

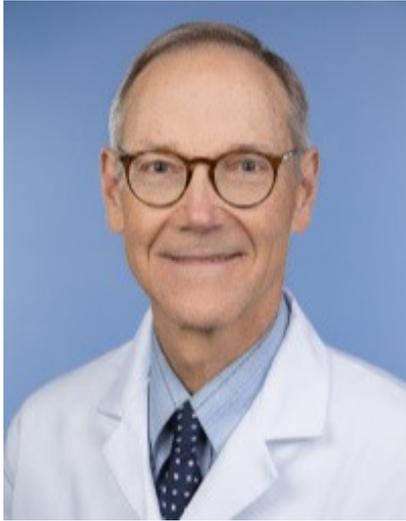


Fusion

The Quarterly Newsletter of the Department of Neurological Surgery.

UCDAVIS
HEALTH

Department of
Neurological Surgery



Message from the Chair

I am pleased to share this first installment of our Quarterly Department Newsletter, *Fusion*. It is designed to highlight and to thank each of you for our accomplishments, to celebrate our growth and to bolster our sense of connection and common purpose throughout the department.

As I complete my first year as Chair of the Department of Neurological Surgery, I am very proud of all that our faculty, residents, nurses and staff have accomplished. Although change is never easy, our ability to connect to our shared mission has helped us remain collegial, mutually supportive, and successful in this year of growth and adjustment.

We added three faculty members, Drs. Ignacio Saez, Michael Edwards and Orin Bloch, and we expanded our collaborations in numerous clinical programs including tumor, stroke, movement disorders, epilepsy and pain. We will continue to recruit additional faculty members for expansion of our clinical and research efforts. We improved the efficiency of our clinics led by Floreese Johnson and Kimberlee Sierra, and we increased our operating room utilization with a weekly Tuesday morning “look-ahead” meeting and astute scheduling by Robert Dillman. Breana Sanchez created a new OR Database that captures case type, resident roles, billing and referral information. The residency program, coordinated by Staci Leitner, has expanded from seven to ten residents, and the results of our last resident survey were extremely positive.

We are deeply indebted to our current group of NPs who met the challenge of APP turnover with scheduling flexibility, teamwork, and superb patient care. We have chosen Christine Picinich as lead advanced practice provider; she is already creatively reorganizing our group of highly dedicated and talented APPs and aggressively recruiting new members. And, Christi Delemos has created a new nurse practitioner fellowship to augment the talent pool.

Under Stacy Miller’s thoughtful leadership, we partnered with our Neurology colleagues to streamline administrative services while retaining outstanding staff members, some of whom, such as Cheryl Williams, Lisa Valenton, and Robert Dillman, have graciously accepted altered roles. And, Kally Turner has improved our outreach by redesigning much of our website and compiling our data base of referring physicians.

We performed well enough financially, as ably tracked by Karina Zepeda and Gwyn Carnegie, to make a contribution to our reserves for investment in new programs, and we earned greater recognition for neurosurgery’s importance to the overall UC Davis Health enterprise. Reflecting this, we have been granted priority admission status for our tumor and cerebrovascular patients. We also acquired the Globus robot championed by Kee Kim for spinal surgery. And, under the direction of Nancy Rudisill, our clinical research staff remained highly productive.

This is a small sampling of all that we have accomplished together during the last year; these achievements were possible only through your hard work and dedication to continuing our culture of excellence. We should all be very proud of a successful year of providing outstanding patient care to our Northern California community, educating our residents and practitioners, and contributing to medical discovery. I appreciate that you remain energized and excited at the prospect of increasing our collective ability to be a truly outstanding neurosurgery department.

Thank you,

Griff Harsh IV, M.D., M.B.A.
Professor and Chair

sEEG/ECoG Fieldtrip Bootcamp



Dr. Ignacio Saez and the UC Davis Cognitive Neurophysiology Lab hosted the first sEEG/ECoG Fieldtrip Bootcamp at the School of Medicine Sacramento Campus. This three day workshop in March was aimed at senior researchers and PhD students interested in processing and analyzing human brain electrophysiological data. The toolkit course covered processing, frequency analysis, connectivity and various statistical methods. It included lectures, hands on sessions and individual tutoring for 30 participants.

AANS Annual Meeting Featured Speaker



Congratulations to **Dr. Kee Kim** who delivered a key lecture titled, "Ten year outcomes of one-and two-level cervical disc arthroplasty: Results from a U.S. multi-center study" during plenary session II of the AANS Annual Meeting in San Diego, CA this April. The study showed that cervical artificial disc surgery, disc arthroplasty, is durable and efficacious for most patients even ten years after surgery. Dr. Kim also gave several smaller poster presentations.



Incoming Residents!



Jared Clouse, M.D.



Matthew Kercher, M.D.

We are pleased to welcome two new incoming residents in July 2019! Dr. Jared Clouse from Indiana School of Medicine and Dr. Matthew Kercher from the University of Nebraska College of Medicine.

We are very excited to have Jared and Matthew be part of our neurosurgery team and would like to extend them a warm welcome to UC Davis!



The Neurological Surgery Department is Expanding!

The Department of Neurological Surgery welcomes our newest faculty members.



Michael S. B. Edwards, M.D., specializes in the treatment of pediatric neurosurgical disorders. Widely recognized as the leading academic pediatric neurosurgeon in Northern California for the last three decades, Mike will bring renowned surgical skill, unparalleled commitment to patient care, superb teaching, and regional outreach to the department. He will work closely with Dr. Marike Zwieneberg to expand our pediatric neurosurgical programs.



Orin Bloch, M.D., joined the department in March 2019. A highly respected surgical neuro-oncologist, he leads our glioma brain tumor program and tumor immunotherapy laboratory. Supported by an NIH R01 grant, Dr. Bloch's laboratory develops novel immunotherapy approaches for brain tumor patients. In collaboration with medical neuro-oncologists, he will expand current and initiate new clinical trials at UC Davis.

Open Faculty Recruitments

The department is currently recruiting for four new faculty members, a neurocritical care specialist, a neuro-oncologist, a cerebrovascular surgeon and a spine surgeon. Qualified candidates can be directed to our recruitment analyst Joe Valadez at jvaladez@ucdavis.edu for instructions on how to apply. All open recruitments can be found at <https://recruit.ucdavis.edu>



Faculty Publications

Dr. Robert Berman continues to make an impact in our understanding of Fragile X syndrome. He is the corresponding and senior author of "Astroglial-targeted expression of the fragile X CGG repeat premutation in mice yields RAN translation, motor deficits and possible evidence for cell-to-cell propagation of FXTAS pathology," in *Acta Neuropathologica Communications* 2019 7:27.

Dr. Orin Bloch is one of several authors of multiple articles focused on stereotactic radiosurgery published during the first half of 2019. "Stereotactic radiosurgery for neurosurgical patients: a historical review and current perspectives," was published in the February issue of *World Neurosurgery*; 122:522-531. "Commentary: Stereotactic Radiosurgery Training for Neurosurgery Residents: Results of a Survey of Residents, Attendings, and Program Directors by the American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Tumors," was published in January of 2019 in *Neurosurgery*: 84(1) E86-E91 and "Stereotactic radiosurgery for the treatment of brain metastasis from gastrointestinal primary cancers," was published in the *Journal of Radiosurgery* 2019; 6(1): 27-34. Dr. **Bloch** was senior and corresponding author of "Symptomatic radiation necrosis in brain metastasis patients treated with stereotactic radiosurgery and immunotherapy," published in *Clinical Neurology and Neurosurgery* in April of 2019; Volume 179, pgs 14-18. In April of this year the Epub of "Lymphopenia predicts response to stereotactic radiosurgery in lung cancer patients with brain metastases," was released for the June issue of the *Journal of Neurooncology*, 143(2): 337-347.

Dr. Bloch is also one of several authors on three recently published articles focusing on glioblastoma and meningiomas. He is the corresponding author of, "Long-term glioblastoma survival following recovery from cytomegalovirus colitis: a case report," published in the June issue of the Journal of Clinical Neuroscience 64:18-21. "Glioblastoma-derived IL6 induces immunosuppressive peripheral myeloid cell PD-L1 and promotes tumor growth," was published in the June issue of Clinical Cancer Research, 25(12): 3643-3657 and "Systemic and local immunosuppression in patients with high-grade meningiomas" was published in the June issue of Cancer Immunology, Immunotherapy, 68(6): 999-1009.

Dr. James Boggan is one of multiple authors of "The impact of unmet communication and education needs on neurosurgical patient and caregiver experiences of care: a qualitative exploratory analysis," published in the February issue of World Neurosurgery, Volume 122, e1528-e1535. This study used five focus groups comprised of neurosurgery patients and their caregivers to examine communication needs and how unmet communication needs impacted patient satisfaction.

Dr. Michael S.B. Edwards is one of several authors of "Early diffuse magnetic resonance imaging changes in normal-appearing brain in pediatric Moyamoya disease," published in Neurosurgery (epub ahead of print). This study's objective was to "investigate quantitative global diffusion changes in pediatric moyamoya patients prior to structural ischemic damage."

Dr. Michael S.B. Edwards is the senior and corresponding author in "Transnasal endoscopic approach for pediatric skull base lesions: a case series," published in the Journal of Neurosurgery (epub ahead of print). As noted in the journal, "In this case series, the authors present their institutional experience with transnasal endoscopic transsphenoidal approaches for pediatric skull base tumors."

"Neurosurgery resident education: a twist on the traditional," by **Dr. Fady Girgis** and Jonathan Miller, was published in the 2019 Winter/Spring issue of Congress Quarterly, Education in Neurosurgery, CNSQ Vol 20: 1, p. 16-17. This article examines some of the challenges faced by educators in developing curriculums and the efficacy, impact and advantages of the flipped classroom model as revealed by a study conducted here in our own department.

Dr. Griffith Harsh is one of multiple authors of "Brain Metastases" a Nature Reviews Disease Primers which provides insight into mechanisms of brain metastases and contains a thorough review of the latest available treatment options. Dr. Harsh's article, "Quantification of macrophages in high-grade gliomas by using ferumoxytol-enhanced MRI: a pilot study," was published in the January issue of Radiology, 290(1): 198-206.

Dr. Ignacio Saez is the first author of "Making the jump: expert guidance on transitioning to academic independence" in the June 2019 issue of the European Journal of Neuroscience. This publication encribes information disseminated through a seminar series aimed at young researchers seeking to establish themselves as independent investigators.

Drs., Kia Shahlaie, Clayton Gerndt and Marike Zwienenberg, Et al., recently published "Selection of children with ultra-severe traumatic brain injury for neurosurgical intervention," in the April 2019 issue of the Journal of Neurosurgery: Pediatrics. This article summarizes their findings from a recent retrospective study of severe TBI. A portion of the data for this study was collected in our departmental TBI registry which was established in 2008 and expanded and integrated into RedCap in 2018. That database is currently maintained by Breana Sanchez.

Drs. Kia Shahlaie, Fady Girgis, Ignacio Saez and Gene Gurkoff, along with Karen Moxon, Ph.D., a professor in Biomedical Engineering and Jeffrey Kennedy, M.D., from Neurology, published, "From adagio to allegretto: The changing tempo of theta frequencies in epilepsy and its relation to interneuron function," in Neurobiology of Disease 129:169-181.

Drs., Kia Shahlaie and Gene Gurkoff, et al., published "Medial septal stimulation increases seizure threshold and improves cognition in epileptic rats," in the June issue of Brain Stimulation, 12(3): 735-742. They examined electrical neuromodulation, specifically "theta frequency stimulation of the medial septum" in rats to measure the septohippocampal oscillations, seizure thresholds and spatial learning impacts.

Dr. Ben Waldau and Dr. Kimia Kamal published, "Bioengineering an artificial human blood-brain barrier in rodents," in the April issue of Bioengineering, 6(2): p38. **Dr. Waldau** is also the sole author of "Using miniature brain implants in rodents for novel drug discovery," in the April issue of Expert Opinion Drug Discovery; 14(4): 379-386.

Dr. Lara Zimmermann has three recently published papers. She is one of multiple authors in "Clinical metagenomics sequencing for diagnosis of meningitis and encephalitis," published in the June 2019 edition of the New England Journal of Medicine, 380(24): 2327-2340. The paper is the result of a "1 year multi-center prospective study investigating the usefulness of metagenomics NGS of CSF for the diagnosis of infectious meningitis and encephalitis in hospitalized patients".

Dr. Zimmermann is second author of both of two other articles. "Cerebral vascular changes during acute intracranial pressure drop," was published in the June 2019 issue of Neurocritical Care, 30(3): 635-644. The study "applied a new external ventricular catheter which allows intracranial pressure monitoring and cerebral spinal fluid drainage simultaneously", to study cerebral vascular responses during acute CSF drainage. The same catheter trial resulted in the article "Evaluation of a new catheter for simultaneous intracranial pressure monitoring and cerebral spinal fluid drainage: a pilot study", which was published in the same issue of Neurocritical Care, 30(3) 617-625.



Grants

Grant News

In vivo Therapeutics funded **Dr. Kee Kim's** study, "Randomized, controlled, single-blind study of probable benefit of the neuro-spinal scaffold™ for safety and neurologic recovery in subjects with complete thoracic AIS A spinal cord injury as compared to standard of care," in January. **Dr. Lara Zimmermann's**, "Brain Oxygen Optimization in Severe TBI Phase -3" (BOOST-3) award was also funded in January.

One of the more complex challenges of hiring new faculty member is successful transfer of research awards between institutions. Prior to his recruitment, **Dr. Orin Bloch** was awarded a National Cancer Institute award titled: "B7H1 Mediated Immunosuppression in Glioma." Similarly, **Dr. Ignacio Saez** was awarded National Institute of Mental Health funding for his work on, "Electrocorticography of human prefrontal cortex during value based decision making." In April, Gwyn Carnegie and Karina Zepeda successfully completed the transfer of funds and we appreciate their efforts.

Dr. Robert Berman received funding for his project, "Astrocyte-synapse interactions in a rat model of Alexander disease," from the University of Wisconsin-Madison.

Dr. Orin Bloch received support from the Neurosurgery Research and Education Foundation to sponsor a Medical Student Summer Research Fellowship. Dennis Lee will join Dr. Bloch's lab and study the, "Impact of peripheral immunosuppression on the response of brain metastases to stereotactic radiosurgery in patients with non-small cell lung cancer."

The "just in time" request was approved on **Dr. Ryan Martin's** Department of Defense, Congressionally Directed Medical Research Program (DOD CDMRP) proposal, "Imaging of glial activation and risk for post-traumatic epilepsy." We expect to see that project funded in the very near future.

We are in the final stages of processing **Dr. Kia Shahlaie's** Novocure Study which will examine "tumor treating fields for a noninvasive therapy for Glioblastoma Multiforme." Stay tuned for a more in depth look at this study in an upcoming issue of Fusion.

Clinical Providers of the Department of Neurological Surgery



Orin Bloch, M.D., FAANS
Associate Professor

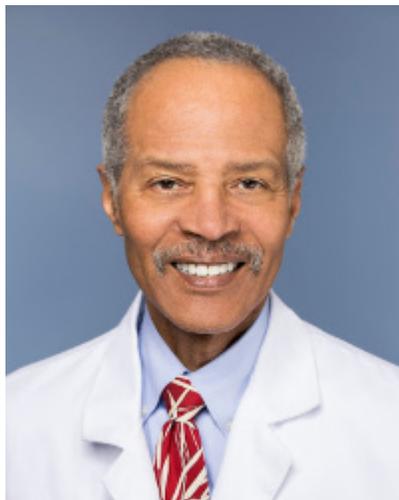
Neurosurgical Oncology, Skull Base Surgery

Medical Degree: UCSF, 2006

Residency: Neurological Surgery, UCSF 2012

Postdoctoral fellowship in cancer immunology, UCSF, 2012-2013

Dr. Bloch specializes in neurosurgical oncology and is an internationally recognized leader in the management of patients with brain cancer. His clinical practice is focused on innovative treatments for benign and malignant tumors of the brain and skull base, including metastatic disease to the brain. His surgical expertise includes awake craniotomies for eloquent tumors, minimally invasive brain surgery, stereotactic laser ablation for tumors, and stereotactic radiosurgery. Dr. Bloch is a leader in the development of immunotherapy for primary and metastatic tumors of the brain.



James E. Boggan, M.D.
Professor

Pediatric Neurosurgery, Brain Tumors

Medical School: University of Chicago, Pritzker School of Medicine, Chicago, IL 1976

Residency: Neurological Surgery, UC San Francisco, 1982

Dr. Boggan specializes in difficult-to-resect tumors of the head, neck and surrounding structures. He also is an expert in pediatric neurosurgery. Dr. Boggan is interested in the innovative use of lasers and other energy sources for treating brain cancers, including photodynamic therapy and neutron-capture therapy for treatment of glioblastomas. His research investigations include retinoic acid receptor expression in primary and metastatic brain tumors, and whether gadolinium texaphyrins (contrast MRI agents) can make high-grade gliomas and glioblastomas more radiosensitive.



Julius O. Ebinu, M.D., Ph.D.
Assistant Professor

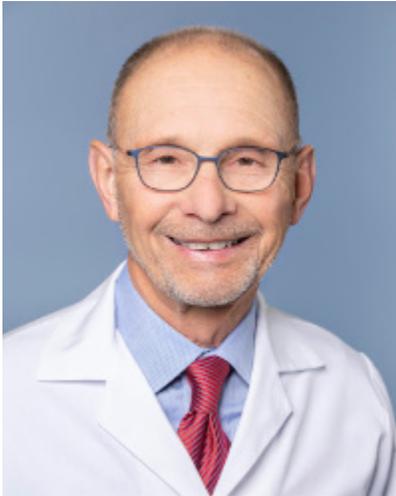
Spine Surgery, Minimally Invasive Spine Surgery, Neuro-Oncology

Medical School: University of Calgary, Calgary, AB, Canada 2008 Residency:

Neurosurgery, University of Toronto, Toronto, Canada 2014 Fellowships:

Neuro-Oncology, University of Toronto, Toronto, Ontario in 2015 and Complex/ Minimally Invasive Spine Surgery, University of Miami, Miami, FL 2016

Dr. Ebinu is a dual-fellowship trained spine and skull base/neuro-oncology neurosurgeon whose clinical practice highlights a patient-centered approach to managing numerous brain and spinal disorders with an emphasis on state-of-the-art computer-guided technologies and minimally invasive techniques to improve patient outcomes and maximize the safety of surgery. Dr. Ebinu has expertise in the treatment of a variety of disorders, including spinal cord tumors, total disc replacement, spinal deformity and reconstruction, and spinal cord traumatic injuries.



Michael S. B. Edwards, M.D.

Professor

Pediatric Brain Tumors, Hydrocephalus, Pediatrics

Medical School: Tulane University, New Orleans, LA 1970

Residency: Tulane University School of Medicine, New Orleans, LA 1977

Fellowship: Neuro-Oncology and Pediatric Neurosurgery Fellow, UCSF, 1978

Dr. Edwards specializes in the treatment of pediatric neurosurgical disorders, including pediatric brain and spinal tumors and the management of congenital hydrocephalus. Widely recognized as the leading academic pediatric neurosurgeon in Northern California for the last three decades, he brings renowned surgical skill, unparalleled commitment to patient care and superb teaching and regional outreach to the Department of Neurological Surgery.



Fady Girgis, M.D., Ed.M., FRCS C.

Assistant professor

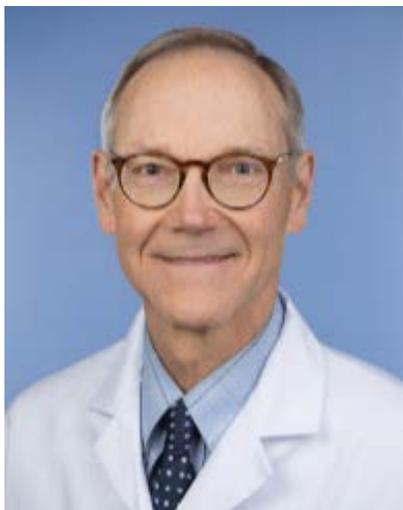
Epilepsy, Functional Neurosurgery, Brain Tumors, Peripheral Nerve

Medical Degree: University of Calgary, Canada, 2008

Residency: Neurological Surgery, University of Calgary, 2015

Fellowships: Post-Doctoral Research Fellowship, Harvard Medical School, Boston, MA 2013; Epilepsy/Functional Neurosurgery, Case Western Reserve, Cleveland, OH, 2016

Dr. Girgis is a specialist in the surgical treatment of epilepsy, the use of Deep Brain Stimulation for the treatment of movement disorders, and the surgical treatment of peripheral nerve entrapments and tumors. He also has extensive experience in the treatment of facial pain disorders, such as trigeminal neuralgia, and the surgical treatment of brain tumors.



Griffith R. Harsh IV, M.D., M.A., M.B.A.

Professor and Chair

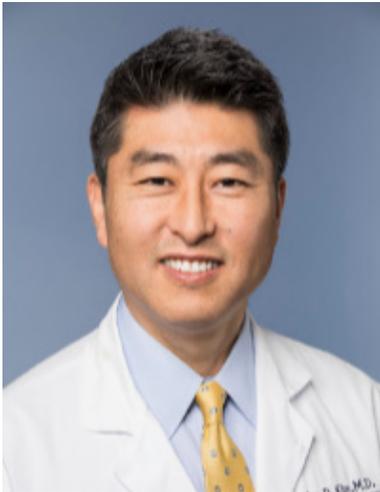
Neurosurgical Oncology, Skull Base Surgery

Medical Degree: Harvard Medical School, Cambridge, MA 1980

Residency: Neurological Surgery, UC San Francisco, 1986

Fellowships: NIH Brain Tumor Research Center, UCSF 1984, Clinical Fellow, American Cancer Society, UCSF 1985 and Harvey Cushing Research Fellow, UCSF 1986-1988

Dr. Harsh is recognized as a leading surgeon and scholar. His clinical practice and research focus on innovative treatments of tumors of the brain, pituitary gland and skull base. His work has demonstrated the efficacy of stereotactic radiosurgery for multiple types of brain tumors and of endoscopic removal of pituitary and other skull base tumors. He leads a multidisciplinary team of surgeons, scientists and residents who diagnose and treat adults and children with conditions such as benign brain and pituitary tumors, cancer, cerebrovascular disease, degenerative spine problems, epilepsy, movement disorders, and traumatic brain injury.



Kee D. Kim, M.D.

Professor

Minimally Invasive Spine Surgery, Robotic Assisted Surgery

Medical School: Johns Hopkins University School of Medicine, Baltimore, MD 1992

Residency: Neurological Surgery, UC Davis, 1998

Fellowship: UC Los Angeles, 1998

Dr. Kim has a special interest and expertise in dealing with challenging spinal disorders requiring surgical treatment. He has vast experience in complex spine surgery, regardless of etiology, including tumor, infection, degenerative spine and trauma. He is at the forefront of computer-assisted spine surgery, minimally invasive surgery and spinal instrumentation. Dr. Kim is involved in clinical trials that include the use of stem cells for disc regeneration and bony healing, pharmaceutical agents for spinal cord injuries, and clinical evaluations of artificial disc and minimally invasive surgery.



Ryan Martin, M.D.

Assistant Professor

Neurology, Neurocritical Care

Medical School: David Geffen School of Medicine, Los Angeles, CA 2010

Residency: Neurology, UCLA Medical Center, 2013

Fellowship: Neurocritical Care, UCLA Medical Center, Los Angeles, CA 2014-2016

Dr. Martin provides detailed, individualized care to patients in the neuro-ICU. He uses multiple modes of monitoring to allow us to individualize our treatment plans for each patient. Our goal is to prevent further injury and to optimize recovery. His research interests are the treatment of status epilepticus and traumatic brain injury.



Kiarash Shahlaie, M.D., Ph.D., FAANS

Professor and Residency Program Director

Skull Base Surgery, Deep Brain Stimulation, Epilepsy, Neurocritical Care

Medical Degree: UC Davis, 2001

Residency: Neurological Surgery, UC Davis 2009

Fellowships: Functional Neurosurgery, UCSF 2009, and skull base surgery, John Wayne Cancer Institute, 2010.

Dr. Shahlaie is a fellowship-trained neurosurgeon that specializes in complex cranial surgery. He is an expert in management of skull base and pituitary tumors, trigeminal neuralgia and hemifacial spasm, epilepsy, and movement disorders such as Parkinson's disease, essential tremor, and dystonia. Dr. Shahlaie has advanced training in Minimally Invasive Brain Surgery, which includes endoscopic and keyhole techniques.



Ben Waldau, M.D., FAANS

Associate Professor

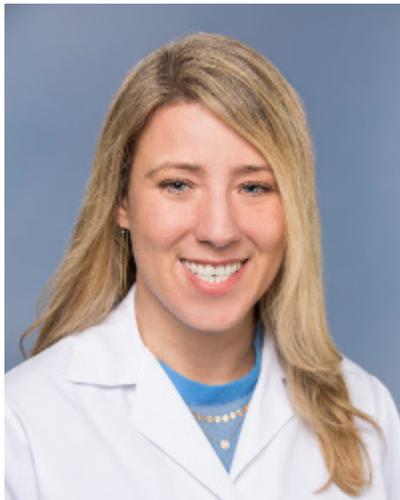
Vascular and Endovascular Neurosurgery, Skull Base Tumors, Brain Tumors

Medical Degree: Ruprecht-Karls University, Heidelberg, Germany 2002

Residency: Duke University Department of Neurosurgery, 2010

Fellowships: Endovascular Neurosurgery, University of FL, Gainesville, 2011 and Neural Stem Cell Research, William P. Van Wagenen Fellowship at the Center for Regenerative Therapies, Dresden, Germany, 2012.

Dr. Waldau is a specialist in open cerebrovascular and endovascular treatment of cerebral aneurysms and arteriovenous malformations. His dual training in open surgery and endovascular embolization allows him to choose the best treatment modality for his patients, and sometimes he uses a combination of both approaches to achieve the best results. He also has an interest in stroke and extracranial carotid disease which he can treat with carotid endarterectomy or carotid angioplasty and stenting.



Lara Zimmermann, M.D.

Assistant Professor

Neurology, Neurocritical Care, Neurotrauma

Medical School: David Geffen School of Medicine, Los Angeles, CA 2010

Residency: Neurology, UC San Francisco, 2014

Fellowship: Neurocritical Care, Ronald Regan UCLA Medical Center, Los Angeles, 2014-2016

Dr. Zimmermann is a neurologist and neurocritical care specialist who treats patients with life-threatening neurological and neurosurgical diseases, and patients with neurological manifestations of systemic diseases. She has special expertise in the application of multimodal neuromonitoring to optimize and individualize therapies for patients with traumatic brain injury, stroke, intracerebral hemorrhage, subarachnoid hemorrhage and seizures.



Marike Zwienenberg, M.D., FAANS

Associate Professor

Pediatric Neurological Surgery, Pediatrics

Medical School: Erasmus University, Rotterdam, Netherlands 1997

Residency: Neurological Surgery, UC Davis, 2006

Fellowship: Pediatric neurological surgery, St. Jude Children's Research Hospital, Le Bonheur Children's Medical Center, Memphis, TN

Dr. Zwienenberg is fellowship trained and board certified in pediatric neurological surgery. She provides medical and surgical care to patients with brain and spinal cord tumors, hydrocephalus, craniofacial disorders, epilepsy, spinal dysraphism (including fetal surgery), vascular anomalies and traumatic brain injury. Her clinical research interests include the development of clinical guidelines and decision instruments to optimize the care of patients with traumatic brain injury.



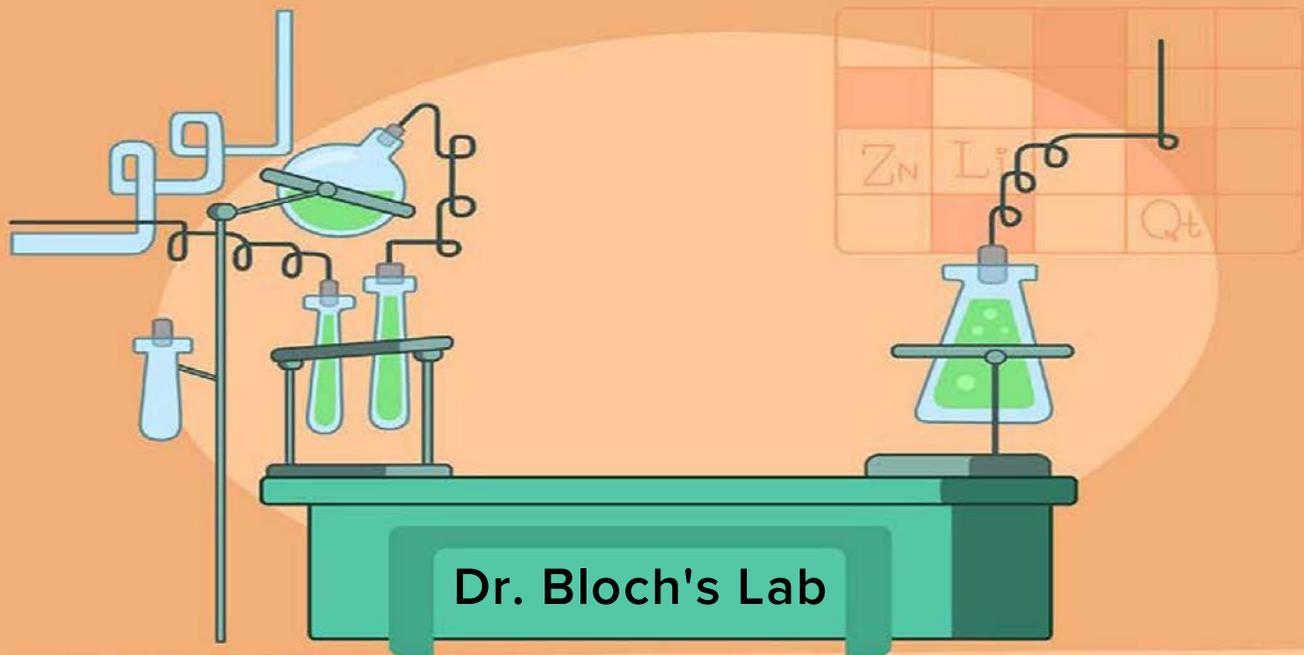
Nursing

Christine Picinich, MS, AGACNP-BC, CCRN was recently hired into our new APP Supervisor position. She is currently working on identifying optimal provider staffing strategies and recruiting for positions recently vacated through retirements and staffing changes.

We would like to extend a warm welcome to several new advanced practice providers to the department.

- **Vilija Abrute, NP** joined the department in March and will be working in both the Cranial Clinic and Spine Center. Vilija earned her MSN at the University of Illinois at Chicago in 2011. Prior to joining UC Davis, Vilija worked at the Center for Interdisciplinary Spine here in Sacramento, CA.
- **Shelli Chittum, RN, MSN** joined in April and will be working in the main hospital. Shelli earned her MSN at Georgetown University in Washington, DC in 2015 and comes to us from Providence St. John's Health Center in Santa Monica, CA.
- **John Lee, RN, MSN, NP-C** earned his MSN at Graceland University in Lamoni, IA and completed his NP training in Neurosurgery at the Florida Hospital Neuro ICU in Orlando, FL. We are excited to have them on board.

You may also see some per diem nurses providing coverage while we continue our Recruiting efforts and onboard new hires. We deeply appreciate the work you do to provide patient advocacy and deliver safe, high quality medical care.



Biosafety Cabinet & Incubator



Workbench



Incubator



Robert Riestenberg, SRA
is a graduate of UC Berkeley 2015 with a BS in Chemical and Biomolecular Engineering.

New centrifuge

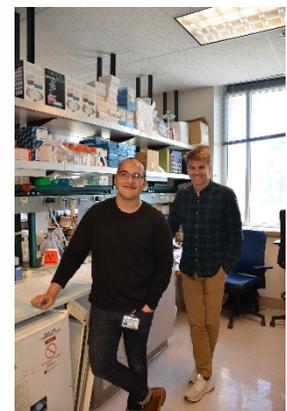


Aden Haskell-Mendoza,
our new Junior Specialist has a M.S., in Cancer Biology from UC San Diego in 2018.

Super Cold Refrigeration



Aden & Bob in the lab



Dr. Bloch's lab in Research 3 is being established. It will use immunohistochemistry and cell culture to characterize molecular markers and develop targeted therapies for primary brain cancers. He will soon add an additional visiting graduate student and another SRA to work in the lab.



Departures

Robert Berman, Ph.D., has announced his plans to retire effective August 30th, 2019. Dr. Berman joined the department in 1997 and has made significant contributions to the research and teaching missions of the Department of Neurological Surgery, Center for Neuroscience and the M.I.N.D. Institute. His publications are highly cited and collectively represent a major body of evidence supporting calcium influx into damaged neurons and astrocytes as a major determining factor for cell survival, as well as identifying VCGG blockers as rationale therapeutic agents to improve neurological outcome after TBI. Dr. Berman will enter into recall status in October of 2019 and continue his research with the Intellectual and Developmental Disability Research Center at the M.I.N.D. Institute.

Linda Jagels, NP, joined the Department of Neurological Surgery in 1994 serving on the inpatient team. She initially retired in 2017 and was recalled shortly thereafter and worked until April of 2019. We appreciate her many years of service and dedication to our neurosurgery patients and their families.

Joan Holmes-Asamoah, MSN, FNP-C, PA-C, CCRN, CNRN, ENLS, joined the Department of Neurological Surgery in 2005 after obtaining her Master of Science in Nursing from Cal State Sacramento. Joan was recognized last year by the Stroke Program for training all current staff members who perform transcranial Doppler ultrasound over the past two years.

AWARDS!



Congratulations to **Julius Ebinu, M.D., Ph.D.**, on winning the 2019 Dean's Collaborative Research Award with Professor Karen Moxon from Biomedical Engineering. The award will provide support for one graduate student researcher for a year.

The 2018/2019 Neurological Surgery Outstanding Teaching Award went to **Ryan Martin, M.D.** Dr. Martin received the award during the Resident/Fellow Graduation Ceremony held at Antiquities in Sacramento. We appreciate Dr. Martin's commitment to teaching excellence!

Every year the neurological surgery residents choose an intern to receive the Intern Award. This award is given to the intern who demonstrates a high degree of professionalism and clinical skill. Congratulations to **Renuka Reddy, M.D.**, from the Department of Otolaryngology who was chosen as this year's Intern Award Recipient.

The James E. Boggan Scholar Award went to **Amir Goodarzi, M.D.**, for the second year in a row! Congratulations to Dr. Goodarzi.

The Housestaff Professionalism Award was created in 2002 by the School of Medicine Alumni Association to honor a resident identified by his or her colleagues as someone who exemplifies true professionalism, "demonstrating all the qualities of a true and outstanding professional - including altruism, courtesy, accountability, empathy, respect and compassion - in day to day interactions with faculty, patients and ancillary staff." **Tamar Binyamin, M.D.**, was this year's Housestaff Professionalism Award Recipient. She demonstrates all of those qualities and more. Her emphasis on resident wellness, strong personal and professional relationships and altruism have greatly benefitted this program and the department. We are very proud of her achievements.

Resident Graduation



Tamar Binyamin, M.D.

Congratulations to the 2019 Neurological Surgery graduating resident, **Tamar Binyamin, MD**. Dr. Binyamin will enter a 3 year fellowship at the University of Texas, Southwestern in Endovascular Neurosurgery starting in July. As Dr. Binyamin's Chief year comes to a close, we express our appreciation for her continual commitment to demonstrating outstanding professionalism. Her knowledge, dedication, efficiency and leadership have been amazing and we know that she will make a strong positive impact in her new position at Southwestern.

Congratulations are also in order for **Robert Dahlin, MD** who graduated from his Neurospine Fellowship. Dr. Dahlin will be joining a private practice group in Duluth, Minnesota. Their accomplishments were celebrated at Antiquities in Sacramento on June 14th.



Graduation Night Photos



Congratulations!

Join Us!

July 30th
2019

**Resident
Conference:
2:00 to 3:30 PM
ACC 3740**

**Lecture:
4:00 to 5:15 PM
CHT 1341**

**2nd Annual Franklin Wagner
Endowed Lectureship**

**Spinal Alignment:
Keys to the Kingdom**



**FEATURED SPEAKER:
REGIS W. HAID, JR., M.D.**

Dr. Haid is a founding partner of Atlanta Brain and Spine Care and the current Chair of the Neurosurgery Research and Education Foundation. He is the Director of the Neuroscience Service Line and Co-Director of the Piedmont Spine Center at Piedmont Healthcare System in Atlanta, GA. He is a Past Chair of the Joint Spine Section and Past VP of AANS.

Dr. Haid has served on the faculties of the University of Florida, Gainesville and Emory University in Atlanta, GA. He has lectured at over 200 spinal courses and presented over 500 papers. He is a widely published author and has contributed over 135 scientific articles to peer reviewed journals. His research interests include spinal reconstruction techniques and his patents include the first artificial cervical spine disc joint cleared by the FDA. His designed implants are used for spinal reconstruction worldwide.