

SUPPLEMENT TO

NEUROSURGERY

CLINICAL NEUROSURGERY

VOLUME 55



CLINICAL NEUROSURGERY



Education and Innovation



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THE CONGRESS OF NEUROLOGICAL SURGEONS



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CLINICAL NEUROSURGERY

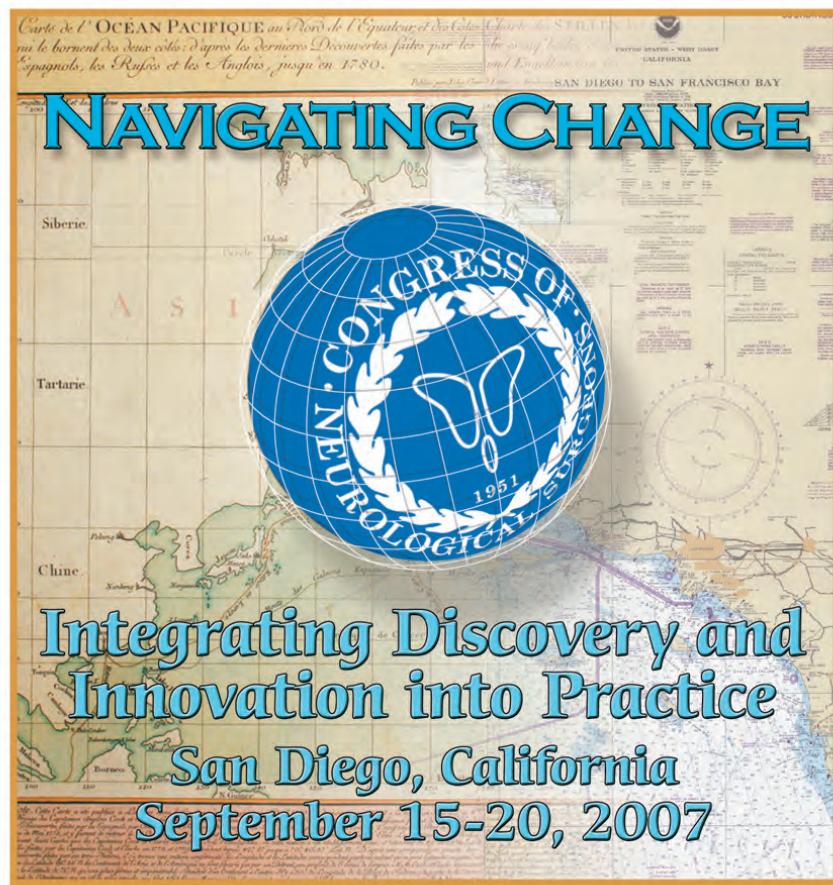
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San Diego, California
2007





**Integrating Discovery and
Innovation into Practice**
San Diego, California
September 15-20, 2007

Preface

The 57th Annual Meeting of the Congress of Neurological Surgeons was held at the San Diego Convention Center in San Diego, California, from September 15 to September 20, 2007. Volume 55 of Clinical Neurosurgery represents the official compilation of the invited scientific manuscripts from the plenary sessions, the Presidential address by Dr. Douglas Kondziolka, and biographic and bibliographic information of the Honored Guest, Dr. L. Dade Lunsford.

This landmark meeting under the leadership of President Douglas Kondziolka introduced a novel, interactive, educational paradigm called Integrated Medical Learning (IML) which fostered audience participation using advanced interactive technology. Data from these stimulating sessions, focusing on the treatment of brain metastases, spondylolisthesis, and cerebral aneurysms, are captured for review, analysis, and future presentation to the neurosurgical community at large. IML has proven to be a powerful and effective tool to bring together the “teacher” and “learner”.

Dr. Anthony L. Asher, Annual Meeting Chairman, and Dr. Gerald Rodts and Dr. Nathan Selden, Scientific Program Chair and Vice-Chair, respectively, organized a superb CNS meeting. This meeting was also a joint meeting with the Japanese Congress of Neurological Surgeons. Honored Guest, Dr. L. Dade Lunsford, presented his outstanding scholarly work on stereotaxic radiosurgery for AVMs and acoustic neuromas, image guided brain surgery, and the future role of neurosurgery in oncology (“oncopolitics”).

Finally, we are excited to report that *Clinical Neurosurgery* will now be published as a Supplement to *Neurosurgery*. We thank Dr. Michael Apuzzo and his hard working team of reviewers who processed all the peer review for this edition. We also would like to thank Staff Editors, Veronica Pagan and Jacqueline Thai, as well as Jennifer Sollenberger at Wolters Kluwer Health, Lippincott Williams and Wilkins, for their tireless energy, patience, and dedication to this volume.

We now welcome Dr. Anthony L. Asher as the new President of the Congress of Neurological Surgeons and look forward to seeing you all in Orlando.

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L. DADE LUNSFORD

Honored Guest

L. Dade Lunsford, MD

Dr. Lawrence Dade Lunsford is the Lars Leksell Professor of Neurological Surgery at the University of Pittsburgh. He is currently co-director of the Center For Image-Guided Neurosurgery at the University of Pittsburgh Medical Center, and Director of the Residency Program. Dr. Lunsford's primary scholarly and patient care interests have been related to the combination of imaging and brain surgery. This includes stereotactic surgery, stereotactic radiosurgery, and image-guided brain surgery. Dr. Lunsford established the first U.S. operating room to include a dedicated CT scanner in 1981. Since that time, more than 5000 patients have undergone image-guided brain surgery in this suite. In 1987, Dr. Lunsford was responsible for bringing the first 201-source Cobalt 60 gamma knife to the United States and the University of Pittsburgh Medical Center, the first medical center to offer this state of the art, minimally invasive form of brain surgery. During the last 20 years of radiosurgery, more than 8000 patients have had gamma knife surgery at this center. He has pioneered clinical and research efforts in radiosurgery for vascular malformations, benign and malignant tumors, and functional disorders. His clinical research into brain tumor management has focused on innovative concepts such as stereotactic biopsy, brachytherapy, intracavitary irradiation, image-guided resections and stereotactic-guided endoscopy. His interest in trigeminal neuralgia management spans the field including microsurgical, percutaneous, and radiosurgery approaches.

A native of Roanoke, Virginia, Dr. Lunsford received his B.A. with high honors at the University of Virginia in 1970. He received his medical degree from the Columbia University College of Physicians and Surgeons in 1974. He completed his surgical internship at the University of Virginia Hospital, and his residency in neurological surgery at the University of Pittsburgh between 1975 and 1980. During that time, Dr. Peter J. Jannetta was the department chair. Dr. Lunsford then had a one year fellowship in stereotactic and functional neurosurgery and radiosurgery at the Karolinska Institute in Stockholm, Sweden. He studied with Professors Lars Leksell and Erik-Olof Backlund. Dr. Lunsford was the 1980 AANS Van Wagenen Fellow, which supported his work in Stockholm. Dr. Lunsford joined the Department of Neurological Surgery faculty in 1980, as Assistant Professor of Neurological Surgery. In 1985, he became Associate Professor and in 1990, full Professor of Neurological Surgery with secondary appointments in radiation oncology and radiology. From 1995–1996 he served as Interim Chair of the Department of Neurological Surgery at the University of Pittsburgh. He then served as the Chair from 1997–2006.

Dr. Lunsford and his team also introduced the first B Unit gamma knife in the U.S. (1996), the first C Unit (1999), and the first 4-C unit (2004). Dr. Lunsford participated in the design team that helped to create the new Perfexion gamma knife unit. Dr. Lunsford has served on the Editorial Boards of more than six journals. He has authored or co-authored more than 400 peer-reviewed articles and more than 200 book chapters. In addition, he has served as editor or co-editor of six books. Dr. Lunsford was President of the UPMC Presbyterian Medical Staff from 1999 to 2001 and served as Chair of the Council of Clinical Chairs at the University of Pittsburgh School of Medicine from 2001 to 2003. He also serves as the neurosurgical consultant for the University of Pittsburgh Athletic teams. In the past, Dr. Lunsford has served on the boards of Children's Home of Pittsburgh, the Pittsburgh Opera, the UPMC Tri-Century Insurance Company, and as Chairman of the Board of the UPMC Rehab Hospital. He is currently Chairman of the Medical Advisory Board of the International Radiosurgery Association (IRSA).

Dr. Lunsford has served as a regional, national, and international lecturer during the last 25 years. Dr. Lunsford has been married to Julianne Michaelis Lunsford for 36 years, and has two children. His daughter, Stephanie, attended the University of Virginia, and is currently in law school. His son, Andrew, is a field service engineer responsible for high technology radiosurgical and radiation oncology systems. His memberships in professional organizations include the Congress of Neurological Surgeons, the Society of Neurological Surgeons, the American Association of Neurological Surgeons, the American Academy of Neurological Surgery, the American Society for Stereotactic and Functional Neurosurgery (of which he is a Past-President), and the International Stereotactic Radiosurgical Society, of which he was a founding member and first President. He is also a Fellow of the American College of Surgeons.

Dr. Lunsford's personal interests include piano, opera, tennis, golf, and bird hunting. The greatest reward of a career in academic medicine is the opportunity to be involved in the education of the next generation of neurosurgeons from the U.S. and abroad.

Bibliography

Joining the list of many colleagues who have served as Honored Guests of the Congress of Neurological Surgery is indeed a career-culminating honor. My contributions, if any are significant, are duly related to the support I have received from my family, teachers, and colleagues. My mother, Lita Alexander, subtly spurred my interest in medicine, gained from her own father, an otolaryngologist in New York City. My wife, Julie, the daughter and sister of surgeons, mostly recognized what she was getting into 37 years ago—she has always been my closest friend, as well as my moral and ethical guide. My mentors, including Peter Jannetta, Lars Leksell, and Erik-Olof Backlund, provided the right technical and intellectual stimuli. My children, Stephanie and Andrew, always provided affection, stability, tolerance, and energy in my life. Most important has been the opportunity to be surrounded by the brightest and best in medicine. Douglas Kondziolka, 2007 CNS President, is at the head of the list—but the list is long and includes many colleagues and residents, as well as a large group of international fellows who came to Pittsburgh to work in our programs. Those individuals represent the greatest reward of a career in academic neurosurgery.

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