

Neurotransmitter

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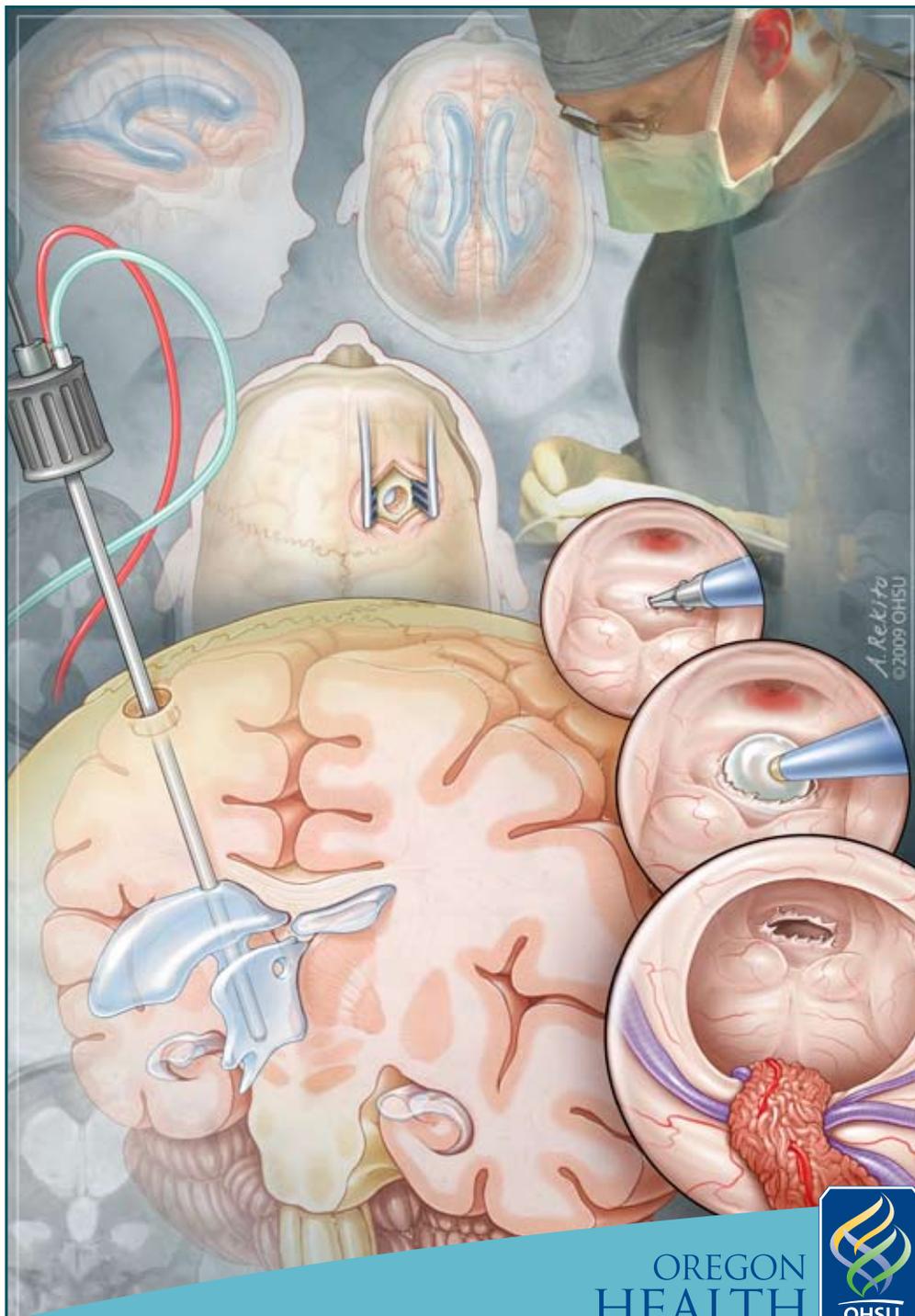
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John Raaf Professor and Chairman

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

Neurosurgery

Stanley L. Barnwell, M.D., Ph.D.
 Kim J. Burchiel, M.D., F.A.C.S.
 Johnny B. Delashaw, Jr., M.D.
 Aclan Dogan, M.D.
 Jorge L. Eller, M.D.
 Edmund H. Frank, M.D., F.A.C.S.
 Daniel Guillaume, M.D.
 Andrew N. Nemecek, M.D.
 Edward A. Neuwelt, M.D.
 Nathan R. Selden, M.D., Ph.D., F.A.C.S.

Neuroendocrinology

Maria Flaseriu, M.D.

Neurointensivist

Anish Bhardwaj, M.D.

Neuroradiology

Gary Nesbit, M.D.

Neuropsychology

David Gostnell, Ph.D.
 Richard Kolbell, Ph.D., A.B.P.P.

Otolaryngology

Sean O. McMenomey, M.D.

Pain Management

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

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 Stephen Giles, M.S., P.A.-C., Ph.D.
 Lori E. Guidone, M.S., P.A.-C.
 Katie Thompson, M.S., P.A.-C.

Nurse Practitioners

Wendy O. Domreis, M.S., R.N., C.P.N.P.
 Jane Olsen, R.N., C.R.N.P.
 Laurie Yablon, M.S., C.P.N.P.
 Chris G. Yedinak, M.N., C.F.N.P.

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 Thomas K. Baumann, Ph.D.
 Mary M. Heinricher, Ph.D.

Emeritus Faculty

Harold D. Paxton, M.D.

Administration

Sally Rodgers, M.A. C.M.P.E.
 Shirley McCartney, Ph.D.
 Andy Rekito, M.S.

Chairman's Update

In an attempt to “go-green” and move into the electronic print media age, OHSU Neurological Surgery will no longer print and mail our departmental newsletter, *Neurotransmitter*.

We do want to maintain our relationship with you, keep in touch and keep you informed about Neurological Surgery at OHSU. We will still publish our newsletter and it will continue be available on line at www.ohsu.edu/neurosurgery (www.ohsu.edu/neurosurgery/news-events/newsletter.cfm).

Opt-in Communication

As part of its communication outreach efforts to the community the OHSU Brain Institute electronically sends a newsletter (Brain E-Tips) once a month to interested folks who have “opt-ed in”. Brain-related information such as: clinical and health news, events, lectures are included often as a “first to know”. Neurological Surgery’s newsletter *Neurotransmitter* will in the future be included as a part of the OBI’s electronic community outreach effort.

Please go to www.oregon-brains.org to opt-in and receive the OHSU Brain Institute’s Brain E-Tips. Look for the Brain E-Tips promotional box.

If you would like us to directly e-mail you a copy of the *Neurotransmitter*, without subscribing to Brain E-Tips then please feel free to drop us an e-mail at nsg@ohsu.edu. Perhaps you would like the OHSU Brain Institute’s Brain E-Tips and Neurological Surgery’s *Neurotransmitter*?



Kim Burchiel

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

Referring providers

Furthering our departmental “go-green” efforts we have moved to electronic outbound faxing and will begin electronic inbound faxing May 1st, 2009. Not only will this save paper costs but will ultimately streamline patient referrals and communication with referring physicians.

To further improve communication OHSU offers **OHSU Connect**, a secure, HIPAA-compliant Web-based application that provides health care providers who refer patients to OHSU access to their patients’ OHSU medical records, and the ability to securely communicate with OHSU providers. Referring providers can request an **OHSU Connect** account today by visiting www.ohsu.edu/health/connect to complete the online registration request form. Or, can call 503 494-4567 for more information.

Healing, teaching and discovery

The articles in this edition of the newsletter encompass the core missions of OHSU, healing, teaching and discovery. Our faculty continue to employ the latest technology, to best meet the neurosurgical needs of our patient population, train and teach some outstanding alumni, and publish basic and clinical research in peer reviewed journals. Mary Ellen Dandy Marmaduke embodies the heart of neuroscience advocacy, together (patients, referring providers, neuroscientists) we can advocate for the neurosciences, locally, regionally and nationally.

We look forward to continuing our partnership with you and hope to hear from you in the future. If there is a brain-related topic you would like us to include in our newsletter and/or post to our website please feel free to contact us and let us know.



Sally J. Rodgers

Sally Rodgers, M.A., C.M.P.E.
 Administrator
 OHSU Neurological Surgery

OHSU *Neurotransmitter* is published 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., at 503 494-7469 or mccartns@ohsu.edu. Learn more about us on our website: www.ohsu.edu/neurosurgery

Editor: Shirley McCartney, Ph.D.

Illustrator: Andy Rekito, M.S.

Contributors: Kim J. Burchiel, M.D., Shirley McCartney, Ph.D., Daniel Guillaume, M.D., and Nathan Selden, M.D., Ph.D.

3rd Campagna Scholar in Neurological Surgery

Thanks to the kind philanthropic gesture of Dr. Mario Campagna and his wife, Edith, the Department of Neurological Surgery is pleased to continue the Campagna Scholarship in Neurological Surgery. This unique scholarship supports a 10-week summer semester of research under the supervision of a neurosurgical mentor at OHSU and covers residence expenses in Portland. Students in the first or second year of study at an accredited U.S. medical school are eligible to apply. One scholar is selected annually.

The scholar selected for the summer of 2009 is **Tristan Stani**, a medical student at Warren Alpert Medical School of Brown University. He has a certificate in post-baccalaureate premedical studies, from The Johns Hopkins University and a Bachelor of Arts, from St. John’s College (Annapolis, MD). He is interested in “cortical stimulation by surgically implanted devices as an emerging and important treatment option for patients suffering from stroke.” He will be working with Drs. Burchiel and Selden.

Growing up Curious by Mary Ellen Dandy Marmaduke

Family dinner conversations were laced with my father's enthusiastic accounts of surgeries, and as a teenager, I was able to watch my father operate. He would call me down and show me what he was doing, and occasionally a bloody sponge would land on my saddle shoe (of course no such thing would be allowed today as patient privacy is of the utmost importance). Summers during my teenage years I worked in his office as a receptionist and met all kinds of patients. The most memorable of whom were hydrocephalic babies with huge heads and blank stares.

In high school, biology was my favorite subject. In college, I majored in zoology. In 1970, at age 43, I earned a Master's in Science Education followed by a Master's in Health Education in 1981. I taught science for 10 years at an innovative public high school. In 1981, I started a consulting business in health education. My business (started with one of the first IBM computers) consisted of teacher training, curriculum development, and eventually working at the Oregon Museum of Science and Industry (OMSI) where I became an exhibit developer, specializing in brain-related exhibits. At 81 years of age I still consult at OMSI.

In the late 1990's I joined BRAINet and attended lectures on neuroscience research. When BRAINet decided to develop a Speakers Bureau, I offered my services, and, with a team of volunteers, developed a presentation to educate members of the public about neuroscience, the role of basic research in developing treatments, and the "Good News from Neuroscience Research".

The Brain Research Awareness and Information Network (BRAINet) is the volunteer outreach organization of the OHSU Brain Institute (OBI). BRAINet's mission is to foster awareness and support for the Institute and for neuroscience research by educating the public and engaging in community interaction. www.ohsu.edu/obi

In February 2000, I heard Dr. Kim Burchiel speak with enthusiasm about neurosurgery during an OHSU Brain Awareness season event. I introduced myself to him, and he invited me to give a talk about my father at Neuroscience Grand Rounds at OHSU. I presented my first PowerPoint about my father, his life and neurosurgery work on June 21, 2000, the first day of summer and the beginning of a new phase of my life.

In 2001, I presented at the Blood-Brain Barrier Consortium Meeting in Salishan, Ore. (organized by OHSU's Dr. Ed Neuwelt www.ohsu.edu/neurology). One of the participants at the conference was Dr. Ed Laws, whom I had previously met in 1982 when my father was honored by the Congress of Neurological Surgeons (CNS). I showed him a draft of the book I was writing about my father. He was interested and the CNS went on to publish "Walter Dandy: The Personal Side of a Premier Neurosurgeon" in 2002. Since that time, I have delivered a number of presentations around the country.

Each new phase of my life has been triggered by a flattening of the learning curve, and the emergence of new and challenging opportunities. Neuroscience research tells us that learning new things and social support are factors in healthy aging. The neuroscience and neurosurgical community at OHSU and around the country have and continue to provide wonderful social support and stimulating neurological experiences and contribute to keeping my synapses firing!

Dandy Marmaduke, ME. Walter Dandy. *The Personal Side of a Premier Neurosurgeon*, Lippincott Williams and Wilkins, Philadelphia, Pennsylvania, 2002.

Mary Ellen Dandy Marmaduke is a health education consultant in Portland, Ore. She is the daughter of Walter Dandy, M.D., an American neurosurgeon and scientist who is considered one of the founding fathers of neurosurgery. Dandy made significant scientific and clinical contributions to pediatric neurosurgery, neuroradiology, operative neurosurgery, and cerebrovascular neurosurgery. Mary Ellen is a close friend of the OHSU Department of Neurological Surgery (www.ohsu.edu/neurosurgery) and an advocate of OHSU neurosciences. She has kindly provided us with an insight into her life, inspired by her father, and the development of a life-long interest in the neurosciences.



Healing

OHSU Neuroscience Clinical Care - www.ohsu.edu/health/neuro/neuro.cfm

- Anesthesiology and Perioperative Care
- Casey Eye Institute
- Hearing Research Institute
- Neurology
- Neurological Surgery
- Psychiatry

Teaching

OHSU Neuroscience Graduate Program - www.ohsu.edu/ngp

The Neuroscience Graduate Program (NGP) provides a multidisciplinary, personalized education within a world-class research institution, located in the heart of the beautiful Pacific Northwest.

Neurological Surgery Residency Program

- www.ohsu.edu/neurosurgery/academics-residency

The OHSU residency program in neurological surgery is devoted to educating, training and mentoring the future leaders in neurological surgery.

Discovery

Neuroscience Research — OHSU Brain Institute - www.ohsu.edu/obi

- Anesthesiology and Perioperative Care
- Behavioral Neuroscience
- Casey Eye Institute
- CROET (Center for Research on Occupational and Environmental Toxicology)
- Hearing Research Institute
- Neurological Surgery
- Neurology
- OGI School of Science & Engineering
- ONPRC (Oregon National Primate Research Center)
- Pediatric Neuroscience
- Physiology and Pharmacology
- Psychiatry
- Vollum Institute

Advancements in Neuroendoscopy by Daniel Guillaume, M.D.

A short time ago, cerebrospinal fluid (CSF) shunting was the procedure surgeons used to treat all forms of hydrocephalus, and every tumor resection surgery required a craniotomy. With the technological advancements of the neuroendoscope, neurosurgeons now are able to successfully treat many of these conditions through an incision less than an inch in diameter, with little or no pain and a one- or two-day hospital stay.

Neuroendoscopy has followed in the footsteps of other surgical subspecialties including:

- urology (cystoscopy)
- orthopedic surgery (arthroscopy), and
- general surgery (laparoscopy).

By using an endoscope in place of a microscope, surgeons are able to see with high resolution and magnification and visualize from an angled perspective, while operating through the smallest opening possible. As compared to the microscope, which creates a cone of light focused to a narrow point, the endoscope brings light up to a lesion, with a “flashlight effect.” The endoscope also allows changing of the angle of view, giving the ability to visualize and work around corners as opposed to the microscope, which requires brain retraction or insertion of a mirror to see around corners. This can achieve maximum surgical effectiveness with minimal or no retraction of the brain and spine tissue. Applications are increasing as instruments are further refined and as more surgeons gain expertise.

Employing the latest technology

The combination of computer-assisted neuronavigation with neuroendoscopy can be used to plan the optimal entry point and trajectory, further minimizing damage to brain tissue. Neurosurgeons at OHSU and Doernbecher Children’s Hospital routinely link the endoscope with a frameless image guidance system, allowing tracking of the tip of the endoscope with computer navigational assistance. This is especially helpful in cases of small ventricles or ambiguous intra-ventricular landmarks, further increasing safety and precision.

The advantages

Neuroendoscopy aids greatly in the modern management of brain tumors. The advantages include:

- improved visualization
- less brain retraction
- minimally invasive removal of some intraventricular and skull base tumors, and
- adjuncts to traditional tumor management due to the endoscopic ability to provide an angled perspective.

A surgeon can also address, during the same endoscopic procedure, CSF diversion due to obstruction of normal CSF pathways by tumor, thereby decreasing the number of procedures.

Who to refer to OHSU?

Patients with:

- Hydrocephalus
- Cerebrospinal fluid (CSF) leaks
- Intraventricular tumor
- Pituitary or skull base tumor
- Intracranial cyst



Endoscopic third ventriculostomy (ETV)

Neuroendoscopy has gained most attention in the treatment of obstructive hydrocephalus. In many cases indwelling shunts can now be avoided or removed. A procedure called endoscopic third ventriculostomy (ETV) entails making a small opening in a ventricular membrane, communicating the third ventricle with cerebrospinal fluid spaces in front of the brainstem. This is now a primary management strategy for many forms of obstructive hydrocephalus, including aqueductal stenosis, which is responsible for more than 50% of cases of hydrocephalus presenting within the first year of life. This procedure is also routinely used to treat hydrocephalus resulting from brain tumors that interfere with normal movement of CSF. When ETV is not possible due to anatomic variations, aqueductal stenosis and isolated ventricles can be treated with another endoscopic procedure called aqueductoplasty, which entails re-communicating the third and fourth ventricles by opening the cerebral aqueduct. When used to treat these conditions specifically, both ETV and aqueductoplasty have success rates greater than 80% (Cinalli, 2004), which is significantly better than the traditional shunting procedure. Neuroendoscopic management can also be an effective treatment for complex multiloculated hydrocephalus, which has more traditionally been treated with multiple shunt catheters or open surgery. These traditional techniques are often unsuccessful due to infection, obstruction and hemorrhage associated with shunt replacement. Endoscopic treatment has resulted in the successful removal of shunts from some previously shunt-dependent patients, and simplified the treatment of complex hydrocephalus.

Other applications

Endoscopy also facilitates minimally invasive open surgical resection of tumors and other intracranial lesions. When used in addition to standard microscopic techniques, the endoscope can lead to a more complete tumor resection due to improved visualization and an angled perspective.

Specific applications

- biopsy and resection of cystic tumors
- removal of many solid intraventricular tumors such as
 - ependymoma
 - craniopharyngiomas
 - select meningiomas
 - arachnoid cysts, and
 - sellar tumors, such as pituitary adenomas
- in some cases, tumor removal can be achieved through a nostril, without making a surgical incision.

Sharing the knowledge

We work with state-of-the-art neuroendoscopy equipment and share our knowledge and experience by teaching endoscopy to practicing neurosurgeons regionally and nationally.

For more information or patient referrals, contact OHSU Neurological Surgery

www.ohsu.edu/neurosurgery

Phone: 503 494-4314

Fax: 503 494-7161

nsg@ohsu.edu



2009 Distinguished Alumnus

Calvin Tsugio Tanabe, M.D.

The OHSU Department of Neurological Surgery appreciates there are many distinguished former departmental residents who have made significant achievements in, and contributions to, academic and clinical neurosurgical practice. In recognition of their contribution to the field, the department has created an annual Distinguished Alumni Award.

The 2009 recipient is Calvin Tsugio Tanabe, MD. Board certified by the American Board of Neurological Surgery (ABNS) in 1973, Dr. Tanabe, now retired, had practiced neurological surgery in Portland, Ore. with Microneurosurgical Consultants, which he founded in 1980. Originally from Portland, he spent much of his youth in Ontario, Ore. (a result of Japanese war-encampment). Dr. Tanabe is a graduate of the University of Oregon, a medical doctorate graduate and neurosurgery resident program graduate of the University of Oregon Medical School (now OHSU), 1964 and 1970, respectively. Dr. Tanabe was Dr. Harold Paxton's first resident. After two years in Vietnam and at Letterman Army Medical Center, Army General Hospital, Presidio of San Francisco he was appointed assistant professor at the University of Oregon Medical School in August 1972. He remains interested in the spine, neuro-oncology, and skull base lesions.

In recognition of his contributions to academic and clinical neurosurgical practice and dedication to the neurosurgical care of his local community we look forward to honoring him at the 2009 Paxton dinner on Saturday, June, 27th 2009 (*by invitation*).

For more information regarding events or announcements, please contact Joanie Mastrandrea at 503-494-6207 or mastrand@ohsu.edu.



2009 Paxton International Professor

Neil Kitchen, M.D. F.R.C.S. (SN)

Mr. Kitchen, consultant neurosurgeon and associate clinical director, Victor Horsley Department of Neurosurgery, National Hospital for Neurology and Neurosurgery (NHNN), University College London Hospital Trust, London, England will visit OHSU June 25 to July 2, 2009.

Mr. Kitchen has been a consultant neurosurgeon for more than 10 years. His neurosurgical interests include neuro-oncology, skull base surgery and cerebrovascular disease.

Mr. Kitchen completed a Cambridge University, bachelor of medicine, bachelor of surgery (MBBChir) degree in 1985 following completion of preclinical training at St. Bartholomew's Hospital Medical College, London University, a bachelor degree in history of medicine at University College, London University and clinical training at Addenbrooke's Hospital, Cambridge University. He was appointed a Fellowship of the Royal College of Surgeons (FRCS) in 1989, (this is the professional qualification that allows practice as a surgeon in the British Isles) and appointed to the FRCS (SN) surgical neurology intercollegiate speciality board in 1995. Mr. Kitchen completed a Cambridge University medical degree in 1996 specializing in "Epilepsy Surgery: Alternative Strategies".

He is actively involved in a translational neurovascular diseases research program and his research has extensive links with neurology, neurochemistry, neuroradiology and neurointensive care within NHNN, as well as other neurosciences centers.

His current research programs include: interventional magnetic resonance (MR) imaging in neuro-oncology, image guidance techniques in skull base surgery, hemostatic mechanisms following subarachnoid hemorrhage, genetic markers of cerebral aneurysms and arteriovenous malformations, microdialysis in neurosurgical intensive treatment unit patients, and hydrocephalus and MR imaging.

Mr. Kitchen has published more than 130 peer reviewed articles and more than 25 book chapters and he was the neurosurgeon shadowed by Ian McEwan for his book *Saturday*. He enjoys marathon running, triathlons, and rock climbing.



Announcements

OHSU Professional Staff Award

Awarded to *Maria Fleseriu, M.D.* for Outstanding Contribution to Development of Interdisciplinary Teams.

Certified Medical Practice Executive (CMPE)

Sally Rodgers, M.A., C.M.P.E. received certification in April 2009 from the American College of Medical Practice Executives, the standard-setting and certification body of the Medical Group Management Association, whose mission is to continually improve the performance of medical group practice professionals and the organizations they represent. www.mgma.com



Campagna Scholar Presentation at Annual Meeting

David Panczykowski will present at the May 2009 American Association of Neurological Surgeons meeting.

Journal of Neurosurgery Cover Illustration May 2009

Congratulations to *Andy Rekito, M.S.* for The Role of Surgery for High-Grade Intracranial Dural Arteriovenous Fistulas: Importance of Obliteration of Venous Outflow: Liu JK, Dogan A, Ellegala D, Carlson JD, Nesbit GM, Barnwell SL, Delashaw Jr. JB, *Journal of Neurosurgery* May 2009.

Alumni Update - 2008 Chiefs Move On

Jonathan Carlson, M.D., Ph.D. has accepted a position with Sacred Heart Medical Center & Children's Hospital, Inland Neurosurgery and Spine Associates, Spokane, WA. Dr. Carlson's clinical interests are spine surgery, movement disorders, and deep brain implants.



Kenneth C. Liu, M.D. is completing a fellowship in interventional neuroradiology at OHSU with Dr. Stanley Barnwell. Interventional neuroradiology is a minimally invasive approach used in the treatment of diseases of the brain and spine. Aneurysms, arteriovenous malformations, and tumors of the brain, spine, head and neck can be considered for treatment by using a minimal approach to reach the lesion.



Evaluating Web Pages by Shirley McCartney, Ph.D.



How can you be sure the health information you access via the Internet is sound or *bona fide*? It is important to carefully consider the source of any health information and to discuss details with your health care provider.

Ask yourself the following:

- ¿ What are you looking for?
- ¿ Who runs the Web site, is an author clearly identified?
Look for: about us, background, author's information, qualifications, advertisements.
- ¿ How current is the information on the Web site?
Look for: contact information, last updated
- ¿ Who pays for the Web site, is there a sponsor?
- ¿ What is the purpose of the Web site?
- ¿ Why is it there – information, persuasion, selling, news?
- ¿ What's the tone of the page – serious, humorous, outrageous, ranting?
- ¿ Is it credible – could it be published in/as a mainstream resource?
- ¿ Is the information accurate and impartial?
- ¿ Is the original source of the information documented?
- ¿ How is information reviewed before it is posted?
- ¿ How does the Web site choose links to other sites?
- ¿ Are there links to other reliable sources? Do the links work?
- ¿ Might content be plagiarized? Are there copyright permissions?
- ¿ What does the page look like?
Advertisements, colors, type font, ease of navigation
- ¿ Is the information “too good to be true”?
- ¿ Is the site trying to sell a product, service, or opinion?
- ¿ What information about users does the Web site collect, and why?

Pierre Salinger Syndrome - The tendency for online users, especially new users, to assume any information published on the Internet is automatically true.

The URL: Who can you trust?

- .GOV or government sites like the National Institutes of Health and the U.S. Centers for Disease Control and Prevention. (www.nih.gov)
- .EDU University or medical school sites, hospital, health system, and other health care facility sites such as OHSU. (www.ohsu.edu)
- .ORG or not-for-profit groups whose focus is research and teaching the public about specific diseases or conditions, such as Brain Awareness (www.oregonbrains.org). Keep in mind that “.org” doesn't guarantee a site is reputable, scammers may set up bogus .org sites.

The information you get from Internet sources can be helpful, however should not be the basis for your health/medical care decision-making. No health/medical information you find on the Internet should replace a doctor's medical advice. It should and can help you learn about your problem and treatment options so you can work better with your health care provider to get the best care possible.

What can you do if you suspect misleading information?

Complaints of false or misleading health claims posted on the Internet can be filed with the Federal Government. (www.ftc.gov)

Look for the truth

- Snopes.com - www.snopes.com
- Quackwatch - www.quackwatch.org

General health information finding tools

- MedlinePlus produced by the National Library of Medicine. (www.medlineplus.gov)
- Healthfinder® from the US Department of Health and Human Services. (www.healthfinder.gov)
- National Institutes of Health (NIH)
NIH is the steward of medical and behavioral research for the Nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability. (www.nih.gov)

E-libraries

- National Library of Medicine (NLM)
NLM collects, organizes, and makes available biomedical science information to scientists, health professionals, and the public. (www.nlm.nih.gov)
- Medical Library Association is a nonprofit, educational organization of more than 1,100 institutions and 3,600 individual members in the health sciences information field, committed to educating health information professionals, supporting health information research, promoting access to the world's health sciences information, and working to ensure that the best health information is available to all. (www.mlanet.org)
- OHSU Library “Ask a Librarian”
This service is designed to answer health-related ready reference questions for OHSU faculty, staff, and students and for Oregon residents. (www.ohsu.edu/library)
- The Internet Public Library is a global information community that provides in-service learning and volunteer opportunities for library and information science students and professionals, offers a collaborative research forum, and supports and enhances library services through the provision of authoritative collections, information assistance, and information instruction for the public. (www.ipl.org)

Neurosurgical related sites

- The OHSU Brain Institute is among the top three institutions in the nation for NIH-funded neuroscience research projects. (www.ohsu.edu/obi)

- Neurosciences: For patients, general practitioners and community neurologists, OHSU provides comprehensive clinical care, second opinions, clinical trials and training for community providers. (www.ohsu.edu/health/neuro/neuro.cfm)
- The OHSU Department Neurological Surgery specializes in the comprehensive neurosurgical treatment of the brain, spinal cord and peripheral nervous system. (www.ohsu.edu/neurosurgery)
- The OHSU Department of Neurology is one of the nation's leading neurologic research and training programs and provides the most comprehensive care of neurologic illnesses in the Pacific Northwest. (www.ohsu.edu/neurology)

National Institute of Neurological Disorders and Stroke (NINDS)

The mission of the NINDS is to reduce the burden of neurological diseases -- a burden borne by every age group, every segment of society, and people all over the world. (www.ninds.nih.gov)

American Association of Neurological Surgeons (AANS)

The American Association of Neurological Surgeons (AANS) is the organization that speaks for all of neurosurgery. The AANS is dedicated to advancing the specialty of neurological surgery in order to promote the highest quality of patient care. (www.NeurosurgeryToday.org)

Congress of Neurological Surgeons

The Congress of Neurological Surgeons exists to enhance health and improve lives worldwide through the advancement of education and scientific exchange. (www.neurosurg.org/public)

Society for Neuroscience

The Society for Neuroscience is a nonprofit membership organization of basic scientists and physicians who study the brain and nervous system. (www.sfn.org)

Oregon Health GO LOCAL

CONNECTING OREGONIANS TO HEALTH SERVICES

Oregon Health Go Local is now live! Oregon Health Go Local is a project of the Oregon Health & Science University Library that connects users to health services and providers throughout the state. This is a soft launch with promotion to follow in the coming months. Volunteers and library staff are still working to input resources into the database. If you would like to suggest a resource to be included in Oregon Health Go Local, please use the Suggest a Resource form or send an e-mail to golocal@ohsu.edu.

Oregon Health Go Local is possible thanks to the dedication and hard work of numerous volunteers and partnering agencies including the Oregon State Library, University of Washington's Regional Medical Library, 211info, staff and volunteers at Oregon Health & Science University Library, and community volunteers.

Oregon Health Go Local is supported in whole or part by the Institute of Museum and Library Services through the Library Services and Technology Act, administered by the Oregon State Library. This project has been funded in whole or in part with Federal Funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services under contract NO1-LM-1-3516 with the University of Washington's Regional Medical Library. (www.medlineplus.gov/Oregon)

Supporting OHSU Neurosciences

OHSU's comprehensive research, education and clinical programs in the neurosciences are nationally renowned and regionally treasured. OHSU is a leader in neurosciences today in part because caring people support these programs with charitable gifts. Many supporters give in memory of a loved one who received

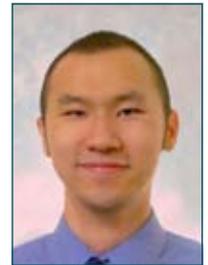


exceptional care here, or who believed in the value of our cutting-edge research. Your gift in honor or memory of a special person is a meaningful investment in the brain health of future generations. Whether you wish to make a gift or pledge today, or prefer to give to OHSU neurosciences through your estate or other form of deferred giving, our development staff can help you create a gift that achieves your philanthropic and personal goals. For information about investing in the future of OHSU neurosciences, please contact: Lori Sweeney, 503 494-7455, sweeneyl@ohsu.edu Nicole Good, 503 494-7504, goodn@ohsu.edu or visit the Web site at www.ohsufoundation.org.

New Residents by Nathan R. Selden, M.D., Ph.D.

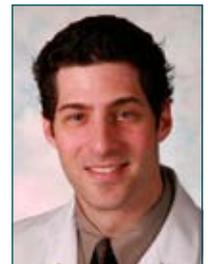
I am proud to welcome the two newest members of the Residency Training Program in Neurological Surgery at OHSU. These two gentlemen will also serve as the first neurological surgery interns in our program's history, and increase the complement of the program to 14 (two residents in each year). Both of our new surgeons were highly competitive candidates in the national neurosurgery match and both rotated as visiting sub-interns on our service, a testament to the collegial and educational nature of the service they experienced.

Jesse Liu, M.D. – Dr. Liu was educated at Pacific Union College, Amgwin, Calif. and will earn his medical degree from Loma Linda University School of Medicine, Loma Linda, Calif. in June, prior to assuming his duties at OHSU. At Loma Linda, he has served in the elected role of class pastor and in the Student Senate. His scientific work has concentrated on embryological development of the limb bud. He is also a cellist and rock climber.



Dr. Liu

Jeffrey Raskin, M.D. – Dr. Raskin was educated at Pomona College, Claremont, Calif. and spent part of his undergraduate years doing research in Developmental Biology at University College London, London, England. He holds a master's degree in cell and molecular neurobiology from the University of Southern California, Los Angeles, Calif. Dr. Raskin will graduate, in June, with a medical degree from the University of Nevada School of Medicine, Reno, Nev. where he has served as president of his class. In addition to his neuroscientific pursuits, Dr. Raskin is interested in literary descriptions of medical care and edited the UNSM literary annual. He enjoys camping and hiking.



Dr. Raskin

Please join me in making Drs. Liu and Raskin welcome in Oregon for the next seven years!



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(16 additional articles are *in press*)

