“Every faculty member had a vested interest in my success and did their absolute best to give me all the right tools, in the operating room and out, to be a great neurosurgeon.”

Amy Lee, MD, FAANS, associate professor of neurological surgery at the University of Washington, Seattle Children’s Hospital.

Lee completed her neurosurgery residency at Washington University School of Medicine/Barnes-Jewish Hospital and her fellowship at St. Louis Children’s Hospital.

Supported by one of the top hospitals in the U.S., substantial research funding, some of the most creative minds in academic medicine, and the latest technologies, our residents learn how to study and solve neurosurgical problems at the very highest level. All of this takes place at the top-ranked Washington University School of Medicine as it embarks on its $1 billion 10-year growth plan.

Our culture of excellence is founded in our unique approach: a program intentionally designed to give residents one-on-one mentorship from world-class faculty members. This personal level of training prepares residents for long, successful, and fulfilling careers in academic and clinical medicine.

Recognized as one of the best in the world, the Washington University Neurosurgery Residency training program prepares residents for exceptional careers as neurosurgeons and neurosurgeon-scientists.

Supported by one of the top hospitals in the U.S., substantial research funding, some of the most creative minds in academic medicine, and the latest technologies, our residents learn how to study and solve neurosurgical problems at the very highest level. All of this takes place at the top-ranked Washington University School of Medicine as it embarks on its $1 billion 10-year growth plan.

Our culture of excellence is founded in our unique approach: a program intentionally designed to give residents one-on-one mentorship from world-class faculty members. This personal level of training prepares residents for long, successful, and fulfilling careers in academic and clinical medicine.

Recognized as one of the best in the world, the Washington University Neurosurgery Residency training program prepares residents for exceptional careers as neurosurgeons and neurosurgeon-scientists.

Supported by one of the top hospitals in the U.S., substantial research funding, some of the most creative minds in academic medicine, and the latest technologies, our residents learn how to study and solve neurosurgical problems at the very highest level. All of this takes place at the top-ranked Washington University School of Medicine as it embarks on its $1 billion 10-year growth plan.

Our culture of excellence is founded in our unique approach: a program intentionally designed to give residents one-on-one mentorship from world-class faculty members. This personal level of training prepares residents for long, successful, and fulfilling careers in academic and clinical medicine.

Recognized as one of the best in the world, the Washington University Neurosurgery Residency training program prepares residents for exceptional careers as neurosurgeons and neurosurgeon-scientists.
Dedicated to creating world-class surgeons

Our residents are exposed to high clinical volume and thorough immersion in every subspecialty including pediatrics. They learn directly from our 22 faculty members who are all experts in their respective fields.

CONTINUITY OF TRAINING

Our program gives residents continuity in each subspecialty in order to build their confidence, gain trust from the attending physicians, and, ultimately, gain autonomy. Our junior and senior residents spend significant consecutive time working with the same two to three attendings within a subspecialty. This continuity instills a deep understanding of the disease processes encountered by neurosurgeons across subspecialties.

RESIDENT CURRICULUM

Resident education is one of the centerpieces of the department. Surgical case conferences, grand rounds, a longitudinally designed curriculum conference, journal club, and surgical dissection experiences comprise the weekly didactic structure of the program.

STATE-OF-THE-ART FACILITIES

In St. Louis, our residents train at one of the country’s largest medical centers, which includes Barnes-Jewish Hospital, Alvin J. Siteman Cancer Center, and St. Louis Children’s Hospital. The center serves a diverse region of more than 3 million people and draws patients from all 50 states and more than 80 countries.

A new state-of-the-art neurosurgery and neurology intensive care unit including an in-unit CT scanner opened in August 2019, which increased neurocritical care capacity at Barnes-Jewish Hospital from 20 to 44. In addition, a $620 million neuroscience research building is scheduled to open in 2022, which will dramatically expand neurosurgery research laboratory space including creation of a multidisciplinary Brain Tumor Research Center. Finally, a new inpatient bed tower designed to markedly expand the neurosurgery and neurology bed platform is scheduled to open in 2023.

IRELAND ROTATION

Our residents are given the opportunity to expand their surgical skills during a six-month international elective at Beaumont Hospital in Dublin, Ireland. This rotation represents a critical point in training, when residents are able to increase their surgical independence and experience. The rotation also provides residents with exposure to a nationalized health care system that consolidates specialty medical care into designated care centers like Beaumont, which cares for neurosurgical patients from more than 90% of the country. The experience is also personally enriching, as Ireland is a jumping-off point to visit the many wonderful destinations throughout Europe.

“When you talk to graduates of this program, they say when you graduate you get exactly the right training.”

“We see everything. We get the full scope of neurosurgery with a highly individualized education. With this kind of support, we are able to learn good habits and become confident — all in an environment where every specialty is world class.”

4,602 SURGICAL CASES PER YEAR

949 Neuro-oncology

368 Functional

1,307 Spine

534 Vascular

961 Pediatric
Commitment to world-class research

Washington University School of Medicine has one of the most comprehensive research programs in the country.

Neurosurgery residents are provided expansive opportunities for basic science, clinical, and translational work across the major subspecialties of neurosurgery and related diseases. Dedicated research programs led by faculty in the department of neurosurgery include brain tumor immunotherapy, brain tumor stem cells, brain-computer interface, neural plasticity, neural networks, Chia and syringomyelia, neonatal intraventricular hemorrhage/hydrocephalus, subarachnoid hemorrhage, vascular dementia, spinal cord injury, peripheral nerve injury and neuroprosthetics, neurogenetics, and Huntington’s disease.

Our faculty and residents are integrated into many of the key research areas at the medical school, including neuroscience, immunology, cancer biology, developmental biology, genetics, and engineering.

UP TO 24 MONTHS PROTECTED RESEARCH TIME

Residents identify a mentor inside or outside the Department of Neurosurgery and develop a proposal for a research project that is pursued for up to 24 months during PGY5 and PGY6 years of training. Residents can choose from a broad range of research topics in laboratories throughout the world-class research environment at Washington University. To aid in the development of their research projects, residents present their research plans to a prestigious committee of physician-scientists known as the Neuroscience Research Mentorship Group. These mentorship meetings are held on a quarterly basis and are attended by residents who are preparing for their research years and those that are in the midst of the research programs. Clinical responsibilities are extremely limited during this period of dedicated research to allow residents to focus on their academic productivity.

RESIDENT RESEARCH FUNDING AND AWARDS

Residents are often awarded independent funding and fellowships including awards from the NIH, NRHEF, and other foundations. Residents also have the opportunity to participate in the department’s prestigious R25 Resident Research Education Program Grant funded by the NIH. A neurosurgery research mentorship group meets quarterly to support resident efforts to develop projects and obtain funding.

MOST PRODUCTIVE

Our residency is a top-10 training program in average H-index ranking of our residents, making it one of the most productive in the country. Recent graduates have had high-quality publications in some of the most elite scientific journals including Science, Nature Medicine, New England Journal of Medicine, JAMA, Stroke, and Journal of Neuroscience and the highest impact neurosurgical journals including Journal of Neurosurgery and Neurosurgery.

$9.7 million in research awards in 2019

R25 prestigious training grant to support neurosurgery resident research

10 federally funded laboratories

#7 neurosurgery research department in the country based on NIH funding
Faculty

Our faculty hold or have held 18 national leadership roles in important academic and clinical societies and serve as members or chair on seven journal editorial boards. They are leaders in innovation and clinical care. Most importantly, they serve as mentors for our trainees.

Gregory J. Zipl, MD
Professor and Chairman of Neurosurgery

David D. Limbrick, MD, PhD
Executive Vice-Chair and Chief of Pediatric Division | T. S. Park Professor of Neurosurgery

Willem Z. Ray, MD
Vice-Chair; Chief of Spine Division
Assistant Professor of Neurosurgery

Michael R. Chicoine, MD
Astrup A. Busch, Jr.
Professor of Neurosurgery

Ralph G. Dacey, Jr., MD
Department Chair; Chief of Pediatric Division
Assistant Professor of Neurosurgery

Ian G. Doward, MD
Assistant Professor of Neurosurgery

Joshua L. Duling, MD
Professor of Neurosurgery

Gavin P. Dunn, MD, PhD
Assistant Program Director: Associate Professor of Neurosurgery

Gabriel Haller, PhD
Assistant Professor of Neurosurgery

Ammar H. Hauw, MD, PhD
Assistant Professor of Neurosurgery

Albert H. Kim, MD, PhD
Director of Brain Tumor Program
Assistant Professor of Neurosurgery

Eric C. Leuthardt, MD
Chief of Neurotechnology Division
Professor of Neurosurgery

Pat McAllister, PhD
Professor of Neurosurgery

Sean D. McEvoy, MD
Assistant Professor of Neurosurgery

Joshua W. Osbon, MD
Assistant Program Director in Clinical Neurosurgery

Tea Sung Park, MD
Sh I. Huang Professor of Neurosurgery

Keith M. Rich, MD
Professor of Neurosurgery

Paul Santiago, MD
Professor of Neurosurgery

Matthew D. Smyth, MD
Adjunct Professor of Pediatric Neurosurgery

Jennifer M. Strahl, MD
Assistant Professor of Neurosurgery

Neill M. Wright, MD
Herbert Lourie Professor of Neurosurgery

Hiroko Yano, PhD
Assistant Professor of Neurosurgery

Gabriel Haller, PhD
Assistant Professor of Neurosurgery

Ammar H. Hawasli, MD, PhD
Assistant Professor of Neurosurgery

David D. Limbrick, MD, PhD
Executive Vice-Chair and Chief of Pediatric Division | T. S. Park Professor of Neurosurgery

Tae Sung Park, MD
Sh I. Huang Professor of Neurosurgery

Matthew D. Smyth, MD
Adjunct Professor of Pediatric Neurosurgery

Jennifer M. Strahl, MD
Assistant Professor of Neurosurgery

Neill M. Wright, MD
Herbert Lourie Professor of Neurosurgery

Hiroko Yano, PhD
Assistant Professor of Neurosurgery

Gabriel Haller, PhD
Assistant Professor of Neurosurgery

Ammar H. Hawasli, MD, PhD
Assistant Professor of Neurosurgery

David D. Limbrick, MD, PhD
Executive Vice-Chair and Chief of Pediatric Division | T. S. Park Professor of Neurosurgery

Tae Sung Park, MD
Sh I. Huang Professor of Neurosurgery

Matthew D. Smyth, MD
Adjunct Professor of Pediatric Neurosurgery

Jennifer M. Strahl, MD
Assistant Professor of Neurosurgery

Neill M. Wright, MD
Herbert Lourie Professor of Neurosurgery

Hiroko Yano, PhD
Assistant Professor of Neurosurgery

Neurosurgery Residents

CHIEFS

Brendan Fong, MD
UCLA

Rick Price, MD, PhD
The Ohio State University

Ali Chin Salehi, MD
UCSD

PGY6

Adam Berman, MD, PhD
The Ohio State University

Dan Hafos, MD, PhD
Rosalind Franklin

Peter Sylvester, MD
Eastern Virginia

PGY5

Chris Dibble, MD, PhD
UNC – Chapel Hill

Jacob Greenberg, MD
Washington University

Blouic Patel, MD
Washington University

PGY4

Rupen Desai, MD
Duke University

Anna Hugeman, MD
Emory University

Peter Tang, MD
Columbia University

PGY3

Kevin Cross, MD
Washington University

Carl Hacker, MD, PhD
Washington University

Anja Srnic, MD, PhD
University of Minnesota

PGY2

Diane Aum, MD
Washington University

Ridhima Gujgjanti, MD
Washington University

Rowland Han, MD
Washington University

PGY1

Sean Gupta, MD
Columbia University

Derek Li, MD
Northwestern University

Benjamin Plog, MD, PhD
University of Rochester

Rupen Desai, MD
Duke University

Anna Hugeman, MD
Emory University

Peter Tang, MD
Columbia University

Brendan Fong, MD
UCLA

Rick Price, MD, PhD
The Ohio State University

Ali Chin Salehi, MD
UCSD

Adam Berman, MD, PhD
The Ohio State University

Dan Hafos, MD, PhD
Rosalind Franklin

Peter Sylvester, MD
Eastern Virginia

Chris Dibble, MD, PhD
UNC – Chapel Hill

Jacob Greenberg, MD
Washington University

Blouic Patel, MD
Washington University

Rupen Desai, MD
Duke University

Anna Hugeman, MD
Emory University

Peter Tang, MD
Columbia University

Kevin Cross, MD
Washington University

Carl Hacker, MD, PhD
Washington University

Anja Srnic, MD, PhD
University of Minnesota

Diane Aum, MD
Washington University

Ridhima Gujgjanti, MD
Washington University

Rowland Han, MD
Washington University

Sean Gupta, MD
Columbia University

Derek Li, MD
Northwestern University

Benjamin Plog, MD, PhD
University of Rochester

Brendan Fong, MD
UCLA

Rick Price, MD, PhD
The Ohio State University

Ali Chin Salehi, MD
UCSD

Adam Berman, MD, PhD
The Ohio State University

Dan Hafos, MD, PhD
Rosalind Franklin

Peter Sylvester, MD
Eastern Virginia

Chris Dibble, MD, PhD
UNC – Chapel Hill

Jacob Greenberg, MD
Washington University

Blouic Patel, MD
Washington University

Rupen Desai, MD
Duke University

Anna Hugeman, MD
Emory University

Peter Tang, MD
Columbia University

Kevin Cross, MD
Washington University

Carl Hacker, MD, PhD
Washington University

Anja Srnic, MD, PhD
University of Minnesota

Diane Aum, MD
Washington University

Ridhima Gujgjanti, MD
Washington University

Rowland Han, MD
Washington University

Sean Gupta, MD
Columbia University

Derek Li, MD
Northwestern University

Benjamin Plog, MD, PhD
University of Rochester