



A MESSAGE FROM THE CHAIR

Philip E. Stieg, PhD, MD

Those of us in medicine and academia tend to think about July 1 the way others do about New Year's Day. New beginnings, a fresh start, new opportunities to take stock of our lives—these are the thoughts and feelings that always surround the start of a new academic year. Our new residents have arrived to begin their seven-year journey with us (welcome, Sergio Guadix and Marcus Valcarce-Aspegren!) and we recently bade farewell to Alex Ramos and Evan Bander, who graduated from our residency program in June.



This annual ritual involves moving everyone up a year, changing assignments, appointing new chief residents—and it's a joy to me every time. I cannot tell you how proud I am of our distinguished graduates, and I am so honored to know that I had a hand in training so many of our nation's best neurosurgeons. They are now working in hospitals, universities, and private practices all around the country, and I envy the colleagues who work alongside them every day. I wish I could keep them all here!

It's also awards season, and I was delighted this year that **Dr. Joseph Carnevale** was awarded the 2023 **Michael L. J. Apuzzo Resident Literature Award for Creativity and Innovation**. This was Dr. Carnevale's second consecutive win of the Apuzzo Award, this year for his work on "Endonasal, Supraorbital, and Transorbital: Minimal Access Endoscope-Assisted Surgical Approaches for Meningiomas in the Anterior and Middle Cranial Fossae," which he co-authored with **Dr. Theodore H. Schwartz**. **Dr. Rafael Uribe** was awarded the 2023 **Christopher Gaposchkin '99 Research Prize in Neurological Surgery** for "Influence of Low-intensity Focused Ultrasound on Locoregional Drug Delivery to the Brain," which he co-authored with **Dr. Mark Souweidane, Dr. Michael Kaplitt**, and post-doc **Brice Martin, PhD**. Dr. Uribe presented the work at the Society for Neuro-Oncology annual pediatrics meeting last month as he prepared the research for publication. Meanwhile, **Dr. Roger Härtl** was named the first winner of the new Hans Kraus Award for Muscle Pain Education, presented by the Foundation for Research and Advocacy for Muscle Pain Education (FRAME). See more about these awards at neurosurgery.weill.cornell.edu.

A shadow did fall over my summertime joy with the news of Dr. Jay Loeffler's unexpected death. Jay was a good friend of mine, and I will miss him more than I can say. Professional tributes to him abound, but I would encourage you to read my personal remembrance at weillcornellbrainandspine.org/loeffler and remember that life is short. Live every day to the fullest, and spend time with loved ones whenever you can.



Yours in good health,

THE PROMISE OF CLINICAL TRIALS

The Weill Cornell Medicine Brain and Spine Center is at the forefront of a number of promising new initiatives, including clinical trials for devastating conditions in adults and children. This issue brings news of two exciting trials now accepting patients as well as results of two recently concluded trials.

GLIOBLASTOMA

Dr. Rohan Ramakrishna is the local principal investigator on a new clinical trial of an immunotherapy regimen for newly diagnosed glioblastoma. The multistate clinical trial will enroll up to 93 patients over the next two years in a controlled, double-blind study of IGV-001, a product that combines cells from the patient's own tumor with an antisense oligonucleotide (IMV-001) to block the production of proteins the tumor needs to grow. The trial will test this immunotherapy approach against the standard of care, which is radiation therapy plus the chemotherapy drug temozolomide.

In the active treatment group, which will include two-thirds of the patients, the IGV-001 (including cells from the tumor obtained during resection or biopsy) will be implanted in the patients in biodiffusion chambers that will be removed after 48 hours. The control group will receive an implanted placebo. Both groups will commence standard-of-care radiation and chemotherapy six weeks after the chamber is removed. The goal of the study is to measure progression-free survival and overall survival in patients treated with IGV-001 against those who get the standard care. The trial is now open for enrollment at Weill Cornell Medicine.

CHOROID PLEXUS CARCINOMA

The first patient in the world to undergo intra-arterial chemotherapy for choroid plexus carcinoma was safely treated by **Dr. Mark Souweidane, Dr. Jared Knopman, and Dr. Y. Pierre Gobin** last month. In this trial, patients receive single doses of the drugs melphalan, carboplatin, and topotecan delivered through one or more arteries in the brain, directly to the site of the tumor. This combination of drugs has already been used successfully to treat retinoblastoma, a devastating tumor that once required the removal of the affected eye. It is hoped that this same combination will be a safe and feasible treatment for patients with newly diagnosed, residual, or recurrent atypical choroid plexus papilloma and choroid plexus carcinoma.

Intra-arterial chemotherapy (IAC) is an advanced procedure administered by interventional neurosurgeons or neuroradiologists, who specialize in image-guided treatments for brain and spine conditions. By administering chemotherapy drugs directly to a tumor, IAC delivers high concentrations of cancer-fighting therapy without the toxicity of body-wide intravenous drug delivery.

PARKINSON'S DISEASE

Dr. Michael Kaplitt is a co-author on a paper published in the *New England Journal of Medicine* on the use of focused ultrasound for the tremors of Parkinson's disease. In a clinical trial, 65 patients underwent ultrasound ablation and 22 had a sham procedure; of those who had the

Continued on page 3

FACULTY NEWS

Rohan Ramakrishna, MD, Chief of Neurosurgery at NewYork-Presbyterian Brooklyn Methodist, has been promoted to Professor of Neurological Surgery. Dr. Ramakrishna, who is also Director of the Brain Metastases Program and Co-director of the William Rhodes and Louise Tilzer-Rhodes Center for Glioblastoma at NewYork-Presbyterian, is an award-winning, board-certified neurosurgeon who specializes in the treatment of brain tumors and other central nervous system tumors. He recently co-authored a paper in *Nature Medicine* with the results of the multi-center CAPTIVE trial (Combination Adenovirus + Pembrolizumab to Trigger Immune Virus Effects) for recurrent glioblastoma (see page 3).



Dr. Rohan Ramakrishna
Professor of Neurological Surgery
Chief of Neurosurgery at NewYork-Presbyterian Brooklyn Methodist

Michael Kaplitt, MD, PhD, has been named Executive Vice Chair of Neurological Surgery. Dr. Kaplitt, who has served for many years as the department's Vice Chair for Research, is Professor of Neurological Surgery, Director of the Movement Disorders and Pain Program, and Director of the Neurological Surgery Residency Program. He has been a pioneer in researching, testing, and implementing advanced options for movement disorders, including gene therapy, focused ultrasound, deep brain stimulation, and high-frequency spinal stimulation. He also provides novel treatments for psychiatric disorders such as obsessive-compulsive disorder as well as for major depression and drug addiction.



Dr. Michael Kaplitt
Professor of Neurological Surgery
Executive Vice Chair
Director of Neurological Surgery Residency

Upcoming Professional Courses

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Weill Cornell Medicine NewYork-Presbyterian



NYC MISS 2023

Summer Master Class: Tubular Intensive Hands-on Lab Course With VR

nyc-miss.org

AUG 25-26, 2023

NYC-MISS 2023 Summer Master Class Tubular Spine Intensive With Virtual Reality

Directed by Dr. Roger Härtl and Dr. Ibrahim Hussain

An exciting extension of the world-famous NYC-MISS course held every December, this Summer Master Class will provide intensive, in-depth training in tubular spine surgery featuring advanced VR technology. Using state-of-the-art RealSpine training models, and taught by leaders in MIS surgery, the course offers hands-on learning in the Weill Cornell Medicine Neurosurgical Innovations and Training Center.

OCT 14, 2023

Endoscopic & Open Surgical Approaches for Craniosynostosis: Hands-On Course With VSP

Directed by Dr. Caitlin Hoffman and Dr. Thomas Imahiyerobo

This innovative symposium combines classroom instruction with hands-on training using 3D-printed models created from actual patient scans. The workshop provides neurosurgeons and plastic surgeons a unique opportunity to practice open cranial vault remodeling, fronto-orbital advancement, and endoscopic suturectomy with Sonopet and the latest endoscopic advancements. Lab time includes instruction in virtual surgical planning (VSP) for complex synostosis and cranial remodeling cases.



Visit neurosurgery.weill.cornell.edu/education for information.

40th Maurice Greenberg Award Presented to Dr. Stieg

Dr. Philip E. Stieg has been named winner of the 40th Maurice Greenberg Distinguished Service Award. The award, the highest honor at Weill Cornell Medicine and NewYork-Presbyterian, recognizes an outstanding individual for exceptional and longtime service.

Dr. Stieg joins a distinguished list of prior winners, including **Dr. Bronson Ray**, who was chief of the Neurosurgery Division from 1943 to 1971; **Dr. George Papanicolaou**, a pioneer in cancer detection who invented the "Pap smear"; former Weill Cornell Medicine Dean **Dr. Antonio Gotto**; and **Dr. Herb Pardes**, the first CEO of the newly merged NewYork-Presbyterian Hospital.

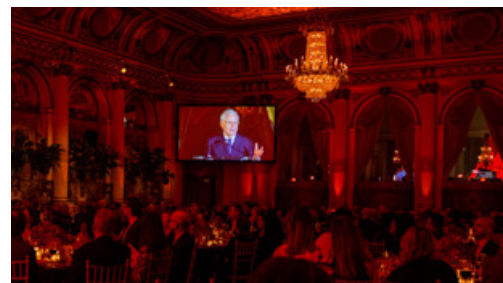


Dr. Stieg accepted the 40th Maurice Greenberg Distinguished Service Award from Dr. Steven Corwin, president and CEO of NewYork-Presbyterian, and Dr. Francis Lee, interim dean of Weill Cornell Medical College.

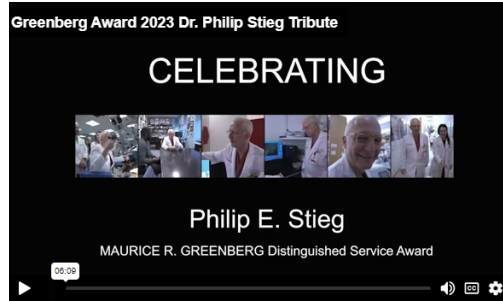
Dr. Stieg became the first chair of the newly established Department of Neurosurgery in 2000 and has since developed the service here into a world-renowned center of neurosurgical expertise. He is the Neurosurgeon-in-Chief of NewYork-Presbyterian/ Weill Cornell Medical Center, and in 2020 he became the first Margaret and Robert J. Hariri, MD '87, PhD '87 Professor of Neurological Surgery. He is also Vice Provost of Business Affairs and Integration of Cornell University.

The Maurice Greenberg Award was established in 1980 to identify and celebrate the outstanding individuals who make NewYork-Presbyterian and Weill Cornell Medicine the academic, clinical, and research powerhouse that it is. Dr. Stieg was named 40th winner of the award in 2020, but the presentation and celebration were delayed due to the pandemic. The presentation was made in an elegant celebration at the Plaza Hotel on April 27.

For the Dr. Stieg tribute video that was shown at the dinner, visit weillcornellbrainandspine.org.



Dr. Stieg accepted the 40th Maurice Greenberg Distinguished Service Award at an elegant dinner at the Plaza Hotel on April 27.



Our Experts in Print and Online

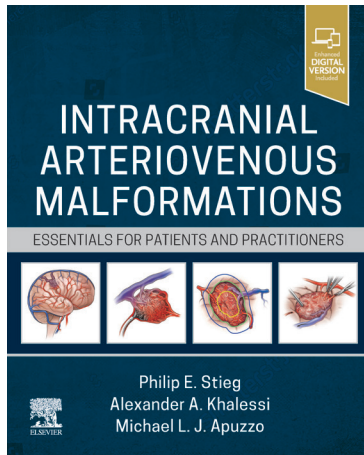
NOW AVAILABLE FOR PREORDER

Intracranial Arteriovenous Malformations Essentials for Patients and Practitioners

Addressing both the patient's perspective and the neurosurgeon's concerns, *Intracranial Arteriovenous Malformations: Essentials for Patients and Practitioners*, edited by **Dr. Philip E. Stieg**, **Alexander A. Khalessi**, and **Michael L. J. Apuzzo**, starts with an up-to-date approach to the matter of doctor-patient communication and moves on to the highly technical details of iAVM treatment options.

The first section covers communication with patients (who may well want to read it themselves); the second section is directed to neurosurgeons and other specialists caring for patients with intracranial AVMs, including those in emergency medicine, obstetrics, anesthesia, and intensive care. It offers a highly sophisticated but readable approach to the contemporary treatment of these challenging lesions.

This new book will be published on September 18, 2023, but is now available for preorder on the Elsevier site. See neurosurgery.weill.cornell.edu for more information and the link to order.



NOW AVAILABLE ONLINE

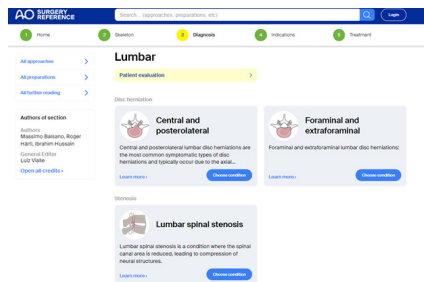
Degeneration Module of AO Surgery Reference

The online AO Surgery Reference from the AO Spine Foundation has been expanded to include a new Degeneration module written by Dr. Roger Härtl and Dr. Ibrahim Hussain. The new module has been added to earlier modules on Trauma, Deformities, and Tumors to expand the Surgery Reference to include the most common degenerative conditions of the spine: herniated disc, spinal stenosis, and spondylo-lysthesis.

The new module features in-depth information on cervical and lumbar degenerative disorders and includes a range of minimally invasive procedure choices, along with comprehensive instruction on each one.

The AO Surgery Reference was created to support spine surgeons by providing resources for the management of spine conditions. Full text, illustrations, and photographs cover the pathology, instruments needed, patient positioning instruction, and step-by-step diagrams of entire procedures, with supporting videos. It also provides case studies, patient management algorithms, and interactive tools, along with access to a vast library of resources, including textbooks, articles, and clinical guidelines.

Visit the AOSpine Surgery Reference at surgeryreference.aofoundation.org



The Promise of Clinical Trials (cont'd from page 1)

active treatment, 45 patients (69%) had a response, as compared with 7 (32%) in the control group. Researchers reported that unilateral pallidal ultrasound ablation resulted in a higher percentage of patients who had improved motor function or reduced dyskinesia than a sham procedure over a period of three months, although it was associated with adverse events that included dysarthria, gait disturbance, loss of taste, visual disturbance, and facial weakness.

RECURRENT GLIOBLASTOMA

The results of a five-year, multi-center clinical trial testing an innovative combination of an adenovirus and an immune checkpoint inhibitor against recurrent glioblastoma have been published in *Nature Medicine*. The Phase 1/2 trial was conducted at multiple sites around the United States, including at NewYork-Presbyterian Weill Cornell Medicine, where Dr. Rohan Ramakrishna was the principal investigator. The trial, the first of its kind in humans, showed the combination to be safe, with few adverse effects, and with encouraging survival times in some patients.

In the trial, known as Combination Adenovirus + Pembrolizumab to Trigger Immune Virus Effects (CAPTIVE), 49 patients were given an injection of DNX-2401, a genetically modified oncolytic adenovirus, directly to the tumor, followed by intravenous pembrolizumab (an immune checkpoint inhibitor known by its brand name, Keytruda). Treatments were administered every three weeks for up to two years, or until disease progression.

Median overall survival was 12.5 months, and three of the 49 patients remain alive at 45, 48, and 60 months. More than half of the patients treated (56.2 percent) showed a clinical benefit (defined as stable disease or better).

Visit weillcornellbrainandspine.org for more information on trials.

IT'S A NO-BRAINER: EMPLOYEE RECOGNITION AWARDS

The Neurosurgery Outstanding Service Award spotlights members of the department who exemplify the department's core values. The winners for Q1 and Q2 2023 are Kimberly Vega and Darcelle Benjamin-Smith. Honorable mentions go to Erma Bell and Michelle Navarro.

Medical assistant Kimberly Vega was described by one nominator as "the true definition of a hard worker.... She covers when needed, travels to alternate work sites and still completes her usual duties. Her commitment to excellence is unquestionable." Another noted that she is "very hard working, and prides herself on getting the work done."



Kimberly Vega (above) and Darcelle Benjamin-Smith (below) with Dr. Stieg

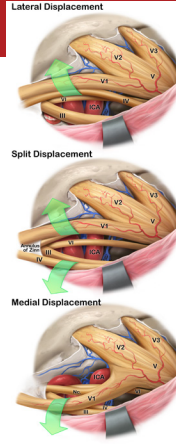
Senior patient coordinator Darcelle Benjamin-Smith was applauded by one nominator as being "a valued member of our team who takes great pride in her work and consistently strives to ensure that patients receive excellent care." Another said that "she works extremely hard and never becomes discouraged when work gets tough."



Visit weillcornellbrainandspine.org/nominate to see previous winners and to nominate the next one. Congratulations, team players!

Annals of Weill Cornell Neurosurgery Marks 20 Issues

The quarterly series Annals of Weill Cornell Neurosurgery has appeared in *World Neurosurgery* since 2017. This spring we marked our 20th issue with a special series titled “How I Do It” by **Dr. Antonio Bernardo** and **Dr. Alexander Evins** of the Weill Cornell Medicine Neurosurgical Innovations and Training Center. The articles follow the curriculum of the twice-yearly hands-on Complex Surgical Approaches to the Skull Base course; they offer practical techniques that cover the essentials of skull base surgery and



represent useful additions to any neurosurgeon's armamentarium. In three separate papers, the authors cover lateral skull base, anterolateral skull base, and posterolateral skull base anatomy and surgical approaches. The series features stunning color illustrations, intraoperative photographs, and patient positioning diagrams.

You can view these papers in the April 2023 issue at [sciencedirect.com/journal/world-neurosurgery](https://www.sciencedirect.com/journal/world-neurosurgery)

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Dr. Mark Souweidane 212-746-2363 (pediatric)
Dr. Jeffrey Greenfield 212-746-2363 (pediatric)
Dr. Caitlin Hoffman 212-746-2363 (pediatric)

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Dr. Justin Schwarz 212-746-2821
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Dr. Rajiv Magge 646-962-2185
Dr. Evan Noch 646-962-2185

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Amanda Sacks-Zimmerman, PhD 212-746-3356

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Dr. Jeffrey Greenfield 212-746-2363
Dr. Caitlin Hoffman 212-746-2363
Dr. Neil Feldstein 212-305-1396 (Columbia campus)

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Dr. Babacar Cisse 646-962-3389
Dr. Jeffrey Greenfield 212-746-2363 (pediatric)
Dr. Georgiana Dobri 646-962-3556 (neuroendocrinology)

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Dr. Michael Ayad, cerebrovascular surgery
Dr. Paul Park, minimally invasive and complex spine
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