



Traveling CME Neurosciences

Date: Upon request

Location: Your practice

Who: Internists, family physicians, neurologists, naturopathic doctors, nurse practitioners, physical and occupational therapists, residents, fellows, physical therapists, registered nurses, medical and nursing students

1.0 AMA PRA Category 1 Credit™



BRAIN
Institute

Traveling Neurosciences CME — OHSU Brain Institute Faculty

Prakash Ambady, M.D.

Assistant professor, Neurology
(Neuro-oncology, blood brain barrier program)

Noah Beadell, M.D.

Assistant professor, Neurology
(Neurology, stroke)

Lissa Baird, M.D.

Assistant professor, Department of Neurosurgery,
Doernbecher Children's Hospital
(Pediatric neurological surgery)

Dennis Bourdette, M.D., F.A.A.N., F.A.N.A.

Chair and Roy and Eulalia Swank Family Research
Professor, Neurology
Executive director, OHSU Multiple Sclerosis Center
(Multiple sclerosis, neuroimmunology, neurology)

Hormozd Bozorgchami, M.D.

Assistant professor, Neurology
(Neurology, stroke, interventional neuro-radiology)

Matthew Brodsky, M.D.

Associate professor, Neurology
(Parkinson's and movement disorders)

Kim Burchiel, M.D., F.A.C.S.

Chair, Department of Neurological Surgery
John Raaf Professor
(Movement disorders and Parkinson's,
neurological surgery)

Justin Cetas, M.D., Ph.D.

Assistant professor, Neurological Surgery, OHSU
Chief, Neurological Surgery, Portland Veterans
Medical Center
(Cerebrovascular, neuro-oncology skull base,
neurological surgery)

Jason Chang, M.D.

Assistant professor, Neurological Surgery
(Complex neurological surgery, spine surgery,
spine oncology, cervical spine disorders)

Kathryn Chung, M.D.

Assistant professor, Neurology
(Parkinson's and movement disorders)

Jeremy Ciporen, M.D.

Assistant professor, Neurological Surgery
Director of Neurosurgical Oncology
(Endoscopic, open skull base and cerebrovascular,
neurological surgery)

Wayne Clark, M.D.

Professor, Neurology
Director, OHSU Stroke Center
(Neurology, stroke)

Marian Dale, M.D.

Assistant professor, Neurology
(Parkinson's and movement disorders)

Alexandra Dimitrova, M.D., M.A.

Assistant professor, Neurology
(Neurology, comprehensive neurology, neuromuscular)

Aclan Dogan, M.D.

Associate professor, Neurological Surgery
(Cerebrovascular, neuro-oncology skull base,
interventional neuro-radiology, neurological surgery)

Lia deLeon Ernst, M.D.

Assistant professor, Neurology
(Neurology, epilepsy, seizure disorders, clinical
neurophysiology)

Maria Fleseriu, M.D., F.A.C.E.

Professor, Medicine, Endocrinology, and
Neurological Surgery
Director, OHSU NW Pituitary Center
(Neuroendocrinology, pituitary and adrenal disorders)

Amie Hiller, M.D.

Assistant professor, Neurology
(Parkinson's and movement disorders)

Jeffrey Kaye, M.D.

Professor, Neurology and Biomedical Engineering
Director, OHSU Layton Aging and Alzheimer's
Disease Center Director, Oregon Center for Aging
and Technology
(Aging and Alzheimer's)

Edward Kim, M.D.

*Assistant professor, Neurology
(Multiple sclerosis and neuroimmunology)*

Jeff Kraakevik, M.D.

*Associate professor, Neurology
(Parkinson's and movement disorders)*

Helmi Lutsep, M.D.

*Professor and Vice Chair, Neurology
Associate director, OHSU Stroke Center
(Stroke, neurology)*

Justin Meuse, M.D.

*Assistant professor, Neurology
(Neurology, epilepsy, seizure disorders, clinical neurophysiology)*

Paul Motika, M.D.

*Assistant professor, Neurology
(Neurology, epilepsy, seizure disorders, clinical neurophysiology)*

Gary Nesbit, M.D.

*Professor, Dotter Institute and Interventional Radiology
(Neurology, stroke, interventional neuro-radiology)*

John Nutt, M.D.

*Professor, Neurology
Director Emeritus, OHSU Parkinson Center
(Parkinson's and movement disorders)*

Ronald Pfeiffer, M.D.

*Professor, Neurology
(Parkinson's and movement disorders)*

Joseph Quinn, M.D.

*Professor, Neurology
Director, OHSU Parkinson Center
(Parkinson's and movement disorders, aging and Alzheimer's)*

Ahmed Raslan, M.D.

*Assistant professor, Neurological Surgery
(Neurological surgery)*

Christina Sayama, M.D., M.P.H.

*Assistant professor, Neurological Surgery
(Pediatric neurological surgery, neuro-oncology, spinal surgery)*

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

*Professor, Neurological Surgery
Campagna Chair, Pediatric Neurosurgery
(Pediatric neurological surgery)*

Lynne Shinto, N.D., M.P.H.

*Associate professor, Neurology
(Naturopathic medicine, neurology and women's health)*

Lisa Silbert, M.D., M.C.R.

*Associate professor, Neurology
(Aging and Alzheimer's, clinical neurophysiology)*

David Spencer, M.D.

*Professor, Neurology
Director, OHSU Comprehensive Epilepsy Center
(Neurology, epilepsy, seizure disorders, clinical neurophysiology)*

Khoi Than, M.D.

*Assistant professor, Neurological Surgery
(Neurosurgery, neurological spine surgery, minimally invasive spine surgery, spine oncology, spine trauma)*

Victoria Wong, M.D.

*Assistant professor, Neurology
(Neurology, epilepsy, seizure disorders, clinical neurophysiology)*

Vijayshree Yadav, M.D., M.C.R.

*Associate professor, Neurology
Clinical Director, OHSU Multiple Sclerosis Center
(Multiple sclerosis, neuroimmunology)*

Chris Yedinak, M.N., F.N.P., D.N.P.

*Assistant professor, Neurological Surgery
Family nurse practitioner, OHSU NW Pituitary Center
(Neuroendocrinology, pituitary and adrenal disorders)*

(Speakers subject to change)

AGING, ALZHEIMER'S AND DEMENTIA

Dementia: Overview and Management

Speakers: Jeffrey Kaye, M.D.; Joseph Quinn, M.D.; Lisa Silbert, M.D., M.C.R.

Objectives: Participants will learn to conduct basic diagnostic evaluation of cognitive disorders, be able to identify appropriate candidates for specialty referral, be able to review medical options for managing cognitive decline and common behavioral problems in dementia, and be better able to identify resources for providing ancillary services (e.g., education, support groups, driving evaluations) to dementia patients and caregivers.

CEREBROVASCULAR

Acute Stroke Treatment

Speakers: Noah Beadell, M.D.; Hormozd Bozorgchami, M.D.; Wayne Clark, M.D.; Helmi Lutsep, M.D.

Objectives: Describe current selection of patients for intravenous rtPA treatment, review the results of major intra-arterial mechanical embolectomy device trials in acute stroke and discuss potential future approaches to acute stroke care, including imaging selection.

Cerebral Aneurysms

Speakers: Justin Cetas, M.D.; Aclan Dogan, M.D.

Objectives: Analyze individual patients and develop more informed treatment recommendations, evaluate latest advances and available outcomes data to determine their significance for ruptured and unruptured intracranial aneurysms, assess treatment failures in intracranial aneurysms treated with either modality, and assemble strategies for treatment and salvage of recurrent and difficult intracranial aneurysms.

Cerebral and Spinal AV Fistula: Understanding a Complex Disease **NEW**

Speaker: Gary Nesbit, M.D.

Objectives: Understand the variety of arteriovenous fistula of the brain and spine, and their confusing clinical presentation, discuss imaging strategies, treatment paradigms and outcomes expectations.

Carotid Stenosis and the Prevention of Stroke **NEW**

Speaker: Gary Nesbit, M.D.

Objectives: Understand the variety of non-invasive methods of evaluation and risk analysis of symptomatic and asymptomatic carotid stenosis, discuss the management options and outcomes of data medical therapy, endarterectomy and angioplasty and stenting.

Painful Vertebral Compression Fractures **NEW**

Speaker: Gary Nesbit, M.D.

Objectives: Understand the clinical and imaging methods of evaluation of vertebral compression fractures to determine their relationship to severe back pain, discuss the management options and outcomes data of medical therapy, kyphoplasty, vertebroplasty in osteoporotic and pathologic compression fractures.

Stroke Prevention

Speakers: Noah Beadell, M.D.; Hormozd Bozorgchami, M.D.; Wayne Clark, M.D.; Helmi Lutsep, M.D.

Objectives: Review the results of recent stroke prevention studies, describe the aggressive medical management protocol for intracranial stenosis and discuss the status of carotid endarterectomy and stenting.

Subarachnoid Hemorrhage and Cerebral Vasospasm

Speaker: Justin Cetas, M.D., Ph.D.

Objectives: Define the terms delayed ischemic neurological deficits (DIND) and cerebral vasospasm in the setting of subarachnoid hemorrhage, describe the time course and associated signs of delayed ischemic neurological deficits, describe the current medical therapies for the prevention of DIND and describe the interventional therapies available for the treatment of cerebral vasospasm and DIND.

Subarachnoid Hemorrhages: Treatment of Aneurysms **NEW**

Speakers: Justin Cetas, M.D., Ph.D.; Aclan Dogan, M.D.

Objectives: Explain the components of a dual-trained endovascular neurosurgeon's practice; examine how dual-trained neurosurgeons use their open and endovascular skill sets to evaluate and treat CV disease; recognize the special features of aneurysms at specific sites, recognize potential pitfalls for safe lesion treatment; identify new methods of intervention for cerebral aneurysms, assess treatment failures in intracranial aneurysms, treated with either modality; and assemble strategies for treatment and salvage of recurrent and difficult intracranial aneurysms.

Traumatic Brain Injury

Speakers: Justin Cetas, M.D., Ph.D.; Ahmed Raslan, M.D.

Objectives: Identify patients at risk for elevated intracranial pressure following head trauma, understand the role for invasive intracranial pressure monitoring and describe the Glasgow Coma Scale.

The Unruptured Cerebral Aneurysm **NEW**

Speaker: Gary Nesbit, M.D.

Objectives: Understand the imaging and risk analysis of an unruptured aneurysm, discuss the management options and outcomes data of surgical and interventional therapy and the decision-making strategy of a multidisciplinary team.

EPILEPSY

Medication Management for Epilepsy

Speakers: Lia deLeon Ernst, M.D.; Justin Meuse, M.D.; Paul Motika, M.D.; David Spencer, M.D.; Victoria Wong, M.D.

Objectives: Review currently available anti-epileptic medications, discuss the importance of defining the seizure syndrome when choosing a medication, understand medication selection and discuss the importance of considering side effect profiles.

Seizure Types and Epilepsy Syndromes

Speakers: Justin Meuse, M.D.; Paul Motika, M.D.; David Spencer, M.D.; Victoria Wong, M.D.

Objectives: Differentiate between and recognize different types of seizures and epilepsy syndromes (as well as seizure mimics), apply basic principles of epilepsy management including use of anti-seizure medications, additional treatment options and knowing when to refer to a specialist.

Surgery for Epilepsy

Speakers: Kim Burchiel, M.D., F.A.C.S.;

Ahmed Raslan, M.D.

Objectives: Understand the role of surgery in the management of medically intractable seizures and describe the common types of epilepsy surgery.

Surgical Treatment of Epilepsy for Neurologists

Speakers: Lia deLeon Ernst, M.D.; Justin Meuse,

M.D.; Paul Motika, M.D.; David Spencer, M.D.;

Victoria Wong, M.D.

Objectives: Improve early recognition of medically refractory epilepsy and identify patients who should be referred for surgical management, become familiar with the range of surgical options for the treatment of epilepsy, understand the risks and benefits associated with epilepsy surgery in the context of the risks of ineffective long-term medical therapy, and recognize barriers to effective surgical treatment of epilepsy.

GENERAL NEUROLOGY

Medical Acupuncture for the Treatment of Pain: Applications and Mechanism of Action **NEW**

Speaker: Alexandra Dimitrova, M.D., M.A.

Objectives: Discuss various evidence-based applications of acupuncture for the treatment of headache and pain, as well as its mechanism of action at the level of the peripheral and central nervous system.

GENERAL WELLNESS

Wellness and Neurological Diseases

Speaker: Lynne Shinto, N.D., M.P.H.

Objectives: Review diet, physical activity, and stress reduction and discuss commonly used dietary supplements (e.g., omega-3 fatty acids, vitamins and minerals).

MULTIPLE SCLEROSIS

Imaging and Multiple Sclerosis for Neurologists

Speakers: Dennis Bourdette, M.D., F.A.N.A.,

F.A.A.N.; Edward Kim, M.D.; Vijayshree

Yadav, M.D.

Objectives: Become familiar with the key imaging technologies utilized in MS diagnosis and disease monitoring.

Overview and Symptomatic Treatment of Multiple Sclerosis for Neurologists

Speakers: Dennis Bourdette, M.D., F.A.N.A.,

F.A.A.N.; Edward Kim, M.D.; Vijayshree

Yadav, M.D.

Objectives: Understand common symptoms, current pathogenesis, become familiar with the newer approved treatment options and how to effectively manage those symptoms with primary care providers.

NERVE

Peripheral Nerve

Speaker: Kim Burchiel, M.D., F.A.C.S.

Objectives: List common peripheral nerve entrapment syndromes and their surgical management, describe the principle of nerve transfer and describe the role of surgery in nerve tumors.

NEURO-ONCOLOGY / SKULL BASE

Acoustic Neuromas

Speakers: Jeremy Ciporen, M.D.;

Aclan Dogan, M.D.

Objectives: Identify the indications for operative treatment, radiation treatment, drug treatment and observation, apply technical details of acoustic tumor surgery, discuss how to avoid complications and study the outcome of surgery, radiation treatment and observation.

Advances in the Management of High-Grade Glioma NEW

Speaker: Prakash Ambady, M.D.

Objectives: Discuss the updates in the classification of high-grade gliomas with emphasis on the importance of molecular classification, and review the standard of care and emerging therapies for treatment of high-grade gliomas.

Minimally Invasive Approaches to Brain Tumors NEW

Speaker: Jeremy Ciporen, M.D.

Objectives: Understand the initial diagnosis and work up, identify the sometimes subtle, clinical presentations patients may have with a serious neurosurgical problem, learn the treatment options and outcomes these patients can expect, learn about resources to better care for patients.

Neurological Surgery Update: Cutting-Edge Techniques in the Treatment of Brain Tumors NEW

Speaker: Jeremy Ciporen, M.D.

Objectives: To familiarize the attendees with the initial diagnosis and work up, identify, the sometimes subtle clinical presentations patients may have with a serious neurosurgical problem, educate attendees on the treatment options and outcomes these patients can expect, summarize and answer any questions attendees may have and provide them with resources to better care for their patients.

Role of Novel Imaging Biomarkers in Management of Brain Tumors NEW

Speaker: Prakash Ambady, M.D.

Objectives: Review the role of various imaging modalities for diagnosis, follow up and response assessment in brain tumors, introduction to high resolution steady state MRI with ferumoxytol and its role in the management of brain tumors.

Traumatic Brain Injury

Speakers: Justin Cetas, M.D., Ph.D.;

Ahmed Raslan, M.D.

Objectives: Identify patients at risk for elevated intracranial pressure following head trauma, understand the role for invasive intracranial pressure monitoring and describe the Glasgow Coma Scale.

Treatment Options and Approaches to Primary Brain Tumors, Metastatic Disease and Infections

Speakers: Jeremy Ciporen, M.D.;

Aclan Dogan, M.D.

Objectives: Understand the initial diagnosis and work up, identify the sometimes subtle, clinical presentations patients may have with a serious neurosurgical problem, learn treatment options and outcomes patients can expect, learn about resources to better care for patients.

PAIN

Facial Pain

Speaker: Kim Burchiel, M.D., F.A.C.S.

Objectives: Describe how facial pain is classified, describe the role of advanced imaging in facial pain and understand the major surgical approaches to facial pain.

Neuromodulation and Chronic Pain: Can Neurosurgeons Help?

Speaker: Ahmed Raslan, M.D.

Objectives: Understand the history of neurosurgery and pain, review the anatomy and physiology of pain perception and the physiology of neuromodulation of pain, understand the two main neurosurgical approaches to pain treatment (modulation and ablation) and review indications and candidacy to neurosurgical management.

Surgical Management of Cancer Pain

Speaker: Ahmed Raslan, M.D.

Objectives: Review the anatomy and prevalence of cancer pain and the guidelines for treatment of cancer pain, understand indications for ablative neurosurgery for cancer pain, review the candidacy and the available ablative neurosurgical options for cancer pain and review and analyze the existing data to support ablative neurosurgery for cancer pain.

PARKINSON'S AND MOVEMENT DISORDERS

Clinical Assessment of Falls

Speaker: Jeff Kraakevik, M.D.

Objectives: Identify common causes of falls in neurologic diseases, describe necessary components of the history and physical examination in a person with balance complaints, clinically differentiate classic gait patterns on examination and appropriately outline a tailored treatment plan for future fall prevention.

Comprehensive Care for Parkinson's Disease

Speakers: Matthew Brodsky, M.D.; Kathryn Chung, M.D.; Marian Dale, M.D.; Amie Hiller, M.D.; Jeff Kraakevik, M.D.; John Nutt, M.D.; Ronald Pfeiffer, M.D.

Objectives: Identify diagnostic criteria for Parkinson's disease, identify appropriate medical therapy options at different stages of disease, understand recent developments and indications for surgical therapy, discuss team approach for rehab therapy.

Movement Disorder Surgery

Speakers: Kim Burchiel, M.D., F.A.C.S.; Ahmed Raslan, M.D.

Objectives: Describe the history of movement disorder surgery, understand the difference between destructive surgery and brain stimulation and understand the current use of deep brain stimulation for movement disorders.

PEDIATRICS

Advances in Pediatric Neurosurgery

Speakers: Lissa Baird, M.D.; Christina Sayama, M.D., M.P.H.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Identify indications for neurosurgical referral in children, understand uses of modern imaging and computer navigation, learn how best to counsel children and parents about expectations for neurosurgical referral and treatment.

Brain Tumors

Speakers: Lissa Baird, M.D.; Christina Sayama, M.D., M.P.H.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Identify common brain tumors in children and the common signs and symptoms of children presenting with brain tumors, understand latest standards and outcomes in pediatric brain tumor therapy.

Epilepsy in Children

Speakers: Colin Roberts, M.D.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Identify common presentations of epilepsy in children and their medical therapy, understand features of medically refractory epilepsy in children, review types of and outcomes from surgical therapy for pediatric refractory epilepsy.

Hydrocephalus, Shunts and Shunt Malfunction

Speakers: Lissa Baird, M.D.;

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Understand the causes and pathophysiology of hydrocephalus, differentiate hydrocephalus from familial macrocephaly and understand the latest endoscopic treatments available.

Lumps and Bumps on the Pediatric Head **NEW**

Speaker: Lissa Baird, M.D.

Objectives: Recognizing incidental and symptomatic lumps and bumps on the head. When to worry, when to watch, when to refer.

PEDIATRICS – SPINE

Cerebral Palsy and Spasticity

Speaker: Christina Sayama, M.D.

Objectives: Understand cerebral palsy, spasticity, and other movement disorders, learn about baclofen pumps and other surgical treatment options for spasticity.

Pediatric Scoliosis and Other Complex Spine Issues

Speaker: Christina Sayama, M.D.

Objectives: Introduction and overview of more complex pediatric spine issues and how they can be detected, when to refer, and treatment overview.

Pediatric Spine Problems

Speaker: Christina Sayama, M.D.

Objectives: Identify common spine problems in the pediatric patient, presentation and detection, when to obtain imaging, when to refer and treatment options.

Tethered Spinal Cord and Chiari Malformation

Speakers: Lissa Baird, M.D.;

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Identify common clinical presentations of tethered cord and Chiari I malformation, identify common skin and skeletal markers of dysraphism, understand indications for imaging and neurosurgical referral.

Traumatic Brain Injury in Pediatrics

Speakers: Lissa Baird, M.D.; Christina

Sayama, M.D., M.P.H.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Objectives: Identify the causes and manifestations of traumatic brain injury in children, learn the latest recommendations for TBI management in children and discuss the prognosis after various degrees of TBI in children.

PITUITARY/ NEUROENDOCRINOLOGY

Acromegaly

Speakers: Maria Fleseriu, M.D., F.A.C.E.;

Chris Yedinak, M.N., F.N.P., D.N.P.

Objectives: Review pathophysiology, morbidity and mortality associated with excess growth hormone exposure, summarize the current criteria for cure in patients with acromegaly, including associated considerations on the interpretation of relevant assays, biochemical measures and clinical outcomes.

Cushing's Syndrome

Speakers: Maria Fleseriu, M.D., F.A.C.E.;

Chris Yedinak, M.N., F.N.P., D.N.P.

Objectives: Review pathophysiology, morbidity and mortality associated with excess cortisol exposure, learn updated recommendations for the screening and diagnosis of patients who potentially have Cushing's syndrome.

David and Goliath: Approaches to Pituitary Tumors **NEW**

Speakers: Justin Cetas, M.D., Ph.D.;

Jeremy Ciporen, M.D.

Objectives: Understand the initial diagnosis and workup, identify the sometimes subtle, clinical presentations patients may have with a serious neurosurgical problem, understand the treatment options and outcomes these patients can expect, learn about resources to better care for patients.

Pituitary Tumors and Dysfunction

Speakers: Maria Fleseriu, M.D., F.A.C.E.;

Chris Yedinak, M.N., F.N.P., D.N.P.

Objectives: Understand pituitary incidentaloma, radiographically identify the subtleties of sellar and parasellar masses, diagnose pituitary dysfunction in patients with sellar and parasellar masses, assess the long term risks of dopamine agonist therapy for prolactinomas and when to withdraw therapy.

SPINE

Current Evaluation and Treatment of Lumbar Spinal Stenosis

Speakers: Jason Chang, M.D.; Khoi Than, M.D.

Objectives: Define lumbar stenosis, understand the several etiologies of lumbar stenosis, learn how to evaluate and refer patients for treatment.

Degenerative Diseases of the Cervical Spine **NEW**

Speaker: Jason Chang, M.D.

Objectives: Understand the spectrum of degenerative diseases of the cervical spine, describe surgically relevant neurological deficits relative to outcomes, review the radiographic correlates for cervical spondylotic myelopathy.

Spinal Cord Injury

Speakers: Jason Chang, M.D.; Khoi Than, M.D.

Objectives: Define and identify mechanisms of spinal cord injury and current guidelines for treatment and outcomes, discuss surgical and nonsurgical management, understand algorithm for assessment and stabilization, discuss the appropriate spine precautions and transfer.

Spine Surgery

Speakers: Jason Chang, M.D.; Khoi Than, M.D.

Objectives: Identify new innovations in treatment, discuss revision spine surgery, complication avoidance and management and minimally invasive spine surgery.

Spine Tumors

Speakers: Jason Chang, M.D.; Khoi Than, M.D.

Objectives: Define spine tumors, identify primary versus metastatic tumors of the spine, and understand current guidelines for treatment with outcomes.

For more information or to schedule a traveling CME session, please contact OHSU Provider Relations.

Dina Girgenti-Iida

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Accreditation

Oregon Health & Science University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit

OHSU School of Medicine, Division of CME, designates this live activity for a maximum of 1.0 *AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



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