

PLENARY GUEST SPEAKERS

Josep Dalmau

Dr. Josep Dalmau received his M.D. and Ph.D. from the Autònoma University of Barcelona, Spain, where he also completed an internship in Internal Medicine and a residency in Neurology. He trained in Neuro-oncology at the Memorial Sloan-Kettering Cancer Center in New York where he was appointed to the faculty at the completion of his fellowship. Dr. Dalmau is currently Professor of Neurology at the University of Pennsylvania, and the Director of the Neuro-oncology Laboratory. In addition to funding by the National Institutes of Health, Dr. Dalmau has received grants and awards from the Charles A. Dana Foundation, the McKnight Neuroscience of Brain Disorders, the American Cancer Society, and the European and Japanese Neurological Societies. Dr. Dalmau is recognized for his research in paraneoplastic diseases and related autoimmune disorders of the nervous system. His recent work focuses on the identification and characterization of a novel group of disorders associated with antibodies against neuronal cell surface receptors or ion channels that result in alterations of memory, behavior, cognition and dementia.



Ziya L. Gokaslan

Ziya L. Gokaslan was born on April 07, 1959 in Washington, D.C. (USA). He later returned to Turkey with his family where he completed his medical education at the Medical Faculty of Istanbul University. In 1984, Dr. Gokaslan returned to the U.S. and worked as the Clinical Director of Sleep Disorders Center of the Department of Psychiatry for 1 ½ years. He then entered General Surgery Residency under Dr. Michael E. DeBakey in 1985. After one year of internship, he joined Department of Neurosurgery of Baylor College of Medicine as Clinical Neurotrauma Research Fellow. In 1988, he became a Neurosurgery

Resident under Dr. Robert G. Grossman and completed his training at the Baylor College of Medicine in Houston in 1993. He was, then, accepted into Neurosurgery/Orthopaedic Spine Surgery Fellowship Training under Drs. Paul Cooper and Thomas Errico at the New York University Medical Center in New York. After the completion of his Fellowship Training in Spinal Surgery, Dr. Gokaslan returned to Houston and joined the faculty of Department of Neurosurgery as Assistant Professor at the University of Texas, MD Anderson Cancer Center under Dr. Raymond Sawaya. That is where Dr.



Gokaslan specialized in the surgical treatment of spinal neoplasms, published extensively on the topic and developed novel surgical approaches in managing these tumors.

In 2000, Dr. Gokaslan became the Director of Neurosurgical Spinal Oncology Section and, in 2002, he was appointed as Deputy Chairman of the Department of Neurosurgery and was promoted to Associate Professor. In 2002, Dr. Gokaslan was recruited to Johns Hopkins University, Department of Neurosurgery and became the Director of the Spine Division, Vice-Chairman, and Professor of Neurosurgery, Oncology, and Orthopaedic Surgery under Dr. Henry Brem. Later that year, he was awarded the Donlin M. Long Professorship at Johns Hopkins.

Dr. Gokaslan's clinical practice focuses on the radical surgical treatment of both primary and metastatic spinal tumors, sacral neoplasms and spinal cord tumors. He developed many novel approaches for resection of pancost tumors, spinal neoplasms, as well as sacral tumors, including total sacrectomy and complex spinal and pelvic reconstruction.

His basic research focuses on the development of new animal models to study the pathophysiology of neoplastic spinal cord compression and to define the roles of proteolytic enzymes in tumor invasion and to devise novel therapeutic approaches to spinal tumors.

Anthony E. Lang

Dr. Lang trained in Internal Medicine and Neurology at the University of Toronto. He then undertook postgraduate training in Movement Disorders at Kings College Hospital and the Institute of Psychiatry in London, England under the late Professor David Marsden. He returned to Toronto in 1982 and shortly thereafter initiated the Movement Disorders Clinic at the Toronto Western Hospital which has developed into the largest Movement Disorders Clinic in Canada and one of the most reputable units in the world for the investigation, assessment and treatment of patients with movement disorders.

Dr. Lang's research has included clinical studies of poorly recognized neurological disorders, clinical trials of new therapeutic modalities and collaborative basic and clinical studies involving molecular biology, neurophysiology, neuropsychology and imaging. He has published over 390 peer reviewed papers, many in important medical journals including the New England Journal of Medicine, the Lancet, Nature Medicine, the Annals of Neurology, Brain, etc. Dr. Lang was one of the founding members and initial Executive Committee members of the Parkinson Study Group (PSG). He served on the Steering Committee of the first large scale neuroprotective therapies study in Parkinson's disease (the DATATOP trial) carried out by the PSG, and funded by NIH and has served on many other Steering Committees for PSG studies since then. Dr. Lang has served on the Movement Disorders Society (MDS) International Executive Committee and as Treasurer from 1988-1992 and Secretary from 1996-1998. He served as the MDS President from January 2007- June 2009 and is the current Past President. He served as CoEditor-in-Chief of the international journal Movement Disorders between 1996 and 2003 inclusive.

Dr. Lang is Professor and Director of the Division of Neurology at the University of Toronto, Director of the Movement Disorders Center at the Toronto Western Hospital, the Jack Clark Chair for Parkinson's Disease Research at the University of Toronto and was the recipient of the 2005 Research Award for the Department of Medicine at the University of Toronto and the Donald Calne Lectureship from Parkinson Society Canada in 2008. Dr. Lang is a Fellow of the American Academy of Neurology and was the recipient of the AAN Movement Disorders Research Award in 2004.



Stephan A. Mayer

Stephan A. Mayer, MD, is Professor of Neurology and Neurological Surgery at Columbia University College of Physicians & Surgeons in New York City, and is Director of the Neurological Intensive Care Unit at NewYork-Presbyterian Hospital/ Columbia University Medical Center. He is a graduate of Brown University, received his medical degree from Cornell University Medical College in New York, and did his

postgraduate medical training in neurology and neurological intensive care at the Neurological Institute of New York. Dr. Mayer has published more than 500 journal articles, books, case reports, book chapters, and abstracts. He was principal investigator of the FAST Trial, a worldwide multicenter clinical trial evaluating ultra-early hemostatic therapy for brain hemorrhage, and is principal investigator of the NIH-funded New York Presbyterian Hospital hub of the Neurological Emergencies Treatment Trials (NETT) network. His work in helping to organize therapeutic hypothermia for victims of cardiac arrest in New York City was recently featured in the book *Cheating Death*, by CNN medical correspondent Dr. Sanjay Gupta.



James T. Rutka

Born in Toronto, and educated at Princeton University (1975-1977), and Queen's University Medical School (1977-1981), Dr. Rutka did an internship at McGill University (1981-1982) before entering the University of Toronto Neurosurgery Training Program in 1982. His training included a research fellowship at the Brain Tumor Research Centre, the University of California San Francisco where he obtained his PhD in Experimental Pathology (1984-1987). Upon conclusion of his neurosurgical residency 1989, Dr. Rutka did a post-doctoral research fellowship in molecular immunology at Juntendo University, Tokyo (1990).

Dr. Rutka assumed his appointment in the Department of Surgery, Division of Neurosurgery in 1990, and has been on the surgical staff at the Hospital for Sick Children in the Division of Pediatric Neurosurgery since that time. Dr. Rutka's primary research and clinical interests relate to the science and surgery of human brain tumors. His laboratory interests lie in the molecular biology of human brain tumors - specifically in the determination of the mechanisms by which brain tumors grow and invade. His recent clinical and research interests have centred on the surgical treatment of epilepsy in children. He has over 300 peer review publications. He is on the editorial boards of the *Journal of Neurosurgery* and *Neurosurgery*. He is Professor of Neurosurgery at the University of Toronto. He is Co-Director of the Arthur and Sonia Labatt Brain Tumor Research Centre at the University of



Toronto in 1998. In 1999, Dr. Rutka was appointed Chairman of the Division of Neurosurgery at the University of Toronto, and sits in the Dan Family Chair of Neurosurgery. In 2004, he was honoured with the Grass Award from the Society of Neurological Surgeons. In 2005, he received the Farber Award from the AANS/CNS Section on Tumors for longstanding contributions to neuro-oncology research. In 2006, Dr Rutka was made a member of the International Order of Smile. In 2009 he was the Honored Guest at the Annual Meeting of the Congress of Neurological Surgeons, and in May 2010 he was installed as President of the American Association of Neurological Surgeons.

John Stewart

Dr. John Stewart is a 4th generation Manitoban, but lived in other countries for a long time before returning to Canada. He studied physiology at University College, London, UK, then graduated in medicine from the University of the West Indies in Jamaica.

He did postgraduate studies in Internal Medicine and Neurology in the UK, then worked at the University of Nairobi, Kenya. He returned to Canada, doing further training in Neurology at McGill University. He then spent the next 25 years at McGill developing his special interests in peripheral neuropathies and disorders of the autonomic nervous system. He is the author of "Focal Peripheral Neuropathies", the 4th edition of which has recently been published. Dr. Stewart is emeritus professor, McGill University.



Five years ago he changed his career to that of a community neurologist working in North Vancouver and associated with Lions Gate Hospital. He maintains his interest in disorders of the peripheral nervous system, particularly focal peripheral neuropathies.

G. Campbell Tesky

Cam Teskey completed an undergraduate honors degree in 1983 and a M.Sc. degree in 1985 from the University of Western Ontario. He then returned to U.W.O. as an NSERC-funded PhD student in Dr. Peter Cain's laboratory. His Ph.D. thesis examined the role of the immediate-early gene *c-fos* following seizures. He defended his PhD in 1989 and then moved to Dr. Ron Racine's laboratory at McMaster University for an NSERC-, and then Epilepsy Canada-funded post-doctorate fellowship. His post-doctorate research focused on the response properties of neurons following electrical stimulation and seizures. In July of 1992 he took an Assistant Professor position at the University of Calgary and in 2002 he was promoted to Full Professor. His primary appointment is in the Department of Cell Biology and Anatomy, with a joint appointment in the Department of Psychology.



Cam Teskey's main research focus is on the neurobiology of motor maps and their relationship to behaviour. His lab has described many alterations in motor maps that are associated with the motor performance deficits in rats. Intracortical microstimulation within motor neocortex results in forelimb movements and the topography of these movements (motor maps) are organized much like Penfield's homunculus in people. He has shown that neocortical motor maps of the rat forelimb are dramatically (2 times) larger following repeated seizures. These larger maps can arise from seizures elicited in the corpus callosum or hippocampus as long as the epileptiform activity propagates to the frontal neocortex. The increased size of the maps is linearly related to the number of seizures in the neocortex and the altered expression of the maps is highly persistent without significant loss of size at least 5 weeks following the last seizure. These seizure-induced larger motor maps are quantifiable, robust, persistent, plastic, and related to alterations in motor performance. The alterations in motor map expression we have observed in rats are similar to the documented changes in movement representations in people with epilepsy.