NEUROSURGERY
UNIVERSITY OF MICHIGAN HEALTH SYSTEM

NEWS AND NOTES

ISSUE 12 2014

LETTER FROM THE CHAIR

Innovative Learning and Research Transforms Patient Care

Dr. Karin Muraszko

As we reflect on the past year, it is obvious that it has been one of important advancement and transformation for the Department of Neurosurgery. Our major reason for being here at the University of Michigan is not only to deliver outstanding patient care, but also to innovate new and exciting methods for patient care. By training the next generation of neurosurgeons, we ensure that patients of the future will have the best and most competently trained physicians to deal with their neurosurgical needs.

We take great pride in our residents as they represent some of the best and most highly sought after graduates of medical school training. Our residents shine on many levels.

This past fiscal year we had a total of 64 resident publications with residents as first author in 23. These publications originated from all areas of neurosurgery and have been published in some of the most prestigious journals. Our residency program presently allows for a complement of 17 residents. We are always focused in our pursuit of the top candidates for the University of Michigan Neurosurgery Residency Program.

We strive to continuously utilize different techniques and learning methods at teaching conferences. This year we inaugurated a Resident Research Symposium, which integrated a visiting lecturer, Dr. Michael Lawton, coinciding with a series of presentations by our residents. This format provided an opportunity for the residents to explain their research

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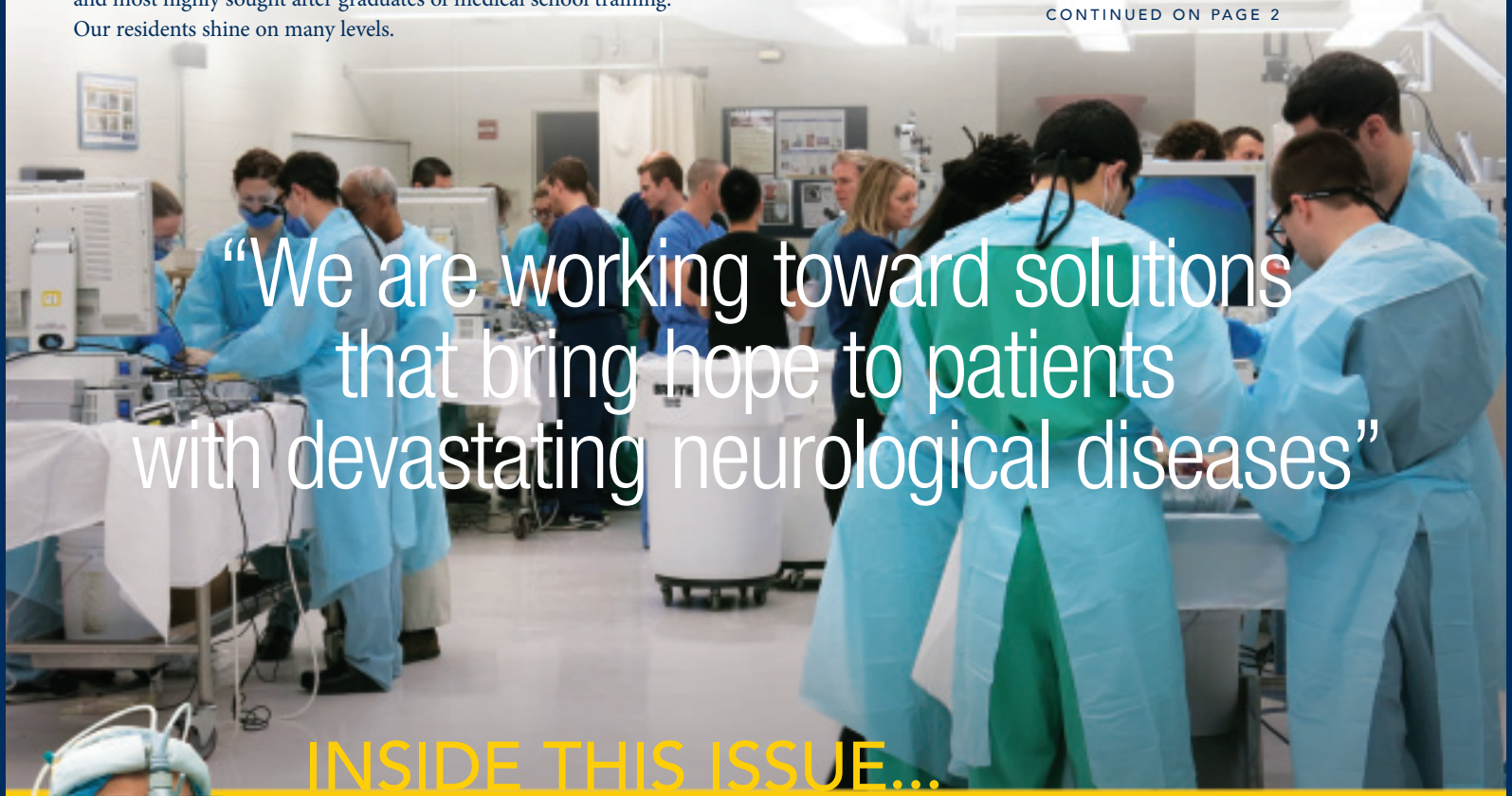

"We are working toward solutions that bring hope to patients with devastating neurological diseases"

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endeavors amongst peers and mentors. The brainchild of this symposium was our Residency Program Director, Dr. Gregory Thompson. Overall, the Resident Research Symposium was extraordinarily well received, as it afforded another innovative learning venue for our residents.

Enclosed within this newsletter will be several patient stories that I hope you will find entertaining as well as illuminating. They reflect the amazing capabilities of our patients to be both receivers of our care as well as educators of both our faculty and residents. The Department remains an exciting place to work, with our faculty, residents, and staff all contributing to its continuous progression and transformation, which is essential to an evolving neurosurgical service. By creating a culture of exchange we are able to bring the best and brightest ideas to the forefront. I anticipate that you will see this as you read through this newsletter. As we continue to grow in size as a Department, all of us have been struck by the team's ability to remain collegial and to work tirelessly to provide our patients with compassionate state-of-the-art care that is delivered with a deliberate approach to quality and safety.

> "Inspiration often means encouraging people to get out of their comfort zone. When you challenge and encourage individuals to strive higher, you often see their greatest potential come to fruition."

Ranked eighth in the United States among neurosurgery departments with respect to NIH funding, our research endeavors continue to grow and prosper and the translation of basic bench research has resulted in several new and exciting trials for our patients. Several innovative clinical trials for glioblastomas have emanated from our translational neuro-oncology laboratories, and we also have multiple spine and cerebrovascular clinical trials in place. In addition, we are actively participating in such national data bases as the N2QOD – National Neurosurgery Quality & Outcomes Database. We are continuously using research for evaluating and restructuring the care of our patients to achieve the best outcomes in the shortest length of stay, and in the most cost-effective manner.

Among the accomplishments of the Department this year was the recognition of the interdisciplinary stoke program with its official certification from The Joint Commission as a Comprehensive Stroke Center, which is also recognized by the American Heart Association and American Stroke Association. Spearheaded by Dr. Aditya Pandey, this comprehensive stroke center designation indicates that even the most complicated cases will receive streamlined and efficient care with the most advanced treatment modalities.

An ample amount of the department's novel projects and ground-breaking work has not only been made possible through the awarding of sponsored grants, but also through the generosity of numerous individual donors. Such generosity is seen by the Stetler-Cook wedding. Instead of accepting traditional wedding gifts, Dr. Will Stetler (current resident) wished that contributions be made to the Department for its yearly medical mission to Guatemala – Project Shunt. Similarly, when multiple individual donors come together, the impact can be powerful. As part of the Victors for Michigan campaign, the Health System held a Discovery Ball this year in which numerous patients and friends of neurosurgery participated, donating some $68,000 to the Department through various pledges. Throughout the year, we have been fortunate and blessed by the generosity of donors in recognizing that such funds allow us to dream big and hopefully achieve significant results. Finally, on a sad note, we heard of the passing of one of the longest and strongest members of our Michigan Neurosurgery family. Dr. James Taren died earlier this year in February, having been a member of the Department for over 40 years and an advocate for many more. He was instrumental in bringing functional and stereotactic neurosurgical techniques to the University of Michigan. Perhaps best known for having lived a most flamboyant life, Dr. Taren was a lover of exotic cars, fine fashion, and adventure. It would be hard to imagine writing the story of Dr. Taren's amazing life, let alone living it. A veteran of WWII that landed on Imo Jima, his career in medicine was illustrious as much outside of the hospital as it was inside the hospital.

In all, it has been a transformative year in which we have seen both innovation and maturation bring new breath to the Department. We hope that through our innovative research and education we can reflect on our current treatment modalities to develop a care plan for each patient that is uniquely tailored to their needs and the biology of various diseases. It is an exciting time in neurosciences, not just here at the University of Michigan, but throughout the world. The Department of Neurosurgery is poised to enter this new age of neuroscience.

I hope you enjoy reading this newsletter and catching up on the many aspects of our Department. I wish you the best in the upcoming New Year.

Sincerely,

Karin Muraszko, M.D.
Julian T. Hoff Professor and Chair

MEDICAL EDUCATION UPDATE

Chief Resident Graduates 2014

Khoi Than, M.D. and Anthony Wang, M.D.

One of the highlights of each academic year is to gather and celebrate the graduation of the chief residents as they complete their seven-year neurosurgical training program. On Sunday, June 22, 2014, faculty, residents, staff, friends and family gathered in the Omenn Atrium of the Biomedical Science Research Building for an evening of recognition and celebration honoring Drs. Khoi Than and Anthony Wang. The evening was replete with poignant speeches, laughs, tears and, of course, the historical "roasting" of the chiefs by their resident cohorts.

Dr. Than is further enhancing his education at the University of California San Francisco (UCSF) by completing a minimally invasive and complex spine fellowship under the tutelage of Dr. Praveen Mummaneni. Dr. Wang is also engaged in a fellowship program, specifically a skull base fellowship at the University of Miami, working with Dr. Jacques Morcos. We wish both of them much success in their neurosurgical careers.

Program Director, B. Gregory Thompson M.D. with Chief Graduate Khoi Than, M.D. (left) and Chief Graduate Anthony Wang, M.D. (right)

Medical Education Awards

Julian T. Hoff Teaching Award Cormac O. Maher, M.D.

The Julian T. Hoff Teaching Award is given each year to a junior faculty member within the Department with an exemplary record in teaching our residents.

Max Peet Resident Teaching Award Khoi D. Than, M.D.

The Max Peet Teaching Award is given annually to a resident who has distinguished themselves in the arena of teaching other residents and medical students. (upper right)

Friend of Neurosurgery Award Sandra Camelo-Piragua, M.D.

The Friend of Neurosurgery Teaching Award is given each year to a faculty member outside of our department who is instrumental in teaching our neurosurgical residents. (center right)

Chandler Clinical Research Award Thomas J. Wilson, M.D.

Awarded for the best clinical research presentation at the Neurosurgery Resident Research Symposium

McGillicuddy Resident Leadership Award William R. Stetler, M.D.

This award recognizes a resident who exhibits exemplary leadership in maintaining the highest standards of professionalism. (lower right)

Crosby Basic Science Research Award William R. Stetler, M.D.

Awarded for the best basic science presentation at the Neurosurgery Resident Research Symposium. (lower right)

New Neurosurgery Residents 2014

We are delighted to announce the addition of Drs. David Altshuler, Yamaan Saadeh and Matthew Willsey to our residency training program.

David Altshuler, M.D., M.S.

Medical School: Wayne State University
Graduate School: University of Michigan
Undergraduate: University of Michigan
Hometown: Grosse Pointe Farms, MI

Why Neurosurgery? I have been interested in the neurosciences since college, but it was not until medical school that I saw how a neurosurgeon has the ability to treat problems that affect our most vital functions: the ability to think, see, speak, and feel. I think that neurosurgery is a field that will forever challenge me to learn, adapt, and strive to be the best that I can for my patients and colleagues.

Why UM? Michigan is home for me. Some of my most important memories, both personally and professionally, are from here. I am very fortunate to have the opportunity to train with more senior residents and faculty that I admire and whose dedication to their patients and advancing the field is second to none. I am looking forward to doing my best to uphold the high standards for scientific discovery and patient care that define the Michigan tradition.

Hobbies or Interests? I enjoy spending most of my free time with my fiancée, family, and friends. Some of my favorite hobbies are skiing, sailing, and travelling.

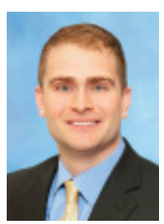
Yamaan Saadeh, M.D.

Medical School: Michigan State University
Hometown: Ann Arbor, MI
Undergraduate: University of Michigan

Why Neurosurgery? My interest in neurosurgery began during my first year of medical school. I became enamored with neuroscience and neuroanatomy; the level of complexity and sophistication of the nervous system drew me in, and combined with my interest in surgery and working with my hands I felt that neurosurgery was the perfect field for me. Having the opportunity to further explore neurosurgery through clinical experiences and research work drove the decision home.

Why UM? As a lifelong Michigan native and alum of the University, I have always looked up to the University of Michigan as a model of institutional excellence and service to the community. Having the chance to rotate as a medical student with the neurosurgery service, I gained a firsthand look at the quality of the training and the breadth of clinical exposure available within the department. These characteristics, along with the academic culture and the wonderful personalities of the neurosurgery team, make Michigan an ideal place to train.

Hobbies or Interests? Besides spending time with my family and friends, I enjoy time spent outdoors camping, hiking, and playing any sport from volleyball to soccer. Reading is also a favorite pastime, especially the genres of fiction and history.



Matthew Willsey, M.D., M.S.

Medical School: Baylor College of Medicine
Graduate School: Massachusetts Institute of Technology
Undergraduate: Massachusetts Institute of Technology
Hometown: Greenwood, IN

Why Neurosurgery? Neurosurgeons are in a unique position to work with what I consider the most fascinating organ system in the human body and, in doing so, are focused on improving the lives of patients in a very significant way. Today is also a very exciting time for the field as innovative technology is being utilized to treat neurosurgical diseases, and I could not imagine a better time to begin a career in neurosurgery.

Why UM? As I learned about the program at U-M, I was struck by the genuine concern and commitment the residents and faculty had to each other and to their patients. Additionally, U-M is continually positioned on the cutting edge of the field, making it not only an ideal place to care for patients but also to train as a resident. I am very excited to join the U-M family. Go Blue!

Hobbies or Interests? Spending time with family and friends, sports, music.

Fellowships

Complex and Reconstructive Spine Surgery

We are pleased to welcome Holly Zywicke, M.D. as a Clinical Lecturer in the Department of Neurosurgery from July 1, 2014 through June 30, 2015. Dr. Zywicke is on the Neurosurgery Service in a clinical fellowship in complex and reconstructive spine surgery focusing on learning sophisticated spinal surgery techniques under the direct supervision of Dr. Frank La Marca with assistant supervision by Dr. Paul Park. She received her Bachelors of Arts Degree from Kalamazoo College followed by medical school at the Medical College of Wisconsin. She completed her neurosurgical residency training at the University of Alabama at Birmingham in June 2011 and then joined the Atlanta Medical Center Neurosurgical and Spine Specialists as a staff neurosurgeon where she was in practice until she joined us in Ann Arbor for her one-year fellowship. Dr. Zywicke's hobbies include running, reading, and spending times outdoors.

Cerebrovascular Fellowship

William Stetler, Jr., M.D., a current chief resident in our department, completed a one-year enfolded clinical cerebrovascular neurosurgery fellowship here at the University of Michigan's Department of Neurosurgery from July 2013 through June 2014 during the elective time of his neurosurgical residency. Dr. Stetler focused his time on learning sophisticated neurovascular techniques under the direct supervision of Drs. Greg Thompson and Aditya Pandey.

Additionally, Dr. Christopher Roark is now in year two of his 24-month educational clinical cerebrovascular neurosurgery fellowship. Dr. Roark completed both his undergraduate work and Medical School at the University of Kansas. He completed a residency training program in neurosurgery at the University of Minnesota. During his fellowship, Dr. Roark is closely working with Drs. Greg Thompson and Aditya Pandey. His clinical interests include AVMs, pharmacologic VTE prophylaxis in neurosurgical patients, and evidence-based medicine.

Neurocritical Care

Dr. Craig Williamson is working in his second year of a two-year neurocritical care fellowship. Dr. Williamson received his M.D. degree at the University of California, San Francisco. He completed his neurology residency training at Massachusetts General Hospital and Brigham and Women's Hospital in Boston. Dr. Williamson works under the direct supervision of Drs. Teresa Jacobs, Krishna Rajajee, and Kyle Sheehan learning the diagnosis and treatment of critically ill neurosurgical and neurological patients. He is participating in learning diagnostic pathways, bedside surgical procedures, and advance treatment strategies for intensive care patients. Dr. Williamson's clinical interests include the evaluation and treatment of seizures in the ICU, as well as ICU care in the developing world.

Accreditation of Subspecialty Training Fellowships

The Department of Neurosurgery received 5-year accreditation approval for a fellowship in Critical Care Neurosurgery, as well as the renewal of its Spine Neurosurgery fellowship from the Committee on Advanced Subspecialty Training (CAST), which functions under and is responsible to the Council of The Society of Neurological Surgeons. CAST is responsible for accreditation of subspecialty training fellowships and subspecialty certification of fellows in neurosurgery and for development and updating of subspecialty training requirements.

Resident News & Notes

Wajd Al-Holou, M.D. was selected as member of the University of Michigan Medical School Admissions Committee.

Nicole Bentley, M.D. was selected as member of the University of Michigan Medical School Admissions Committee. In addition, she was selected to participate in the AANS/NREF Science of Neurosurgical Practice Course.

Kevin Chen, M.D. was appointed to the University of Michigan Clinical Neuroscientist Training Program/R25 Grant (Neurology, Neurosurgery, and Neuropathology). He was awarded internal grant funds for Development and Evaluation of a Minimally Invasive Spine Simulator.

Todd Hollon, M.D. was appointed to the newly established Medical Student Chapter of the American Association of Neurological Surgeons (AANS).

Elyne Kahn, M.D. was selected by the Council of State Neurosurgical Societies (of the AANS/CNS) as a Socioeconomic Fellow for 2014-2015.

Osama Kashlan, M.D. scored in the 97th percentile of all residents nationally taking the American Board of Neurological Surgeons written primary examination for credit. Additionally, Dr. Kashlan was appointed to a NIH T32 training grant, Training in Clinical and Basic Neurosciences, and also selected to participate in the AANS/NREF Fundamentals in Spinal Surgery Course. He also was elected to the University's House Officer Association Board for the 2014-2015 term.

Luis Savastano, M.D. was awarded first place in the Neuroanatomy Competition Award, Department of Neurosurgery, University of Michigan. He received internal grant funds for a project on creation of neuroanatomical collection for the neuroanatomical lab. He was also elected to Young Neurosurgeons Committee of the American Association of Neurological Surgeons (AANS), 2014-2017.

William Stetler, M.D. scored in the 94th percentile of all residents nationally taking the American Board of Neurological Surgeons written primary examination for credit. He successfully completed a one-year enfolded neuro-endovascular fellowship, and received both the McGillicuddy Resident Leadership Award and Chandler Clinical Research Award.

Jennifer Strahle, M.D. was awarded Best Neurosurgery Platform Presentation, University of Michigan Neuroscience Day. Dr. Strahle spearheaded the development of the University of Michigan Neurosurgery Resident Handbook. Received internal and external grant funds for research projects (1) Anatomic specimen for understanding medial temporal lobe anatomy (2) Hyponatremia after cranial vault reconstruction (3) Mechanisms and treatment of hydrocephalus after neonatal intraventricular hemorrhage in a novel rodent model, Pediatric Hydrocephalus Association. She also received 2nd place Resident Award 2014 for abstract presented at Michigan Association of Neurological Surgeons (MANS).

Khoi Than, M.D. was the recipient of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Cloward Fellowship 2014. He also received a Scoliosis Research Society OrthoPediatrics Educational Scholarship in 2014.

Thomas J. Wilson, M.D. scored in the 90th percentile of all residents nationally taking the American Board of Neurological Surgeons written primary examination for credit. He was awarded internal grant funds for (1) Glioma Stem Cells and Implications for Therapeutic Development (2) Development and Evaluation of a Minimally Invasive Spine Simulator. He also received the Crosby Basic Science Research Award, 2014.

Program Director's view

Wolverines and Buckeyes Train Together

The third annual University of Michigan and Ohio State University cranial base cadaver course was held in Ann Arbor for neurosurgery residents from the respective institutions on February 28 - March 1. Several Ohio State faculty and residents made the trip to Ann Arbor on Friday and attended the Ohio State - Michigan hockey game that evening where OSU took the win with a shootout in overtime. A welcome reception followed at the Campus Inn as an opportunity for the staffs from both institutions to relax and enjoy some camaraderie.

This year we were delighted to have Dr. Steven Giannotta (U-M alumni, residency 1973-1978), Chair of Neurosurgery at the University of Southern California Keck School of Medicine, join us as an invited speaker for the course. Dr. Giannotta started the Saturday morning course with a lecture on "Technical Pearls for the Temporopolar Skull Base Approach." This was followed by several hours in the lab working on skull base approaches as well as additional lectures by Dr. Giannotta and U-M's Dr. Steve Sullivan. The intensive course was a great mix of medical education and hands-on surgical training.

UM Clinical Neuroscientist Training Program

The Departments of Neurology, Neurosurgery, and Pathology sponsor residency tracks incorporating significant time for neuroscience research activities. Supported by a R25 grant from the National Institutes of Neurologic Disease and Stroke (NINDS/NIH), the UM Clinical Neuroscientist Training Program (UMCNTP) facilitates the development of neurologist, neurosurgeon, or neuropathologist physician-scientists pursuing either laboratory-based or clinical research. Designed for individuals with significant prior research experience, the UMCNTP offers 2 years of mentored research experience during residency and/or incorporating an immediate post-residency year in an outstanding research environment. The goal of the UMCNTP is to accelerate participant progress toward an independent career.

For more information:
http://medicine.umich.edu/dept/neurosurgery/medical-education-training/neuroscientist-training-program

Resident Publications

U-M Department of Neurosurgery

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Total resident publications:	64
Total publications without duplicate resident authors:	47
Total publications with resident as first author:	23

FISCAL YEAR 2014 (JULY 1, 2013 – JUNE 30, 2014)

Inaugural U-M Neurosurgery Resident Research Symposium

On Friday May 23, 2014 the Department of Neurosurgery held its first annual Neurosurgery Resident Research Symposium. Our educational mission is to train highly skilled neurosurgeons with a strong background in clinical neurosurgery and research. We equip our neurosurgical residents with excellent clinical skills, stimulate their interest in teaching and research, demonstrate the relevance and enjoyment of continuing education, and provide them with the skills and judgment to practice neurosurgery safely and competently. The residents presented the research they have been conducting over the last year, which highlighted a variety of both basic science and clinical research projects.

Each year, a nationally renowned neurosurgeon will be invited to give the keynote address at the symposium and to help judge the presentations. This year, Dr. Michael Lawton from University of California, San Francisco was our honored speaker, in conjunction with being our 2014 Elizabeth Crosby Visiting Professor. Dr. Lawton spent the morning with our residents reviewing challenging cases followed by a luncheon. The symposium began at noon and 13 residents each gave 15-minute presentations on either a basic science or clinical research project. These projects were graded by clinical and research faculty and the highest scoring presentation in each category received a monetary award. Congratulations to Drs. Will Stetler and TJ Wilson, who were the inaugural recipients of the Chandler Clinical Research Award and the Crosby Basic Science Research Award, respectively. The scientific day culminated in a cocktail hour followed by dinner in the Omenn Atrium of the Biomedical Sciences Research Building. The 2015 Neurosurgery Resident Research Symposium will be on Friday, May 29, 2015. Dr. Dade Lunsford will be our honored guest, in conjunction with being the James Taren Visiting Professor.

> The annual Neurosurgery Resident Research Symposium was established to stimulate and promote our residents' academic productivity.

FACULTY UPDATE

Welcome Faculty

Emily Levin, M.D.

Dr. Levin has been appointed Clinical Assistant Professor in the Department of Neurosurgery.

She was born and raised in New Orleans, Louisiana and graduated from the University of Pittsburgh School of Medicine with her Doctor of Medicine. Dr. Levin returns to the University of Michigan after completion of her neurosurgical residency here, and following a post-residency fellowship in Stereotactic and Functional Neurosurgery at the University of California, San Francisco (UCSF).

While at UCSF she received specialized training in the surgical treatment of movement disorders, such as Parkinson's disease and dystonia. She also focused on surgery for treatment of epilepsy and pain. Dr. Levin has a particular interest in the use of technology to improve outcomes and the patient experience during neurosurgical procedures. Use of intraoperative MRI allows patients to remain asleep throughout the entire surgery for deep brain stimulator electrode placement, opening this surgical option to patients who would otherwise be unable to tolerate awake surgery. She is currently working to bring this technology to the University of Michigan.

Dr. Levin holds a joint appointment with the Ann Arbor Veterans Administration Medical Center. There, in addition to practicing as a general neurosurgeon, she is working to improve access to surgical care for veterans with movement disorders.

Anda-Alexandra Calinescu, M.D., Ph.D.

Dr. Calinescu was appointed as a Research Investigator in the Department of Neurosurgery.

Dr. Calinescu will continue to work in the translational neuro-oncology laboratory led by Dr. Maria Castro and Dr. Pedro Lowenstein, which she joined as a post-doctoral fellow in 2012. Her current research project relates to investigating mechanisms of immune suppression in glioma, and the role of damage associated molecular pattern molecules in mediating tumor-induced inflammation within the tumor microenvironment.

Dr. Calinescu obtained her M.D. degree from the University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania. Soon thereafter she moved to the United States, and worked as a Research Assistant in the Laboratory of Dr. Jessica Schwartz, Department of Physiology, at the University of Michigan. Dr. Calinescu pursued her graduate studies within the Neuroscience Program at the University of Michigan, where she conducted her work under the guidance of Drs. Pamela Raymond and Peter Hitchcock.

She completed her thesis studying the role of Midkine, a growth factor in retinal development, injury-induced retinal regeneration, and also its regulation by the circadian clock. After her doctoral dissertation, Dr. Calinescu executed a successful postdoctoral fellowship in the laboratory of Dr. Jimo Borjigin, in the field of circadian biology, publishing a seminal paper in neural regeneration and the circadian clock.

Neurosurgery Faculty and Chief Residents 2013 - 2014

Faculty News & Notes

Aditya Pandey, M.D. Assistant Professor in the Department of Neurosurgery, successfully completed the American Board of Neurological Surgery (ABNS) board certification process and is now a certified Diplomate. He was officially certified in November, 2013. He was also selected to the Medical Advisory Board of the Joe Niekro Foundation.

Daniel Orringer, M.D. was promoted from Clinical Lecturer to Assistant Professor. His clinical research interest focuses on examining the factors that affect extent of resection in glioma surgery and he is working to develop clinical trials regarding how malignant brain tumors will be treated in the future.

Shawn Hervey-Jumper, M.D. was promoted from Clinical Lecturer to Assistant Professor. He was also the recipient of the 2014 distinguished Ronald L. Bittner Award for his abstract entitled *"Awake craniotomy to maximize glioma resection: Methods and technical nuances with 561 patients."* This accolade is awarded to the best abstract paper submitted to the American Association of Neurological Surgeons (AANS) for brain tumor research by a resident or junior faculty member. His accomplishment was recognized and awarded at the 82nd AANS Annual Scientific Meeting.

Juan Valdivia, M.D. Assistant Professor in the Department of Neurosurgery, successfully completed the American Board of Neurological Surgery (ABNS) board certification process and is now a certified Diplomate. He was officially certified in November, 2013.

Richard Keep, Ph.D. was appointed Co-Editor-in-Chief of the journal Fluids and Barriers of the CNS and an Academic Editor of PLOS ONE. He was also appointed to the Brain Injury and Neurovascular Pathologies Study Section at the Center for Scientific Review, National Institutes of Health.

Karin Muraszko, M.D. received the 2014 Inspirational Physician Award from the American Medical Association (AMA) Women Physicians Section (WPS). The AMA/WPS acknowledges physicians who contribute in often unsung ways to other physicians individual success. She was also appointed to the Accreditation Council for Graduate Medical Education (ACGME) - Residents Review Committee (RRC) for Neurological Surgery for the 2015-2021 term.

William Chandler, M.D. was a guest examiner, as a former director, for the American Board of Neurological Surgery (ABNS) this past November in Houston, TX.

Krishna Rajajee, M.B.B.S received the Presidential Citation of the Neurocritical Care Society in 2013-2014. He was also appointed as Medical Director of the Neurointensive Care Unit at the University of Michigan.

Cormac Maher, M.D. was selected as the recipient of the American College of Surgeons (ACS)/American Association of Neurological Surgeons (AANS) Health Policy Scholarship for the year 2014. The scholarship enables participation in the "Executive Leadership Program in Health Policy and Management" course.

Suresh Ramnath, M.B.B.S was promoted to Clinical Assistant Professor. He was also selected to the Editorial Board of a new journal, Austin Journal of Neurosurgery.

Xing Fan, M.D., Ph.D. was promoted to Associate Professor. He was also selected as an ad hoc reviewer to serve on NIH study sections Cancer Molecular Pathobiology Study Section (CAMP) and Clinical Neuroimmunology and Brain Tumors Study Section (CNBT).

Lewis Morgenstern, M.D., affiliated faculty member of Neurosurgery, has been given a Clinical and Health Services Research Award by the U-M Medical School. This award recognizes a faculty member who is identified as having made outstanding contributions to the Medical School in clinical or health services research.

LEAGUE OF RESEARCH EXCELLENCE INDUCTEES 2014

Richard Keep, Ph.D., Crosby-Kahn Collegiate Professor of Neurosurgery and Neuroanatomy, and **George Mashour, M.D.**, Associate Professor in Anesthesiology and Neurosurgery were inducted in to the U-M League of Research Excellence.

The League of Research Excellence was established by the U-M Medical School Dean's Office in 2011 to recognize faculty who have made significant contributions to the Medical School's research enterprise.

Neurosurgery Celebrates the Inauguration of Three Collegiate Professorships

William F. Chandler Collegiate Professorship in Neurosurgery

On February 6, 2014, Dr. Oren Sagher was installed as the first William F. Chandler Collegiate Professor of Neurosurgery.

This collegiate professorship was established in 2009 through contributions from the Department of Neurosurgery and with a lead gift from the estate of Julian T. "Buz" Hoff, M.D., Chair of Neurosurgery at the University of Michigan (U-M) from 1981-2005. It honors the invaluable contributions Dr. William Chandler, Professor Emeritus, has made to the field of neurosurgery. Dr. Chandler received his medical degree from U-M in 1971, stayed for an internship and residency in neurosurgery, and then joined the faculty of U-M as an Assistant Professor in 1979. In 2003, he received a secondary appointment as Professor of Internal Medicine in recognition of his education and collaborations in the Division of Metabolism, Endocrinology and Diabetes, and was installed as the Richard C. Schneider Professor of Neurosurgery in 2007. Throughout his career, Dr. Chandler has held leadership positions in numerous professional organizations, was an exemplary teacher of medical students and neurosurgery residents, and is internationally recognized for his interest and expertise in the surgical management of pituitary diseases. His vision and leadership were instrumental to the development of the Pituitary and Neuroendocrine Center at the University of Michigan. He retired from active surgery in 2014 and received the appointment of Professor Emeritus of Neurosurgery and Professor Emeritus of Internal Medicine.

> *"I am extremely grateful for having the honor of this professorship in my name. I'm thankful for the many blessings I've had here since joining the faculty of the University of Michigan and the 45 years I've had of being "True Blue". I could not be more proud than to have Oren be the first Chandler Professor."*
>
> — Dr. William Chandler

Invited guests and faculty were welcomed by Dr. James Woolliscroft, Dean of the University of Michigan Medical School, as he opened the ceremony with remarks celebrating the installation and inauguration of endowed professorships for faculty at the University of Michigan and recognizing the academic accomplishments of both Dr. William Chandler and Dr. Oren Sagher.

Dean Woolliscroft presented Drs. Chandler and Sagher with a medallion, a University of Michigan tradition upon the inauguration of a professorship.

Dr. Oren Sagher was born in Tel-Aviv, the son of a mathematician and a biochemist. He grew up in Chicago, Argentina, and Israel. He received his medical degree from Chicago University in 1987, completed an internship and residency at the University of Virginia and subsequent fellowships at Derriford Hospital in the United Kingdom, the University of Virginia, and the Oregon Health Sciences University. In 1993, he joined the faculty of the University of Michigan, Department of Neurosurgery. He rose through the ranks to be named Professor of Neurosurgery and Professor of Anesthesiology in 2010. He is widely renowned and extensively published. His clinical focus is on functional neurosurgery, the treatment of epilepsy, intracranial tumors, pain and movement disorders. His research interests center on cerebrovascular regulation and the various effects of spinal cord stimulation. Dr. Sagher is currently the Director of the Neuromodulation Program, the Center for Movement Disorders, and the Center for Image-Guided Surgery and Robotics.

He is also Vice Chair for Technology and Innovation in the Department of Neurosurgery. "Dr. Sagher is truly the technology genius of our Department," says Dr. Karin Muraszko, Chair of Neurosurgery.

Honored guest Melanie "Wojo" Wojtulewicz, who was Oren's high school biology teacher in Chicago and has been a mentor ever since, gave a heart-warming talk entitled "Oren's Big Day". She reminded him, as only a lifetime educator could do, that although awarded this prestigious honor, his work is far from done. He now has to be a part of the "multiplier effect" – he has to teach and mentor other young surgeons-in-training on how to be great surgeons and educators.

Honored guest Melanie "Wojo" Wojtulewicz (Dr. Sagher's High School Biology Teacher) and Dr. Oren Sagher.

Following the ceremony, the celebration concluded with a reception and formal dinner held at the Rackham Graduate School Assembly Hall, attended by family members, numerous colleagues, and many dear friends.

> *"As he has for so many others, Dr. Chandler has helped guide my career as an academic neurosurgeon. I am therefore deeply honored to be named the first Chandler Collegiate Professor of Neurosurgery and I will try my best to carry the torch for those who follow."*
>
> — Dr. Oren Sagher

R.C. Schneider Collegiate Professorship in Neurosurgery and Richard Schneider Collegiate Professorship in Neurosurgery

Maria Castro, Ph.D. and Pedro Lowenstein, M.D., Ph.D. were inaugurated on April 3, 2014 when two collegiate professorships were established honoring the late Richard C. Schneider. **Maria Castro, Ph.D., was installed as the R.C. Schneider Collegiate Professor of Neurosurgery and Pedro Lowenstein, M.D., Ph.D., was installed as the Richard Schneider Collegiate Professor of Neurosurgery.** Dr. Richard Schneider came to the University of Michigan in 1946 for a residency in neurosurgery and two years later joined the University of Michigan faculty. In 1969 he became head of the Section of Neurosurgery, a position he held for 10 years. After a long and productive career in the field of neurosurgery at the University of Michigan, he retired in 1983. He died in 1986. In 1993, the Shirley M. McLaughlin Trust authorized the creation of the Richard Coy Schneider Collegiate Professorship of Neurosurgery. Shirley McLauglin was a past patient of Dr. Schneider who had been diagnosed with a brain tumor. The family credited Dr. Schneider with extending her life and the professorship was established through a generous gift of gratitude for the care she received at the University of Michigan. The professorships installed on April 3, 2014 were created from funds generated by the initial endowment.

In U-M traditional fashion, Drs. Castro and Lowenstein were presented the professorship medallions by Medical School Dean James Woolliscroft.

Maria Castro, Ph.D., was born and raised in Buenos Aires, Argentina and in 1986 received her Ph.D. in biochemistry from the National University of La Plata in Buenos Aires. She married Pedro Lowenstein, M.D., Ph.D. in 1988 and they became research partners in 1994. They focused their research on glioblastoma multiforme (GBM), the deadliest of adult primary brain tumors. Dr. Castro was appointed Professor of Molecular and Medical Pharmacology at the School of Medicine, UCLA in 2001, with a joint appointment as Professor of Medicine at Cedars-Sinai Medical Center. It was there that Drs. Castro and Lowenstein's research culminated in the approval of their first IND (investigational new drug) for the treatment of GBM in human patients. In 2011, Dr. Castro joined the University of Michigan as Professor in the Departments of Neurosurgery and Cell and Developmental Biology. "We were ready to implement the therapy on human patients," says Dr. Castro, "and Michigan provided the right environment to do that." Dr. Castro is internationally known for her work and achievements in the area of tumor immunology, neuro-immunology, and immune-mediated gene therapies for the treatment of brain cancers.

"It is an immense honor for me to be named a Schneider Collegiate Professor. It will inspire me even more to make a difference in patients with incurable brain tumors and bring novel cutting-edge treatments close to a clinical reality."

— Dr. Maria Castro

Pedro Lowenstein, M.D., Ph.D. was also born and raised in Buenos Aires, Argentina. He received his M.D. in 1981 and his Ph.D. in neuropharmacology and neuroendocrinology in 1984 from the University of Buenos Aires. He completed fellowships and/or appointments at Johns Hopkins University, the National Institutes of Health, Oxford University, the University of Dundee in Scotland, and the University of Wales. Dr. Lowenstein has earned international renown for this work in neuro-oncology. In 2001, he joined the faculty of UCLA with a joint appointment as a Professor at Cedars-Sinai Medical Center. It was there that he and his wife, Dr. Maria Castro, worked diligently to ready their brain tumor research for clinical trial. In 2011, Dr. Lowenstein joined the University of Michigan as Professor in the Department of Neurosurgery and Cell and Developmental Biology. On coming to the University of Michigan, Dr. Lowenstein says, "The U-M is one of the flagship universities in the country. We are collaborating with physicists, engineers, mathematicians… It doesn't matter what department you're in; everyone is on the same team." In addition to his focused research, Dr. Lowenstein is currently attending the University of Michigan as an undergraduate math major.

"It is a great honor to continue Dr. Schneider's passion for the translation of basic knowledge of the brain into new treatments for patients in the 21st. century."

— Dr. Pedro Lowenstein

The joint professorship ceremony took place in the Marvin and Betty Danto Auditorium located in the Samuel and Jean Frankel Cardiovascular Center. James Woolliscroft, M.D, Dean of the Medical School welcomed family members, colleagues, and friends. Honored guest included Sofia Merajver, M.D., Ph.D., Professor of Internal Medicine and Epidemiology, and Raoul Kopelman, Ph.D., Richard Smalley Distinguished University Professor of Chemistry, Physics, and Applied Physics. A congratulatory reception immediately followed in the Cardiovascular Center garden atrium.

STAFF UPDATE

Welcome to U-M Neurosurgery

Sherry Bejster

Sherry has joined us December 2013 in the capacity of Administrative Assistant Intermediate. She has been an Executive Assistant for over 20 years, which includes time in corporate administration at major companies, such as General Motors, EPMG, and Ernst & Young, as well as conducting work as an independent contractor for many small local businesses. Sherry's most recent experience comes from the U-M Campus side at LSA/ISS. She earned an Associate in Business Administration from Cleary University. Outside of work, she enjoys spending time with her family. Sherry is married to Fred, and they have a 17-year old son, Ian.

Carina Brake

Carina has worked at UMHS since 2007, where she began her career as a graduate nurse on 4A. For the last 6 years, she worked as a staff nurse in the Neuro ICU. She received her BSN from University of Michigan-Flint, and most recently her MSN degree from Madonna University. She has been married to her husband Corey for 6 years, has a 5-year old toy poodle named Leo, a 4-year old son, Lucas, and 14-month old identical twin boys, Oliver and Camden. In Carina's spare time (if she has any!) she enjoys spending it with her husband and boys; she enjoys reading and would love to start traveling more (now that she has completed her continuing education).

Lauren Henrikson-Warzynski

Lauren Henrikson-Warzynski has been with the Neurosurgery department since December 2013. She entered a new position in the capacity of a Clinical Outcomes Specialist. Lauren has joined us from Blue Cross Blue Shield of Michigan, where she developed, administered, and evaluated programs for the award-winning $100 million dollar Physician Group Incentive Program (PGIP) and the Collaborative Quality Initiative (CQI) program. Lauren's role is a new position focused on clinical quality outcomes, including U-M's participation in the National Neurosurgery Quality and Outcomes Database (N2QOD). She has a BA in Political Science and International Studies, and a Master of Public Administration, both achieved at Wayne State University. In her spare time, she enjoys traveling – especially internationally, playing music, and dancing. She has also lived abroad in several countries.

Brandye Hill

Brandye is the new Administrative Assistant for the Pediatric Neurosurgery team of Dr. Karin Muraszko, Dr. Cormac Maher, and Dr. Hugh Garton. Brandye comes to us after 14 years in the Radiology Department here at the University of Michigan, where she worked as a clerical lead for over 9 years. Brandye is currently pursuing a bachelor's degree in business administration. In her spare time, Brandye enjoys reading, shopping, traveling, and playing with Cashmere, her 6 year old shih-tzu.

Wilma Mackenzie

Wilma joined the Department at the beginning of August, 2014. Nursing is a second career for her, having graduated from the University of Michigan BSN accelerated program in 2010 and Master program in 2013. She first met the functional neurosurgery team when she was here in 2013 as a student, and our own Donna Rossini, MS, FNC-BP, served as her preceptor. She is excited to be back working with everyone. While studying to become a nurse practitioner, she worked as a triage nurse at Packard Health Clinic, which provided her with lots of listening practice. She spends her spare time with her children, reads, sews, walks her dog, reads some more, and makes exercise and healthy eating plans that she never keeps!

Kait McMurray

Kait has been with the Neurosurgery Department since October 2014 and comes to us from MedSport Physical Therapy, within UMHS. She is supporting Dr. Shawn Hervey-Jumper and Dr. Emily Levin, as well as assisting with the Department's OR Scheduling. Kait earned her BA in Communications with a concentration in Public Relations from Marist College in Poughkeepsie, NY. While at Marist College, she was a 4-year (Division 1) varsity lettering Water Polo player. Kait now serves as head coach for 8th grade volleyball in Dexter, MI. Her hobbies include visiting family in Kansas City, MO, running with her German Shepherd (Chuck), coaching volleyball and water polo, spending time with family and friends, and going on walks at the Border-to-Border trail in Dexter.

CONTINUED ON PAGE 14

Ruth Meitz

Ruth joined the Department in September 2014 and will be supporting the work of Dr. Orringer, Dr. Schermerhorn, and serving as the Department's Lead Surgery Scheduler. Previously, she worked in the Otolaryngology Call Center as a Patient Services Associate, and prior to that she was a Patient Services Assistant at the U-M Briarwood Medical Group. Ruth has attended Washtenaw Community College, and is planning to return to school to finish her degree in healthcare administration. She was recently married (in October), and lives in Ypsilanti with her new husband and a Chihuahua named Oscar de la Hoya. In her free time, Ruth likes to play softball and basketball, and loves to attend U-M sporting events!

Brenda Menominee

Brenda joined the Neurosurgery Clinic's front desk staff recently and provides seamless customer service to the patients treated there. She has an Associates degree in Computer Science and an Office Systems Certificate. Brenda has over 15 years in the healthcare field and joins us from St. Joseph Mercy Chelsea Hospital, for which she is still currently employed as a contingent employee in the Head Pain Unit as a Unit Secretary. She has a daughter Mariah, granddaughter Caitlin, a son Joshua, and daughter-in-law Christine. Brenda lives in Tecumseh and enjoys family, friends, traveling, crafting, and shooting guns.

Amanda Romijn

Amanda officially joined our Department as a nurse practitioner in October 2014. She previously worked as a staff nurse on the UMHS Neurosurgical Intensive Care Unit while she pursued her advanced practice degree. Amanda received her Bachelor of Nursing from the University of Michigan, and her Master of Science in Nursing from Michigan State University in May of this year. She lives in Lambertville with her husband, Chris Bloomheart. She enjoys interactions within the caregiver team in order to improve patient and family outcomes as she focuses on being a patient and nurse advocate.

Aaron Smith

Aaron Smith is a new Nurse Practitioner with six years nursing experience in the Neurosurgical ICU. He completed his Bachelor of Science in Nursing at the University of Michigan, and his Master of Science in Nursing at Madonna University. He is married, and his wife Melissa is a respiratory therapist here at UMHS. In his spare time he enjoys training for triathlons, watching sports, and traveling.

Rachael Smith

Rachel worked as a lifeguard out of high school; she then decided to expand her horizons and enrolled in the certified nursing assistant program at Henry Ford Community College. Rachel was motivated to continue her education and pursue her nursing degree; however, later learned nursing was not for her. After working as a nursing assistant for three years at Oakwood Hospital, and seven years at Henry Ford Hospital, she wanted to further her knowledge and expand her learning, so she decided to seek a career at the University of Michigan Health System. She has been with us only a short time as a Medical Assistant, and is relishing in the new challenges and enjoying every moment of it. Recently married in October, she looks forward to all the new things married life brings.

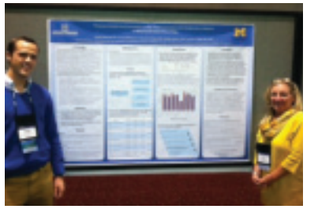
Shayna Smith

Shayna previously worked for Neurosurgery on a temporary basis in our referral office, and then successfully secured a regular full-time position at the U-M Dental School. She returns to us as a full-time Patient Services Assistant in our clinic, supporting providers with radiologic film uploading. On a personal level, Shayna is passionate about horses. She enjoys riding and showing them, and has been doing both from the age of 5. She currently has two horses, one male named Cowboy; and a new addition at the end of October, named Charleigh.

Staff Focus

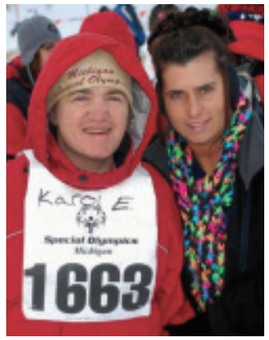
Connie McGovern, Administrative Assistant & Brachial Plexus Program Coordinator

"Only the curious have something to find"



Connie began to wonder why more attorneys were contacting the Neonatal Brachial Plexus Palsy (NBPP) program for expert opinions and depositions on behalf of our NBPP patients pursuing malpractice litigation. Her curiosity led her to formulate a research question to determine the prevalence of litigation in NBPP patients and the factors affecting the pursuit of litigation. Next, she obtained IRB study approval, recruited patients, and contributed significantly to the presentation of the study results. As co-author, the resulting abstract poster was awarded the "Best Poster" at the 2013 American Academy for Cerebral Palsy and Developmental Medicine (AACPDM) meeting. Note: the AACPDM is a national flagship organization for child development disorders in the US and Europe, and only 18% of the posters submitted to the meeting were even accepted for presentation. The full results of the research are published in the Journal of Neurosurgery: Pediatrics, titled "Lack of physician-patient communication is a key factor associated with malpractice litigation in NBPP." As litigation is now occurring with a prevalence near 50%, Connie is hoping that alerting physicians to the communication deficit will benefit both patients and providers, and decrease the amount of litigation.

Kristi Haywood Honored by the Special Olympics of Michigan



The Department of Neurosurgery has the pleasure of announcing that one of our own, Kristi Haywood, has been named Special Olympics Michigan Co-Area Director for Washtenaw County! In addition, she was selected as the **2014 Outstanding Volunteer for Washtenaw County**.

"I personally have noticed such a difference in my sister, Karol, since becoming involved in this great organization. She not only has something to look forward to, she has made many friends, gets exercise and has been able to be proud of so many accomplishments! ...You cannot put a price on the happiness Special Olympics have given her."
— Kristi Haywood

Congratulations, Kristi!

Megan Foldenauer wins "Best in Category" at the UMHS Employee Art Exhibition

Each year Gifts of Art showcases a 6-week exhibition of the artwork made by University of Michigan Health System faculty, staff, students, volunteers, and their family members. This year there were 198 entries by 124 artists. At the 2014 Artist Reception and Award Ceremony, Neurosurgery's Megan Foldenauer won "Best in Category - Drawing and Pastel" for her work titled "Michigan Roller Derby Portrait – Perfect Upzette."

Molly Dahlgren was promoted to Research Administrative Specialist Associate.

Laura Smith was promoted to Call Center Associate Supervisor Inbound.

Sheela Pandey was selected to the Best Practices & Technology Team as a member of the VOICES Network; Voices of the Staff Program at the University of Michigan. She is serving a two-year term from June, 2014 through June, 2016.

Ron Ball, Clinical Research Coordinator, was recently acknowledged in a MISTIE webinar for his stellar performance as a clinical study coordinator. "Data are entered as soon as they come in. Queries are answered as fast as I can write them. I wish we could clone him!"

Heidi Zayan was promoted to Clinical Research Coordinator Healthcare.

Suzanne Angell retired from the University after 20+ years of service

Susan Grube, M.S.N. retired after 20+ years of service at U-M.

NURSING AT MICHIGAN

MISSION STATEMENT

As professional UNMHS nurses, we excel in the art of neuroscience nursing by delivering compassionate, evidence-based care. We provide respectful, therapeutic, and holistic care using an interdisciplinary and collaborative approach; and we deliver our care with integrity, in an environment that empowers patients, families, and staff.

Inpatient Unit Profile 4A & 4AS

Inpatient Floor 4A is a 26-bed acute care unit that cares for patients on the neurology and neurosurgery services. The interdisciplinary team consists of clinical nurse specialists, neurosurgery attending physicians, residents, interns, dieticians, pharmacists, pastoral care, respiratory therapists, physical therapists, occupational therapists, mid-level providers, and the 4A nursing team. The team collaborates to meet the needs of patients and their families in the acute stage of their illness. Conditions most often treated in this unit are: pituitary tumor removal, epilepsy long term monitoring, traumatic brain injuries, spinal cord trauma, myasthenia gravis, Guillain-Barre syndrome, patients requiring chemotherapy for brain tumors, spinal surgeries, and CNS lymphomas. The nurse-patient staffing ratio is 1:4 on the day and evening shifts and 1:5 on the night shift. Typically the charge nurse on each shift does not have a patient assignment and is responsible for coordinating the workflow for the entire unit. They may, in addition, be administering chemotherapy or IVIG drugs.

Inpatient Floor 4AS is a monitored 6-bed unit housed within the 4A unit. The same nurses work in both areas (4A and 4AS) after all their orientation requirements are completed. The nurse-patient staffing ratio in the stroke unit is 1:3 unless the patient has received tPA, then the patient is singled for the first 16 hours post-administration.

The 4A & 4AS Nursing Leadership Team:

Cinda Loik BSN RN MBA
Nurse Manager

Korey Poe RN BA
Clinical Supervisor

Toni Szpara BSN RN MSN
Clinical Nurse Specialist for 4A

Mary Jo Kocan BSN RN MSN
Clinical Nurse Specialist for 4AS

Jill Russell RN BA
Educational Nurse Coordinator

Pediatric Surgical Specialty Clinic

The Pediatric Surgical Specialty Clinic has added a number of new employees this past year. **Laura Hatch, LMSW**, joined our Social Work office to work primarily with the Craniofacial Anomalies Program. **Coreen Abston** is the new Craniofacial Anomalies Program Coordinator. She joined the team back in April. **Bethany Lechtanski, NP,** joined the clinical staff in January. **Dama Kulas** and **Jessica Hamden** are patient services assistants that started in August. **Brandy Johnson** and **Christina Parsons** have joined the clinical staff as medical assistants this year. During the past year the clinic faculty and staff have been working very hard to create a community presence.


Brandy Johnson


Jessica Hamden


Laura Hatch


Bethany Lechtanski


Christina Parsons


Coreen Abston


Dama Kulas

In March, the team worked with the Aveda Salon here in Ann Arbor and held a Craniofacial Glamour Day for our female patients. The Aveda staff donated their time to give our patients haircuts/styles, makeovers, and painted lots of nails. The girls truly enjoyed this day out. In May, the clinic faculty and staff held an event at Binder Park Zoo in Battle Creek, MI. The event was called 22-Q at the Zoo and our patients with the diagnosis of 22-Q, and their families, were invited to spend the day with us at the zoo.

In September, the clinic staff held its second annual Craniofacial Awareness Day picnic. This day was spent at a park in Ann Arbor and our patients and their families were invited for hot dogs and face painting. We also played soccer, badminton, and ladder ball. The weather cooperated beautifully and many of our patients joined us for a fun-packed day! We plan to continue building relationships for our craniofacial patients within the community during the upcoming year.

DEPARTMENT FEATURES

I promised myself I wasn't going to die that day

It was a gorgeous summer day on the lake, just like most others. My neighbors were having a summer party, so I decided that I'd take my kayak out to go pay them a visit. I kayak and exercise often, so I didn't think much of my spontaneous trip. I arrived at my friend's house, got out of my kayak for the festivities, and had a great time with great friends. About a half hour later, I got back into my kayak to head home. I was about five minutes into the lake when I got a terrible, throbbing headache that was unlike any headache I'd ever experienced before – at this point, I was in the middle of the lake, enclosed in a kayak, and alone without even a cell phone. I sat there for a few minutes in hopes that that headache would pass. When it didn't pass, I realized that I would die if I didn't push myself to get to safety, promising myself that I wouldn't give up in the middle of the lake.

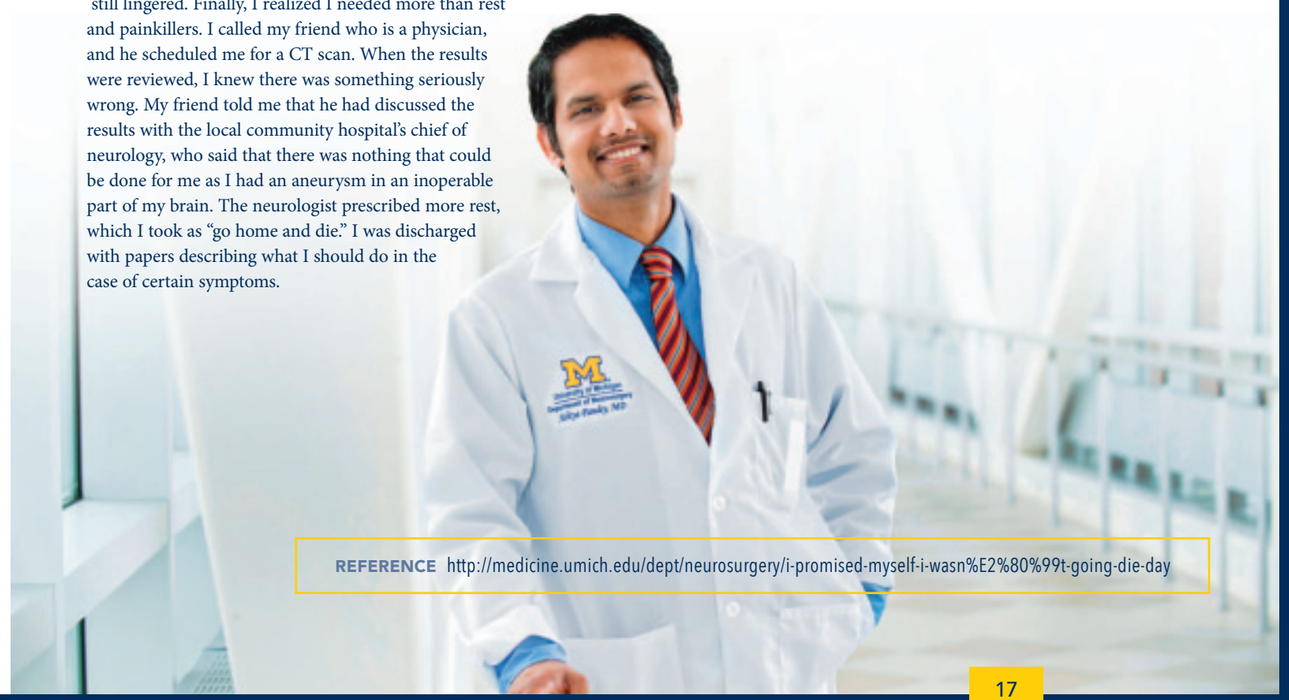
I made it home and believe it was a miracle that I did. When I arrived home, I spoke with some friends and family who are trained in medicine. They all told me to take some pain killers and get some rest, each believing the problem was nothing more than heat stroke. The headache was slightly lightened when I woke up the next morning, but it remained unlike any other I'd suffered. I continued to rest and take medication for the pain. The next morning, the headache still lingered. Finally, I realized I needed more than rest and painkillers. I called my friend who is a physician, and he scheduled me for a CT scan. When the results were reviewed, I knew there was something seriously wrong. My friend told me that he had discussed the results with the local community hospital's chief of neurology, who said that there was nothing that could be done for me as I had an aneurysm in an inoperable part of my brain. The neurologist prescribed more rest, which I took as "go home and die." I was discharged with papers describing what I should do in the case of certain symptoms.

About two hours later, I felt numbness and tingling in my legs. I told my son, who immediately said we needed to go back to the hospital. He knew the symptoms were dangerous. About five minutes into my son driving us to the community hospital, I turned to him and said, "Take me to U of M." I'd never been treated at U of M before, but something told me that was where I needed to be if I wanted to survive this.

When I arrived at U of M, I was treated with respect and compassion from the moment I walked in the door. They performed tests to figure out what was wrong and to decide what they would do to treat me. I remember Dr. Aditya Pandey coming to my bed and telling me that the aneurysm was in a normally inoperable place, but that he felt confident that he could save me with new and cutting-edge technology. He told me that the technology would allow him to place a pipeline stent, which would rebuild the weak portion of the vessel. As I looked at this young doctor, probably the age of my own children, I felt that I could trust him. I knew he was going to do whatever it took to keep me alive. He told me about the procedure and prepared me for what to expect. The next morning, Dr. Pandey performed this surgery, saving my life when other physicians had told me there was nothing to be done.

The University of Michigan Health System saved my life, and I feel forever indebted and grateful for Dr. Pandey's incredible skill and expertise. Thank you for saving my life, Dr. Pandey.

— Told by patient, Frank Barbat



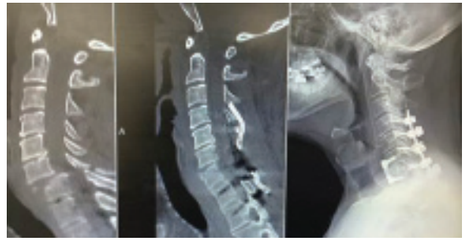
REFERENCE http://medicine.umich.edu/dept/neurosurgery/i-promised-myself-i-wasn%E2%80%99t-going-die-day

Support and Care to Return to a Normal Life

I have been a sleep walker most of my life, but it was never too much of a problem. On November 22, 2013, at about 1:00 a.m. I woke up and found myself lying on the stairs completely unable to move my arms, my legs, or voice.

It turns out I was in a very deep sleep — sleepwalking — and fell down the stairs. My wife must have heard the fall and came rushing to my aid. She called 911 immediately and soon after came the fire department and the Emergency Medical Technicians (EMT).

The EMTs took me directly to the University of Michigan where Dr. Juan Valdivia, M.D. was the neurosurgeon on call that night. I don't remember much of what happened after getting in the ambulance, but I was taken in for emergency surgery. I woke up after the surgery to discover that I had broken my neck in three places and that I could have been paralyzed. Dr. Valdivia's skill and expertise brought me back to health and being able to walk again, and for that, I am indebted to him and the team at U-M. I am now able to walk, talk, and do all of the things I used to take for granted.



Dr. Valdivia told me that my recovery was much better because I was physically active and an otherwise healthy person; I had suffered such a traumatic injury and that I am now able to lead a normal life is a miracle. The recovery was a long process. I remember the physical medicine and rehabilitation physician, Dr. Michael Wheaton, M.D., coming to evaluate me the day after surgery (and many times after). He pushed me to stand without straining my shoulders (using my core), and as we walked together I think back on Dr. Wheaton's words of encouragement and how impressed he was at how well I was doing. I also recall going for my first check-up with Dr. Valdivia and seeing his caring, impressed demeanor when he saw my progress.

I can't emphasize enough how wonderful everyone was in the Neurosurgery Department and the hospital as a whole during my time in the Neurosurgery Intensive Care Unit. The food was superb and it was great being able to order when I wanted it. The staff was incredible—from the cleaning staff to the nurses—they were all amazing. The discharge process was very smooth and the staff prepared me for almost any situation; they taught me tricks to put my socks and shoes on, prepared me to take precautions and mentally prepared me for what was ahead. They also offered devices to help make my life easier during the recovery period.

I feel so blessed to have been a patient of Dr. Valdivia's, as he gave me my normal life back and I am so grateful. Since my surgery, Dr. Valdivia has called a few times just to check on me and see how I was doing. Those calls were truly above and beyond my expectations. He called just because he cared. That's the kind of doctor he is.

— Told by patient, Kenneth Hall

REFERENCE http://medicine.umich.edu/dept/neurosurgery/support-care-return-normal-life

Navigating Options to Save His Hearing

Ken Posner has always had a love for music, so when he was faced with the very real possibility of going deaf in one ear due to vestibular schwannoma, he found himself distressed.

Ken's story begins in January 2009, when he experienced intermittent ringing in his right ear (tinnitus) for about a week. A sufferer of chronic migraines, Ken shared his concerns with his headache specialist in Chicago. Ken's doctor ordered an MRI, which demonstrated a small vestibular schwannoma in Ken's right internal auditory canal. Vestibular schwannomas, also called acoustic neuromas, are benign tumors, usually slow-growing, that commonly originate on the 8th cranial nerve leading from the brain to the ear. The first symptoms can include hearing loss, balance problems, and tinnitus. "The diagnosis of something growing inside my head was very troubling to me. I felt the need to learn as much as I could about my diagnosis and treatment options in order to make the best decision about how to proceed," says Ken. The more he learned, however, the more confused he found himself. "I was presented with two very different options, radiation or surgery, and I had no idea which path to take. Some doctors adamantly advocated for radiation, while others rejected radiation and pushed for surgical removal. None of the doctors gave any credibility to the other approaches," says Ken.

"An ear specialist who I knew and trusted told me that I must have the tumor surgically removed using the translabyrinthine (translab) approach," Ken says. The translab approach involves entering the auditory nerve canal through the mastoid bone behind the ear. This technique allows for complete removal of the tumor while minimizing risk of injury to the facial nerve and facial paralysis, but it always results in a complete loss of hearing in the affected ear. "The thought of being deaf in one ear terrified me. I also spoke with a neurosurgeon in Chicago who told me that radiation treatment was the only way to proceed, because surgery for vestibular schwannomas would soon be obsolete."

Growing even more confused, Ken was unsure how to resolve these contradictory recommendations. Furthermore, the physicians who recommended radiation couldn't tell him how much hearing loss he would suffer following treatment. To help him make a decision, Ken looked for a surgeon who used both radiation and surgery to treat vestibular schwannomas. "I figured that a doctor who practiced both forms of treatment could tell me which was the best choice for me," says Ken. This led him to the office of B. Gregory Thompson, M.D., a neurosurgeon here at the University of Michigan Health System and a member of the UMHS multidisciplinary acoustic neuroma program."I will never forget my first appointment with Dr. Thompson. He gave my wife and me his full attention."

"Although the appointment started late, Dr. Thompson did not allow this to compromise the visit. At dinner time, he received a phone call from his family. I asked if he needed to leave, and he told me no, that he was not leaving until he had answered all of our questions. He wasn't kidding; we were there for another hour. It meant a lot to us." Dr. Thompson explained that the UMHS acoustic neuroma program comprises of members from both the Departments of Neurosurgery and Otolaryngology-Head and Neck Surgery. This team has perfected a newer surgical technique, called the middle fossa approach, which not only removes the tumor but also gives patients the chance to preserve their hearing. Given Ken's overall good health and goal of hearing preservation, Dr. Thompson recommended he pursue this option.

Ken went on to meet with neurotologist and surgeon Steven A. Telian, M.D., to learn more about the middle fossa technique. Dr. Telian explained that by approaching the tumor from above the ear, he and Dr. Thompson would have access to remove the tumor in a way that allows preservation of the auditory and facial nerves. This approach boasts an 80 percent success rate for removing small tumors with good hearing remaining in the ear.

"It was actually Dr. Telian who really made the decision clear to me," says Ken. "I asked him how someone like me, without medical training, should go about making the decision between the risks and benefits of surgery versus the risks and benefits of radiation. He explained that with surgery, we will know the results and can manage them, whereas with radiation, it would take time to fully realize the effects of the treatment. Dr. Telian added that even if I chose radiation, he would still be my doctor and would treat any resulting hearing loss. His commitment was enough for me. I wanted to take the more definitive approach with a doctor who practiced that kind of devotion, so I decided to move forward with surgery."

In April 2009, Ken underwent a middle fossa resection of his right vestibular schwannoma with great success. Drs. Telian and Thompson were able to preserve Ken's hearing, much to his delight, and he made a splendid recovery. Today Ken is approaching five years post-surgery and doing remarkably well. With his full hearing preserved, Ken has been able to sing in a choir. Recently, he joined a community band and is playing his trumpet again for the first time since college. "It's remarkable, really, to be able to continue to enjoy music, I can't thank the Michigan team enough."

REFERENCE http://medicine.umich.edu/dept/neurosurgery/navigating-options-save-his-hearing

ALUMNI UPDATE

Calling all alumni! Please take a moment to log on to the questionnaire at the address link below to assist us in maintaining a robust directory of all U-M Neurosurgery Alumni. Thank you in advance for your participation!

http://medicine.umich.edu/dept/neurosurgery/neurosurgery-alumni-survey

News & Notes

Cheerag Upadhyaya, M.D. M.Sc., (2009) has successfully completed the American Board of Neurological Surgery (ABNS) board certification and is now a certified Diplomate. He also has joined a team of highly experienced subspecialty trained neurosurgeons at the Saint Luke's Marion Bloch Neuroscience Institute as Director of the Spine Program and Director of Spine Surgery.

Barunashish Brahma, M.D., (2007) has successfully completed the American Board of Neurological Surgery (ABNS) board certification and is now a certified Diplomate

Steven Swanson, M.D., FAANS, FACS (1985) has been named to a new position at Medtronic, Inc. as the Vice President and Chief Medical Officer, Neuromodulation and the Restorative Therapy Group. Dr. Swanson is the first neurosurgeon to serve in a senior leadership role at Medtronic.

Hunter Brumblay, M.D., (2009) has successfully completed the American Board of Neurological Surgery (ABNS) board certification and is now a certified Diplomate.

Finding a Michigan Physician — Anywhere

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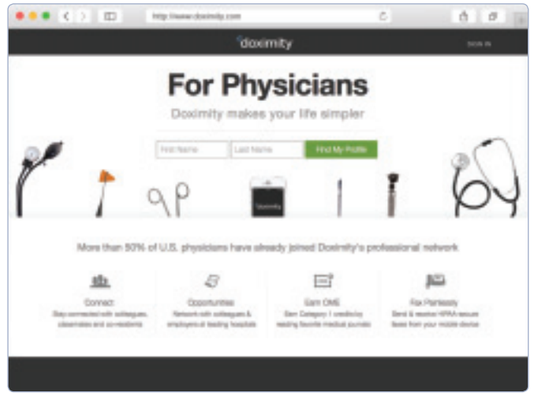
Sometimes, you don't just want a doctor; you want a U-M doctor, someone who earned a medical degree or trained here in a specialty. Sharing a common experience — like the U-M — can be especially important when it comes to matters of health.

Until recently, Michigan alumni had no reliable way to search for a Michigan-trained physician near them. But in 2012, Medical Center Alumni Society president **Stephen Papadopoulos, M.D.** (Residency 1988), changed that with the help of a physician-networking website known as Doximity.

"Doximity is like LinkedIn, but just for physicians," explains Papadopoulos, chief medical officer and executive vice president at the Barrow Neurological Institute in Phoenix, Arizona. "The site has spent a lot of effort aggregating physician profiles from public information. It occurred to me that they had the best database of American physicians anywhere." With the cooperation of the Alumni Association of the University of Michigan, Papadopoulos approached Doximity about developing a way for U-M alumni — about 500,000 strong — to search for Michigan physicians near them.

Today, a link on the Alumni Association website allows members to find basic background and contact information for Michigan doctors in all specialties who practice in their geographic area. Papadopoulos says his idea sprang from a reality many physicians share: friends and family members calling him for referrals in their area. Whenever possible, he skews Blue. "You meet a new doctor and you immediately have something in common," he says, "and that's Michigan."



U-M Memoir

James Taren M.D.

Dr. James Taren passed away on February 21, 2014. Dr. Taren follows in a long line of outstanding surgeons who have been a part of the wonderful neurosurgery legacy at Michigan.

Regents' Proceedings 311

James A. Taren, M.D., professor of surgery, retired from active faculty status on March 31, 1997, after a highly productive career as a teacher, clinician, and researcher.

A native of Toledo, Ohio, Dr. Taren served with distinction in the U.S. Marine Corps in the Pacific Theater from 1943-46. He received his B.S. degree from the University of Toledo in 1948 and his M.D. degree from the University of Michigan Medical School in 1952. He served his internship and residency at the University of Michigan Medical Center in surgery and in neurosurgery from 1952-55 and then undertook additional training in Boston and at the University of Michigan from 1955-57. Dr. Taren joined the University of Michigan faculty in 1957 as an instructor in the Medical School, Department of Surgery, Section of Neurosurgery. He was promoted to assistant professor in 1958, associate professor in 1963, and professor of surgery in 1969.

Dr. Taren also served with distinction as associate dean for academic programs from 1978-87, after which he returned to full-time clinical activities. He also was director of the Office of Integration of Information and Computer Technology for the Medical Campus from 1988-1989. Dr. Taren was a member of many professional societies during his career and was an officer in several.

His research activities focused on the problem of chronic intractable pain, on obsessive-compulsive disorders, and on Parkinson's disease. He authored 53 articles in peer-reviewed journals, in addition to coauthoring 2 neurosurgical textbooks and 17 book chapters. Dr. Taren's career was marked by innovative approaches to difficult neurosurgical problems. He is known for his expertise in the management of chronic intractable pain states and the control of involuntary movement disorders, including those seen in Parkinsonism and spasticity.

The Regents now salute this distinguished health educator for his dedicated service by naming James A. Taren Professor Emeritus of Surgery.

Alumni in N.C. "Triad" Toast Dr. James Taren

Dr. William Chandler and wife Sue thought it would be enjoyable to gather the Michigan Neurosurgery faithful at their place in Greensboro, North Carolina in early March.

Left to right: Kathryn Stern, Judy Roy, Mark Roy, Roger Geer, Jody Stern, Carol Geer, Kyle Cabbell, Diane Cabbell, Sue Chandler, and Bill Chandler.

These are all Michigan folks (as they say in North Carolina) practicing in the Greensboro, Winston-Salem, High Point "Triad" area. Jody Roy, Kyle Cabbell, and Mark Roy all practice in Greensboro and Carol Geer and Tom Sweasey (who could not attend) are on the faculty at Wake Forest University in Winston-Salem. Tom is the program chairman in neurosurgery and Carol, now a neuroradiologist, is the program chair for all of radiology.

The group made a toast to honor Jim Taren's life and career. Everyone is doing well and sends their best to the home front in Ann Arbor.

In Memoriam

Michigan Neurosurgery alumnus **George W. Schemm, (M.D. '55 and Residency '61)**, passed away on August 12, 2014 of advanced Parkinson's disease. We are saddened by his passing and are comforted in knowing that he will live on in the memory of many.

RESEARCH NEWS & NOTES

News from the Crosby Neurosurgical Laboratories

For more than a decade, **Dr. Guohua Xi** has explored the role of hemoglobin and iron in brain injury after intracerebral hemorrhage. Two papers published this year from his group expand this to hydrocephalus after intraventricular hemorrhage in both adult and neonatal preclinical models.

Dr. Chao Gao, who came to us from the Department of Neurosurgery at Fudan University in Shanghai, and **Dr. Jennifer Strahle**, from our residency program, showed the important role of the red blood cell components, hemoglobin and iron, in inducing hydrocephalus (*J. Cereb Blood Flow Metab* 34: 1070-5; 2014; *Neurosurgery* 75: 696-706; 2014). Based on Dr. Xi's work, deferoxamine, an iron chelator, is in Phase II clinical trial for intracerebral hemorrhage. These exciting results suggest a potential role for this approach to intraventricular hemorrhage.

Dr. Xing Fan's work on the role of Notch signaling in brain cancer stem cells, and the effects blocking that signaling using a gamma-secretase inhibitor (GSI), has led to a Phase II clinical trial combining GSI with temozolomide. This past August, **Dr. Chia-Ying Lin**, who for many years headed the Spine Laboratory in the Department of Neurosurgery, was presented with a great opportunity and accepted a new position as the Dane A. and Mary Louise Miller Endowed Chair in Biomedical Engineering at the University of Cincinnati.

News from the Translational Neuro-Oncology Laboratories

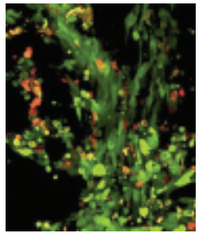
IND Submitted to the FDA for Phase I Clinical Trial for Treatment of Malignant Glioma

Drs. Maria Castro, Pedro Lowenstein, and Mr. Mitch Seymour have submitted a Research Investigational New Drug (IND) application to the Food and Drug Administration (FDA) for the investigative study: *"Combined High-Capacity Adenoviral Vector Platform (HC-Ad-TK + HC-Ad-TetOn-Flt3L) for the treatment of malignant glioma."*

The study proposes to implement a new Phase I Clinical Trial to evaluate a range of doses and identify a Maximum Tolerated Dose (MTD) for the conditional cytotoxic vector (HC-Ad-TK), which will kill cancer cells; and the immune-stimulatory vector (HC-Ad-TetOn-Flt3L), which will train the immune system of the patient to recognize and kill the tumor when vectors are administered into the peri-tumoral region of resected malignant gliomas (glioblastoma multiforme – GBM; WHO grades III and IV).

Brain tumors fly under the body's radar like stealth jets, new U-M research suggests

Brain tumors fly under the radar of the body's defense forces by coating their cells with extra amounts of a specific protein, new research shows. Like a stealth fighter jet, the coating means the cells evade detection by the early-warning immune system that should detect and kill them. The stealth approach lets the tumors hide until it's too late for the body to defeat them.



In mice whose brain tumor cells (in green) couldn't make galectin-1, the body's immune system was able to recognize and attack the cells, causing them to die. In this microscopic image, the orange areas show where tumor cells died in just the first three days after the tumor was implanted in the brain. Six days later, the tumor had been eradicated.

The findings, made in mice and rats, show the key role of a protein called galectin-1 in some of the most dangerous brain tumors, called high-grade malignant gliomas. They found that when they blocked cancer cells from making galectin-1, the tumors were eradicated; they did not grow at all. That's because the "first responders" of the body's immune system – called natural killer or NK cells – spotted the tumor cells almost immediately and killed them. But when the tumor cells made their usual amounts of galectin-1, the immune cells couldn't recognize the cancerous cells as dangerous. That meant that the immune system couldn't trigger the body's "second line of defense" – called T cells – until the tumors had grown too large for the body to beat.

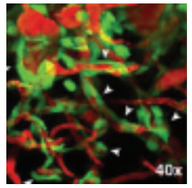
A research team from the University of Michigan Medical School made the discovery and it has been published online in the journal Cancer Research. Team leader Pedro Lowenstein, M.D., Ph.D., of the U-M Department of Neurosurgery, says the findings open the door to research on the effect of blocking galectin-1 in patients with gliomas. The NK-evading "stealth" function of the extra-thick coating of galectin-1 came as a surprise, because glioma researchers everywhere had assumed the extra protein had more to do with the insidious ability of gliomas to invade the brain and to evade the attacks of T cells. Helping the innate immune system to recognize early stages of cancer growth and sound the alarm for the body's defense system to act while the remaining cancer is still small enough for them to kill could potentially help patients.

For the full article, go to:
http://www.uofmhealth.org/news/archive/201408/brain-tumors-fly-under-bodys-radar-stealth-jets-new-u-m

Hijacking the brain's blood supply: Tumor discovery could aid treatment

Gliomas don't grow their own blood vessels, U-M-led team finds

Dangerous brain tumors hijack the brain's existing blood supply throughout their progression, by growing only within narrow spaces between and along the brain's thousands of small blood vessels, new research shows for the first time.



This microscopic view of a mouse brain tumor shows small clusters of tumor cells (in green), marked with white arrows, growing along tiny blood vessels (in red) in the brain and filling the space in between the vessels.

The findings contradict the concept that brain tumors need to grow their own blood vessels to keep themselves growing, and helps explain why drugs that aim to stop growth of the new blood vessels have failed in clinical trials to extend the lives of patients with the worst brain tumors. In fact, trying to block the growth of new blood vessels in the brain actually spurs malignant tumors, called gliomas, to grow faster and further, the research shows.

On the hopeful side, the research suggests a new avenue for finding better drugs. The discoveries come from a University of Michigan Medical School research team in collaboration with colleagues from Arizona State University. Published online in the journal Neoplasia, the research was featured as the journal's cover article. The research team was led by Dr. Pedro Lowenstein and Dr. Maria Castro.

For the full article, go to:
http://medicine.umich.edu/dept/neurosurgery/news/archive/201408/hijacking-brains-blood-supply-tumor-discovery-could-aid-treatment

Transplant drug could boost the power of brain tumor treatments, U-M study finds

Results in animals show potential for use in human clinical trials of immune-based approaches

Every day, organ transplant patients around the world take a drug called rapamycin to keep their immune systems from rejecting their new kidneys and hearts. New research suggests that the same drug could help brain tumor patients by boosting the effect of new immune-based therapies. In experiments in animals, researchers from the University of Michigan Medical School showed that adding rapamycin to an immunotherapy approach strengthened the immune response against brain tumor cells. What's more, the drug also increased the immune system's "memory" cells so that they could attack the tumor if it ever reared its head again. Mice and rats in the study that received rapamycin lived longer than those that didn't.

Now, the U-M team plans to add rapamycin to clinical gene therapy and immunotherapy trials to improve the treatment of brain tumors. They currently have a trial under way at the U-M Health System that tests a two-part gene therapy approach in patients with brain tumors, called gliomas, in an effort to get the immune system to attack the tumor. In future clinical trials, adding rapamycin could increase the therapeutic response. The new findings were published online in the journal Molecular Cancer Therapeutics. Maria Castro, Ph.D., is the senior author of the paper. Castro notes that if the drug proves useful in human patients, it could also be used for long-term prevention of recurrence in patients who have had the bulk of their tumor removed.

For the full article, go to:
http://medicine.umich.edu/dept/neurosurgery/news/archive/201409/transplant-drug-could-boost-power-brain-tumor-treatments-u-m-study-finds

More on the gene therapy trial already under way at U-M:
http://umhealth.me/1-2-punch or, http://clinicaltrials.gov/ct2/show/NCT01811992

A New View

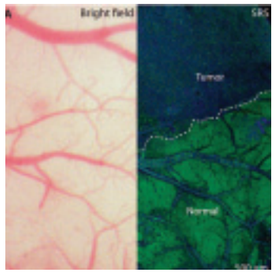
A U-M doctor has developed a way to distinguish between tumors and healthy cells

When neurosurgeons operate on malignant brain tumors, the last thing they want is to leave cancer cells behind. Yet to the naked eye, tumor tissue can resemble healthy tissue, and the boundary between them is nebulous. With each millimeter of healthy brain potentially crucial for speech, movement, and thought, the stakes couldn't be higher.

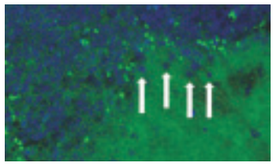
A new tool may soon solve the dilemma. Stimulated Raman scattering (SRS) microscopy provides the neurosurgeon with a clear view of the microarchitecture of brain tissue, displaying a stark contrast between tumor and healthy brain. It's harmless, works in real time, and doesn't require slides, stains, dyes, or MRI.

Daniel Orringer, M.D., Assistant Professor in the Department of Neurosurgery, introduced human cancer cells into the brains of experimental mice. His team used glioblastoma, a deadly form of brain cancer known for its ragged borders. Using SRS microscopy on mice, they obtained vivid color-coded images of individual cells along the tumor margin, making it clear where tumor ended and healthy brain began. They published their results in Science Translational Medicine.

Imaging invisible brain tumor margins

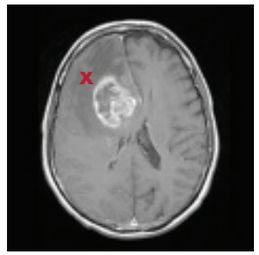


These images were acquired from a mouse with an implanted human glioblastoma. In the left side of panel "A" is a standard brightfield image, similar to what a neurosurgeon would see during surgery. On the right side of panel "A" is an SRS microscopic image, which demonstrates clear evidence of tumor (blue) at the top of the screen adjacent to normal brain (green) at the bottom of the screen.

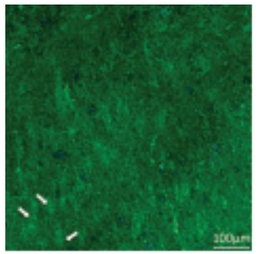


This is a high resolution image of a brain tumor margin using SRS microscopy. Arrows indicate individual brain tumor cells (blue) infiltrating into the normal brain tissue (green).

Without magnification to reveal the telltale traits of tumor cells, surgeons have traditionally had to rely on fuzzy visual cues like texture and vascularity to decide where to cut. "To your eye, to my eye, everything looks like tan bits of tissue," Orringer says. "I really felt uncomfortable with the lack of precision." Using MRI to map the tumor revolutionized neurosurgery in the 1990s. Still, that map loses accuracy as surgery proceeds and brain tissue shifts. Another method is to dye the tissue, but that, too, can be problematic. So, Orringer looked for a better way. In 2009, he attended a conference in Stockholm. Orringer was then experimenting with nanoparticles to delineate tumor borders. As luck would have it, his poster stood beside that of Harvard physicist Christian Freudiger, who had recently refined SRS microscopy and was on the lookout for "killer apps." The two got to talking and soon agreed to collaborate. For Orringer, looking at the first SRS images of a tumor margin was a "Eureka!" moment. SRS imaging works in human brain tissue as well!

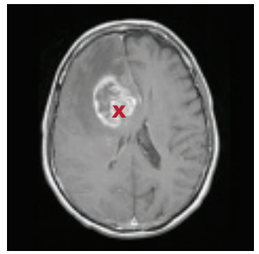


MRI

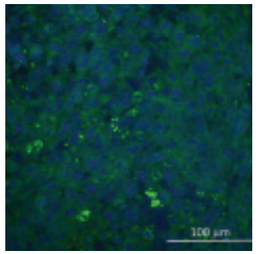


SRS image at position "X"

This is an SRS microscopic image of human brain tissue acquired from a glioblastoma patient. The tissue imaged here is adjacent to the tumor acquired from the position indicated with a red X in the MRI at left. This tissue has a predominantly green appearance and shows no definitive signs of tumor.



MRI



SRS image at position "X"

Tumor-infiltrated brain tissue: The difference between normal tissue and tumor-infiltrated tissue with SRS is striking! The red X on the MRI image at left demonstrates the position of the tissue imaged with SRS on the right. Crowded tumor cells (blue) are readily visible.

Funded by the Michigan Translational Research and Commercialization Program, Orringer's group is working with Freudiger's startup company, Invenio Imaging, Inc., to miniaturize SRS microscopy. The team envisions a pen-sized device that a surgeon can touch to brain tissue; its images will appear in real-time on an operating room screen. The team expects to test a prototype in the U-M operating rooms in 2015. In the meantime, word is getting around. "The enthusiasm for this technology is palpable," Orringer says. "There's not a surgeon who I've spoken to who says that they wouldn't want something like this." Excerpts taken from *Medicine at Michigan*, Spring/Summer 2014 by Jenny Blair.

REFERENCE http://medicineatmichigan.org/magazine/2014/summer/inside-scope/clinic)

UMHS NEUROSURGICAL NEWS

Taking Stroke Care to the Next Level – U-M Comprehensive Stroke Program Earns Elite Status

New certification only held by 70 other hospitals in U.S.

When car crash victims suffer serious injuries, emergency crews often get them to trauma centers for the advanced care they need. That same concept has come to stroke care, as evidence grows that coordinated, advanced treatment can make a huge difference for patients who suffer a "brain attack." The University of Michigan Health System has earned the nation's highest designation – elite – for stroke care, after a thorough inspection and review by the organization that certifies such programs. **Only 70 other hospitals in the country had achieved this elite status.** U-M's Comprehensive Stroke Program now holds the **official certification of Comprehensive Stroke Center**, granted by the Joint Commission accrediting organization and recognized by the American Heart Association and American Stroke Association.

The new designation means UMHS has highly trained hospital teams and technologies ready at a moment's notice, around the clock, 365 days a year. This includes the ability to rapidly diagnose what is causing each patient's stroke symptoms, and also includes the ability to deliver time-critical treatments and procedures to dissolve blood clots in the brain, to remove stubborn clots, or repair the source of bleeding in the brain. UMHS even has a unique surgical room where a CT scan of the head can be performed in the same room where doctors can remove clots from vessels or repair brain aneurysms. The U-M program is led by stroke neurologist **Eric Adelman, M.D.**, neurosurgeon **Aditya S. Pandey, M.D.**, and emergency medicine physician **William Meurer, M.D.**

"It takes a strong team to give a stroke patient absolutely optimum care, and that's what we aim to do. The Joint Commission did not give us a single citation during its review of our program. We are one of three institutions within the United States who have been certified for the Comprehensive Stroke Program without a single citation." says Pandey, who specializes in minimally invasive brain procedures for patients having or at high risk of a stroke. "The outcomes our patients achieve and the number of stroke patients we treat are the true indicators of the high-quality stroke care provided at the University of Michigan."
"By achieving this advanced certification, U-M's Comprehensive Stroke Program has thoroughly demonstrated the greatest level of commitment to the care of its patients with a complex stroke condition," says Mark R. Chassin, M.D., FACP, M.P.P., M.P.H., president and CEO of The Joint Commission. "Certification is a voluntary process and The Joint Commission commends U-M for successfully undertaking this challenge to elevate the standard of its care for the community it serves."

For more information on stroke care at UMHS, visit www.uofmhealth.org/stroke.

U-M Spine Program enters into statewide spine surgery collaborative

Aim to improve spine surgery outcomes in Michigan through Value Partnerships program

In 2015, the University of Michigan (U-M) will join the **Michigan Spine Surgery Improvement Collaborative (MSSIC)**, a statewide quality improvement collaborative involving neurosurgeons and orthopedic surgeons with the aim of improving the quality of care of spine surgery. The project, the first of its kind nationally, is sponsored by Blue Cross Blue Shield of Michigan (BCBSM), and falls under the auspices of the Value Partnerships program for improving health care in Michigan. The objective of the MSSIC collaborative is to improve spine surgery outcomes by reducing complications and repeat surgeries, and by reducing costs and episodes of care. The program uses collaboration and data-sharing to enhance clinical quality by way of improved health outcomes.

MICHIGAN SPINE SURGERY IMPROVEMENT COLLABORATIVE

VALUE Partnerships
Improving Health Care in Michigan

The Department of Neurosurgery joins national database to improve the quality of neurosurgical procedures

This year the Department of Neurosurgery joined the **National Neurosurgery Quality and Outcomes Database (N^2QOD)**, a national clinical registry which tracks the quality of surgical care for the most common neurosurgical procedures. Keeping track of practice patterns and patient outcomes will allow us to improve the quality, efficiency, and, ultimately, the value of care. We currently participate in the project's Lumbar Spine Module, which provides our department with the ability to analyze morbidity and clinical outcomes in real-time, which will lead to better patient outcomes and experience. In the future, we plan to collect data on other neurosurgical procedures.

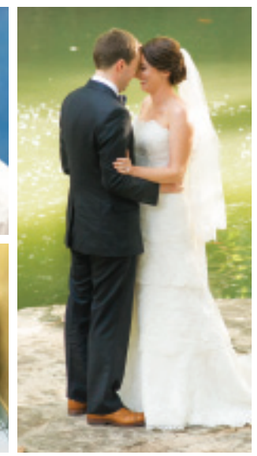
N²QOD
NATIONAL NEUROSURGERY QUALITY & OUTCOMES DATABASE

FOCUS ON PHILANTHROPY & OUTREACH

Discovery Ball

On April 26, 2014, this premier event raised funds toward the $1 billion campaign goal of the University of Michigan Health System (UMHS) as part of the overall $4 billion Victors for Michigan campaign. More than 500 guests attended, from campaign leadership to university leaders. Among the sponsors of the event were our very own **Dr. Karin Muraszko** and **Dr. Greg Thompson.** They were accompanied by friends of the Neurosurgery Department for a night of lovely entertainment, exquisite meals, and excellent company. Neurosurgery collectively raised $68,000 for important neurosurgery research, including brain tumor research and neurovascular research. A special thanks to our friends and supporters who joined us that evening and made extremely generous contributions!

Saving Children's Lives Through Marriage



At some point during their residency program, U-M neurosurgery residents partake in the annual outreach mission to Guatemala, Project Shunt. **Dr. Will Stetler**, a current U-M resident traveled to Guatemala back in 2013. During the mission, he connected with a young girl whose surgery was too complex to be performed in Guatemala without the skilled follow-up that would be required. He was devastated to have to leave this young girl behind without any ability to help her. At that time, he realized just how important this mission was in terms of providing lifesaving care, while also educating physicians and care providers on how to care for these patients.

Dr. Stetler and his fiancée, Dr. Erin Cook, were married this Fall. Instead of accepting traditional gifts, they asked their guests to contribute to Project Shunt. Will's story is unique, but his passion and dedication to saving lives – which is why he went into medicine – is true of each person that goes on this outreach mission. Project Shunt is 100% donor-funded so each gift presented by Will and Erin's friends and family will be directly applied to helping save young children's lives in Guatemala. We are immeasurably grateful to Will and Erin for choosing to honor a special time in their lives by helping others!

Become a Victor

Now is the time to discover more effective treatment options — and ultimately cures — for patients and families that are battling some of the most devastating neurologic diseases in our nation and globally. With your help, we can cultivate innovative concepts that will transition research from the laboratory to the operating room.

TO PARTNER WITH US, CONTACT:
Halla Jomaa
University of Michigan Health System
Office of Development
734-763-5121 | hnjomaa@umich.edu

VICTORS FOR MICHIGAN

Motor City Golf Classic Commemorates 25th Anniversary in 2014

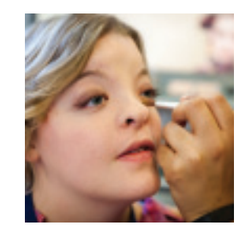
The 2014 Motor City Golf Classic (MCGC) celebrated its 25th anniversary this year — and the 9th consecutive year benefitting the U-M Department of Neurosurgery. Once again, the event was an astounding success and received rave reviews, many saying it is the best golf outing they have ever participated in. Commemorative 25th Anniversary coins were given to all attendees. Many thanks to our sponsors; BASF, Pezzillo Financial Group, DFCU Financial, Varsity Ford, George's Senate Restaurant, and CaddyShack Golf. Jack Davidek was the recipient of the Young Hero Award. The Young Hero Award is a program of the 127th Wing, Michigan Air National Guard, which recognizes the exceptional courage and dignity displayed by a child during treatment for life threatening illness or injury.

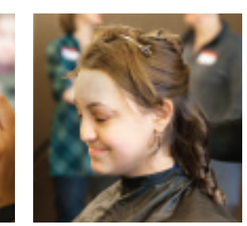
Bob Kunkel received this year's Motor City Salute of Excellence, which recognizes an individual whose commitment, dedication, and service to the Motor City community has made a significant impact. There was really only one choice when selecting this year's recipient – the one MCGC constant, the founder of the MCGC, the man known as "CaddyShack Bob." Although this was the Silver Anniversary of the MCGC, Bob Kunkel is Gold. Bob has lived his life adhering to the same motto of the charitable organization C.A.T.C.H and their founder, Baseball Hall of Fame manager Sparky Anderson. ***"There is nothing in this world that you will ever do that's better than helping a child."*** Most appropriately, as a tribute and an exhibit of Bob's Motor City impact for the past 25 years, three Young Hero recipients presented Bob with the Motor City Salute of Excellence; Max Merget (2013), Pietro Pellerito (2010), Jack Davidek (2014).

Craniofacial Glamour Day

A day of pampering and glamour for 21 girl patients of the University of Michigan's Craniofacial Anomalies Program.

On Sunday, March 12, 2014, **The Douglas J. Aveda Institute in Ann Arbor** volunteered to give the girls new hairstyles, manicures, pedicures, and makeup. After the makeover was complete, each girl had her professional photo taken. The girls were provided with lunch and as they left the salon, were given a gift bag which included a picture frame and glamour photo. U-M Craniofacial Team members helped to plan and host this event. Craniofacial anomalies include a wide range of deformities, ranging from mild to severe, in the growth of the head and facial bones including cleft lip and palate deformities. Most of the girls have had surgery to improve their facial appearance. The event was a huge success as the girls thoroughly enjoyed this day of pampering! The U-M Craniofacial Anomalies Program is the largest program of its kind in Michigan, and also one of the largest in the United States.





MEDICINE NEEDS VICTORS — BECOME A VICTOR

Today at the University of Michigan Health System, we are working toward solutions that bring hope to patients with devastating neurological diseases. With your support, we can advance treatments and accelerate health care toward a better future.

For more information on making a gift to the Department of Neurosurgery at the University of Michigan, please contact:
Halla Jomaa at 734-763-5121 or hnjomaa@umich.edu

NEUROSURGERY
UNIVERSITY OF MICHIGAN
HEALTH SYSTEM

Department of Neurosurgery
3552 Taubman Health Care Center, 1500 E. Medical Center Dr., Ann Arbor, MI 48109-5338
734-936-7010 http://medicine.umich.edu/dept/neurosurgery

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