Department of Neurology

Neurology concerns itself with the diseases of the 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 to attend basic science or clinical conferences. During the second year, the Department of Neurology presents the course Diseases of the Nervous System (Neur 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 13 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

During 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 the translational discovery of neuroimaging biomarkers for neurodegenerative diseases. The laboratory focuses on the pathogenesis of Alzheimer's disease and HIV-associated neurocognitive disorders. We are investigating the effects of neurodegenerative diseases on the brain network level using functional (blood oxygen level dependent imaging, arterial spin labeling), structural (volumetrics, diffusion tensor imaging), and metabolic (PET amyloid and tau) methods. 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 and other neurodegenerative diseases. The student will participate in multiple areas of the research, including participant recruitment, consent, enrollment and admission to a research hospital unit. Lumbar puncture for cerebrospinal fluid sample collection, blood collection and intravenous labeling methods will be demonstrated and taught. The student will participate in sample analysis, including processing for mass spectrometry quantitation, enzyme-linked immunosorbent assay 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 that leads to the lesions of multiple sclerosis. We are also funded to study the effects of diet and adipokines on neuroinflammation. Depending on 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 of multiple sclerosis, cell culture or studies of human samples (cerebrospinal fluid, blood or 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. The student will learn about neuroimaging, imaging analyses, data collection, data management and clinical study endpoints in multiple sclerosis. They will observe patient participants undergoing a
detailed evaluation of disability measures, such as ambulation, symptom scales, cognition, vision, upper extremity function, and so on. They will witness the entire process of image acquisition, processing, analysis 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 multiple sclerosis, 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 to determine their effects on clinical function and learn to identify 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 approach to these issues 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 the etiology, pathophysiology and treatment of basal ganglia disorders. We have several studies of Parkinson disease (PD). We investigate mechanisms of action of deep brain stimulation, which is 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 to quantify motor behavior. We also have an active program developing and validating neuroimaging biomarkers for PD and for determining the integrity of the nigrostriatal pathway that includes studies in human and animal models of PD. We have an active program that combines a variety of approaches to developing biomarkers and investigating 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 to parse out the effects of selective dopaminergic agonists. We are also working to develop MR-based methods including diffusion tensor imaging and resting-state functional connectivity to investigate the 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 United States and residents living near a smelter in South Africa; neuroimaging, in which we study the pathophysiology of toxin-mediated parkinsonism; geographic information systems research, in which we associate environmental toxin exposures with the incidence and prevalence of Parkinson's disease in the United States and Finland; and neuropathologic studies, in which we evaluate manganese-exposed workers from South Africa. There are numerous opportunities available for students to be involved with any of these projects. Students will receive some clinical exposure as well to familiarize them with pertinent clinical syndromes.

Marcus E. Raichle, MD
East Building, 2nd Floor
Phone: 314-362-6907

This lab investigates in vivo brain hemodynamic, metabolic and functional studies of human cognition and emotion using cyclotron-produced isotopes and PET as well as 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, this lab studies antigen-presenting 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/Faculty) and their appointments.
<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aninda Bhat Acharya, MD1, MD</td>
<td>Instructor in Clinical Neurology (primary appointment) MD1 University of Kansas 1996 MD University of Kansas 1996 BS University of Kansas 1992</td>
</tr>
<tr>
<td>Muhammad Taher Al-Lozi, MD, MS</td>
<td>Professor of Neurology (primary appointment) BA University of Panjab 1976 MD University of Panjab 1980 MS University of Jordan 1985</td>
</tr>
<tr>
<td>Isabel Alfradique-Dunham, MD</td>
<td>Assistant Professor of Neurology (Pending Executive Faculty Approval) (primary appointment) MD Universidade Federal Fluminens 2008</td>
</tr>
<tr>
<td>Denis Ian Altman, MBBCH</td>
<td>Associate Professor of Clinical Neurology (primary appointment) Assistant Professor of Clinical Pediatrics MBBCH University of the Witwatersra 1975</td>
</tr>
<tr>
<td>Lizette Alvarez-Montero, MD</td>
<td>Instructor in Clinical Neurology (primary appointment) MD School Not Listed 1991 BA Washington Univ in St. Louis 1987</td>
</tr>
<tr>
<td>Korina Anastasaki, MS, PHD</td>
<td>Instructor in Neurology (Pending Dean's Approval) (primary appointment) MS Edinburgh University 2007 BS University of York 2006 PHD Edinburgh University 2011</td>
</tr>
<tr>
<td>Beau Mark Ances, MS, MD, PHD</td>
<td>Daniel J Brennan MD Professor of Neurology (primary appointment) Professor of Biomedical Engineering Professor of Radiology MS London School of Economics 1994 BS University of Pennsylvania 1993 MD University of Pennsylvania 2001 PHD University of Pennsylvania 2000</td>
</tr>
<tr>
<td>Gabriel C Araujo, PHD, MS, BA1</td>
<td>Instructor in Clinical Neurology (primary appointment) PHD Washington Univ in St. Louis 2011 MS Washington Univ in St. Louis 2007 BA California State University 2004 BA1 California State University 2004</td>
</tr>
<tr>
<td>Bhooma R. Aravamuthan, PHD, BS1, MD</td>
<td>Assistant Professor of Neurology (primary appointment) Assistant Professor of Pediatrics BS Michigan State University 2005 PHD Oxford University 2008 BS1 Michigan State University 2005 MD Washington Univ in St. Louis 2012</td>
</tr>
<tr>
<td>Baback Arshi, MA, MD</td>
<td>Assistant Professor of Neurology (primary appointment) MA Georgetown University 2006 BA University of Southern Calif 2004 MD Saint Louis University 2010</td>
</tr>
<tr>
<td>Andrew J Aschenbrenner, MS, PHD</td>
<td>Instructor in Neurology (Pending Dean's Approval) (primary appointment) MS Washington Univ in St. Louis 2013 BS University of Kansas 2010 PHD Washington Univ in St. Louis 2016</td>
</tr>
<tr>
<td>Sylvia Awadalla, MD</td>
<td>Professor of Neurology (primary appointment) MD Ohio State University 1985</td>
</tr>
<tr>
<td>Ganesh M Babulal, MS, MS, PHD</td>
<td>Instructor in Neurology (primary appointment) MS Washington Univ in St. Louis 2015 BS University of Minnesota 2008 MS University of Minnesota 2010 PHD Washington Univ in St. Louis 2014</td>
</tr>
<tr>
<td>Robert H Baloh, MD1, MD, PHD</td>
<td>Adjunct Assistant Professor of Neurology (primary appointment) BS Brown University 1995 MD1 Washington Univ in St. Louis 2001 MD Washington Univ in St. Louis 2001 PHD Washington Univ in St. Louis 2005</td>
</tr>
<tr>
<td>Nicolas Regis Barthelemy, MS, PHD</td>
<td>Instructor in Neurology (Pending Dean's Approval) (primary appointment) MS Paris Sud University 2007 BS Paris Sud University 2005 PHD Strasbourg University 2011</td>
</tr>
<tr>
<td>Randall John Bateman, MD, BS1</td>
<td>Professor of Neurology (primary appointment) Charles F and Joanne Knight Distinguished Professor of Neurology MD Case Western Reserve Univ 2000 BS Washington Univ in St. Louis 1995 BS1 Washington Univ in St. Louis 1995</td>
</tr>
<tr>
<td>Sarah Louise Bauer Huang, MD, PHD</td>
<td>Assistant Professor of Neurology (primary appointment) Assistant Professor of Pediatrics BS Duke University 2000 MD Stanford University 2012 PHD University of CA San Francisco 2006</td>
</tr>
<tr>
<td>Max Prely Benzaquen</td>
<td>Instructor in Clinical Neurology (primary appointment)</td>
</tr>
</tbody>
</table>
Mary Ellen Bertrand, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
BS McKendree College 1987
MD Southern Illinois University 1993

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

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

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)
PHD University of Texas Southwest 2014
BA Southern Illinois University 2002

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

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

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

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

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

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)
MD Washington Univ in St. Louis 1983
BS Amherst College 1979

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

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

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

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

John R. Cirrito, PHD
Associate Professor of Neurology (primary appointment)
BA Boston College 1998
PHD Washington Univ in St. Louis 2004

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

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)
MD University of Nebraska 2001
BS University of Nebraska 1997

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

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

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

**Gregory Scott Day, MD, MS**
Assistant Professor of 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)
BS Dartmouth College 2001
PHD Oxford University 2006
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)
MD University of San Francisco 1993
BS Princeton University 1987

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

**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
Assistant Professor of Radiology
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, MD, PHD**
Professor of Neurology (primary appointment)
BS Johns Hopkins University 1988
MD Northwestern University 1997
PHD Northwestern University 1997

**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)
BA University of Illinois 1987

**Julaine Marie Florence, DPT, MS**
Professor of Neurology (primary appointment)
Professor of Physical Therapy
DPT Washington Univ in St. Louis 2002
BS Washington Univ in St. Louis 1975
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)
BS Duke University 1998

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

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

Gilbert Gallardo, MS, PHD, MS, PHD
Assistant Professor of Neurology (primary appointment)
BS University of Texas El Paso 1999
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, PHD, MD
Associate Professor of Neurology (primary appointment)
BS Iowa State University 1995
PHD Northwestern University Med 2001
MD Northwestern University Med 2003

James Anthony Giles
Instructor in Neurology (Pending Dean's Approval) (primary appointment)

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

Jennifer L. Griffith, PHD, MD
Assistant Professor of Neurology (primary appointment)
BS Indiana University Bloomington 2004
PHD Washington Univ in St. Louis 2012
MD Washington Univ in St. Louis 2012

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

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

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

David H Gutmann, MD, MS, PHD
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

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

Lisa Adel Harker
Instructor in Clinical Neurology (primary appointment)

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

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

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

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

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

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

Thy N Huskey, MD
Professor of Neurology (primary appointment)
BS Northwestern University 1993
MD Northwestern University Med 1996

Krzysztof L Hyrc, PHD, MS
Associate Professor of Neurology (primary appointment)
PHD Jagiellonian University 1987
MS Jagiellonian University 1981

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

J

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

Laura Ann Jansen, PHD, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Pediatrics
BA Northwestern University 1991
PHD Saint Louis University 1996
MD Saint Louis University 1998

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

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

K

Peter Kang, MD
Instructor in Neurology (primary appointment)
MD Univ of Pittsburgh Greensburg 2012
BS Geneseo College 2008

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

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)
BS School Not Listed 1989
MD University of Madras 1993

Paul Thomas Kotzbauer, MD, PHD
Professor of Neurology (primary appointment)
Professor of Developmental Biology
MD Washington Univ in St. Louis 1997
PHD Washington Univ in St. Louis 1997
BS Northwestern University 1989

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)
BS University of Minnesota 1999
PHD Washington Univ in St. Louis 2006
MD Washington Univ in St. Louis 2006

Eric Carl Landsness, BE, MD, PHD
Instructor in Neurology (Pending Dean's Approval) (primary appointment)
BE University of Washington 2003
MD University of Wisconsin-Madiso 2013
PHD University of Wisconsin-Madiso 2011

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
Norman J Stupp Professor of Neurology (primary appointment)
Professor of Radiology
MD Cornell University 1993
BA Yale University 1989
PHD Cornell University 1992

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, MD, PHD
Associate Professor of Neurology (primary appointment)
MD Heilong jiang Coll of Trad Med 1983
PHD Kochi Medical School 1989

Yan Li, PHD
Instructor in Neurology (primary appointment)

PHD University of Alabama 2017
BS Huazhong Agricultural U 2007

Amy K Licis, MD
Associate Professor of Neurology (primary appointment)
BS Rice University 2000
MD Washington Univ in St. Louis 2004

Matthew Chandler Loftspring, PHD, BAS, MD
Assistant Professor of Neurology (primary appointment)
PHD University of Cincinnati 2011
BAS DePauw University 2004
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
BA Tufts University 1982
MS Georgetown University 1988

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

Cindy Ly, PHD, MD
Instructor in Neurology (Pending Dean’s Approval) (primary appointment)
PHD Baylor College of Medicine 2008
MD Baylor College of Medicine 2010
BS University of Texas Austin 2000

Luigi Maccotta, PHD, MD
Associate Professor of Neurology (primary appointment)
Associate Professor of Radiology
BS St Peters College 1994
PHD Washington Univ in St. Louis 2005
MD Washington Univ in St. Louis 2005

Baijayanta Maiti, PHD, MD
Assistant Professor of Neurology (primary appointment)
PHD University of Utah 2010
MD Calcutta University 2003

Raman Kant Malhotra, MD
Associate Professor of Neurology (primary appointment)
MD Harvard University 2001

John F Mantovani, MD
Associate Professor of Clinical Neurology (primary appointment)
Assistant Professor of Clinical Pediatrics
MD University of Missouri 1974
BA University of Evansville 1971

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)
BA Kent St University 1971
MD Saint Louis University 1975

Kathryn Mary Marlow, MD
Assistant Professor of Neurology (primary appointment)
BS State Univ of NY at Albany 2009
MD SUNY DOWNSATE MED BROOKLYN 2013

Pietro Mazzoni, PHD, MD
Associate Professor of Neurology (primary appointment)
PHD Mass Inst of Technology (MIT) 1994
MD Harvard University 1995
BS University of CA San Diego 1988

Eric Martin McDade, DOST
Associate Professor of Neurology (primary appointment)
BA Canisius College 1998
DOST Chicago Coll of OsteopathicMed 2004

Timothy M Miller, MD, PHD
Clayson Professor of Neurology (primary appointment)
MD Washington Univ in St. Louis 1998
PHD 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
BA Ohio Wesleyan University 1970
MD University of Rochester 1974

Stephanie Morris, MD
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
MD University of Phoenix 2011
BS University of Arizona 2007

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
 Associate 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
Professor of Neurology (primary appointment)
BS Case Western Reserve Univ 1994
MD Case Western Reserve Univ 1998

Jeffrey J Neil, MD, PHD
Professor of Neurology (primary appointment)
Professor of Pediatrics
MD Washington Univ in St. Louis 1984
PHD Washington Univ in St. Louis 1984

Susan Searles Nielsen, MA, PHD
Assistant Professor of Neurology (primary appointment)
MA University of Washington 2000
BA Evergreen St College 1992
PHD University of Washington 2004

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

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

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

Sheel Jitendra Pathak, MD
Adjunct Assistant Professor of Neurology (primary appointment)
BA Washington Univ in St. Louis 2011
MD University of MO Columbia 2011

Robert Harris Paul, MS, PHD
Adjunct Assistant Professor of Neurology (primary appointment)
BS University of Texas Austin 2004
MD University of Texas Galveston 2008

Toni Shih Pearson, MD, B MUS
Associate Professor of Neurology (primary appointment)
BS California State Long Beach 1993

David M Peeples, MD
Instructor in Clinical Neurology (primary appointment)
Lindsay M Peglar  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics

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 Neurosciences  
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 Hopkins University Medic 1970  
BA Princeton University 1966

Steven E Petersen, PHD  
James S McDonnell Professor of Cognitive Neuroscience in Neurology (primary appointment)  
Associate Professor of Neurological Surgery (Neuropsychology)  
Professor of Biomedical Engineering  
Professor of Neuroscience  
Professor of Psychological & Brain Sciences  
Professor of Radiology  
BA University of Montana Missoula 1974  
PHD California Institute Technolo 1982

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

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

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

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

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

Brad Alan Racette, MD  
Robert Allan Finke Professor of Neurology (primary appointment)  
Executive Vice Chair of Clinical Affairs, Department of Neurology  
BA Princeton University 1985  
MD Northwestern University 1982

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

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

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

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

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

Robert John Rudock, MBA1, MD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics  
BS John Hopkins University 2006  
MBA1 University of Miami 2011  
MD University of Miami 2012

Rimma Ruvinskaya, MD  
Associate Professor of Neurology (primary appointment)  
BA School Not Listed 1979  
MD Leningrad Inst of Peds Med 1985

Robin C Ryther, MD, PHD  
Assistant Professor of Neurology (primary appointment)  
MD Vanderbilt University 2006  
BS University of MO Columbia 1998  
PHD Vanderbilt University 2004
Chihiro Sato, PHD, MS
Instructor in Neurology (primary appointment)
PHD University of Tokyo 2008
BS University of Tokyo 2003
MS University of Tokyo 2005

Andrew David Sauerbeck, PHD
Instructor in Neurology (primary appointment)
PHD University of Kentucky 2011
BS University of Kentucky 2005

Anneliese M Schaefer, BBA, JD, PHD
Professor of Neurology (primary appointment)
BBA Washington Univ in St. Louis 1985
JD Washington Univ in St. Louis 1988
PHD Washington Univ in St. Louis 2001

Suzanne E. Schindler, MD, PHD
Assistant Professor of Neurology (primary appointment)
MD Washington Univ in St. Louis 2008
PHD Washington Univ in St. Louis 2008
BS Millisaps College 1999

Bradley L Schlaggar, MD, PHD
Adjunct Professor of Neurology (primary appointment)
BS Brown University 1986
MD Washington Univ in St. Louis 1994
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
BA Southeast Missouri St Univers 1952
MD Washington Univ in St. Louis 1955
BS University of Missouri 1953

Christian T Sheline, PHD
Adjunct Research Associate Professor of Neurology (primary appointment)
BA Dartmouth College 1983
PHD University of California 1989

Gordon L Shulman, PHD, MS
Professor of Neurology (primary appointment)
Professor of Radiology
PHD University of Oregon 1979
MS University of Oregon 1977
BA Yale University 1975

Todd B Silverman
Instructor in Clinical Neurology (primary appointment)

Barry A. Singer
Associate 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, PHD, MD
Professor of Neurology (primary appointment)
BA Northwestern University 1979
PHD University of Texas Southwest 1989
MD University of Texas Southwest 1989

Richard Brian Sommerville, MD
Associate Professor of Neurology (primary appointment)
MD Columbia University 2005
BS Harvard University 1999

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

Katherine Caroline White Stenson, MD
Associate Professor of Clinical Neurology (primary appointment)
MD Northwestern University Med 2018
BA Washington Univ in St. Louis 1994

Jeremy Fuller Strain, PHD
Instructor in Neurology (Pending Dean's Approval) (primary appointment)
BS University of Texas Arlington 2009
PHD University of Texas Arlington 2015

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 2000

Kwee L Thio, PHD, MD
Professor of Neurology (primary appointment)
Professor of Neuroscience
Professor of Pediatrics
BS Brown University 1984
PHD Washington Univ in St. Louis 1992
MD Washington Univ in St. Louis 1992

Jeffrey B. Titus, MA, PHD
Assistant Professor of Clinical Neurology (primary appointment)
MA University of Northern Colora 1999
PHD Ball State University 2002
BS Evangel College 1997
Stuart Ramm Tomko, MD  
Assistant Professor of Neurology (primary appointment)  
BS Davidson College 2005  
MD Baylor College of Medicine 2010

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

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

Keisuke Ueda, MD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics  
MD Keio University 2006

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

Amy Robichaux Viehhoever, PHD, BE, MD  
Assistant Professor of Neurology (primary appointment)  
Assistant Professor of Pediatrics  
PHD Vanderbilt University 2004  
BE Catholic University America 1998  
MD Vanderbilt University 2006

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

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

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

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

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

Michael Wong, PHD, MD  
Allen P and Josephine B Green Professor of Pediatric Neurology (primary appointment)  
Professor of Neuroscience  
Professor of Pediatrics  
PHD University of Texas Southwest 1995  
MD University of Texas Southwest 1995  
BA Princeton University 1987

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

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  
BS University of Maryland 1990
MD Georgetown University 1994

John M Zempel, PHD, MD
Professor of Neurology (primary appointment)
Professor of Pediatrics
PHD Washington Univ in St. Louis 1995
BS Univ of Wisconsin Madison 1985
MD 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 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, team activities, and clinical presentations.
Credit 153 units.

M35 Neurol 720 Neurology Clerkship
During the four-week Neurology clerkship, students will gain proficiency in understanding diseases of the nervous system, the neurologic work-up, localization and differential diagnosis, and devising a treatment plan. A variety of settings are available, which could include adult or pediatric services, with both inpatient and outpatient experiences. Students will provide care for patients with neurologic problems under the supervision of residents, fellows, and attendings.
Credit 154 units.

M35 Neurol 828 Neurology Subinternship for Visiting 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 subinterns under the supervision of their junior resident, chief resident, and attending physician. Students 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
This elective provides an outpatient-oriented pediatric and adult neuro-oncology experience for fourth-year medical students. Students will attend multidisciplinary adult and pediatric neuro-oncology clinics and case conferences (tumor boards), attend adult and pediatric radiation oncology clinics, attend neuropathology brain tumor review, participate in subspecialty brain tumor clinics, and 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 the elective is customized based on student interests. This can be a two-week or four-week elective. Students can gain proficiency in interviewing techniques 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 evaluate 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 the Neonatal Neurology Clinical Conference and the Neonatal Neuroradiology Conference.

M35 Neurol 860 Pediatric Neurology
The senior elective experience in child neurology is designed to adapt to the individual goals and objectives of students. The elective takes place in one or two 2-week blocks that occur among five possible venues as chosen by the student:
1. Outpatient clinics, 2. Inpatient ward service, 3. Inpatient general consult service, 4. NICU consult service, and 5. Video EEG (VEEG) monitoring service. The combination of services and experiences will be arranged directly between the student and the course director prior to beginning the rotation. In the outpatient clinics, students will rotate between a variety of subspecialty clinics and work with a variety of attendings in order to experience the breadth of outpatient pediatric neurology. Students rotating on the inpatient ward service will have a different role than the third-year student on pediatrics. The fourth-year student will focus solely on neurology patients and work closely with the pediatric neurology resident to develop neurology-specific care plans. No call or weekend duties will be expected on this rotation. On the general consult services, students will work with the consult attending and pediatric neurology residents on that team to see consults in the PICU, CICU, ERI, and other hospital floors. The NICU consult team
focuses on infants in the NICU. Student rotating on the VEEG monitoring service will focus on learning the indications and uses of VEEG and basic EEG reading skills.

**M35 Neurol 861 Neurointensive Care Unit**
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 and fellow.

**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 and St. Louis Children’s Hospital. They will 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.