Introduction

The Section of Neurosurgery enjoyed a very successful year, continuing to build upon strengths growing in important areas, both clinically and academically. Recent recruitments to the Section have become well established and even newer faces have brought new skills and interests. A dedicated pediatric neurosurgery program has been successfully implemented under the direction of Tina Daube, MD, and the secure and fully integrated nature of this program into our activities has allowed it organizationally to become a key component of the new Section of Pediatric Surgery. Nathan Simmons, MD, a product of the Mayo Clinic Neurosurgery program, brought to the Section a special focus in cerebrovascular disease, replacing Bob Harbaugh, MD, who left to lead the neurosurgery program at Penn State–Hersey. Clinical productivity over the past year exceeded expectations, this residency program continued to earn national recognition, and academic activity expanded and diversified. One of the cornerstones of the neurosurgeries at Dartmouth, Neurosurgery continues to provide comprehensive, state-of-the-art clinical care, advance knowledge in both the basic and clinical arena, and train tomorrow’s leaders.

Highlighting a most productive past two years, there have been 11 births within the Section!

Clinical activity

Existing and new programmatic initiatives both enjoyed a successful year. The expertise in pituitary tumor brought to the institution by Henry Schumidek, MD and Nathan Simmons, MD, has enabled the creation of a multi-disciplinary neuro-endocrine clinic and tumor board responsible for the development of the Surgery and Plastic Surgery and the Neurosurgery program continues to build. The Surgical Epilepsy Program, with the participation of Ann Christine Dohamine, MD and David Robert, MD, continues to attract an international patient population, and the Stereotactic and Functional program, also in collaboration with the Section of Neurology and the Department of Psychiatry, expanded indications for deep brain stimulation.

Residency Program

We have continued to be fortunate in successfully recruiting the top resident candidates from a highly competitive national pool. This is in part reflected in fifty-five of our resident complement coming from Ph.D. programs. Henry Paulonis, MD, our current Chief Resident who brought West Coast distinction to the program in winning the Reznor Neuroanatomy Competition while rotating at L.A. Childrens Hospital, will graduate to fulfill military obligations. Kendall Lee, MD, Ph.D, an earlier recipient of the Thomas P. Alroy Prize for Best Housestaff Teacher, won national recognition as the recipient of the prestigious Philip C. Gildey Award for his work in stereotactic and functional neurosurgery. Dr. Lee also won the Best Resident Paper at the most recent Neuroscience Day. Drs. Dimitrios Nikas, Patricia Quebeda, and Michael Wokalek, in addition to Drs. Paulonis and Lee, all had contributions to the neuroscience or neurosurgery literature this past year.

Research

Dr. Dohamine’s laboratory, investigating pediatric head injury, continues to enlighten understanding of response to injury as a function of age. Its functional MRI studies in pigs are the first successful MRI studies in an animal model and are shedding light on neural plasticity. Dr. Friedman won national recognition for his work in biodegradable polymers as the recipient of the Synthes Award at the 2003 Congress of Neurological Surgeons and a patent for this work is pending. The Section’s work in image-guided and computer-assisted surgery, the interest of Dr. Roberts, continued in productive collaboration with the Thayer School of Engineering and its portioning of academia and industry with image-guided surgery and
brain modeling biomedical engineers. Funding for the Section’s research activities included support from eleven different funding sources, six of which were from the NIH.

Other academic activity

A major project within the Section has been the preparation of the upcoming fifth edition of Dr. Schmidke’s landmark text, *Operative Neurosurgical Techniques: Indications, Methods, and Results*. All faculty and residents are major contributors to what has become the most widely adopted neurosurgery textbook. Dr. Ball added to his neurosurgical and Critical Care responsibilities by serving on the Admissions Committee of the Medical School. Dr. Duhaime again ran her popular summer neuroscience course at Brown University. Dr. Sanoussi became a diplomate of the American Board of Neurological Surgery.

All of the faculty presented at national or international meetings and contributed to the literature (see bibliography). Faculty are currently serving on nine editorial and eleven advisory or commentary boards. The *Journal of Neurosurgery* and *American Journal of Neurosurgery* moved to Dartmouth in 2002, with Dr. Roberts becoming the journal’s third editor in its sixty-four year history and Melissa Robb becoming Assistant Editor. The faculty currently hold positions on the executive boards of the AANS Joint Section for Spine and the Joint Section for Pediatric Neurosurgery, the AANS Membership and Member Benefits committees, the AANS Joint Sponsorship and Continuing Education committees, the Young Neurosurgeons Committee, the Society of Neurological Surgeons Undergraduate Committee and the Society of Critical Care Medicine for Stereotactic and Functional Neurosurgery.


William J. Lacey, III, MD

*Journals*


*Paradise A. Rowland-Moore, PhD* *Journals*


*Thaddeus L. Tien, MD* *Journals*


*Lost A. Alford, MD* *Book Chapters*
