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

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

Isabel Alfradique-Dunham, MD
Assistant Professor of Neurology (Pending Executive Faculty Approval) (primary appointment)
MD Universidade Federal Fluminens 2008

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

Korina Anastasaki, PHD, MS
Instructor in Neurology (Pending Dean's Approval) (primary appointment)
BS University of York 2006
PHD Edinburgh University 2011
MS Edinburgh University 2007

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

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

Bhooma R. Aravamuthan, MD, PHD, BS1
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
MD Washington Univ in St. Louis 2012
PHD Oxford University 2008
BS Michigan State University 2005

BS1 Michigan State University 2005

Baback Arshi, MA, MD
Assistant Professor of Neurology (primary appointment)
MA Georgetown University 2006
MD Saint Louis University 2010
BA University of Southern Calif 2004

Andrew J Aschenbrenner, PHD, MS
Instructor in Neurology (Pending Dean's Approval) (primary appointment)
PHD Washington Univ in St. Louis 2016
BS University of Kansas 2010
MS Washington Univ in St. Louis 2013

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

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

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

Nicolas Regis Barthelemy, MS, PHD
Instructor in Neurology (Pending Dean's Approval) (primary appointment)
BS Paris Sud University 2005
MS Paris Sud University 2007
PHD Strasbourg University 2011

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

Sarah Louise Bauer Huang, MD, PHD
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

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)

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

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

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

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
MD Saint Louis University 1968
BS School Not Listed 1964

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

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)

Salim Chahin, MS, MD
Assistant Professor of Neurology (primary appointment)
MD University of Virginia 1987
BA University of Pennsylvania 1984

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

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
MD University of Nebraska 2001
Kalen R Dionne  
Instructor in Neurology (Pending Dean's Approval) (primary appointment)

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

Casey Raymond Dunn, MD  
Assistant Professor of Neurology (primary appointment)  
MD Tulane University 2009  
BS University of Notre Dame 2005

Lawrence N Eisenman, MD, PHD  
Professor of Neurology (primary appointment)  
MD Northwestern University 1997  
BS Johns Hopkins University 1988  
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)  
MD Smolensk State Medical Academy 1996
Andrew Ross Findlay, MD  
Instructor in Neurology (Pending Dean's Approval) (primary appointment)  
BS University of CA Santa Barbara 2007  
MD University of CA Irvine 2013

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)  
PHD Illinois Institute of Technol 2015  
MA University of Hong Kong 2009  
BS University of Nottingham 2005

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

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  
BA Washington Univ in St. Louis 1991  
PHD Washington Univ in St. Louis 1997  
MA Washington Univ in St. Louis 1993

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

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  
PHD University of Texas Southwest 2008  
BS University of Texas El Paso 1999  
BS University of Texas El Paso 1999

Stefanie Geisler, MD  
Assistant Professor of Neurology (primary appointment)  
MD Humboldt University 2001

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

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

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

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

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

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  
MD University of Virginia 2006  
BS Furman University 2002

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

David H Gutmann, PHD, MD, MS  
Donald O. Schnuck Family Professor of Neurology (primary appointment)  
Professor of Genetics  
Professor of Neurological Surgery  
Professor of Pediatrics  
BS Davenport University 1979  
PHD Davenport University 1984
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Primary Appointment</th>
<th>Education Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD Davenport University 1986</td>
<td>Joseph Hanaway, MD</td>
<td>Assistant Professor of Clinical Neurology (primary appointment)</td>
<td>BA McGill University 1956  &lt;br&gt; MD McGill University 1960</td>
</tr>
<tr>
<td>MS Davenport University 1980</td>
<td>Lisa Adel Harker</td>
<td>Instructor in Clinical Neurology (primary appointment)</td>
<td>BA McGill University 1956  &lt;br&gt; MD McGill University 1960</td>
</tr>
<tr>
<td>Jason J Hassenstab, PHD, MS PSYC, B MUS</td>
<td>Jason J Hassenstab, PHD, MS PSYC, B MUS</td>
<td>Associate Professor of Neurology (primary appointment)  &lt;br&gt; Associate Professor of Psychological &amp; Brain Sciences</td>
<td>MD Fordham University 2009  &lt;br&gt; MS PSYC Fordham University 2005  &lt;br&gt; B MUS New York University 2002</td>
</tr>
<tr>
<td>Robert Edward Hogan III, MD</td>
<td>Robert Edward Hogan III, MD</td>
<td>Professor of Neurology (primary appointment)</td>
<td>MD University of MO Columbia 1989  &lt;br&gt; BA Augustana College 1985</td>
</tr>
<tr>
<td>Derek Lance Holder, MD, MS</td>
<td>Derek Lance Holder, MD, MS</td>
<td>Assistant Professor of Neurology (primary appointment)</td>
<td>MD CHICAGO MEDICAL SCHOOL 2012  &lt;br&gt; BS Washington Univ in St. Louis 2007  &lt;br&gt; MS Rosalind Franklin University 2008</td>
</tr>
<tr>
<td>David Michael Holtzman, MD</td>
<td>David Michael Holtzman, MD</td>
<td>Andrew B. and Gretchen P. Jones Professor of Neurology (primary appointment)  &lt;br&gt; Head of the Department of Neurology  &lt;br&gt; Professor of Developmental Biology</td>
<td>MD Northwestern University 1985  &lt;br&gt; BS Northwestern University 1983</td>
</tr>
<tr>
<td>Terri L Hosto, MSW, BSW</td>
<td>Terri L Hosto, MSW, BSW</td>
<td>Assistant Professor of Neurology (primary appointment)</td>
<td>MSW University of Michigan 1986  &lt;br&gt; BSW University of Illinois 1981</td>
</tr>
<tr>
<td>Chung Hsu, PHD, MD</td>
<td>Chung Hsu, PHD, MD</td>
<td>Adjunct Professor of Neurology (primary appointment)</td>
<td>PHD University of Virginia 1975  &lt;br&gt; MD National Taiwan University 1970</td>
</tr>
<tr>
<td>Thy N Huskey, MD</td>
<td>Thy N Huskey, MD</td>
<td>Professor of Neurology (primary appointment)</td>
<td>BS Northwestern University 1993  &lt;br&gt; MD Northwestern University Med 1996</td>
</tr>
<tr>
<td>Krzysztof L Hyrc, MS, PHD</td>
<td>Krzysztof L Hyrc, MS, PHD</td>
<td>Associate Professor of Neurology (primary appointment)</td>
<td>MS Jagiellonian University 1981  &lt;br&gt; PHD Jagiellonian University 1987</td>
</tr>
<tr>
<td>Jill Christine Isenberg, MS PSYC, PHD</td>
<td>Jill Christine Isenberg, MS PSYC, PHD</td>
<td>Instructor in Clinical Neurology (primary appointment)</td>
<td>BA Wake Forest University 1998  &lt;br&gt; MS PSYC Wake Forest University 2003  &lt;br&gt; PHD Wake Forest University 2005</td>
</tr>
<tr>
<td>Sindhu Saji Jacob, MD</td>
<td>Sindhu Saji Jacob, MD</td>
<td>Assistant Professor of Neurology (primary appointment)</td>
<td>MD Kottayam Medical College 1994</td>
</tr>
<tr>
<td>Mark F Jacquin, PHD</td>
<td>Mark F Jacquin, PHD</td>
<td>Professor of Neurology (primary appointment)  &lt;br&gt; Assistant Professor of Pediatrics</td>
<td>PHD City University of New York 1980  &lt;br&gt; BS Brandeis University 1975  &lt;br&gt; MD D.Y. Patil Medical College 2003</td>
</tr>
<tr>
<td>Laura Ann Jansen, PHD, MD</td>
<td>Laura Ann Jansen, PHD, MD</td>
<td>Associate Professor of Neurology (primary appointment)  &lt;br&gt; Associate Professor of Pediatrics</td>
<td>MD Saint Louis University 1996  &lt;br&gt; BA Northwestern University 1991</td>
</tr>
<tr>
<td>Yo-El S Ju, MD</td>
<td>Yo-El S Ju, MD</td>
<td>Associate Professor of Neurology (primary appointment)</td>
<td>BS Harvard University 2001  &lt;br&gt; MD Columbia University 2005</td>
</tr>
<tr>
<td>Neringa Juknis, MD</td>
<td>Neringa Juknis, MD</td>
<td>Associate Professor of Neurology (primary appointment)</td>
<td>MD Kaunas Medical Institute 1989  &lt;br&gt; BA School Not Listed 1985</td>
</tr>
<tr>
<td>Peter Kang, MD</td>
<td>Peter Kang, MD</td>
<td>Instructor in Neurology (primary appointment)</td>
<td>MD Univ of Pittsburgh Greensburg 2012  &lt;br&gt; BS Geneseo College 2008</td>
</tr>
<tr>
<td>Richard T. Katz, MA, MD</td>
<td>Richard T. Katz, MA, MD</td>
<td>Professor of Clinical Neurology (primary appointment)</td>
<td>BA University of Rochester 1977  &lt;br&gt; MA Cleveland Institute of Music 1979  &lt;br&gt; MD Case Western Reserve Univ 1981</td>
</tr>
<tr>
<td>Salah G. Keyrouz, MD</td>
<td>Salah G. Keyrouz, MD</td>
<td>Associate Professor of Neurology (primary appointment)  &lt;br&gt; Associate Professor of Neurological Surgery</td>
<td>MD Lebanese Univ Med Science 2000</td>
</tr>
</tbody>
</table>
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  
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)  
BS University of Minnesota 1999  
PHD Washington Univ in St. Louis 2006  
MD Washington Univ in St. Louis 2006

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

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  
BA Brigham Young University 1999  
MD University of Utah 2003

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

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

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)  
BS Huazhong Agricultural U 2007  
PHD University of Alabama 2017

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

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  
BA Tufts University 1982  
MD University of Minnesota 1992  
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  
BS University of Texas Austin 2000  
MD Baylor College of Medicine 2010

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)
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)
MD Saint Louis University 1975
BA Kent St University 1971

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

Pietro Mazzoni, MD, PHD
Associate Professor of Neurology (primary appointment)
MD Harvard University 1995
PHD Mass Inst of Technology (MIT) 1994
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, 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 Dorisame 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
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
Associate Professor of Neurology (primary appointment)
BS College of William and Mary 1999
MD Vanderbilt University 2007
PHD PMCG Vanderbilt University 2005

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

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

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)
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
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
BS University of Texas Austin 2004
MD University of Texas Galveston 2008

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

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

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

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 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 Hopkins University Medic 1970
BA Princeton University 1966

Steven E Petersen, PHD
James S McDonell 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
PHD California Institute Technolo 1982
BA University of Montana Missoula 1974

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, MS1, MS, MD
Assistant Professor of Neurology (primary appointment)
MS1 Cambridge University 2007
BS Cambridge University 2003

MS Harvard University 2016
MD Cambridge University 2006

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)
MS Univ of Wisconsin Milwaukee 2000
PHD Univ of Wisconsin Milwaukee 2004
BS University of Notre Dame 1994

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

R

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, M PH, MD
Assistant Professor of Clinical Neurology (primary appointment)
M PH Johns Hopkins University Medic 1970
MD Washington Univ in St. Louis 1961
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, 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, MD, MBA1
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
BS John Hopkins University 2006
MD University of Miami 2012
MBA1 University of Miami 2011
Rimma Ruvinskaya, MD  
Associate Professor of Neurology (primary appointment)  
MD Leningrad Inst of Peds Med 1985  
BA School Not Listed 1979

Robin C Ryther, MD, PHD  
Assistant Professor of Neurology (primary appointment)  
MD Vanderbilt University 2006  
PHD Vanderbilt University 2004  
BS University of MO Columbia 1998

Chihiro Sato, MS, PHD  
Instructor in Neurology (primary appointment)  
BS University of Tokyo 2003  
MS University of Tokyo 2005  
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 Schafer, BBA, PHD, JD  
Professor of Neurology (primary appointment)  
BBA Washington Univ in St. Louis 1985  
PHD Washington Univ in St. Louis 2001  
JD Washington Univ in St. Louis 1988

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  
Adjunct Professor of Neurology (primary appointment)  
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)  
BS Bradley University 2007  
PHD University of Kentucky 2013

Earl R Schultz, MD  
Professor of Clinical Neurology (primary appointment)  
Associate Professor of Clinical Psychiatry  
BS University of Missouri 1953  
BA Southeast Missouri St Univers 1952  
MD Washington Univ in St. Louis 1955

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)  
Professor of Radiology  
BA Yale University 1975  
MS University of Oregon 1977  
PHD University of Oregon 1979

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  
MD University of Iowa 2004  
BS University of Iowa 1998

Barbara Joy Snider, PHD, MD  
Professor of Neurology (primary appointment)  
MD University of Texas Southwest 1989  
BS University of Texas Southwest 1989  
BA Northwestern University 1979

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)  
BS McGill University 1987  
MS University of Florida 1994  
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 1989

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

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

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)
MD Emory University 1982
MS 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)
BS Quincy College 2004
PHD University of Iowa 2011

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

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

Amy Robichaux Viehovever, MD, PhD, BE
Assistant Professor of Neurology (primary appointment)
Assistant Professor of Pediatrics
MD Vanderbilt University 2006
PHD Vanderbilt University 2004

BE Catholic University America 1998

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)
MD University of Missouri 1997
BS University of CA Riverside 1989

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

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

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

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

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

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