

Neurotransmitter

Department of Neurological Surgery, OHSU School of Medicine www.ohsu.edu/neurosurgery

June 2005



Kim J. Burchiel, M.D., F.A.C.S.
John Raaf Professor
and Chairman

Neurotransmitter is published semi-annually by the Department of Neurological Surgery, Oregon Health & Science University School of Medicine, for colleagues, alumni and friends of the department.

For inquiries, submissions or suggestions, please contact Shirley McCartney, Ph.D., 503 494-7469 (mccartns@ohsu.edu) www.ohsu.edu/neurosurgery.

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Message From the Chairman

CARPE DIEM —While change is an inevitable part of life, it seems that there are times when the rate of change accelerates remarkably. We are in one of those times. OHSU, and the Department of Neurological Surgery are on the cusp of what I consider to be the most dramatic series of opportunities this institution has ever seen. These opportunities are unique, perhaps even unprecedented. The corollary of these opportunities is the threat that we will become overwhelmed by change and will not fully exploit this opening. Unfortunately, if we do not recognize the opportunities, the initiative will then be lost. The phrase *carpe diem* is certainly appropriate.

The principal opportunity is our transition to the new Waterfront South Center. No one who has driven I-5 south of downtown can miss the Waterfront South building, now under construction and soon to be ordained the “Center for Health and Healing” at the “OHSU Commons”. Opening, fall 2006, the center will be a new “front door” to OHSU, offering the dual advantages of visibility, and accessibility. The center will be, effectively, part of downtown Portland, with more obvious parking opportunities, and a connection to the city via the Portland Streetcar, which will encircle the waterfront development.

So what is the threat? That would be simply exporting what we do “on the hill” to the waterfront. No institution, or organization is perfect. We certainly have much to improve on here at OHSU, with respect to improving the comfort and satisfaction of our patient customers, the timeliness of our service, and the integration of what is the largest and most complex medical group practice in Oregon, the OHSU Medical Group (OHSUMG). We need to improve in all of these domains, and we will! It will require commitment on

the part of every faculty member, health care provider, staff assistant and administrator in our department, and on the OHSU campus. It will mean conducting our medical practice in ways that will be new and difficult for OHSU. The threat is that we might turn aside from this challenge, and not seize the day.

We also need to change the way we document patient care, and streamline our communication to referring physicians. OHSUMG, in conjunction with the OHSU Hospital, has begun what will be the largest transition in medical record documentation this institution has ever seen. The Epic-Care electronic medical record system will put us at the forefront of electronic medical record technology. The transition will be difficult, maybe even somewhat traumatic, but when accomplished, we will be in a much more advantageous position in the medical marketplace. We all know that the care we provide our patients is superior. If there are problems with such a large institution, it is clear that communication deficiencies are of paramount concern. The Epic-Care system, when fully implemented, will allow us to both communicate with our referring physicians, and to coordinate with our OHSUMG colleagues. Neurological surgery is scheduled to complete training and make full use of the system by summer 2006, just prior to the scheduled Waterfront South facility occupancy.

Neurological surgery continues to change as a faculty. We are privileged to have recruited two new neurosurgeons to the department.

✓ Dilan Ellegala, M.D. has joined us effective July 1, and will be head of the neurological surgery Division of Neurotrauma and Neurointensive Care. Ellegala will become part of the OHSU neurointensive care team, in conjunction with a new director of neurointensive care, Anish Bhardwaj, M.D., a recent

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OHSU-Where Healing, Teaching and Discovery come Together

New Faculty

Director of Neurotrauma Assistant Professor

Dilantha B. Ellegala, M.D. joins the faculty of neurological surgery at



OHSU in July 2005 as director of neurotrauma. Ellegala received his undergraduate and medical degrees from University of Washington, Seattle WA.

During residency training at University of Virginia, Charlottesville, VA, he conducted research in quantitating cerebral blood flow using microbubbles. As part of the residency program at University of Virginia, Ellegala spent a year engaged in an international medicine rotation in New Zealand.

Ellegala recently completed a fellowship in cerebrovascular neurosurgery at Brigham and Women's Hospital, a teaching hospital of Harvard Medical School, Boston. He holds a joint appointment with Harvard Medical School and OHSU School of Medicine. ♦

Portland VA Medical Center Assistant Professor

Jorge L. Eller, M.D., joined the faculty of neurological surgery at OHSU, and the [Portland VA Medical Center](#), in April 2005. Eller received his medical degree from the Federal University of Espirito Santo Medical School in his native Vitoria, Brazil, in 1995.

In 1996, he began an internship in general surgery at SUNY Upstate Medical University in Syracuse, N.Y. followed by residency in neurological surgery at the same institution, graduating in June 2004. Eller was an instructor in functional and stereotactic neurosurgery at OHSU from July 2004 to April 2005.

During his residency, Eller pursued research in treatment of high-grade gliomas using monoclonal antibodies against the epidermal growth factor receptor. Since joining OHSU, he has been involved in an innovative research project trying to determine the degree and variability of electrophysiological coupling between neural activity and muscle activity in patients with essential tremor, hoping to achieve new insights

in the pathophysiology of this disease. He also is interested in the areas of neuromodulation, neurosurgical pain management, stereotactic procedures for movement disorders and epilepsy, and neurooncology. ♦

Postdoctoral Fellow

Keri E. Cannon, Ph.D., joined the the laboratory of [Mary Heinricher](#), Ph.D. in February 2005. Cannon received her biological sciences bachelor's degree in 2000 from Wright State University, Fairborn OH. Cannon attended Albany Medical College, Albany, N.Y., from 2000-2005, where she received both a master's and a doctorate in biomedical sciences. The focus of her M.S. and Ph.D. was neuropharmacology and neuroscience. Her doctorate thesis: *Examination of the localization and characterization of H3 receptor-mediated attenuation of nociception.*

Cannon's research in the Heinricher laboratory involves the supraspinal modulation of nociceptive transmission, with particular interest in specific classes of cells located within the rostral ventromedial medulla. Techniques include extracellular single-unit electrophysiological recording of neuronal activity following application of noxious thermal stimuli. In addition, juxtacellular recording has been implemented to allow modulation of rostral ventromedial medulla neurons and further anatomical characterization of these neurons via immunofluorescence analysis. ♦

Medical Illustrator

Andrew J. Rekito, M.S. joins neurological surgery in July 2005 as medical illustrator. Rekito received a bachelor's degree in interdisciplinary studies (scientific illustration) in 1999 and graduated in 2002 from the Medical College of Georgia's medical illustration graduate program with a master's degree in medical illustration. Rekito will work with [Shirley McCartney](#), Ph.D., and provide assistance to faculty and residents; creat-



ing textbook and journal illustrations; preparing slide and poster presentations; and providing illustrative work for *Neurotransmitter*, departmental Web pages, and patient education and marketing materials. ♦

Instructors 2005-'06

Skull Base

Eric Sincoff, M.D., joins neurological surgery at OHSU as an instructor in skull base surgery in July 2005. Sincoff received his medical degree from Johnson Medical School, New Brunswick, NJ. He completed residency in neurological surgery at St. Louis University School of Medicine in Missouri, graduating in June 2005.

Functional and Stereotactic

Reynaldo DeJesus, M.D. will join neurological surgery at OHSU as an instructor in functional and stereotactic surgery in August 2005. DeJesus is completing neurosurgery residency training at University District Hospital, San Juan, Puerto Rico. ♦

Interns 2005

Charles B. Newman, M.D., joins neurological surgery in July 2005 as an intern in general surgery. Newman graduated from the University of Florida, in 2000 with a bachelor's degree in computer science. In 2005, he received a medical



degree from Indiana University, School of Medicine. Newman is a trained jazz saxophone player, enjoys music production/performance, and was a working musician for nine years. He also enjoys foreign travel and sports.

Herman H. Tse, M.D., joins neurological surgery in July 2005 as an intern in general surgery. Tse graduated from the University of California Davis in 2001 with a bachelor's degree in biological science. He received a medical degree



from University of California, Los Angeles, School of Medicine in 2005. In his free time, Tse enjoys golf, model replica building, and music. ♦

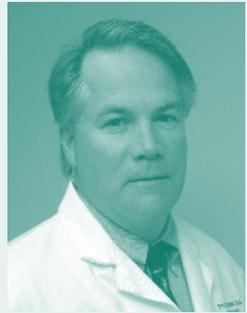
Visiting Professor Lecture Series

The Visiting Professor Lecture Series features some of the most outstanding medical professionals in the field of neurological surgery. Guests are invited to present cases of interest for discussion. The Department of Neurological Surgery and its faculty were pleased to invite the following visiting professor:

Bruce I. Tranmer, M.D. **University of Vermont, Burlington, VT**

Bruce I. Tranmer, M.D. is professor and chairman of the division of neurosurgery, University of Vermont. His areas of clinical expertise are cerebrovascular surgery, peripheral nerve surgery, and spinal neurosurgery.

Recent publications include, studies of the contributing role of R-type Ca²⁺ channels in cerebral artery constriction after subarachnoid hemorrhage, and a



review of the diagnosis and management of pediatric closed head injury. Tranmer serves on numerous societies, committees, and review organizations, including the American Heart Association, council member; Congress of Neurological Surgeons, committee member; and the Canadian Heart and Stroke Foundation, grant reviewer. Tranmer is certified by the American Board of Neurological Surgeons, American College of Surgeons, and the Royal College of Physicians and Surgeons of Canada. Tranmer discussed *Ice Fishing and Cerebral Aneurysms* when he visited OHSU on June 11, 2005.

Visiting Professors 2005

June 9 – 11

Bruce I. Tranmer, M.D., University of Vermont

July 21 – 23

Mitesh Shah, M.D., Indiana University

October 29 — John Raaf Day

David Piepgras, M.D., Mayo Clinic, College of Medicine

November 17 – 19

Richard Fessler, M.D., University of Chicago Hospitals

Awards and Appointments

Valerie Anderson, Ph.D., M.C.R., graduated in June 2005 with a master of clinical research degree in human investigation. The Human Investigations Program (HIP) at OHSU, a curriculum resulting in a certificate of training in human investigations or master of clinical research degree, is designed to meet the growing need for clinical investigators. With increased knowledge of the basic science of disease, well-trained clinical scientists can translate these concepts from the bench to the bedside and to the community. The HIP at OHSU is

supported by a K30 training grant from the National Institutes of Health and is sponsored by the OHSU School of Medicine, the Portland Veterans Affairs Medical Center, and by OHSU divisions and departments.

Mary Heinricher, Ph.D., was recently awarded funding for “Supraspinal prostaglandins and descending control” by the National Institute of Neurological Disorders and Stroke (NINDS). Heinricher also was awarded funds from the National Institute of Drug Abuse

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Community Outreach

OHSU's Celebration of the Brain Grows In Popularity

It only weighs three pounds, but it is the most important three pounds that our bodies hold. As small as the human brain may be, it is a huge cause for celebration each year during OHSU's Brain Awareness Season. All of OHSU's neuroscience programs – scientists, staff, and many volunteers from each – joined together this winter to create and celebrate the biggest and best Brain Awareness Season in the world.

The festivities kicked off in January, and covered topics ranging from music and the brain to the teenage brain.

The popular lecture series moved to a downtown venue to accommodate the tremendous growth in audience. New this year also was fee-based ticketing for the lecture series. The lectures were well attended and community feedback has been very positive.

Other popular events included the OHSU Brain Bowl, a spirited competition in which high school students from throughout Oregon test their knowledge of neuroscience.

In February, more than 350 teachers attended a powerful teacher workshop and resource fair that focused on improving student's attention, learning and memory. Parents were invited to attend another informative workshop about growing healthy brains in children.

The centerpiece of the cerebral celebration was the OHSU Brain Fair. More than 200 scientists pulled together exciting hands-on interactive exhibits that demonstrated the tremendous abilities of the brain. Many volunteers contributed time and energy to make the OHSU Brain Fair better than ever.

To learn more about Brain Awareness Season activities and programs, visit www.oregonbrains.org. ♦

- Melissa Powers, NSI, OHSU

Some OHSU lectures and events are filmed and available for viewing after the event, they can be located at www.ohsuhealth.com/news/events/videos.cfm

Resident Corner

Chief Resident, 2005-'06

Aclan Dogan, M.D., is chief neurosurgical resident for academic year 2005-2006. Dogan received his medical degree in 1986, and completed his neurosurgical residency in 1994, both at Ankara University School of Medicine, Ankara, Turkey. Following six months as a staff neurosurgeon at Sevgi Hospital Ankara, Turkey, Dogan spent six months as a cerebrovascular fellow at Nagoya University School of Medicine, Nagoya, Japan. In 1995, Dogan moved to Wisconsin and spent three years as a research associate in the neurological surgery department at the University of Wisconsin. Dogan joined the neurosurgery department at Louisiana State University in 1999, as a fellow in general neurosurgery. In 2001, Dogan joined OHSU as a skull base instructor and in 2002 entered the OHSU neurological surgery residency program. ♦

Neurological Surgery Resident Research Education 2005-'06

Brain Cancer

Matthew Hunt, M.D., will join the laboratory of Edward Neuwelt, M.D. Hunt will be studying a human breast cancer brain metastasis cell line, with the aim of developing a rat model of breast cancer brain metastasis. A goal of this research is to find methods to treat the increasing incidence of human brain metastasis associated with breast cancer.

Cerebrovascular Surgery

Warren Roberts, M.D., will complete a clinical endovascular fellowship with Stanley Barnwell, M.D., Ph.D. and Gary Nesbit, M.D.

Brain Imaging

Zachary Litvack, M.D., will be working with Valerie Anderson, Ph.D. and Charlie Springer, M.D. on two new magnetic resonance imaging techniques; diffusion contrast enhancement (DCE) and diffusion tensor imaging (DTI). These techniques have yet to be perfected, and are not in clinical use. Litvack will join an existing laboratory group that utilizes both DCE and DTI to examine the brain plaques of Al-

zheimer's disease. A goal of this research is to perfect laboratory use of the two techniques with an extension to use in surgical planning.

Neurotransmission Regulation

Jason Weinstein, M.D., will join the laboratory of Stephen Smith, M.D., Ph.D. The long-term goal of the Smith laboratory is to understand how presynaptic ion channels regulate neurotransmission in the brain under physiological conditions. These projects involve the use of electrophysiological and optical techniques to study a variety of voltage- and transmitter-modulated channels. Weinstein will study synaptosomes and single neuron preparations, with respect to changes in intracellular calcium and other ions in response to different medications and environments. Smith has previously identified a novel non-selective cation channel. One of the project goals is to better understand this channel and its role in synaptic transmission. ♦

Western Neurosurgical Society

The Western Neurosurgical Society (WNS) is a regional neurosurgical so-

ciety composed of selected members of the neurosurgical and allied neurological sciences communities in the western United States and Canada.

John Raaf, M.D. was a founder and president of the WNS and Kim J. Burchiel, M.D. is vice president.

The Society's 51st (Sept. 2005) annual meeting will take place at the Resort at Squaw Creek, Olympic Valley, Lake Tahoe, CA.

Selected from abstract submissions from residents in the United States and Canada, the following residents will receive awards and present their research:

Clinical Resident Award 2005

Matthew Hunt, M.D.

Intraoperative magnetic resonance imaging and transphenoidal surgery

Matthew Hunt, M.D., Gregory J. Anderson, Ph.D. and Johnny B. Delashaw, Jr. M.D.

Research Resident Award 2005

Jonathan Carlson, M.D., Ph.D.

Pain Modulation in the Rostral Pons

Jonathan Carlson, M.D., Ph.D., Nathan R. Selden, M.D., Ph.D., Kim J. Burchiel, M.D. and Mary Heinricher, Ph.D. ♦

Outstanding Consultant of the Year

Each year at the OHSU Department of Emergency Medicine graduation ceremony, a select number of nurses and attending physicians are recognised for their outstanding efforts throughout the year. This year, at the request of the EM residents, an award for "Outstanding Consultant of the Year" has been added. The Department's 25 residents voted to recognise Kenneth Liu, M.D., with the first "Outstanding Consultant of the Year" award.

The Department of Emergency Medicine often relies on the expertise of OHSU consultants to assist with patient care. Liu was praised for his positive attitude, excellent patient care, and friendly demeanor. He also was noted for excellent teaching, always willing to help the residents of emergency medicine better fund their knowledge and care of neurosurgery patients. Liu was described as "very professional with all staff and patients in the ED."

Congratulations to Dr. Liu! ♦

Chief Resident

Aclan Dogan, M.D.

Research Year

Matthew Hunt, M.D.
Warren Roberts, M.D.

Senior Residents

Jonathan Carlson, M.D., Ph.D.
Kenneth Liu, M.D.

Veteran's Administration and Doernbecher Children's Hospital

Kiarash Golshani, M.D.
Justin S. Cetas, M.D., Ph.D.

Elective Year

Zachary Litvack, M.D.
Jason Weinstein, M.D.

Junior Residents

Emun Abdu, M.D.
Jessica Lin, M.D.

Interns in General Surgery

Charles B. Newman, M.D.
Herman H. Tse, M.D.

Research News — More Than Just Brain Surgery!

Researchers in the Department of Neurological Surgery are studying **pain perception** and **regulation** in the laboratory and at the bedside. Other studies include research into surgical treatments for **epilepsy**, and the effects of deep brain stimulation on tremors associated with **Parkinson's disease** and other **movement disorders** in adults and **children**. Neurooncologists at OHSU are examining new treatments for **brain**

tumors. OHSU's **neurotrauma** research group was recently among the authors of pediatric guidelines for traumatic brain injury. **Cerebrovascular** neurosurgeons use interventional neuroradiology, a minimally invasive approach, in the treatment of diseases of the brain and **spine**.

Peer-reviewed publications for 2005 covered such topics as surgical treatments for movement disorders, stroke,

trigeminal neuralgia and pain, improvement in surgical approaches and procedures, and surgical device development. Basic research publications examined mediators of pain, neurons involved in pain, cell signaling and microelectrode recording of cell activity. A full publication listing can be located at www.ohsu.edu/neurosurgery.

Brief descriptions of some current research can be found below.

Pilot Research Study – Comparison of deep brain stimulation and thalamotomy in the performance of self-generated and externally-paced rhythmic movement

The objective of this study is to compare the effects of deep brain stimulation (DBS) and thalamotomy (TH) of the ventral intermediate (Vim) thalamus on internally- and externally-paced finger movements in patients with essential tremor.

Analysis of key strike sequences during finger tapping provides sensitive measures of fine finger motor control. Researchers hypothesized that fine finger motor control is differentially affected by DBS and TH, due to differential effects of lesion and stimulation on the cerebellothalamocortical loop.

Researchers found that rhythmicity of internally-paced finger movements tends to be improved by Vim thalamotomy, but worsened by DBS in all but the simplest tapping tasks. External pacing does not change the relative effect of TH and DBS on rhythmicity: externally-paced finger movements also tend to be improved more by TH than DBS.

Supported by the Medical Research Foundation of Oregon. Researchers: **Valerie C. Anderson**, **Jau-Shin Lou**, **Evan D. Vickers**, **Phillip C. Berryhill** and **Kim J. Burchiel**. ♦

Successful Patent – Carpal Tunnel Syndrome

Farhad Limonadi, M.D. recently received a patent for systems for the prevention or treatment of carpal tunnel syndrome.

Apparatuses and methods for pre-

venting and/or treating carpal tunnel syndrome are disclosed in the patent. One such apparatus comprises a splint for wearing on a portion of an upper extremity of an individual, a warning mechanism carried by the splint and a switch mechanism carried by the splint and electrically coupled to the warning mechanism. The switch mechanism is operable to activate the warning mechanism upon extension or flexion of the hand beyond a predetermined range of motion, and thereby, alert the user of such undesirable motion of the hand. ♦

Pilot Research Study – Transcranial Magnetic Stimulation in Neuropathic Facial Pain

The goal of this study is to evaluate the use of repetitive transcranial magnetic stimulation (rTMS) in the selection of patients with chronic facial pain for motor cortex stimulation (MCS). Motor cortex stimulation (MCS) has been used since 1991 to treat intractable central and neuropathic pain syndromes. Motor cortex stimulation has shown particular promise in the setting of neuropathic facial pain and is a well-accepted form of therapy for those patients with neuropathic facial pain who have failed medical management. In spite of the usefulness of MCS in the setting of facial pain, the procedure is not without risks. There is no method to screen patients with facial pain pre-operatively to define those who would maximally benefit from it. rTMS is a non-invasive, safe technique that has been shown to relieve facial neuropathic pain temporarily (five minutes to several days). Although the precise mechanism by which both MCS and rTMS reduce pain has not been

defined, both are thought to act through similar electrophysiological effects. The goal of this study is to investigate the potential of repetitive transcranial magnetic stimulation as a screening tool in patients with neuropathic facial pain for whom MCS is planned. Researchers hypothesize that patients who experience a reduction in pain during rTMS will experience a successful reduction in pain with MCS.

Researchers: **Valerie C. Anderson**, **Phillip C. Berryhill** and **Kim J. Burchiel**. ♦

Prostaglandins and Pain

Drugs like aspirin and ibuprofen have long been thought to exert their effect by blocking the formation of pro-inflammatory compounds (prostaglandins) at the site of tissue injury. However, researchers are now beginning to think that prostaglandins might also work in the brain to promote pain when tissue is infected or injured. In work newly funded by the NINDS, the laboratory of **Mary Heinrich**, Ph.D. will trace out brain sites and populations of neurons that are activated by prostaglandins to enhance pain processing. Blocking the actions of prostaglandins in the brain itself could be a potential target for new treatments for pain. ♦

Improgan and Analgesia

In collaboration with investigators at Albany Medical College, Albany, N.Y. the laboratory of **Mary Heinrich**, Ph.D. is analyzing neural circuits activated by improgan, a newly identified drug that has potent analgesic (reduction or elimination of pain) effects in animals. This drug is very different from current opioid analgesics, and thus may

John Raaf Day 2005

The Department of Neurological Surgery is proud to recognize the accomplishments of John Raaf, M.D., (1905 – 2000), widely regarded as the father of neurosurgery in Oregon. Raaf advanced the profession during his years as chairman of neurosurgery at Good Samaritan Hospital by creating an outstanding resource for the neurosciences community in the Pacific Northwest.

The 15th John Raaf Day Lecturer



A native of Minnesota, **David G. Piepgras, M.D.** received both his bachelor's and medical degrees from the University of Minnesota

Medical School, Minneapolis, in 1961 and 1965, respectively. Piepgras served a surgical internship at Mary Hitchcock Hospital, Hanover, N.H., followed by a three-year tour of duty with the US Air Force, assigned as a flight surgeon for special missions. Piepgras completed his surgery residency at Hennepin County General Hospital, Minneapolis, M.N. in 1970 followed by completion of his neurosurgery residency at the Mayo Graduate School of Medicine, Mayo Clinic, Rochester, M.N. in 1974. Piepgras then joined the consulting staff of neurological surgery at the

Mayo Clinic College of Medicine. In 1988, Piepgras was awarded the rank of professor and in 1994 named the Mayo Clinic College of Medicine, John T. and Lillian Mathews Professor of Neuroscience. Honored by his Mayo peers, Piepgras was named a distinguished Mayo clinician in 1998. Following 12 years as chairman of neurological surgery at the Mayo Clinic College of Medicine, Piepgras stepped down in June 2004. Piepgras remains involved in clinical and basic research. His primary interests include: intracranial aneurysm, arteriovenous malformation, arteriovenous fistula, perioperative hemorrhage and thrombo-embolic complications in neurosurgical patients, and perioperative anticoagulant therapy in neurosurgical patients. Piepgras is a member of the Congress of Neurological Surgeons and the American Association of Neurological Surgeons, and has served as president of both the Society

Past John Raaf Lecturers:

| | |
|---------------------------------|------|
| Lawrence F. Marshall, M.D. | 1991 |
| John A. Jane, M.D., Ph.D. | 1992 |
| Julian T. Hoff, M.D. | 1993 |
| Albert L. Rhoton Jr., M.D. | 1994 |
| Martin H. Weiss, M.D. | 1995 |
| Robert H. Wilkins, M.D. | 1996 |
| John M. Tew Jr., M.D. | 1997 |
| Donlin M. Long, M.D., Ph.D. | 1998 |
| Robert Grossman, M.D. | 1999 |
| William A. Buchheit, M.D. | 2000 |
| Russel Hugo Patterson Jr., M.D. | 2001 |
| Charles B. Wilson, M.D. | 2002 |
| H. Richard Winn, M.D. | 2003 |
| R. Michael Scott, M.D. | 2004 |

of Neurological Surgeons and the American Academy of Neurological Surgeons. He has published more than 175 peer reviewed articles and 70 book chapters, and he serves as a journal reviewer for publications including *The New England Journal of Medicine* and *Neurosurgery*.

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John Raaf Day 2005 Program Saturday, October 1, 2005 Doernbecher Children's Hospital Vey Conference Center – 11th Floor

| | |
|----------|--|
| 08:00 am | Registration and Continental Breakfast |
| 08:30 am | Introduction of David G. Piepgras, M.D., 2005 John Raaf Day Lecturer |
| 09:00 am | <i>In Quest of an Evidence-Based Approach to Management of Unruptured Intracranial Aneurysms</i> |
| 10:00 am | Discussion |
| 10:15 am | Refreshment Break |
| 10:45 am | <i>Discussing Errors and Adverse Outcomes with Patients and Families</i> |
| 11:45 am | Discussion |
| 12:00 pm | Luncheon |

For further information, please contact Joanie Mastrandrea at mastrand@ohsu.edu or call 503 494-6207.

Farewell

❖ Following two years at OHSU, **Phillip Berryhill, M.D.** is joining the Presbyterian Medical Group Neurosurgery, Presbyterian Hospital in Albuquerque, NM. This neurosurgery group provides a wide spectrum of neurosurgical specialty care to both adult and pediatric patients and residents of New Mexico and southern Colorado.

❖ Following a year as an OHSU instructor in skull base surgery, **Kapil Moza, M.D.**, is joining the neurosurgical staff of the University of California, Irvine Medical Center, CA.

❖ Completion of the neurological surgery residency program at OHSU takes seven years of dedication and patience. **Farhad Limonadi, M.D.** completed the program in June 2005. Limonadi and his family recently moved to Palm Springs, CA, where Limonadi will set up in private practice serving both Eisenhower Medical Center in Rancho Mirage and Desert Regional Medical Center.

OHSU Neurological surgery faculty and staff wish them all well. ♦



Chairman's message cont. from front cover ...

recruit to the OHSU Department of Anesthesiology from Johns Hopkins University. Ellegala also will establish a research laboratory to study cerebral blood flow, using microbubble technology.

✓ **Andrew Nemecek, M.D.** will be joining the department Sept. 1, and be part of the new OHSU Spine Center, also slated for the waterfront facility. Nemecek will work on emphasizing spine care and continuing outcomes research on spine disorders, and surgical treatment. The addition of these faculty members is evidence of the continued growth and vitality of the department that further our clinical capabilities.

My message is simply this: "If we are going to realize continued growth and success for the department, we must grasp the current challenges, see them for the opportunities they truly are, and use them to continue to build a premiere health care and research organization." ♦

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

Thank You!

Shirley McCartney, Ph.D., organizer of the OHSU Brain Fair, would like to extend thanks to the 200-plus OHSU Brain Fair volunteers. Special thanks to **Margaret Dancan, P.A.-C.**, **Ruth Roldriquez, C.N.A.**, **Debra Reeves, R.N.**, and **Jessica Lin, M.D.**, for their volunteer efforts at the neurological surgery display. ♦

Submit your information news, articles and ideas for the December 2005 issue of OHSU *Neurotransmitter* to Shirley McCartney, Ph.D., at mccartns@ohsu.edu.

ALUMNI
Neurological surgery would like to hear from YOU!

Awards and Appointments cont. from page 3 ...
(NIDA) to analyse neural circuits activated by impropag. For further details, see research news on page 5 of this issue.

In 2005, **Kim J. Burchiel, M.D.** was appointed vice president of the Western Neurosurgical Society, president of the Society of University Neurosurgeons, and editor of *Surgery News*.

Nathan R. Selden, M.D., Ph.D. was appointed editor of *SANSwired* in 2005. Self-Assessment in Neurological Surgery (SANS) is an online self-assessment tool for practicing neurosurgeons and trainees that is now a mandatory part of the American Board of Neurological Surgery, Maintenance of Certification (MOC) process. SANS is hosted at www.sanswired.com.

Libby Dawson Farr, Ph.D., an administrative assistant in the neurological surgery department, also teaches at Marylhurst University, Marylhurst, OR. Farr is an art/architectural historian and has been teaching architectural history, art history, and graduate courses at Marylhurst for the last eight years. Farr received a teaching excellence award from Marylhurst at the 2005 graduation ceremony on June 18. ♦

Research News cont. from page 5 ...

prove of value in cases where opioids are ineffective, or where an individual has become tolerant to the analgesic actions of opioids. ♦

OHSU Trains Doctors On New Artificial Disc For Back Pain

The Charite Artificial Disc, manufactured by DePuy Spine Inc., is the first device approved by the Food and Drug Administration for replacing a damaged or worn out spinal disc. In addition to treating patients, OHSU is teaching doctors how to perform the disc-replacement operation after having been selected as a regional training site.

Robert Hart, M.D., associate professor of orthopaedics and rehabilitation, **Jung Yoo, M.D.**, professor and chairman of orthopaedics and rehabilitation, and **Johnny Delashaw, M.D.**, professor of neurological surgery, and otolaryngology/head and neck surgery, will conduct the training. OHSU, one of 50 national training sites, is the only training site in Oregon.

The disc is a three-piece device made of a medical-grade plastic sandwiched between two chromium alloy endplates. The surgery to implant the disc involves locating the spine through an incision near the belly button, removing the diseased disc and replacing it with the artificial disc. Patients are in the hospital about four days.

Candidates for the disc are individuals with degenerative lumbar disc disease who have failed at least six months of treatment with pain medication, a back brace or physical therapy. Degenerative disc disease in the lumbar spine or lower back can occur when the discs wear out or are injured, leading to abnormal function as well as pain that limits daily activities.

The Charite disc is considered an alternative to spine fusion, a standard treatment for back pain that uses metal rods and screws to stabilize the lower spine, stopping motion across the disc.

OHSU Department of Orthopaedics and Rehabilitation (www.ohsu.edu/orthopaedics)

OHSU Neurological Surgery (www.ohsu.edu/neurosurgery).

Full story at www.ohsu.edu/ohsuedu/newspub/releases/051805disc.cfm. ♦

- Jonathan Modie, UNP, OHSU



Department of Neurological Surgery

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You Can Help the Department of Neurological Surgery Meet Its Mission

The Department of Neurological Surgery has a variety of programs that support research and resident/instructor education. Listed below are brief descriptions of the different activities supported by these funds:

- ❑ Raaf Chair: This endowed chair supports research in neurological surgery and neurosciences.
- ❑ Paxton Fellowship: This endowed professorship will support the development and implementation of the most advanced and innovative methods in neurological surgery education. This special professorship will be filled by an academic neurological surgeon with a national reputation for education, innovation and state-of-the-art approaches to neurosurgical teaching techniques.
- ❑ Neurosurgical Educational Gifts: These gifts provide support for numerous endeavours, in keeping with the Department of Neurological Surgery’s mission statement: emphasizing innovation and the dissemination of new knowledge; development of curricula and an environment that stimulates the spirit of inquiry; and research into the prevention and cure of neurological disease and disability.
- ❑ Campagna Professorship: This professorship provides support for a pediatric neurosurgical professorship and promotion of research in pediatric neurosurgery, and maintenance of the highest level of care for children with neurosurgical problems.

If you would like to make a tax-deductible contribution to any of these funds, please make your check payable to “**OHSU-Dept. of Neurological Surgery**” and submit it to **Bryce Helgerson** at the address above, along with a copy of this page and the fund(s) you wish to contribute to checked off. You will receive a letter stating that you have made a tax-deductible donation as proof of your charitable giving. Thank-you!

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