary appointment)
BS University of South Alabama 1976
MD University of Alabama 1980

Nicole Cruz
Instructor in Clinical Neurology (primary appointment)

Rachel S Darken, MD, PHD
Associate Professor of Neurology (primary appointment)
MD Cornell University 2004
BA University of Texas Austin 1996
PHD Cornell University 2003

Albert Augustus Davis, MD, PHD
Assistant Professor of Neurology (primary appointment)
BS Emory University 2002
MD Vanderbilt University 2011
PHD Emory University 2009

Brian Keith Day, MD, PHD
Assistant Professor of Neurology (primary appointment)
MD University of Kentucky 2007
PHD University of Kentucky 2005
BS Harvard University 1997

Gregory Scott Day, MD, MS
Instructor in Neurology (primary appointment)
MD Queen's University 2009
MS Queen's University 2006
BS Queen's University 2003
Gabriela De Bruin, MD
Associate Professor of Neurology (primary appointment)
MD Federal University of Ceara 2005

Andrea Denny, MSSW, JD
Instructor in Neurology (primary appointment)
MSSW University of Texas Austin 1993
JD University of Texas Austin 1998
BA University of Virginia 1990

Amar Dhand, PHD, MD
Adjunct Assistant Professor of Neurology (primary appointment)
PHD Oxford University 2006
BS Dartmouth College 2001
MD Harvard University 2008

Rajat Dhar, MD
Associate Professor of Neurology (primary appointment)
MD McMaster University 2000

Marc I Diamond, MD
Adjunct Professor of Neurology (primary appointment)
BS Princeton University 1987
MD University of San Francisco 1993

Michael N Diringer, MA, MD
Professor of Neurology (primary appointment)
Professor of Anesthesiology
Professor of Neurological Surgery
Professor of Occupational Therapy
MA University of Louisville 1978
MD University of Kentucky 1982
BA State Univ of NY Stonybrook 1974

Jonathan Noel Dodd
Instructor in Clinical Neurology (primary appointment)

Joseph M Dooley Jr, MD
Associate Professor of Clinical Neurology (primary appointment)
MD Saint Louis University 1958
BS Saint Louis University 1954

Nico U. Dosenbach, PHD, MD
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Occupational Therapy
Assistant Professor of Pediatrics
BA Columbia University 2000
PHD Washington Univ in St. Louis 2008
MD Washington Univ in St. Louis 2008

Alexander W Dromerick, MD
Adjunct Associate Professor of Neurology (primary appointment)
Adjunct Associate Professor of Occupational Therapy
Adjunct Associate Professor of Physical Therapy
BA University of Virginia 1980
MD University of Maryland 1986

Lawrence N Eisenman, PHD, MD
Professor of Neurology (primary appointment)
PHD Northwestern University 1997
MD Northwestern University 1997
BS Johns Hopkins University 1988

Juan Escandon, MD
Assistant Professor of Clinical Neurology (primary appointment)
BS School Not Listed 1985
MD School Not Listed 1989

Eugene Evra, MD
Instructor in Clinical Neurology (primary appointment)
MD Smolensk State Medical Academy 1996

Julaine Marie Florence, DPT, MS
Professor of Neurology (primary appointment)
Professor of Physical Therapy
BS Washington Univ in St. Louis 1975
DPT Washington Univ in St. Louis 2002
MS Washington Univ in St. Louis 1983

Wing Man Fong, PHD, MA
Instructor in Neurology (primary appointment)
BS University of Nottingham 2005
PHD Illinois Institute of Technol 2015
MA University of Hong Kong 2009

Andria L Ford, MD
Associate Professor of Neurology (primary appointment)
MD University of Oklahoma 2002
BS Duke University 1998

Bennett David Frank, PHD, MD
Instructor in Clinical Neurology (primary appointment)
PHD Beaufort Technical College 1987
BA Washington Univ in St. Louis 1982
MD Beaufort Technical College 1988

Robert P. Fucetola, PHD, MA
Professor of Neurology (primary appointment)
Adjunct Professor of Psychological & Brain Sciences
PHD Washington Univ in St. Louis 1997
BA Washington Univ in St. Louis 1991
MA Washington Univ in St. Louis 1993

Rafael Galindo, MD, PHD
Assistant Professor of Neurology (primary appointment)
BS University of New Mexico 1996
MD University of New Mexico 2007
PHD University of New Mexico 2005

Gilbert Gallardo, MS, MS, PHD, PHD
Assistant Professor of Neurology (primary appointment)
MS Univ of Texas San Antonio 2002
MS Univ of Texas San Antonio 2002
PHD University of Texas Southwest 2008
Stefanie Geisler, MD  
Assistant Professor of Neurology (primary appointment)  
MD Humboldt University 2001

Nupur Ghoshal, MD, PHD  
Associate Professor of Neurology (primary appointment)  
Associate Professor of Psychiatry  
MD Northwestern University Med 2003  
BA Iowa State University 1995  
PHD Northwestern University Med 2001

James M Goldring, MD, PHD  
Instructor in Clinical Neurology (primary appointment)  
BA Washington Univ in St. Louis 1971  
MD Washington Univ in St. Louis 1986  
PHD Washington Univ in St. Louis 1977

Paul T Golumbek, MS, MD, PHD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics  
MS University of Maryland 1985  
MD Johns Hopkins University Med 1995  
BA University of Maryland 1984  
PHD Johns Hopkins University 1995

Royal Gene Grueneich, PHD  
Assistant Professor of Clinical Neurology (primary appointment)  
PHD University of Minnesota 1979  
BA School Not Listed 1973

Rejean Michael Guerriero, MD  
Assistant Professor of Neurology (primary appointment)  
MD University of New England 2009  
BS Bates College 2001

Kristin Guilliams, MD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics  
BS Furman University 2002  
MD University of Virginia 2006

Christina A. Gurnett, PHD, MD  
Professor of Neurology (primary appointment)  
Professor of Orthopaedic Surgery  
Professor of Pediatrics  
BS University of Notre Dame 1991  
PHD University of Iowa 1998  
MD University of Iowa 1998

David H Gutmann, MS, PHD, MD  
Donald O. Schnuck Family Professor of Neurology (primary appointment)  
Professor of Genetics  
Professor of Neurological Surgery  
Professor of Pediatrics  
BS Davenport University 1979  
MS Davenport University 1980  
PHD Davenport University 1984  
MD Davenport University 1986

H

Joseph Hanaway, MD  
Assistant Professor of Clinical Neurology (primary appointment)  
BA McGill University 1956  
MD McGill University 1960

Lisa Adel Harker  
Instructor in Clinical Neurology (primary appointment)

Jason J Hassenstab, MS PSYC, B MUS, PHD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Psychological & Brain Sciences  
MS PSYC Fordham University 2005  
B MUS New York University 2002  
PHD Fordham University 2009

J Michael Hatlelid, MD  
Associate Professor of Clinical Neurology (primary appointment)  
BA St Johns University 1970  
MD Washington Univ in St. Louis 1977

Robert Edward Hogan III, MD  
Professor of Neurology (primary appointment)  
MD University of MO Columbia 1989  
BA Augustana College 1985

Derek Lance Holder, MS, MD  
Assistant Professor of Neurology (primary appointment)  
MS Rosalind Franklin University 2008  
BS Washington Univ in St. Louis 2007  
MD CHICAGO MEDICAL SCHOOL 2012

David Michael Holtzman, MD  
Andrew B. and Gretchen P. Jones Professor of Neurology (primary appointment)  
Head of the Department of Neurology  
Professor of Developmental Biology  
BS Northwestern University 1983  
MD Northwestern University 1985

Terri L Hosto, BSW, MSW  
Assistant Professor of Neurology (primary appointment)  
BSW University of Illinois 1981  
MSW University of Michigan 1986

Chung Hsu, MD, PHD  
Adjunct Professor of Neurology (primary appointment)  
MD National Taiwan University 1970  
PHD University of Virginia 1975

Thy N Huskey, MD  
Associate Professor of Neurology (primary appointment)  
BS Northwestern University 1993  
MD Northwestern University Med 1996
Krzysztof L Hyrc, MS, PHD
Associate Professor of Neurology (primary appointment)
MS Jagiellonian University 1981
PHD Jagiellonian University 1987

Jill Christine Isenberg, PHD, MS PSYC
Instructor in Clinical Neurology (primary appointment)
PHD Wake Forest University 2005
MS PSYC Wake Forest University 2003
BA Wake Forest University 1998

Sindhu Saji Jacob, MD
Assistant Professor of Neurology (primary appointment)
MD Kottayam Medical College 1994

Mark F Jacquin, PHD
Professor of Neurology (primary appointment)
BS Brandeis University 1975
PHD City University of New York 1980

Siddharth Vinod Jain, MD
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
MD D.Y. Patil Medical College 2003

Yo-EI S Ju, MD
Assistant Professor of Neurology (primary appointment)
MD Columbia University 2005
BS Harvard University 2001

Neringa Juknis, MD
Associate Professor of Neurology (primary appointment)
BA School Not Listed 1985
MD Kaunas Medical Institute 1989

Richard T. Katz, MD, MA
Professor of Clinical Neurology (primary appointment)
MD Case Western Reserve Univ 1981
MA Cleveland Institute of Music 1979
BA University of Rochester 1977

Salah G. Keyrouz, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Neurological Surgery
MD Lebanese Univ Med Science 2000

Syed Ahmed Khader, MD
Instructor in Clinical Neurology (primary appointment)
MD University of Madras 1993
BS School Not Listed 1989

Paul Thomas Kotzbauer, MD, PHD
Associate Professor of Neurology (primary appointment)
Associate Professor of Developmental Biology
MD Washington Univ in St. Louis 1997

BS Northwestern University 1989
PHD Washington Univ in St. Louis 1997

Geraldine J. Kress, PHD
Assistant Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2009

Ashok Kumar, MD
Assistant Professor of Clinical Neurology (primary appointment)
MD Dow Medical College Karachi 1985

Terrance T. Kummer, PHD, MD
Assistant Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2006
BS University of Minnesota 1999
MD Washington Univ in St. Louis 2006

David Veloso Lardizabal, MD
Associate Professor in Neurology (primary appointment)
MD CEBU Institute of Medicine 1991
BS University of the Philippines 1987

Douglas P. Larsen, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
MD University of Utah 2003
BA Brigham Young University 1999

Jin-Moo Lee, MD, PHD
Professor of Neurology (primary appointment)
Professor of Radiology
MD Cornell University 1993
PHD Cornell University 1992
BA Yale University 1989

Walter Lemann III, MD
Associate Professor of Clinical Neurology (primary appointment)
MD Tulane University 1979
BS Yale University 1975

Alison M Leston, MD, PHD
Assistant Professor of Clinical Neurology (primary appointment)
MD Washington Univ in St. Louis 2001
BS University of Illinois 1990
PHD University of Chicago 2000

Mingjie Li, PHD, MD
Associate Professor of Neurology (primary appointment)
MD Kochi Medical School 1989
MD HEllong Jiang Coll of Trad Med 1983

Yan Li, PHD
Instructor in Neurology (primary appointment)
BS Huazhong Agricultural U 2007
PHD University of Alabama 2017

Amy K Licis, MD
Assistant Professor of Neurology (primary appointment)
BS Rice University 2000
MD Washington Univ in St. Louis 2004
Matthew Chandler Loftspring, BAS, PHD, MD
Assistant Professor of Neurology (primary appointment)
BAS DePauw University 2004
PHD University of Cincinnati 2011
MD University of Cincinnati 2013
Jane Loitman, MD, MS
Assistant Professor of Clinical Neurology (primary appointment)
Instructor in Clinical Medicine
MD University of Minnesota 1992
MS Georgetown University 1988
BA Tufts University 1982
Glenn Lopate, MD
Professor of Neurology (primary appointment)
MD Ohio State University 1987
BS Colorado St University 1983
Brendan Patrick Lucey, MD
Assistant Professor of Neurology (primary appointment)
BA University of Vermont 1999
MD John Hopkins University 2003
Luigi Maccotta, MD, PHD
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Radiology
MD Washington Univ in St. Louis 2005
PHD Washington Univ in St. Louis 2005
BS St Peters College 1994
Bajayanta Maiti, MD, PHD
Assistant Professor of Neurology (primary appointment)
MD Calcutta University 2003
PHD University of Utah 2010
Raman Kant Malhotra
Associate Professor of Neurology (Pending Executive Faculty Approval) (primary appointment)
John F Mantovani, MD
Associate Professor of Clinical Neurology (primary appointment)
Assistant Professor of Clinical Pediatrics
BA University of Evansville 1971
MD University of Missouri 1974
Soe S Mar, MD
Professor of Neurology (primary appointment)
Professor of Pediatrics
MD Institute of Medicine 1987
Robert P Margolis, MD
Assistant Professor of Clinical Neurology (primary appointment)
MD Saint Louis University 1975
BA Kent St University 1971
Pietro Mazzoni, PHD, MD
Associate Professor of Neurology (primary appointment)
PHD Mass Inst of Technology (MIT) 1994
BS University of CA San Diego 1988
MD Harvard University 1995
Eric Martin McDade, DOST
Associate Professor of Neurology (primary appointment)
BA Canisius College 1998
DOST Chicago Coll of OsteopathicMed 2004
Bryan Edward McGill, MD
Instructor in Neurology (primary appointment)
Instructor in Pediatrics
MD Baylor University 2008
BS Denison University 1999
Timothy M Miller, PHD, MD
Clayson Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 1998
MD Washington Univ in St. Louis 1998
John Carl Morris, MD
Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)
Professor of Occupational Therapy
Professor of Pathology and Immunology
Professor of Physical Therapy
MD University of Rochester 1974
BA Ohio Wesleyan University 1970
Stephanie Morris, MD
Instructor in Neurology (primary appointment)
BS University of Arizona 2007
MD University of Phoenix 2011
Michael Justin Morrissey, PHD
Instructor in Clinical Neurology (primary appointment)
PHD Saint Louis University 2005
Krista L Moulder, PHD
Associate Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2001
BA Northwestern University 1993
Erik S Musiek, MD, PHD PMCG
Assistant Professor of Neurology (primary appointment)
MD Vanderbilt University 2007
PHD PMCG Vanderbilt University 2005
BS College of William and Mary 1999
Robert T Naismith II, MD
Associate Professor of Neurology (primary appointment)
PHD Washington Univ in St. Louis 2001
BA Northwestern University 1993
Susan Searles Nielsen, PHD, MA
Assistant Professor of Neurology (primary appointment)
PHD University of Washington 2004
BA Evergreen St College 1992
MA University of Washington 2000

Anne Fagan Niven, PhD
Professor of Neurology (primary appointment)
PHD University of CA San Diego 1992
BA Wellesley College 1984

Michael Justin Noetzel, MD
Professor of Neurology (primary appointment)
Professor of Pediatrics
Vice Chair of Pediatric and Developmental Neurology
MD University of Virginia 1977
BA Yale University 1973

Scott Norris, MD
Assistant Professor of Neurology (primary appointment)
MD University of MO Columbia 2008
BA Washington Univ in St. Louis 2000

Sheel Jitendra Pathak, MD
Instructor in Clinical Neurology (primary appointment)
MD University of Texas Galveston 2008
BS University of Texas Austin 2004

Robert Harris Paul, PhD, MS
Adjunct Assistant Professor of Neurology (primary appointment)
BS California State Long Beach 1993
PHD Oklahoma St University 1998
MS Oklahoma St University 1995

Toni Shih Pearson, MD, B MUS
Associate Professor of Neurology (primary appointment)
MD University of Adelaide 1998
B MUS University of Adelaide 2000

David M Peeples, MD
Instructor in Clinical Neurology (primary appointment)
MD University of Chicago 1986
BA Vanderbilt University 1982

Karen J Pentella, MD
Assistant Professor of Clinical Neurology (primary appointment)
BS Ohio State University 1975
MD Ohio State University 1979

Joel S Perlmutter, MD
Professor of Neurology (primary appointment)
Professor of Neuroscience
Professor of Occupational Therapy
Professor of Physical Therapy
Professor of Radiology
BA Princeton University 1975
MD University of MO Columbia 1979

Alan Pestronk, MD
Professor of Neurology (primary appointment)
Professor of Pathology and Immunology
MD Johns Hopkns University Medic 1970

BA Princeton University 1966

Daniel Phillips, BE, MD
Assistant Professor of Clinical Neurology (primary appointment)
BE Northwestern University 1982
MD Washington Univ in St. Louis 1980
BS Northwestern University 1976

Chia Ling Phuah, MD, MS, MS1
Assistant Professor of Neurology (primary appointment)
MD Cambridge University 2006
BS Cambridge University 2003
MS Harvard University 2016
MS1 Cambridge University 2007

Laura Piccio, MD
Associate Professor of Neurology (primary appointment)
MD University of Milan 1997

Stephanie K Powell, MS, PHD
Instructor in Clinical Neurology (primary appointment)
BS University of Notre Dame 1994
MS Univ of Wisconsin Milwaukee 2000
PHD Univ of Wisconsin Milwaukee 2004

William John Powers, MD
Adjunct Professor of Neurology (primary appointment)
MD Cornell University 1975
BA Dartmouth College 1971

Brad Alan Racette, MD
Robert Allan Finke Professor of Neurology (primary appointment)
Executive Vice Chair of Clinical Affairs, Department of Neurology
MD Northwestern University 1992
BA Princeton University 1988

David Martin Reisler, MD, M PH
Assistant Professor of Clinical Neurology (primary appointment)
MD Washington Univ in St. Louis 1961
M PH Johns Hopkins University Med 1971
BA Harvard University 1957

Dave A Rengachary, MD
Instructor in Clinical Neurology (primary appointment)
MD Northwestern University 2000
BA Northwestern University 1996

Terri L Riutcel, MD
Associate Professor of Neurology (primary appointment)
BS University of MO Columbia 1991
MD Vanderbilt University 1995

Catherine M Roe, PHD, MA
Associate Professor of Neurology (primary appointment)
PHD Southern Illinois University 1992
BA Purdue University 1986
MA Southern Illinois University 1990

James R Rohrbaugh, MD
Associate Professor of Clinical Neurology (primary appointment)
Associate Professor of Clinical Pediatrics
MD Ohio State University 1974
BA Yale University 1971
Rimma Ruvinskaya, MD
Associate Professor of Neurology (primary appointment)
BA School Not Listed 1979
MD Leningrad Inst of Peds Med 1985
Robin C Ryther, PHD, MD
Assistant Professor of Neurology (primary appointment)
PHD Vanderbilt University 2004
MD Vanderbilt University 2006
BS University of MO Columbia 1998
Chihiro Sato, MS, PHD
Instructor in Neurology (primary appointment)
MS University of Tokyo 2005
BS University of Tokyo 2003
PHD University of Tokyo 2008
Andrew David Sauerbeck, PHD
Instructor in Neurology (primary appointment)
BS University of Kentucky 2005
PHD University of Kentucky 2011
Anneliese M Schaefer, JD, PHD, BBA
Professor of Neurology (primary appointment)
JD Washington Univ in St. Louis 1988
PHD Washington Univ in St. Louis 2001
BBA Washington Univ in St. Louis 1985
Suzanne E. Schindler, MD, PHD
Assistant Professor of Neurology (primary appointment)
BS Millsaps College 1999
MD Washington Univ in St. Louis 2008
PHD Washington Univ in St. Louis 2008
Bradley L Schlaggar, MD, PHD
A Ernest and Jane G Stein Professor of Neurology (primary appointment)
Professor of Neuroscience
Professor of Pediatrics
Professor of Psychiatry
Professor of Radiology
MD Washington Univ in St. Louis 1994
BS Brown University 1986
PHD Washington Univ in St. Louis 1994
Kathleen Marie Schoch, PHD
Instructor in Neurology (primary appointment)
PHD University of Kentucky 2013
BS Bradley University 2007
Earl R Schultz, MD
Professor of Clinical Neurology (primary appointment)
Associate Professor of Clinical Psychiatry
BS University of Missouri 1953
MD Washington Univ in St. Louis 1955
BA Southeast Missouri St Univers 1952
Christian T Sheline, PHD
Adjunct Research Associate Professor of Neurology (primary appointment)
PHD University of California 1989
BA Dartmouth College 1983
Gordon L Shulman, MS, PHD
Professor of Neurology (primary appointment)
MS University of Oregon 1977
PHD University of Oregon 1979
BA Yale University 1975
Eli R Shuter, MD
Assistant Professor of Clinical Neurology (primary appointment)
MD Washington Univ in St. Louis 1960
BA Cornell University 1956
Todd B Silverman
Instructor in Clinical Neurology (primary appointment)
Barry A. Singer
Assistant Professor of Clinical Neurology (primary appointment)
Christopher D Smyser, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
Associate Professor of Radiology
BS University of Iowa 1998
MD University of Iowa 2004
Barbara Joy Snider, MD, PHD
Professor of Neurology (primary appointment)
BA Northwestern University 1979
MD University of Texas Southwest 1989
PHD University of Texas Southwest 1989
Richard Brian Sommerville, MD
Associate Professor of Neurology (primary appointment)
BS Harvard University 1999
MD Columbia University 2005
Tara V. Spevack, MS, PHD
Instructor in Clinical Neurology (primary appointment)
MS University of Florida 1994
BS McGill University 1987
PHD University of Florida 1997
Paul V. Tatter, MD
Professor of Neurology (primary appointment)
MD University of Pennsylvania 1979
BA Pennsylvania State University 1975
Barry A. Singer
Assistant Professor of Clinical Neurology (primary appointment)
Christopher D Smyser, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
Associate Professor of Radiology
BS University of Iowa 1998
MD University of Iowa 2004
Barbara Joy Snider, MD, PHD
Professor of Neurology (primary appointment)
BA Northwestern University 1979
MD University of Texas Southwest 1989
PHD University of Texas Southwest 1989
Richard Brian Sommerville, MD
Associate Professor of Neurology (primary appointment)
BS Harvard University 1999
MD Columbia University 2005
Tara V. Spevack, MS, PHD
Instructor in Clinical Neurology (primary appointment)
MS University of Florida 1994
BS McGill University 1987
PHD University of Florida 1997
T
Sandra L Tate, MD
Instructor in Clinical Neurology (primary appointment)
MD Southern Illinois University 1987
Mengesha A Teshome, MD
Instructor in Neurology (primary appointment)
MD Addis Ababa University 1989
Kwee L Thio, MD, PHD
Professor of Neurology (primary appointment)
Professor of Neuroscience
Professor of Pediatrics
MD Washington Univ in St. Louis 1992
BS Brown University 1984
PHD Washington Univ in St. Louis 1992

Jeffrey B. Titus, PHD, MA
Assistant Professor of Clinical Neurology (primary appointment)
PHD Ball State University 2002
MA University of Northern Colora 1999
BS Evangel College 1997

Stuart Ramm Tomko, MD
Assistant Professor of Neurology (primary appointment)
MD Baylor College of Medicine 2010
BS Davidson College 2005

Norman Edwin Trevathan III, MD, MS
Adjunct Professor of Neurology (primary appointment)
BS David Lipscomb University 1977
MD Emory University 1982
MS Emory University 1982

Angela M Tripp
Assistant Professor of Clinical Neurology (primary appointment)

Jason Daniel Ulrich, PHD
Assistant Professor of Neurology (primary appointment)
PHD University of Iowa 2011
BS Quincy College 2004

Mwiza Ushe, MS, MD
Assistant Professor of Neurology (primary appointment)
BS University of Pittsburgh 2000
MS Washington Univ in St. Louis 2007
MD Washington Univ in St. Louis 2007

Renee Bailey Van Stavern, MD
Professor of Neurology (primary appointment)
BA Texas A&M University 1991
MD Univ Texas Health Science Ctr 1997

Arun S. Varadhachary, MD, PHD
Associate Professor of Neurology (primary appointment)
MD Temple University 2004
PHD Temple University 2001

Oksana Volshteyn, MD
Professor of Neurology (primary appointment)
Professor of Medicine
MD Minsk State Medical Institute 1976

Andrew M. Wayne, MD
Instructor in Clinical Neurology (primary appointment)
BS University of CA Riverside 1989
MD University of Missouri 1993

Ling Wei, MD
Adjunct Research Assistant Professor of Neurology (primary appointment)
MD Beijing Medical University 1977

Conrad Christian Weihi, PHD, MD
Professor of Neurology (primary appointment)
PHD University of Chicago 1998
MD University of Chicago 2001
BS University of Illinois 1993

Judith L. Weisenberg, MD
Associate Professor of Neurology (primary appointment)
MD University of Minnesota 2002
BS Barnard College 1998

Howard I Weiss, MD
Assistant Professor of Clinical Neurology (primary appointment)
MD Tulane University 1972

Nicole Joy Werner, PHD, MS
Associate Professor of Neurology (primary appointment)
PHD Saint Louis University 2004
BS Univ of Minnesota Twin Cities 1997
MS Saint Louis University 2000

Robert L. White III
Instructor in Neurology (primary appointment)
BS Washington Univ in St. Louis 1999

Martin B Wice, MD, MS
Associate Professor of Neurology (primary appointment)
MD Northwestern University 1977
BS Grinnell College 1972
MS University of Washington 1983

Michael Wong, MD, PHD
Allen P and Josephine B Green Professor of Pediatric Neurology
Professor of Neuroscence
Professor of Pediatrics
MD University of Texas Southwest 1995
BA Princeton University 1987
PHD University of Texas Southwest 1995

Gregory Frederick Wu, MD, PHD
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pathology and Immunology
MD University of Iowa 2001
BS Washington Univ in St. Louis 1993
PHD University of Iowa 2001

Carla Marie Yuede, PHD
Assistant Professor of Neurology (primary appointment)
PHD University of MO St Louis 2006

Z

Craig Mitchell Zaidman, MD
Associate Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
MD University of Virginia 2001

Allyson R Zazulia, MD
Professor of Neurology (primary appointment)
Associate Dean for Continuing Medical Education
Professor of Radiology
MD Georgetown University 1994
BS University of Maryland 1990

John M Zempel, MD, PHD
Professor of Neurology (primary appointment)
Professor of Pediatrics
BS Univ of Wisconsin Madison 1985
MD Washington Univ in St. Louis 1995
PHD Washington Univ in St. Louis 1995

Lirong Zhu, PHD, MD
Assistant Professor of Clinical Neurology (primary appointment)
PHD Baylor College of Medicine 2006
MD Fudan University 2000

Courses


M35 Neurol 554 Neural Science
Neural Science is an intensive seven-week course that covers the structure, function and development of the nervous system as seen from molecular, cellular and systems-oriented perspectives. The emphasis is on the organization and function of the nervous system in health, but there is frequent reference to the clinical relevance of material presented. The course includes regular lectures, conference sessions and laboratories, plus a number of clinically oriented presentations and Special Topics sessions that address selected issues in greater depth. Computer-aided instructional programs, accessible from a variety of locations, provide auxiliary modes of self-paced learning and review. The midterm and final emphasize the core body of important facts and principles presented in lectures and laboratories. Limited space is available for non-medical students with instructor’s permission. Non-medical students should register under the cross-listed number L41 Biol 554 (spring only).
Credit 109 units.

M35 Neurol 632 Diseases of the Nervous System
The goal of this course is to provide an introduction to the diseases of the central and peripheral nervous systems, including their clinical manifestations, pathology, pathophysiology and pharmacotherapy. The course includes reading assignments, lectures, laboratories, conferences and clinical presentations.
Credit 53 units.

M35 Neurol 720 Neurology Clerkship
A full-time, four-week clerkship is provided on the neurology services at Barnes-Jewish Hospital. Patients are assigned to students who evaluate and follow them with the resident staff and discuss them regularly in conferences with the senior neurological staff. Students also work in the neurology clinic under staff supervision and attend a series of lectures on neurosurgical problems.
Credit 154 units.

M35 Neurol 730 Physical Medicine and Rehabilitation Clerkship
Clerkship in PM&R for third-year medical students provides an opportunity to gain basic knowledge and clinical skills in evaluation and management of a wide range of neurological and musculoskeletal diseases and conditions that require specialized rehabilitative medical and therapeutic care. Students spend two weeks on Spinal Cord Injury Unit (SCI) and two weeks on Brain Injury (BI) & Stroke Unit at The Rehabilitation Institute of St. Louis. Students are expected to be a part of the rehabilitation team, follow two to three patients, participate in daily morning rounds, participate in performing consults, attend team meetings and family conferences. Students are required to attend several outpatient clinics such as SCI, BI, Amputee and Stroke. During the entire rotation, students work together with PM&R residents and fellows, and under direct guidance of the NeuroRehabilitation faculty. The usual duty hours are 7-7:30 a.m. to 5 p.m. during weekdays, and 8 a.m.-noon on Saturdays. There is no night call. Students are required to attend all PM&R curriculum lectures and conferences. On the first day of rotation, students meet with the PM&R program director to go over goals, objectives and schedules. Upon completion of the rotation, students are required to fill out the evaluation form to provide feedback regarding rotation experience.
Credit 154 units.

M35 Neurol 827 Neurology Sub-Internship for WUSM Students
This four-week elective will be customized to include inpatient and outpatient experiences desired by WU students who have completed the WU Neurology Clerkship. Students may choose this elective to further improve their neurology knowledge and skills. Students considering neurology as a career may also desire additional exposure to supplement their prior clerkship experience. The elective is split into two two-week rotations which may include: 1. Adult Inpatient General Service (with one clinic/week) 2. Adult Inpatient Stroke Service (with one clinic/week) 3. Adult Inpatient Consult Service (with one clinic/week) 4. Pediatric Neurology Consult Service (with one clinic/week) 5. Adult Neurology ICU (with one clinic/week) 6. Outpatient Clinics (with 8-10 clinics/week).
Credit 154 units.

M35 Neurol 828 Neurology Sub-Internship for Visiting US Medical Students
This four-week elective for fourth-year visiting students from a U.S. medical school provides the option (space permitting) of four weeks of Adult Inpatient Service (Stroke for two weeks, General Neurology for two weeks), or two weeks on an Adult Inpatient Service and two weeks on the Adult Consult Service. Students on the inpatient service will function as a Sub-Intern under the supervision of their junior resident, chief resident, and attending physician. The student will also attend weekly clinical conferences and a weekly outpatient clinic experience. This
elective is suitable for visiting fourth-year students interested in neurology, who wish to improve their neurology knowledge and skills.

M35 Neurol 830 Neuro-Oncology
Provide an outpatient-oriented combined pediatric and adult neuro-oncology experience for fourth-year medical students. 1. Attend multidisciplinary adult and pediatric neuro-oncology clinics and case conferences (tumor boards); 2. Attend adult and pediatric radiation oncology clinics; 3. Attend neuropathology brain tumor review; 4. Participate in subspecialty brain tumor clinics; 5. Attend monthly brain tumor research conferences.

M35 Neurol 851 Clinical Aspects of Aging and Dementia
This elective provides the opportunity to learn about clinical research and clinical care in health brain aging and dementia. Students should contact the course directors to discuss this, as this elective is customized based on student interests. This can be a two-week or four-week elective. Students can gain proficiency in interpreting and in the neurologic examination of the geriatric patient, and be introduced to neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures important in the diagnostic evaluation of older adults. The Knight ADRC is an interdisciplinary group, so students have the opportunity to interact with physicians, nurse clinicians, psychologists and social workers, and to explore the neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures used in the diagnosis of dementing disorders such as Alzheimer’s disease, dementia with Lewy bodies, frontotemporal dementias, cerebrovascular disorders, and affective disorders.

M35 Neurol 859 Neonatal Neurology
The Neonatal Neurology elective will consist of a combination of inpatient and outpatient experiences designed to provide medical students with comprehensive exposure to the field. Through the rotation, students will actively participate in all aspects of patient care, acquiring the knowledge and skill necessary to effectively manage infants with neurological disorders, including encephalopathy, stroke, seizures, hypotonia, intraventricular hemorrhage, and periventricular leukomalacia, among others. Clinical activities will be tailored to fit the interests and goals of the individual student and include a combination of inpatient and outpatient exposures. Inpatient activities will occur in the St. Louis Children's Hospital Neonatal Intensive Unit as part of the Neonatal Neurology Consultation service. Outpatient activities will occur in the St. Louis Children's Hospital Outpatient Clinics. Students will also attend educational conferences specific to the field during the rotation, including Neonatal Neurology Clinical Conference and Neonatal Neuroradiology Conference.

M35 Neurol 860 Pediatric Neurology
The senior elective experience in child neurology is designed to provide comprehensive exposure to the field. The student will be integrated into the Critical Care Team that provides care in the Neurology/Neurosurgery ICU. Diseases frequently encountered include intracerebral hemorrhage, head trauma, subarachnoid hemorrhage, and stroke. The student will follow patients, participate in rounds and perform some procedures under supervision. Didactic sessions will be provided as conferences or lectures from the ICU attending.

M35 Neurol 865 Adult and Pediatric Epilepsy
Students will learn how epileptologists diagnose and manage epilepsy in adults and children. They will learn how to use the history and physical exam and laboratory studies such as EEG, MRI, PET, and SPECT to diagnose and manage patients with new onset epilepsy, established epilepsy, and medically intractable epilepsy. They will become familiar with the medical management of epilepsy as well as the treatment options for medically intractable epilepsy including surgery, the vagus nerve stimulator, and the ketogenic diet. They will also learn how to manage the co-morbid conditions that accompany epilepsy such as depression, behavioral problems, cognitive impairment, sleep disturbance, and non-epileptic events. Students will accomplish these goals by attending epilepsy clinics and rounding on the inpatient epilepsy service with the epilepsy team at Barnes-Jewish Hospital. They will also attend the Adult Epilepsy Conference, the Pediatric Epilepsy Conference, and Neurology Grand Rounds. Students will also have the opportunity to observe epilepsy surgery if they wish. They will have the option to present one 15-30 minute talk on a topic relevant to epilepsy.

M35 Neurol 872 MS Center/Outpatient - Missouri Baptist
Students will develop their skills in taking histories and performing neurological examinations on patients with multiple sclerosis under direct supervision of multiple sclerosis specialists. Localization of neurological findings and symptoms to the neuro-axis will be emphasized. A major goal for the students will be to increase the understanding of comprehensive patient management including disease treatment, symptom management, adjunctive therapy services, and psychosocial issues. The outpatient rotation will be four weeks at The MS Center for Innovations in Care at Missouri Baptist Medical Center with Dr. Barry Singer and Dr. Mark Tullman. An additional goal for students will be to understand process of clinical research and translation into approved therapies. The center has been a leader in clinical trial development of therapeutics that have been or will soon be FDA-approved as new medications for multiple sclerosis.
M35 Neurol 900 Research Elective - Neurology
Research opportunities may be available. If interested, please contact the Department of Neurology.