PROGRAM

ESSFN 2012

XX CONGRESS
OF THE EUROPEAN SOCIETY
FOR STEREOTACTIC AND
FUNCTIONAL NEUROSURGERY

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Dear Colleagues and friends

It is a great pleasure to welcome you to the XX ESSFN Congress 2012.

This Congress is held in Lisbon, Cascais, the city of Egas Moniz - the Nobel Prize awarded for Psychosurgery - and the place of departure of the famous pioneering navigators that mastered the seas and sailed the world. For centuries this has been a land of discoverers of places and cultures, peoples and customs, techniques and sciences. This Congress will be, I hope and wish, an excellent opportunity to share our knowledge, to update our techniques, to increase our science and to improve our culture. It is wonderful to meet you all here and now.

The Congress venue is the Hotel Cascais Miragem, a very nice place on the Lisbon atlantic coast, where an old fisherman village full of history at the western end of Europe became a charming neighbour of our cosmopolitan capital.

On behalf of the Organizing Committee, I am proud of receiving you for this momentous scientific event. Please seize your stay.

Antonio Gonçalves-Ferreira
ESSFN OFFICERS

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INVITED SPEAKERS
and ESSFN OFFICERS //
**AZIZ, TIPU**

Tipu Aziz is professor of neurosurgery at the University of Oxford and leads Oxford Functional Neurosurgery and Experimental Neurology. Clinically he has a particular interest in deep brain stimulation for movement disorders and pain. In the basic sciences his primate work contributed to the selection of the STN as a target for deep brain stimulation for Parkinson’s disease and more recently, the PPN for parkinsonian gait freezing and imbalance.

He has been very vocal in the public debate for the need of animal studies in medical research and has helped set up functional neurosurgical units internationally.

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**BENABID, ALIM LOUIS**

Alim Louis Benabid was born on May 2nd 1942, obtained his medical degree in 1970 and his Ph.D. in Physics in 1978. He is married and has two children. After a postdoctoral fellowship in the laboratory of Preclinical Neuropharmacology of Floyd Bloom, at the Salk Institute La Jolla California from 1979 to 1980, Alim Louis Benabid has been appointed Professor at Grenoble University, in Neurosurgery and Experimental Medicine until 1983, then in Neurosurgery and Biophysics. From 1988 to 2007, he was the Director of the research laboratory INSERM unit 318, entitled Preclinical Neurosciences, and from 1989 to 2007, Head of the Neurosurgery Department at the University Hospital of Grenoble, Professor of Biophysics at Joseph Fourier University. Alim Louis Benabid is also Coordinator of the Claudio Munari Center for Surgery of Epilepsy and Movement Disorders, at Hospital Ni Guardia in Milan, Italy since 1998. He was also Staff consultant at the Cleveland Clinic Foundation, Ohio since 2000.

Alim Louis Benabid has centered his scientific activity on the approach of neurosurgical pathologies, particularly brain tumours and movement disorders, namely Parkinson’s disease. He developed in his hospital robotic stereotactic surgery which permits biopsies and therapeutics acts, aimed at functional targets.

Activities of Alim Louis Benabid can be described under three themes: Neurosurgical robotics and brain imaging: in order to obtain a precise stereotactic tool, interventional robots have been designed. Experimental therapeutics in neuro-oncology: Alim Louis Benabid has developed surgical methods, particularly stereotactic, including application of robotics to approach functionally eloquent zones, implantation of radioactive isotopes, and particularly stereotactic biopsies of brain tumors for diagnostic and research purposes. From these biopsy samples, a brain tumor tissue bank has been elaborated. On the material of this Brain Tumour Bank, research on molecular biology is being conducted in his research unit. The occurrence of abnormal involuntary movements during the long-term dopaminergic treatment of Parkinsonian patients has required the return of functional neurosurgery. In order to diminish side effects. Alim Louis Benabid has designed a new method of stereotactic inhibition of surgical targets, initially limited to the thalamus and to the pallidum. The discovery in 1987 of the effects mimicking the lesion induced by electrical stimulation at high frequency has allowed a rebirth of this surgery and new therapeutic possibilities. The remarkable efficacy of this treatment, associated to its very low morbidity, has permitted to apply it to other targets, particularly the subthalamic nucleus, and to diminish the medical treatments. Currently his activity is oriented toward the understanding of mechanisms of action of deep brain stimulation at high frequency, the precise identification of the efficient targets and of the neuronal networks which are involved, as well as of possible long-term effects, particularly neuroprotective, which could be due to the long-term effects of the stimulation on the natural history of Parkinson’s disease.

He has recently joined the French Commission of Atomic Energy as a Scientific Adviser and is Chairman of the Board of the new Clinatec Institute which is devoted to the application of nanotechnologies to Neurosciences. Alim Louis Benabid is a member of the Institut Universitaire de France, of the French Academy of Sciences, of the French Academy of Medicine and of the Royal Academy of Medicine of Belgium, and he received a Doctorate Honoris Causa from the University of Galway, Ireland, from the University of London, Ontario, Canada, and from McGill University, Montreal Quebec.
Chabardès, Stéphan

Pr Stéphan Chabardés was born in Sete, south of France, in 1967. He was admitted at the Montpellier University school of medicine where he studied general medicine. He moved then to Grenoble University Hospital in 1993, as a resident in the neurosurgery department headed by Pr AL. Benabid. He was trained on both general neurosurgery, micro-surgery and functional neurosurgery. In 2003, he moved to the Cleveland Clinic foundation, as a research fellow under the supervision of Dr Luders HO and Dr Imad Najm. He was then appointed as Professor of Neurosurgery in 2008 and took over the responsibility of the Functional Neurosurgery, Oncology and robotic unit at the Grenoble University Hospital. He is co-director of a research unit at the Grenoble Institut of Neurosciences and is the scientific director of the Primate facility.

Main surgical interest is functional neurosurgery, including resective surgery for intractable epilepsies, deep brain stimulation but also awake surgery for tumor and epilepsy.

Main research interest are pre clinical evaluation of DBS in epilepsy, food intake control, movement disorders and psycho surgery. Also, Pr Chabardès have conducted electrophysiological studies of Basal ganglia in primates but also in humans. Pr Chabardès is co-author of more than 70 papers in the field of DBS in movement disorders, in epilepsy surgery and electrophysiology.

Damasio, António

Antonio Damasio is University Professor, David Dornsife Professor of Neuroscience, and Director of the Brain and Creativity Institute at the University of Southern California. Damasio has made seminal contributions to the understanding of how the brain processes memory, language, emotions, and decisions and has described them in his books (Descartes’ Error, The Feeling of What Happens, Looking for Spinoza, and Self Comes to Mind) which are taught in universities worldwide. He is the author of numerous scientific articles and has been named “Highly Cited Researcher” by the Institute for Scientific Information. His research has received continuous Federal funding for nearly 30 years. He is the recipient of many awards (including, the Honda Prize, 2010; the Asturias Prize in Science and Technology, 2005; and the Signoret Prize, 2004, which he shared with his wife Hanna Damasio), and holds Honorary Doctorates from several Universities.

Damasio is a member of the Institute of Medicine of the National Academy of Sciences and a Fellow of the American Academy of Arts and Sciences, the Bavarian Academy of Sciences, and the European Academy of Sciences and Arts.

(For more information go to the Brain and Creativity Institute website at http://www.usc.edu/bci/ and the Dornsife Imaging Center website at http://brainimaging.usc.edu)
DUFFAU, HUGUES

Date of birth: 8th August 1966 (Montauban, France)
M. D. (Neurosurgeon); Ph. D. (Neuroscientist); Professor and Chairman, Department of Neurosurgery, Gui de Chauliac Hospital, Montpellier University Medical Center (France); Director of the Team “Plasticity of the central nervous system, human stem cells and glial tumors”, INSERM U1051, Institute for Neurosciences of Montpellier (France).

Training: October 1992 : Master in Neurosciences (Paris VI); June 1995 : Medical Doctor (Paris VI); October 1995 : Diploma of Neurosurgery (Paris VI); November 1995 : Chief Resident (Department of Neurosurgery, Pitié-Salpêtrière Hospital, Paris, France); November 1999 : Senior Neurosurgeon (Department of Neurosurgery, Pitié-Salpêtrière Hospital, Paris, France); September 2000 : Ph.D. in Neurosciences, University Paris VI; April 2006 : Professor of Neurosurgery; May 2007: Chairman of the Department of Neurosurgery, Montpellier University Medical Center (France).

Awards: September 2001: Young Neurosurgeon Award, by the World Federation of Neurological Societies; November 2009: Victory of Medicine (French National Award in Medicine 2009); December 2010: Victory of Medicine (French National Award in Medicine 2009); December 2010: Herbert Olivecrona Award (Karolinska Institute, Stockholm); January 2012: Grand Prix of Surgical Oncology, by the French National Academy of Medicine;


Member of Societies: President of the Neurooncological Club of the French Neurosurgical Society, Member of the American Congress of Neurological Surgeons (CNS), European Association for Neurooncology (EANO), European Organization for Treatment of Cancer (EORTC), Association de Neurooncologie d’Expression Francaise (ANOCEF), Société de Neurochirurgie de Langue Francaise (SNCLF), Société Française des Neurosciences (SFN).

193 articles (67 first author, 56 last author); h-index: 44; 219 communications (98 published, 111 presentations as first author); 243 national (72) and international (171) invited lectures; 3 textbooks (one in preparation) and 23 book chapters (11 as first author and 7 as last author).
GONÇALVES-FERREIRA, ANTÓNIO J.

António José Gonçalves-Ferreira, born in Lisbon, is Consultant Neurosurgeon at the Neurosurgery Department of the University Hospital Santa Maria and Professor and Chairman of Anatomy and Neuroanatomy at the Lisbon Faculty of Medicine. He obtained his MD degree in 1975, and PhD in 1989 (Stereotactic anatomy of the posterior cranial fosse: study of the transcerebellar approach to the brainstem) at the Lisbon Faculty of Medicine. He received postgraduate training in stereotactic and functional neurosurgery in 1986-7 in Bordeaux and made a stage on Surgery for Epilepsy in 1988 at the Montreal Neurological Institute. He is head of the Functional Neurosciences Unit and pioneered the Surgery for Epilepsy and the Radiosurgery in Portugal since 1995.

His main fields of interest also include the Surgery for Movements Disorders, and Psychosurgery. His basic research activity is focused on the Neuroanatomy of Epilepsy Surgery and Psychosurgery. He supervises now two research lines: one on the Human Nucleus Accumbens and one on the Human Locus Coeruleus. He participates as neurosurgeon in the MORE Steering Committee, a Medtronic registry study on the Anterior Thalamic Nuclei DBS for the treatment of epilepsy.

He was awarded on 1989 with the Upjohn Prize from the EANS, which Research Committee he chaired from 2003 to 2007. Present work address: Faculty of Medicine, University Hospital Santa Maria, Lisboa, Portugal

GRECO, CARLO

Professor and Chair - Radiation Oncology - University of Pisa, Italy
Director of Clinical Research Champalimaud Centre for the Unknown - Lisbon, Portugal

Educational Background
M.D. - University of Catania, Italy, 1988

Post-doctoral training
1989 - Fellowship: Research associate, Radiobiology,
- Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Clinical appointments
Attending Radiation Oncologist. Department of Radiation Oncology, European Institute of Oncology, Milan, Italy. 05/1995 - 09/2001
Vice-Chairman, Radiation Oncology, European Institute of Oncology Milan. Italy 09/2001 – 12/2004
Chair, Radiation Oncology, University of Magna Graecia, Italy 12/2004/ 12/2009.
Chair, Radiation Oncology University of Pisa, Italy 12/2009- present

Academic positions
Lecturer, Radiation Oncology Residency Program - University of Milan, Milan Italy. 2003 - 2004
Professor, Radiation Oncology, University of Magna Graecia, Italy, 06/2004 - 11/2009
Investigator, Department of Radiation Oncology, Memorial Sloan-Kettering Cancer Center, New York, NY, USA. 06-2006 – 12/2009
Professor of Radiation Oncology University of Pisa, Italy 12/2009 - Present
Director of the Residency Program in Radiation Oncology- University of Pisa 01/2010 - Present
Director of Clinical Research – Champalimaud Centre for the Unknown – Lisbon Portugal 07/2011 - Present
HARIZ, MARWAN

Marwan Hariz received the Baccalauréat in Beirut, Lebanon at the Lycée Franco-Libanais, then studied medicine in Reims, France and in Umeå, Sweden. He trained in Neurosurgery in Umeå, with Lauri Laitinen as main mentor. He received a PhD in 1990 in stereotactic neurosurgery. In 2002, he was recruited as professor to the United Kingdom’s first Chair of Functional Neurosurgery at the National Hospital for Neurology and Neurosurgery, and Institute of Neurology, Queen Square, London, where he established a multidisciplinary clinical and academic Unit of Functional Neurosurgery.

His main interests are in surgery for movement disorders and psychiatric illness, and in critical appraisal of published literature in these areas. He has published over 150 scientific papers and book chapters.

KRAUSS, JOACHIM K.

Date of Birth: June 18, 1957/ Kehl, Germany

Education: 1977 – 1985 Studies of Medicine, Albert-Ludwigs-University, Freiburg, Germany
1993 – ECFMG - FMGEMS - Basic and Clinical Science Examination.


Professional Activities
1993 – 1995: Attending Neurosurgeon, Department of Neurosurgery, Albert-Ludwigs-University, Freiburg
1995 – 1997: Assistant Professor, Department of Neurosurgery, Baylor College of Medicine, Houston, USA
1997 – 1998: Associate Professor and Head of Functional Neurosurgery, Department of Neurosurgery, Inselspital, University Hospital, Berne, Switzerland
1998 – 1999: Vice-Chairman, Department of Neurosurgery, Inselspital, University Hospital, Berne, Switzerland
1999 – 2005: Vice-Chairman, Department of Neurosurgery, University Hospital, Mannheim, Germany
2005 – Director, Department of Neurosurgery, Medical School Hannover, MHH, Hannover, Germany

Academic Appointments
1995 – 2000: Privatdozent for Neurosurgery, Albert-Ludwigs-University, Freiburg
1997 – 1998: Adjunct Assistant Professor, Department of Neurosurgery, Baylor College of Medicine, Houston, USA
1998 – 2004: Adjunct Associate Professor, Department of Neurosurgery, Baylor College of Medicine, Houston, USA
2000 – 2001: Privatdozent, Faculty for Clinical Medicine Mannheim, Ruprecht-Karls-University, Heidelberg, Germany
2001 – 2005: Professor (apl.), Faculty for Clinical Medicine Mannheim, Ruprecht-Karls-University, Heidelberg, Germany
2005 – Chairman, Department of Neurosurgery, Medical School Hannover, MHH, Hannover, Germany

Academic Leadership
President, European Society of Stereotactic and Functional Neurosurgery (2010 –
First Secretary, European Society of Stereotactic and Functional Neurosurgery (2002 – 2010)
Vice-President, World Society of Stereotactic and Functional Neurosurgery (2005 –
Head, Commission for Technical Standards, German Society for Neurosurgery (2007 –
Executive Committee, European Dystonia Research Group (2003 –
Executive Committee, Task Force DBS Dystonia (2008 –
Executive Committee, EURO Dystonia (2009 –
Executive Committee, International Society of Reconstructive Neurosurgery (2011 –
Medical Advisory Board, European Dystonia Federation (2010 –
Chair, Education Committee, World Society of Stereotactic and Functional Neurosurgery (2010 –
LEITÃO, HENRIQUE

Henrique Leitão (Ph.D., 1998) is Researcher at the Center for the History of Science (CIUHCT) at the Faculty of Sciences of the University of Lisbon, Portugal, where he also teaches at the Masters Program on the History and Philosophy of Science.

His research interests include the history of exact sciences in Europe (and Portugal) from the 15th to 17th centuries. He is also interested in the history of scientific books and collaborates regularly with the Portuguese National Library, in Lisbon.

He heads the Scientific Committee in charge of the publication of the Complete Works of the sixteenth-century mathematician and cosmographer Pedro Nunes, by the Lisbon Academy of Sciences and the Calouste Gulbenkian Foundation. In 2010 he translated Galileo’s Sidereus Nuncius (Lisbon: Calouste Gulbenkina Foundation, 2010) and he is presently engaged (with sinologist co-author Rui Magone) in the translation and edition of the Tianwenlüe, a major astronomical text published by a Portuguese Jesuit in China in 1614. He has published or edited more than 10 books and published over 40 academic papers.

He is the curator of a major exhibition, «360° - Science Discovered», on Iberian Science in the Early Modern Period, to take place from February to June 2013 at the Calouste Gulbenkian Foundation, in Lisbon.

Henrique Leitão is member of various learned societies, including the Academia das Ciências de Lisboa (Lisbon Academy of Sciences), the Academia de Marinha (Navy Academy) the Académie International d’Histoire des Sciences, the European Society for the History of Science and the History of Science Society.
LOBO-ANTUNES, JOÃO

MD, University of Lisbon 1968
PhD University of Lisbon 1983
Fulbright Fellow 1971-1974
Associated Professor of Neurological Surgery Columbia University, New York, 1981-1984
Chairman Department of Neurosurgery, Lisbon Medical School 1984-
Dean of the Medical School. University of Lisbon, 1996 – 2003
Vice President for Europe, World Federation of Neurosurgical Societies, 1990
- 1994
President, European Association of Neurosurgical Societies, 1999 - 2003
President of Sociedade das Ciências Médicas de Lisboa, 2000 - 2003
President of the Portuguese National Council on Science, Technology and Innovation, 2004-2006
President of the Portuguese Academy of Medicine, 2006
Member of the State National Council-Advisory body to the President of Republic

EDITORIAL BOARDS (selected)
Clinical Neurosurgery
Neurosurgery
Neurocirurgia
Acta Neurochirurgica
Advances and Technical Standards in Neurosurgery
Journal of Neurosurgical Sciences
British Journal of Neurosurgery
Neurology (India)

AWARDS
Pfizer Award for scientific research, 1969
Sandoz Award for Neurology, 1970
Pessoa Prize, 1996
Gold Medal, Portuguese Ministry of Health, 2003
Great Cross of Prince Henry the Navigator, 2004
Medal of Honour of the European Association of Neurosurgical Societies, 2007
Rotary Award “Profissional Liberal” 2007/2008
Academic Pedro Hispano Award, 2009
LOZANO, ANDRES

Professor and Chairman, Dan Family Chair in Neurosurgery
RR Tasker Chair in Functional Neurosurgery
Canadian Research Chair in Neurosciences (Tier 1)
University of Toronto
Toronto Western Hospital

Dr. Lozano received his MD degree at the University of Ottawa and his neurosurgical training and PhD degree in Neurobiology at McGill. He received post-doctoral training in movement disorders at Queens Square, London, UK and in cell and molecular biology in Toronto. He is the Professor and Chairman of Neurosurgery at the University of Toronto (as of Sept 1, 2010) and holds both the RR Tasker Chair in Functional Neurosurgery at the University of Toronto and the Toronto Western Hospital and a Tier 1 Canada Research Chair in Neuroscience. He has an active laboratory dedicated to the study of neuronal degeneration and regeneration and Functional Neurosurgery.

Dr. Lozano has over 350 publications in neurosciences including publications in several prestigious journals. He serves on the executive board of several international organizations including the Michael J Fox Foundation and is on the international editorial board of 14 journals. A recognized international authority on the surgery and pathophysiology of Parkinson’s disease, he has led over 400 invited lectures throughout the world. He has been elected a Fellow of the Royal Society of Canada and has received the Order of Spain.

His pioneering research activity in Deep Brain Stimulation is unraveling answers to diseases like Parkinson’s, Alzheimer’s, depression and epilepsy. Dr. Lozano has used microelectrode recordings of neuronal activity in the brain of patients with Parkinson’s disease to pioneer operations that produce striking improvement in parkinsonian signs and symptoms. He has been involved in training over one hundred physicians from throughout the world, with the hope that this will mean better access for patients to neurosurgical treatments to alleviate some of the debilitating side effects of Neurological and Psychiatric.

MAI, JÜRGEN

MUACEVIC, ALEXANDER

Alexander Muacevic is currently one of the two medical directors of the European Cyberknife Center in Munich, Germany. He holds an academic teaching position at the University of Munich Hospitals. His main clinical and scientific interest is full body radiosurgery using advanced image-guided robotic technology.

He is a trained and board neurosurgeon and radiosurgeon. He holds in addition an European Neurosurgery Certificate. He has published over 100 scientific contributions such as full papers, book chapters and congress proceedings. Alexander Muacevic is member of several academic societies and the president of the International Radiosurgery Society which has over 700 members. He is co-founder and the co-chief editor of Cureus.com.

NUTTIN, BART

Bart NUTTIN was born in 1959 and lives Wandeldreef 17, B-3110 Rotselaar, Belgium. He is married to Claire Borghgraef and they have 4 children: Laura, Bram, Matthias and Dries.

He received his MD degree at Katholieke Universiteit Leuven, Belgium in 1984 and was board certified in Neurosurgery in 1991. Under supervision of his promoter Prof. J. Gybels he obtained his PhD (Interleukin-6 and spinal cord injury in the rat) in 1996. He also trained abroad (Pretoria, Exeter, Köln and Boston). He is chief of clinic at the University Hospitals Leuven and is responsible for functional and stereotactic neurosurgery, organized in multidisciplinary teams. He is member of the Belgian committee for neurosurgery for psychiatric disorders.

He is or has been member of several national and international societies, chairman of the Committee for Neurosurgery for Psychiatric Disorders of the World Society for Stereotactic and Functional Neurosurgery, treasurer of the board of the European Society for Stereotactic and Functional Neurosurgery, president of the Belgian Society for Stereotactic and Functional Neurosurgery, president of the Benelux Neuromodulation Society and member of the Council of the "Europäische Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen Bad Neuenahr-Ahrweiler GmbH".

He is professor at the Katholieke Universiteit Leuven. He heads the Research Group of Neursurgery and Neuroanatomy. He was coordinator of the Erasmus Mundus project EMMAPA.
OLIVIER, ANDRE

William Cone Professor Emeritus of Neurology and Neurosurgery McGill University.

Andre Olivier obtained his MD degree from University of Montreal medical school in 1964. As a fellow of the Medical Council of Canada he entered Graduate Studies at Laval University obtaining his PHD in 1970 working on the Chemoarchitecture of the primate thalamus. He did his postgraduate neurosurgical training at Mc Gill University and received his training in the surgery of epilepsy at the Montreal Neurological Institute under Dr Theodore Rasmussen to whom he succeeded as head of Epilepsy Surgery Unit. In 1977 he was presented by her Majesty Queen Elisabeth II a medal given to outstanding young Canadians on the occasion of the 25th Anniversary of her accession to the throne.

He joined the faculty at the Montreal Neurological Institute and Hospital in 1971 where ultimately he became the William Cone Professor of Neurosurgery, chairman of the Division of Neurosurgery of McGill University in 1991, Neurosurgeon in Chief at the MNI and Chairman of the Department of Neurosurgery of the McGill Health Center.

Dr. Olivier has been chair of the board of examiners of the Royal College of Physicians and Surgeons of Canada and of the board of examiners for the Province of Quebec and guest examiner of the American Board of Neurological Neurosurgery. He has served as president of the Association of Neurosurgeons of the Province of Quebec, as president of the American Society for Stereotactic and Functional Neurosurgery and as president of the Canadian Neurosurgical Society.

In conjunction with the Industry (ISG AND SNN) Dr Olivier and his team have contributed actively to the early development of Neuronavigation and have applied this technology to all aspects of the surgical treatment of epilepsy. He has developed the procedure of key –hole image guided selective amygdalo hippocampectomy for mesial temporal lobe epilepsy.

Dr. Olivier has trained a large number of neurosurgeons from around the world in the surgical treatment of epilepsy and brain tumours. He has served extensively as an invited lecturer and visiting professor to many centers in western Europe, Asia, Mexico, South America, The United States as well as in Canada. He has performed well over 2500 procedures for the surgical treatment of epilepsy. His present clinical interest is in the application of robotics to Neuronavigation. With the help of two of his former fellows, W.Boling and T.Tanriverdi, he recently published a textbook untitled Techniques in Epilepsy Surgery; The MNI Approach.

PALMER, JAMES D.

Consultant Neurosurgeon

Trained in London, Southampton, and Glasgow James Palmer was a Consultant Neurosurgeon at Queen Square, London. In 1999 he moved to develop the South West Neurosurgery Centre based in Plymouth alongside a new Peninsula Medical School. He has a practice that is mostly cranial neurosurgery. He has an interest in the surgical management of cervical dystonia, which developed from a surgical study completed at the Institute of Neurology with Professor Marsden and the movement disorders team. He has maintained the skills of the technically challenging selective denervation procedure throughout his career and provides the service for the UK. He established a Shaped-Beam Stereotactic Radiosurgery service, now the second largest service in the UK to the Gamma Knife facility in Sheffield. He was the Editor of the Manual of Neurosurgery, has been an active teacher on the European Courses for Neurosurgery and active in the WFNS where he was the inaugural chair of the Young Neurosurgeons Forum. Now not so young he has a NHS Leadership role in the commissioning of all specialised services across England including neurosurgery.
RÉGIS, JEAN

Jean Régis, MD, is Professor of Neurosurgery at the Aix Marseille University (Marseille, France), and Neurosurgeon at the Timone University Hospital where he currently serves as Head the Stereotactic, Functional Neurosurgery and Radiosurgery Department. His research activities include clinical research in Epilepsy Surgery, Tumoral Radiosurgery and radiosurgery for Functional disease. His basic reasearch activity (INSERM U751) is focused on cerebral cortex gyration models. Prof Régis co-authored >265 peer-reviewed articles referenced in PUBMED.

He is the president of the International Stereotactic Radiosurgery Society (ISRS), the President of the European Gamma Knife Radiosurgery Society (EGKS) and the Vice President of the European Society for Stereotactic and Functional Neurosurgery (ESSFN). He is member of the Board of directors of the World Society for Stereotactic and Functional Neurosurgery (WSSFN).

He is also an active member of the following societies: EANS (European Association of Neurosurgeons), SNCLF (Société de Neurochirurgie de langue Française), SFNC (Société Française de Neurochirurgie), CNS (Congres of Neurological Surgeon), AANS (American Association of Neurological Surgeon).

He is reviewer for the following journals: Neurosurgery, Journal of Neurosurgery, World Neurosurgery, Acta Neurochirurgica, Neurochirurgie, Epilepsia, Epilepsy research, European Journal of Epileptology.

SAKAS, DAMIANOS E.

Biographical Data
Dr. Damianos E. Sakas was born in Greece and he is a graduate of the University of Athens (1978), where he also completed his Doctoral Thesis (1988). He received his training in the Department of Neurology and Neurosurgery, University of Athens (1982-86). He has worked in the Massachusetts General Hospital, Harvard Medical School, Boston, USA (1986-89), the Institute of Neurological Sciences, University of Glasgow, Glasgow, Scotland (1990-91) and the National Centre for Neurosurgery, Dublin, R. Ireland (1991-93). He was appointed as Consultant Neurosurgeon and Honorary Senior Clinical Lecturer in the Midland Centre for Neurology and Neurosurgery, University of Birmingham, and the University Hospital Coventry and Warwickshire, University of Warwick, England (1993-99). He is a member of various professional societies and has held senior positions as President, Hellenic Neurosurgical Society, Chairman, Neuromodulation Committee, World Federation of Neurosurgical Societies (WFNS), Member of the EANS Education and Training Committee and Member of the Executive Committee, Second Secretary and Secretary (ESSFN). His special interests include Epilepsy and Movement Disorders Surgery, Neurotrauma, Vascular and Scull Base Surgery. Damianos E. Sakas has edited two books: Operative Neuromodulation. Functional Neuroprosthetic Surgery and Operative Neuromodulation. Neural Networks Surgery both published by Springer-Verlag, Wien (2007), and the book Introduction in Neurosurgery (in Greek, 2003). He has worked as Associate Editor or Member of the Editorial or Advisory Board in the Yearbook of Neurology and Neurosurgery, Yearbook of Medicine, Neurosurgical Review, and Neuromodulation. He has published more than 150 peer-reviewed articles and chapters in books and his work has been cited more than 1500 times in the international scientific literature. In 2000, Dr Damianos E. Sakas was elected as Professor of Neurosurgery and appointed as Chairman of the Department of Neurosurgery, University of Athens, Evangelismos General Hospital, Athens, Greece. Since 2010, he has been elected as a Member of the World Academy of Neurological Surgeons.
SCHRAMM, JOHANNES

Professor of Neurosurgery
Retired chairman, Department of Neurosurgery
Bonn University, Medical School, Bonn, Germany

1979: Degree as specialist for neurosurgery
1981: Postgraduate degree in neurosurgery (Habilitation), equivalent to a Ph.D. and the status of senior lecturer (Privatdozent), (Prof. M. Brock)
1983: Promotion to Associate Professor of Neurosurgery, 1983-1989: Vice-Chairman, University of Nürnberg-Erlangen (Prof. R. Fahlbusch)
1989: Professor and Head, Department of Neurosurgery, University of Bonn
1999 - 2003: Vice-President of the European Association of Neurosurgical Societies
2001 - 2002: President, German Academy of Neurosurgery
2001 - 2002: Vice – President, German Society of Neurosurgery
2001 - 2008: Editor, Central European Neurosurgery (Zentralblatt für Neurochirurgie)
2007- 2011: President, European Association of Neurosurgical Societies
2009 - 2013: Second Vice-President, World Federation of Neurosurgical Societies
2011: Chief-Editor Advances and Technical Standards in Neurosurgery
Author or Co-Author of over 395 refereed publications and 50 book chapters

Research Fields: Intraoperative Neurophysiological Monitoring, Clinical Neurooncology, Cerebrovascular Malformations, Clinical and Basic Aspects of Chronic Epilepsy.

Clinical Specialties: Brain Tumors and Vascular Malformations, Surgery for drug resistant epilepsy.

Member of Editorial Board of 12 Journals.

Honorary Member of Italian Society of Neurosurgery, Guest Member Japan Neurosurgical Society, Honorary Professorship Burdenko Institute of Russian Academy of Sciences, Moscow.

SCHUURMAN, RICK

Rick Schuurman, MD PhD, is currently working as consultant neurosurgeon at the Academic Medical Center of the University of Amsterdam, the Netherlands, after having received his training under supervision of ESSFN honorary president Andries Bosch. In 2002 he received the ESSFN Young Neurosurgeon Award for his work on the comparison of lesioning and deep brain stimulation for tremor. He heads the Amsterdam unit of functional neurosurgery and is involved mainly in neuromodulation for various movement disorders and the experimental treatment in psychiatric disorders. He is active as teacher and organiser of various international courses on stereotactic functional neurosurgery. Since 2010 he serves on the council of the ESSFN as second secretary.
## XX Congress of The ESSFN

### Wednesday, 26th September 2012
- **10:30//18:00** Registration Desk - Opening
- **14:15//17:30** Satellite Symposium // Medtronic
- **18:00//18:30** Plenary Session: Special Lectures
- **18:45** Departure for Welcome Reception to Casa de Santa Maria

### Thursday, 27th September 2012
- **08:30//10:00** Plenary Session: Opening Ceremony
- **10:00//10:30** Coffee Break & Visit Posters part 1
- **10:30//12:00** Parallel Session 1
  - Movement Disorders
- **12:30//14:00**
- **14:00//15:00** Plenary Session: Lectures
  - Radiosurgery
- **15:00//16:30** Parallel Session 4
  - Movement Disorders
- **16:30//17:00** Coffee Break & Visit Posters part 2
- **17:00//18:30** Parallel Session 7
  - Movement Disorders

### Friday, 28th September 2012
- **07:30//08:30** Plenary Session: Basic Science Breakfast Session
- **08:30//10:00** Plenary Session: Invited Lectures
- **10:00//10:30** Coffee Break & Visit Posters part 3
- **10:30//12:30** Parallel Session 10
  - Epilepsy
- **12:30//14:00**
- **14:00//15:00** Plenary Session: Lectures
  - Movement Disorders
- **15:00//16:00** Parallel Session 13
  - Epilepsy
- **16:00//16:30** Coffee Break & Visit Posters part 4
- **16:30//18:30** ESSFN General Assembly
- **19:45** Departure for Gala Dinner

### Saturday, 29th September 2012
- **07:30//08:30** Plenary Session: Solve-the-Case Breakfast Session
- **08:30//10:00** Parallel Session 16
  - Pain
- **10:00//10:30** Coffee Break
- **10:30//12:30** Plenary Session: Closing Lectures
  - ESSFN Research Grant
  - Congress Grant/Awards
- **12:30** Closing Ceremony
## PROGRAM AT A GLANCE

### ROOM II

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<th>Time</th>
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### ROOM XII + XIII

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<td>Parallel Session 1 Movement Disorders</td>
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<td>Lunch Seminar // St. Jude Medical Neurorotorical approaches in deep brain stimulation surgery: controversies and common ground</td>
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<td>Lunch Symposium // Medtronic Advanced planning and visualization using tractography - workshop</td>
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**XX Congress of The European Society for Stereotactic and Functional Neurosurgery // 23**
### 26th September 2012 // Wednesday

#### 10:30 // 18:00
**Registration Desk - Opening**

#### 14:15 // 17:30
**Satellite Symposium // Medtronic**

**Medtronic DBS advanced solutions: from planning to programming and beyond**
Chairman: António Golçalves-Ferreira, Joachim K. Krauss & Philippe Cornu

**INTRODUCTION**
*Medtronic vision: towards more integrated solutions and tailorable therapies*
Karl Schweitzer (Medtronic)

**FROM PLANNING: Advances in Planning & Targeting**
*MRI guided and MRI verified DBS surgery for movement disorders: improving safety and patient comfort*
Ludvic Zrinzo
*Enhanced DBS planning and visualization with Medtronic StealthViz™*
Juan António Barcia
*Diffusion tensor aided targeting for DBS in movement disorders, epilepsy and psychiatric indications*
Volken A. Coenen
*Planning and targeting for a new Medtronic DBS indication: Refractory Epilepsy*
António Golçalves-Ferreira & Alexandre Campos
*2D and 3D intraoperative imaging with the O-arm for DBS procedures*
Carlos Botella

Break with Poster visit, Medtronic posters

**TO PROGRAMMING: Driving Novel but Simple Advances in Programming**
*Innovation in Visual Based Programming*
Peter Konrad & Thomas Davis
*Three years of learning about field steering programming with Interleaving stimulation and groups*
Daniel Weiss
*Enabling Efficient Programming of DBS Systems*
Steve Goetz (Medtronic)

**AND BEYOND: Driving advances in Sensing Technology**
*Will electrophysiological recordings be the future of DBS?*
Stéphan Chabardès

**CLOSURE**
*DBS partnership beyond technology*
Lothar Krinke (Medtronic)

#### 18:00 // 18:30
**Special Lecture**
*The Science of the Portuguese Navigators*
Henrique Leitão (Lisbon, Portugal)

#### 18:45
Departure for Welcome Reception to Casa de Santa Maria
## XX Congress of The European Society for Stereotactic and Functional Neurosurgery

**ESSFN 2012**

### 27th September 2012 // Thursday

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<tr>
<th>Time</th>
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<tr>
<td>08:30 // 10:00</td>
<td><strong>Opening Ceremony – Opening Lectures</strong></td>
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<td>Chair: Joachim K. Krauss (Hannover, Germany) &amp; António Gonçalves-Ferreira (Lisbon, Portugal)</td>
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<tr>
<td></td>
<td><em>Neural Correlates of Feeling States</em></td>
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<td></td>
<td>António Damásio (California, USA)</td>
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<tr>
<td></td>
<td><em>Latest developments in neurosurgery for psychiatric disorders</em></td>
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<td>Bart Nuttin (Leuven, Belgium)</td>
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<td><em>Fritz Mundinger (1924 - 2012): an obituary</em></td>
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<td>Joachim K. Krauss (Hannover, Germany)</td>
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<td>10:00 // 10:30</td>
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<td><strong>Parallel Session 1</strong></td>
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<td><em>Movement Disorders</em></td>
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<td>Chair: François Alesch (Vienna, Austria) &amp; Rui Vaz (Porto, Portugal)</td>
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<td>10:30 // 12:00</td>
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<td><em>Psychosurgery</em></td>
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<td>Chair: Angelo Franzini (Milano, Italy) &amp; Bart Nuttin (Leuven, Belgium)</td>
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<td>12:30 // 14:00</td>
<td><strong>Lunch Seminar // St. Jude Medical</strong></td>
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<td>Moderator: Jari Karhu, Department of Neurophysiology, Kuopio University Hospital, Kuopio, Finland</td>
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<td><em>Neurosurgical Approaches in Deep Brain Stimulation Surgery: Controversies and Common Ground</em></td>
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<td>Juergen Ralf Schlaier, Department of Neurosurgery, University Hospital Regensburg, Regensburg, Germany</td>
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<td>Ludvic Zrinzo, Consultant Neurosurgeon &amp; Senior Lecturer, National Hospital for Neurology and Neurosurgery, Queen Square, London, UK</td>
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<tr>
<td>12:30 // 14:00</td>
<td><strong>Lunch Seminar // Elekta</strong></td>
<td>ROOM XII + XIII</td>
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<td></td>
<td>Accuracy and efficacy in neurosurgical imaging, stimulation and ablation</td>
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<td><em>DBS versus capsulotomy for OCD</em></td>
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<td>Marwan Hariz, Unit of Functional Neurosurgery, National Hospital for Neurology and Neurosurgery Queen Square, London, UK</td>
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<td><em>Functional radiosurgery using Leksell Gamma Knife®</em></td>
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<td>Roman Liščák, Dept. of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital, Prague, Czech Republic</td>
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<td><em>Creating confidence in MR imaging accuracy</em></td>
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<td>Clarifying how MR image acquisition techniques may influence clinical accuracy</td>
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<td>Oliver Weber, Philips Healthcare</td>
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## 27th September 2012 // Thursday

### 14:00 // 15:00  Lectures: Radiosurgery  
Room I  
Chair: Jean Régis (Marseille, France) & Alexander Muacevic (Munich, Germany)  
- *Gamma Knife Functional Radiosurgery*  
  Jean Régis (Marseille, France)  
- *Cyberknife for CNS Metastasis*  
  Alexander Muacevic (Munich, Germany)  
- *Role of Stereotactic Radiosurgery in the management of spinal tumors*  
  Carlo Greco (Lisbon, Portugal)

### 15:00 // 16:30  Parallel Session 4  
Movement Disorders  
Room I  
Chair: Jorge Guridi (Navarra, Spain) & Michiel Staal (Groningen, The Netherlands)

### 15:00 // 16:30  Parallel Session 5  
Radiosurgery  
Room II  
Chair: Jean Régis (Marseille, France) & Roman Liscak (Prague, Czech Republic)

### 15:00 // 16:30  Parallel Session 6  
ISIN / ESSFN  
Room XII + XIII  
Chair: Damianos Sakas (Athens, Greece) & Jay Shils (Burlington, M. A., USA)

### 16:30 // 17:00  Coffee Break

### 17:00 // 18:30  Parallel Session 7  
Movement Disorders  
Room I  
Chair: Miroslav Galanda (Banska Bystrica, Slovakya) & Miguel Coelho (Lisbon, Portugal)

### 17:00 // 18:30  Parallel Session 8  
Psychosurgery  
Room II  
Chairs: Bjorn Meyerson (Stockholm, Sweden) & Rick Schuurman (Amsterdam, The Netherlands)

### 17:00 // 18:30  Parallel Session 9  
Basic Science, Imaging and Development Techniques  
Room XII + XIII  
Chair: Jocelyne Bloch (Lausanne, Switzerland) & Ali Savas (Ankara, Turkey)
28th September 2012 // Friday

07:30 // 08:30 Basic Science Breakfast Session
Chair: Juan Barcia (Madrid, Spain) & Sam Eljamel (Dundee, United Kingdom)
Anatomy of Brain Rewarding Circuits
Jurgen Mai (Düsseldorf, Germany)

08:30 // 10:00 Invited Lectures
Chair: Dirk Van Roost (Gent, Belgium) & Yves Lazorthes (Toulouse, France)
Functionally Guided Surgery: for low-grade glioma resection
Hugues Duffau (Montpellier, France)
Temporal Lobe Epilepsy Surgery: Neuronavigation for temporal lobe epilepsy surgery: Older and Newer Approaches
André Olivier (Montreal, Canada)
Extratemporal epilepsy: old problems and new developments
Johannes Schramm (Bonn, Germany)
Epilepsy surgery: DBS Treatment of Epilepsy
Stéphan Chabardès (Grenoble, France)

10:00 // 10:30 Coffee Break

10:30 // 12:00 Parallel Session 10
Epilepsy
Chair: André Olivier (Montreal, Canada) & José Pimentel (Lisbon, Portugal)

Parallel Session 11
Movement Disorders
Chair: Paulo Linhares (Porto, Portugal) & Vladimir Shabalov (Moscow, Russia)

Parallel Session 12
Basic Science, Imaging and Development Techniques
Chair: Jürgen Voges (Magdeburg, Germany) & Juho Tuominen (Oys, Finland)

12:30 // 14:00 Lunch Symposium // Medtronic
Advanced Planning and Visualization using Tractography - Workshop
Content: This workshop covers the brain anatomy and function for planning and performing functional surgeries and functional deep brain stimulation procedures, using preoperative planning with tractography (DTI) and neuronavigation.
Anatomy for functional surgery using tractography
Juan António Barcia
DTI and Tractography. Applications and Technique
Juan Alvarez Linera
3D rendering and Stealth VIZ/DTI software
Josue Avecilla
Fiber tract planning using Planning Station with Stealth VIZ/ DTI software
Hands-on Session
# XX Congress of The ESSFN // PROGRAM

## 28th September 2012 // Friday

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<td>12:30 // 14:00</td>
<td>Lunch Break</td>
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<td><strong>Lectures – Movement Disorders</strong></td>
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<td>Chairs: Joachim K. Krauss (Hannover, Germany) &amp; Tipu Aziz (Oxford, United Kingdom)</td>
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<td>Selective Peripheral Denervation for Cervical Dystonia</td>
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<td>James Palmer (Sheffield, United Kingdom)</td>
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<td>DBS for Dystonias: an update</td>
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<td>Joachim K. Krauss (Hannover, Germany)</td>
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<td>PPN DBS: where are we?</td>
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<td>Tipu Aziz (Oxford, United Kingdom)</td>
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<td><strong>Epilepsy</strong></td>
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<td>Chairs: Alexandre Campos (Lisbon, Portugal) &amp; István Valalík (Budapest, Hungary)</td>
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<td><strong>ESSFN General Assembly</strong></td>
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<td>Departure for Gala Dinner: Buses will departure from Hotel Cascais Miragem at 19:45</td>
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### 29th September 2012 // Saturday

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| **07:30 // 08:30** | Solve-the-Case Breakfast Session  
Chair: Bengt Linderoth (Stockholm, Sweden), Marwan Hariz (London, United Kingdom)  
& Rick Schuurman (Amsterdam, The Netherlands)  
*Solve-the-case on Movement Disorders and Psychosurgery*  
Marwan Hariz (London, United Kingdom) | ROOM I  |
| **08:30 // 10:00** | Parallel Session 16  
Pain  
Chair: Jean Ciurea (Bucharest, Romania) & Manuel Dominguez (Lisbon, Portugal) | ROOM I  |
|                | Parallel Session 17  
*Basic Science, Imaging and Development Techniques*  
Chair: Ioannis Panourias (Larissa, Greece) & Joaquim Monteiro (Lisbon, Portugal) | ROOM II |
|                | Parallel Session 18  
*Movement Disorders*  
Chair: António Verdelho (Porto, Portugal) & Marek Harat (Bydgoszcz, Poland) | ROOM XII + XIII |
| **10:00 // 10:30** | Coffee Break |        |
| **10:30 // 12:30** | Closing Lectures  
Chair: Joachim K. Krauss (Hannover, Germany), António Gonçalves-Ferreira (Lisbon, Portugal)  
& João Lobo-Antunes (Lisbon, Portugal)  
*Functional neurosurgery – an illustrious past, an exciting future*  
Andres Lozano (Toronto, Canada)  
*Brain-machine Interface: The Grenoble Brain Driven Exoskeleton for tetraplegic patients*  
Alim Louis Benabid (Meylan, France)  
*Egas Moniz - The Man and the Myth*  
João Lobo-Antunes (Lisbon, Portugal) | ROOM I  |
|                | ESSFN Research Grant |        |
|                | Congress Grant/Awards |        |
| **12:30**       | Closing Ceremony |        |
PARALLEL SESSIONS:
ORAL & FLASH PRESENTATIONS
**27th September 2012 // Thursday**

**Parallel Session 1 // Room I – 10h30 -12h30**

**MOVEMENT DISORDERS**  
Session Chairmen:  
François Alesch & Rui Vaz

**PS 1 - 1 / MOVDIS / O / 121**  
STIMULATION LOCATION PREDICTS CLINICAL OUTCOME DURING SUBTHALAMIC DEEP BRAIN STIMULATION FOR PARKINSON’S DISEASE: RESULTS FROM RANDOMIZED TRIAL  
Butson, C. R.; Foote, K. D.; Okun, M. S.; Elias, W. J.; Arle, J. E. (Milwaukee, USA)

**PS 1 - 2 / MOVDIS / O / 213**  
DEEP BRAIN STIMULATION IMPROVES SURVIVAL IN PATIENTS WITH SEVERE PARKINSON’S DISEASE  
Ngoga, D.; Kausar, J.; Harries, A.; Pall, H.; Mitchell, R. (Birmingham, United Kingdom)

**PS 1 - 3 / MOVDIS / O / 214**  
IS DEEP BRAIN STIMULATION COST EFFECTIVE? A COMPARATIVE STUDY OF PROCEDURE AND MEDICATION COSTS IN SEVERE PARKINSON’S DISEASE  
Ngoga, D.; Kausar, J.; Harries, A.; Pall, H.; Mitchell, R. (Birmingham, United Kingdom)

**PS 1 - 4 / MOVDIS / O / 51**  
CONSTANT-CURRENT VS. CONSTANT-VOLTAGE SUBTHALAMIC NUCLEUS STIMULATION FOR PARKINSON’S DISEASE  
Ramirez De Noriega, F.; Eitan, R.; Marmor, O.; Lavi, A.; Linetzki, E.; Bergman, H.; Israel, Z. (Jerusalem, Israel)

**PS 1 - 5 / MOVDIS / O / 98**  
EIGHT-YEAR FUNCTIONAL OUTCOME OF BILATERAL SUBTHALAMIC NUCLEUS STIMULATION IN PARKINSON’S DISEASE  
Ricciuti, R. A.; Capecci, M.; Provinciali, L.; Rychlicki, F.; Ceravolo, M. G.; Scerrati, M. (Ancona, Italy)

**PS 1 - 6 / MOVDIS / O / 274**  
RANDOMIZED MULTICENTER TRIAL COMPARING BILATERAL GLOBUS PALLIDUS INTERNUS DBS AND SUBTHALAMIC NUCLEUS DBS FOR ADVANCED PARKINSON’S DISEASE  
Schuurman, R.; Van Den Munckhof, P.; Odekerken, V.; Beute, G.; Hoffmann, C.; Lenders, M.; Staal, M.; De Bie, R. (Amsterdam, Netherlands)

**PS 1 - 7 / MOVDIS / O / 85**  
COMBINED INTERLEAVING STIMULATION OF STN AND SNR FOR REFRACTORY GAIT DISTURBANCES: PRELIMINARY FINDINGS OF A RANDOMIZED CONTROLLED TRIAL  

**PS 1 - 8 / MOVDIS / F / 300**  
DEEP BRAIN STIMULATION AND ABLATIVE SURGERY FOR PD BETWEEN 2002 AND 2012  
Lima Bezerra Júnior, D.; Bhatia, R.; Hariz, M.; Zrinzo, L. (Recife, Brazil)

**PS 1 - 9 / MOVDIS / F / 173**  
IMPROVED GAIT INITIATION WITH DEEP BRAIN STIMULATION  
Johnsen, E.; Mogensen, P. H.; Sunde, N.; Østergaard, K. (Aarhus, Denmark)
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<td>PREDICTORS OF SURVIVAL IN PARKINSON-PATIENTS TREATED WITH DEEP BRAIN STIMULATION</td>
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<td>GAMMA KNIFE SUBTHALAMOTOMY FOR PARKINSON’S DISEASE: A PROSPECTIVE STUDY</td>
<td>Regis, J.; Witjas, T.; Carron, R.; Eusebio, A.; Fluchère, F.; Azulay, J. P. (Marseille, France)</td>
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**Parallel Session 2 // Room II – 10h30 -12h30**

**PSYCHOSURGERY**

Session Chairmen: Angelo Franzini & Bart Nuttin

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<td>ANTERIOR CAPSULOTOMY VERSUS DBS FOR OBSESSIVE COMPULSIVE DISORDER; A REVIEW OF THE LITERATURE</td>
<td>Pepper, J.; Hariz, M. (London, United Kingdom)</td>
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<td>ANATOMICAL LOCATION OF CLINICALLY EFFECTIVE DEEP BRAIN STIMULATION ELECTRODES IN OBSESSIVE-COMPULSIVE DISORDER</td>
<td>Van Den Munchhof, P.; Bosch, A.; Mantione, M.; Figee, M.; Denys, D.; Schuurman, R. (Amsterdam, Netherlands)</td>
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<td>DEEP BRAIN STIMULATION (DBS) FOR THERAPY-RESISTANT MENTAL DISORDERS IN ITALY</td>
<td>Lavano, A.; Messina, G.; De Rose, M.; De Fazio, P.; Marotta, R.; Gambini, O.; Lavano, S. M.; Franzini, A. (Catanzaro, Italy)</td>
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PS 2 - 6 / PSYSUR / O / 64
LONG TERM RESULTS OF POSTEROMEDIAL HYPOTHALAMIC DEEP BRAIN STIMULATION FOR ERETIC PATIENTS WITH RESISTANT AGGRESSIVENESS
Torres, C. V.; García de Sola, R. G.; Pastor, J.; Marta, N.; Ezquiaga, E.; García-Camba, E. (Madrid, Spain)

PS 2 - 7 / PSYSUR / O / 181
FUNCTIONAL NEUROSURGERY FOR IMPULSIVE AGGRESSION: LONG TERM FOLLOW UP
Espinoza, J.; Escobar, O.; Benedetti, J.; Arango, G. (Bogota, Colombia)

PS 2 - 8 / PSYSUR / F / 34
DEEP BRAIN STIMULATION IN THE INFERIOR THALAMIC PEDUNCLE (ITP) AS TREATMENT OF OBSESSIVE COMPULSIVE DISORDER
Jimenez, F.; Nicolini, H.; Velasco, F.; Santana, D.; Ramírez, Y.; Carrillo, J. D. (Mexico, Mexico)

PS 2 - 9 / PSYSUR / F / 118
REFRACTORY OBSESSIVE-COMPULSIVE DISORDER AND MULTI TARGETS FOR DEEP BRAIN STIMULATION
Seychelles, A.; CiF, A. L.; Gonzalez, V.; James, S.; Roujean, J.; Coubes, P. (Montpellier, France)

PS 2 - 10 / PSYSUR / F / 249
BILATERAL CINGULOTOMY AND ANTERIOR CAPSULOTOMY APPLIED TO PATIENTS WITH AGGRESSIVENESS
Jiménez, F.; Sandoval, L.; Santana, D.; Bustamante, J. A.; Ramírez, Y.; Carrillo, J. D. (Mexico, Mexico)

PS 2 - 11 / PSYSUR / F / 281
GRADING REFRACTORY ANOREXIA NERVOSA FOR SURGICAL TREATMENT
Sun, B.; Li, D.; Lin; G.; Zhan, S.; Zhan, X.-X. (Shanghai, China)

Parallel Session 3 // Room XII+XIII – 10h30 -12h30

PAIN
Session Chairmen:
Serge Blond & Yousel Kanpolat

PS 3 - 1 / PAIN / O / 115
NEW INSIGHTS IN THE ROLE OF DESCENDING INHIBITION IN EFFECTS OF SPINAL CORD STIMULATION ON NEUROPATHIC PAIN
Meyerson, B.; Linderoth, B.; Song, Z.; Pertovaara, A.; Saadé, N. (Stockholm, Sweden)

PS 3 - 2 / PAIN / O / 42
SPINAL CORD STIMULATION PLACEMENT GUIDED BY INTRA-OPERATIVE CENTRAL H-REFLEX
Shils, J.; Arle, J. (Burlington, MA, USA)

PS 3 - 3 / PAIN / O / 43
MECHANISM OF THERAPEUTIC BENEFIT WITH DORSAL COLUMN STIMULATION USING A COMPUTATIONAL MODEL OF THE SPINAL CORD WITH CLINICAL CORRELATION
Arle, J.; Carlson, K.; Iftimia, N.; Mei, L. Z.; Shils, J. (Burlington, MA, USA)
**PARALLEL SESSIONS**

**PS 3 - 4 / PAIN / O / 257**  
**MOTOR CORTEX STIMULATION IN THE TREATMENT OF NEUROGENIC PAIN SYNDROMES**  
Isagulyan, E.; Shabalov, V.; Salova, E.; Khitj, M. (Moscow, Russian Federation)

**PS 3 - 5 / PAIN / O / 44**  
**CHRONIC PRECENTRAL STIMULATION FOR THE TREATMENT OF NEUOPATHIC PAIN. LONG-TERM RESULTS IN 50 PATIENTS**  
Tronnier, V.; Rasche, D. (Lübeck, Germany)

**PS 3 - 6 / PAIN / O / 228**  
**FEASIBILITY, SAFETY AND PRELIMINARY RESULTS OF DBS OF THE THIRD VENTRICLE USING A FLOATING ELECTRODE TO TREAT CLUSTER HEADACHES**  

**PS 3 - 7 / PAIN / F / 268**  
**NEW NEUROSTIMULATOR FOR PERIPHERAL NERVE STIMULATION**  
Dario, A.; Reverberi, C.; Cividini, A.; Zoia, C. Z. (Varese, Italy)

**PS 3 - 8 / PAIN / F / 96**  
**OCCIPITAL NERVE STIMULATION (ONS) FOR THE TREATMENT OF CHRONIC HEADACHE SYNDROMES**  
Kinfe, T. M.; Wille, C.; Schu, S.; Vesper, J. (Düsseldorf, Germany)

**Parallel Session 4 // Room I – 15h00-16h30**

**MOVEMENT DISORDERS**

**Session Chairmen:**  
Jorge Guridi & Michiel Staal

**PS 4 - 1 / MOVDIS / O / 165**  
**ABNORMAL EARLY SYNCHRONIZATION OF PINK1-/- M1 CORTICAL NEURONS IS DECREASED BY HIGH FREQUENCY STIMULATION OF THE SUBTHALAMIC AREA**  
Carron, R.; Filipchuk, A.; Represa, A.; Hammond, C. (Marseille, France)

**PS 4 - 2 / MOVDIS / O / 74**  
**UNILATERAL CAUDAL ZONA INCERTA DEEP BRAIN STIMULATION FOR PARKINSONIAN TREMOR**  

**PS 4 - 3 / MOVDIS / O / 84**  
**ASSESSMENT OF ANATOMICAL POSITION OF ACTIVE CONTACTS LOCALIZATION IN PATIENTS WITH DBS-STN WITH PARKINSON’S DISEASE USING MRI**  
Guridi, J.; Garcia, D.; Rodriguez Oroz, M. C. (Pamplona, Spain)

**PS 4 - 4 / MOVDIS / O / 87**  
**ANATOMICAL CONNECTIVITY OF PRELEMNISCAL RADIATIONS AND ITS IMPORTANCE IN THE SURGICAL TREATMENT OF PARKINSON’S DISEASE. A MRI-DTI AND PET-CT STUDY**  
XX Congress of The ESSFN // PROGRAM

27TH SEPTEMBER 2012 // Thursday

PS 4 - 5 / MOVDIS / O / 234
HEALTH ECONOMICS AND SURGICAL TREATMENT FOR PARKINSON'S DISEASE IN A WORLD PERSPECTIVE
Schechtman, G.; Jourdain, V. A. (Stockholm, Sweden)

PS 4 - 6 / MOVDIS / F / 101
BEHAVIORAL AND ELECTROPHYSIOLOGICAL VALIDATION OF A ROTENONE-INDUCED RAT MODEL OF PARKINSON'S DISEASE
Schwabe, K.; Von Wrangel, C.; Krauss, J. K.; Alam, M. (Hannover, Germany)

PS 4 - 7 / MOVDIS / F / 97
6-OHDA LESIONS OF THE DORSOLATERAL STRIATUM DIFFERENTLY AFFECT NEURONAL DISCHARGE ACTIVITY PATTERNS IN THE MEDIAL AND LATERAL SUBTHALAMIC NUCLEUS
Schwabe, K.; Lindemann, C.; Mesbah, A.; Krauss, J. K. (Hannover, Germany)

PS 4 - 8 / MOVDIS / F / 248
EVALUATION OF THE CONTINGENT NEGATIVE VARIATION POTENTIAL THROUGH VISUAL AND AUDITORY TASKS ON BRADYKINETIC PATIENTS WITH PARKINSON'S DISEASE AFTER UN
Sandoval, L.; Santana, D.; González, G.; Ramírez, Y.; Jiménez, F. (Mexico City, Mexico)

PS 4 - 9 / MOVDIS / F / 32
UNILATERAL DEEP BRAIN STIMULATION OF THE SUBTHALAMIC NUCLEUS FOR PARKINSON'S DISEASE.
Sobstyl, M.; Zabek, M.; Dzierzecki, S.; Mossakowski, Z.; Górecki, W. (Warsaw, Poland)

PS 4 - 10 / MOVDIS / F / 56
MRI-GUIDED DEEP BRAIN STIMULATION OF THE SUBTHALAMIC NUCLEUS: CORRELATION OF POSTOPERATIVE 1.5T MRI WITH POST MORTEM 9.4T MRI AND HISTOPATHOLOGY

PS 4 - 11 / MOVDIS / F / 100
PREDICTORS OF 5-YEAR FUNCTIONAL OUTCOME IN PARKINSON'S DISEASE AFTER CHRONIC BILATERAL STN STIMULATION
Ricciuti, R. A.; Capecci, M.; Provinciali, L.; Rychlicki, F.; Ceravolo, M. G.; Scerrati, M. (Ancona, Italy)

PS 4 - 12 / MOVDIS / F / 212
REFLECTIONS ON PIONEERING SURGICAL TREATMENT OF PARKINSON DISEASE, IN LISBON IN THE SIXTIES
Monteiro, J.; Brás, J.; Reis, N. (Lisboa, Portugal)

Parallel Session 5 // Room I - 15h00-16h30

RADIOSURGERY
Session Chairmen:
Jean Régis & Roman Liscak

PS 5 - 1 / RADSUR / O / 301
STEREOTACTIC LINAC-RADIOSURGERY FOR THE TREATMENT OF PATIENTS WITH GLOMUS-JUGULARE TUMORS
El Majdoub, F.; Treuer, H.; Müller, R. P.; Sturm, V.; Maarouf, M. (Cologne, Germany)
PS 5 - 2 / RADSUR / O / 154
RADIOSURGERY FOR BRAIN AVMS: OUTCOME ANALYSIS
Coutinho Escolástico, A. R.; Gonçalves Ferreira, A.; Herculano Carvalho, M.; Almeida, A.; Vicente, R.; Ugidos, J.; Campos, J. (Carnaxide, Portugal)

PS 5 - 3 / RADSUR / O / 129
LONGITUDINAL HEARING ANALYSIS IN VESTIBULAR SCHWANNOMAS BEFORE AND AFTER RADIOSURGERY
Régis, J.; Yomo, S.; Thomassin, J.M.; Carron, R.; Roche, P.H. (Marseille, France)

PS 5 - 4 / RADSUR / O / 116
MULTISESSION RADIOSURGERY FOR OPTIC NERVE SHEATH MENINGIOMAS. A NEW PROMISING TREATMENT PARADIGM
Marchetti, M.; Milanesi, I.; Broggi, G.; Franzini, A.; Ferroli, P.; Di Meco, F.; Fariselli, L. (Milano, Italy)

PS 5 - 5 / RADSUR / O / 147
PRELIMINARY RESULTS AFTER MULTISESSION GAMMA KNIFE RADIOSURGERY FOR PERIOPTIC MENINGIOMAS
Picozzi, P.; Franzini, A.; Medone, M.; Del Vecchio, A.; Bolognesi, A.; Ferrari Da Passano, C.; Mortini, P.; Bianchi Marzoli, S. (Milano, Italy)

PS 5 - 6 / RADSUR / O / 128
WHAT RATIONAL FOR ON DEMAND RADIOSURGERY IN BRAIN METASTASES ?
Régis, J.; Muracciole, X. (Marseille, France)

PS 5 - 7 / RADSUR / O / 91
OPTIMAL MULTISESSION RADIOSURGERY FOR LARGE BRAIN METASTASES IN CRITICAL AREAS

PS 5 - 8 / RADSUR / F / 229
GPA PROGNOSTIC INDEX IN THE EVALUATION OF GAMMA KNIFE SURGERY TREATMENT FOR BRAIN METASTASES
Cattoni, M. B.; Silva, J.; Bras, J.; Madureira, L.; Luis, A.; Ikbal, S. (Lisbon, Portugal)

Parallel Session 6 // Room XII+XIII - 15h00-16h30

ISIN/ESSFN
Session Chairmen:
Damianos Sakas & Jay Shils

ASLEEP PLACEMENT OF SPINAL CORD STIMULATION PADDLE LEADS: THEORY, METHODS AND RESULTS
Jeffrey E. Arle

A HEURISTIC MAP OF MYOTOMAL INNERVATION USING DIRECT INTRAOPERATIVE NERVE ROOT STIMULATION
Jay L. Shils

INTRAOPERATIVE CORTICAL LOCALIZATION OF NEGATIVE AND POSITIVE MOTOR SPEECH AREAS DURING TUMOR RESECTION: THEORY, METHODOLOGY AND PRACTICE
Isabel Fernandez Conejero

THE VALUE OF INTRAOPERATIVE MONITORING IN MOTOR AND/OR SENSORY CORTICAL STIMULATION
Damianos E. Sakas
Parallel Session 7 // Room I – 17h00-18h30

**MOVEMENT DISORDERS**

Session Chairmen: Miroslav Galanda & Miguel Coelho

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**PS 7 - 1 / MOVDIS / O / 312**

LONG-TERM FOLLOW-UP OF PALLIDAL DBS FOR PRIMARY DYSTONIA  
Shabalov, V.; Tomskiy, A.; Gamaleya, A.; Dekopov, A.; Isagulyan, E.; Salova, E.; Fedorova, N. (Moscow, Russian Federation)

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**PS 7 - 2 / MOVDIS / O / 232**

DEEP BRAIN STIMULATION IN THE MANAGEMENT OF GENERALIZED DYSTONIA CULMINATING IN LIFE-THREATENING STATUS DYSTONICUS CONDITION: A CASE-CONTROL STUDY  
Cif, A. L; Gonzalez, V.; Satgia, M.; Seychelles, A.; Moura De Ribeiro, A. M.; Roujeau, T.; James, S.; Saleh, C.; Boetto, J.; Coubes, P. (Montpellier, France)

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**PS 7 - 3 / MOVDIS / O / 104**

QOL ASSESSMENT IN GENERALIZED DYSTONIC PATIENTS TREATED BY DEEP BRAIN STIMULATION: A PRIMARY VS SECONDARY DYSTONO-DYSKINETIC SYNDROME COMPARATIVE STUDY  
Sanrey, E.; Cif, L.; Gonzalez, V.; James, S.; Roujeau, T.; Seychelles, A.; Coubes, P. (Montpellier, France)

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**PS 7 - 4 / MOVDIS / O / 106**

NEURONAL SINGLE UNIT ACTIVITY IN THE GLOBUS PALLIDUS INTERNUS IN DYSTONIA AND TOURETTE’S SYNDROME  

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**PS 7 - 5 / MOVDIS / O / 252**

IMPACT OF “MICROLESION EFFECT” (MLE) AFTER DBS ON SIMPLE AND BALLISTIC TASKS IN PATIENTS SUFFERING FROM PARKINSON’S DISEASE AND DYSTONIA  
Mehrkens, J.; Bötzel, K.; Kammermaier, S.; Singh, A. (Munich, Germany)

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**PS 7 - 6 / MOVDIS / O / 135**

MOTOR CORTEX STIMULATION FOR UPPER LIMB FIXED DYSTONIA  
Messina, G.; Franzini, A.; Dones, I.; Broggi, G. (Italy)

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**PS 7 - 7 / MOVDIS / F / 198**

RAPIDLY PROGRESSIVE GENERALIZED DYSTONIA IN DEAFNESS-DYSTONIA SYNDROME WITH COCHLEAR IMPLANT AND RESPONSE TO PALLIDAL DEEP BRAIN STIMULATION  
Cif, A. L.; Gonzalez, V.; Moura De Ribeiro, A. M.; Seychelles, A.; Sanrey, E.; Roujeau, T.; James, S.; Boetto, J.; Mondain, M.; Coubes, P.; (Montpellier, France)

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**PS 7 - 8 / MOVDIS / F / 149**

DBS GPI IN A PATIENT WITH PREVIOUS STEREOTACTIC BRAIN LESIONS FOR GENERALIZED DYSTONIA  
Urgosik, D.; Jeck, R.; Vymazal, J.; Subrt, O.; Ruzicka, E.; Vladyka, V. (Prague, Czech Republic)
PS 7 - 9 / MOVDIS / F / 211
PALLIDAL DEEP BRAIN STIMULATION IN PATIENTS WITH DYSTONIA. OUTCOME IN A SERIES OF 16 PATIENTS
Chamadoira, C.; Rosas, M. J.; Linhares, P.; Ayres Basto, M.; Reis, C.; Massano, J.; Volkman, J.; Vaz, R. (Porto, Portugal)

PS 7 - 10 / MOVDIS / F / 299
COMBINED DBS AND ITB TREATMENT FOR DYSTONIA SECONDARY TO CEREBRAL PALSY

PS 7 - 11 / MOVDIS / F / 255
DEEP BRAIN STIMULATION FOR THE TREATMENT OF PRIMARY DYSTONIAS AND DYSKINETIC CEREBRAL PALSY
Cattoni, M. B.; Herculano Carvalho M.; Coelho, M.; Guedes, L.; Rosa, M. M.; Gonçalves-Ferreira, A. (Lisbon, Portugal)

PS 7 - 12 / MOVDIS / F / 122
DBS FOR DYSTONIA, EXPERIENCES OF 40 CASES

PS 7 - 13 / MOVDIS / F / 273
PALLIDAL DBS FOR DYSTONIA ASSOCIATED WITH BASAL GANGLIA CALCIFICATION: A REPORT OF TWO CASES
Gamaleya, A.; Tomskiy, A.; Dekopov, A.; Shabalov, V. (Moscow, Russian Federation)

Parallel Session 8 // Room II - 17h00-18h30

PSYCHOSURGERY
Session Chairmen:
Bjorn Meyerson & Rick Schuurman

PS 8 - 1 / PSYSUR / O / 123
DEEP BRAIN STIMULATION OF THE FORNIX, VENTRAL AND DORSAL HIPPOCAMPUS AND ENTORHINAL CORTEX IN AN EXPERIMENTAL MODEL OF MEMORY IMPAIRMENT
Temel, Y.; Hescham, S.; Lim, L. W.; Jahanshahi, A.; Blokland, A. (Maastricht, Netherlands)

PS 8 - 2 / PSYSUR / O / 110
DEEP BRAIN STIMULATION OF THE NUCLEUS BASALIS MEYNER TO TREAT COGNITIVE DEFICITS IN LIGHT TO MODERATE ALZHEIMER’S DISEASE

PS 8 - 3 / PSYSUR / O / 202
CELL THERAPY WITH NERVE GROWTH FACTOR (NGF) TARGETING CHOLINERGIC NEURONS IN THE BASAL FOREBRAIN IN PATIENTS WITH ALZHEIMER’S DISEASE
Almqvist, P.; Lind, G.; Eriksdotter, M.; Eyjolfsdottir, H.; Seiger, Å.; Linderoth, B.; Wahlberg, L. (Stockholm, Sweden)
PS 8 - 4 / PSYSUR / O / 293
DEEP BRAIN STIMULATION OF THE HUMAN MEDIAL FOREBRAIN BUNDLE (SLMFB-DBS) FOR REFRACTORY DEPRESSION - RESULTS FROM THE FORESEE STUDY
Coenen, V. A.; Bewernick, B.; Kayser, S.; Maedler, B.; Schlaepfer, T. E. (Bonn, Germany)

PS 8 - 5 / PSYSUR / O / 244
TRACTOGRAPHY-BASED TARGET PLANNING FOR DEEP BRAIN STIMULATION IN PATIENTS WITH OCD AND TOURETTE-SYNDROME
Valašik, I.; Harsányi, A.; Csigó, K.; Racsmány, M.; Demeter, G.; Nagy, P.; Németh, A. (Budapest, Hungary)

PS 8 - 6 / PSYSUR / O / 226
CHANGES OF CEREBRAL PERFUSION DUE TO DEEP BRAIN STIMULATION IN MEDICALLY-REFRACTORY TOURETTE SYNDROME

PS 8 - 7 / PSYSUR / F / 235
INCREASED 6-10 HZ ACTIVITY RECORDED FROM THE BASAL GANGLIA AND THE THALAMUS IN PATIENTS WITH TOURETTE-SYNDROME

PS 8 - 8 / PSYSUR / F / 205
PATIENT-SPECIFIC VISUALIZATION OF THE DBS-ELECTRIC FIELD IN TOURETTE SYNDROME

PS 8 - 9 / PSYSUR / F / 94
IMPRESSIONS OF DBS FOR INTRACTABLE DEPRESSION.
Beute, G. (Tilburg, Netherlands)

PS 8 - 10 / PSYSUR / F / 197
DBS FOR DEPRESSION AND OCD – A CRITICAL REVIEW OF THE LITERATURE
Blomstedt, P.; Hariz, M. (Umeå, Sweden)

Parallel Session 9 // Room XII+XIII – 17h00-18h30

BASIC SCIENCE, IMAGING AND DEVELOPMENT
Session Chairmen:
Jocelyne Bloch & Ali Savas

PS 9 - 1 / BSIDT / O / 124
ELECTRICAL FIELDS ATTRACT NEWBORN BRAIN CELLS

PS 9 - 2 / BSIDT / O / 102
REDUCED NEURONAL ACTIVITY OF THE PREFRONTAL CORTEX IN RATS SELECTIVELY BRED FOR DISTURBED SENSORIMOTOR GATING
Schwabe, K.; Alam, M.; Angelov, S.; Getschmann, M.; Krauss, J. K. (Hannover, Germany)
PARALLEL SESSIONS

PS 9 - 3 / BSIDT / O / 286
BRAIN STEM STEREOTACTIC BIOPSIES: TECHNICAL APPROACH AND THERAPEUTICAL VALUE IN NEURONCOLOGY.
Touzet, G.; Reyns, N.; Zaidman, N.; Dubois, F.; Ramirez, C.; Maurage, C.; Vinchon, M.; Blond, S. (Lille, France)

PS 9 - 4 / BSIDT / O / 302
ANAPLASTIC OLIGODENDROGLIAL TUMORS: MANAGEMENT WITH STEREOTACTIC INTERSTITIAL BRACHYTHERAPY
El Majdoub, F.; Treuer, H.; Sturm, V.; Maarouf, M. (Cologne, Germany)

PS 9 - 5 / BSIDT / O / 236
THE HUMAN NUCLEUS ACCUMBENS AND THE BED NUCLEUS OF STRIA TERMINALIS IN PSYCHOSURGERY - ANATOMICAL AND IMAGING STUDY

PS 9 - 6 / BSIDT / O / 33
ANALYSIS OF STEREOTACTIC ACCURACY IN PATIENTS UNDERGOING DEEP BRAIN STIMULATION USING NEXFRAME AND LEKSELL FRAME
Bot, M.; Van Den Munckhof, P.; Bakay, R.; Sierens, D.; Stebbins, G.; Verhagen Metman, L. (Amsterdam, Netherlands)

PS 9 - 7 / BSIDT / O / 138
TOUCH-LESS MEDICAL IMAGE MANIPULATION
Rainha Campos, A.; Nabais, F.; Tavares, F.; Correia, I.; Cardoso, P.; Gonçalves-Ferreira, A.; Lobo-Antunes, J. (Lisbon, Portugal)

PS 9 - 8 / BSIDT / F / 119
FRAMELESS NEURONAVIGATION SYSTEM (NEXFRAME) IN DEEP BRAIN STIMULATION. VALIDATION OF ACCURACY COMPARING NEUROPHYSIOLOGICAL AND ELECTRODES COORDINATES
Mondani, M.; D’Auria, S.; Skrap, M.; Eleopra, R.; Lettieri, C.; Rinaldo, S. (Udine, Italy)

PS 9 - 9 / BSIDT / F / 153
INTRAOPERATIVE CT: A STEP FORWARD IN DBS SURGERY

PS 9 - 10 / BSIDT / F / 168
DEVELOPMENT AND EVALUATION OF STEREOTACTIC FRAME-CT TABLE POSITIONING ADAPTOR TO IMPROVE THE ACCURACY IN FUNCTIONAL NEUROSURGERY
Eljamel, S.; Younesi, M. D.; Carena, P.; Sinclair, S. (Dundee, United Kingdom)

PS 9 - 11 / BSIDT / F / 326
RESISTANCE TO HYPOXIA-INDUCED, BNIP3-MEDIATED CELL DEATH CONTRIBUTES TO THE INCREASE OF CD133+ CELL POPULATION IN HUMAN GliOBlastoma-Derived Cultures in Lowered Oxygen Tension
Parallel Session 10 // Room I - 10h30-12h30

**EPILEPSY**

Session Chairmen:
André Olivier & José Pimentel

**PS 10 - 1 / EPIL / O / 162**
TAILORED IMAGE-GUIDED TEMPORAL POLECTOMY AND AMYGDALO-HIPPOCAMPECTOMY FOR MTLE  

**PS 10 - 2 / EPIL / O / 82**
RESULTS OF STEREOTACTIC RADIOFREQUENCY AMYGDALO-HIPPOCAMPECTOMY IN THE TREATMENT OF MESIAL TEMPORAL LOBE EPILEPSY  
Liscak, R.; Maliková, H.; Kalina, M.; Vojtech, Z.; Procházka, T.; Krámská, L. (Prague, Czech Republic)

**PS 10 - 3 / EPIL / O / 142**
AMYGDALO-HIPPOCAMPECTOMY: LONG-TERM (2 YEARS) CLINICAL RESULTS  
Rainha Campos, A.; Herculano Carvalho, M.; Morgado, C.; Bentes, C.; Peralta, A.-R.; Pimentel, J.; Gonçalves-Ferreira, A. (Lisbon, Portugal)

**PS 10 - 4 / EPIL / O / 163**
ELECTRODE LOCATION AND CLINICAL OUTCOME IN HIPPOCAMPAL DBS FOR MTLE: A CORRELATION STUDY  
Pollo, C.; Bondallaz, P.; Boex, C.; Rossetti, A.; Spinelli, L.; Vulliemoz, S.; Seeck, M. (Bern/Lausanne, Switzerland)

**PS 10 - 5 / EPIL / O / 75**
SYNCHROTRON-GENERATED MICRORADIOSURGICAL HIPPOCAMPAL TRANSECTIONS  
Romanelli, P.; Battaglia, G.; Fardone, E.; Requardt, H.; Bravin, A. (Milano, Italy)

**PS 10 - 6 / EPIL / O / 72**
CONTRIBUTION OF SEEG IN THE PRESURGICAL EVALUATION OF DRUG RESISTANT FOCAL EPILEPSY  
Laghmari, M.; Carron, R.; Vaugier, L.; Mccgonigal, A.; Bartolomei, F.; Chauvel, P.; Régis, J. (Marrakesh, Morocco)

**PS 10 - 7 / EPIL / F / 189**
A WIRELESS SUBDURAL GRID FOR CHRONIC ECOG MONITORING AND CORTICAL STIMULATION  
Romanelli, P.; Paris, A.; Marchetti, S.; Cristiani, P. (Milano, Italy)

Parallel Session 11 // Room II - 10h30-12h30

**MOVEMENT DISORDERS**

Session Chairmen:
Paulo Linhares & Vladimir Shabalov

**PS 11 - 1 / MOVDIS / O / 140**
IDENTIFICATION OF THE VENTROINTERMEDIATE THALAMIC NUCLEUS USING Q-BALL CALCULATION  
ZONA INCERTA DOES NOT SIGNIFICANTLY OUTPERFORM VENTRALIS INTERMEDIIUS NUCLEUS AS THE TARGET OF DEEP BRAIN STIMULATION FOR TREATMENT OF TREMOR
Beckers, M.; Van Laar, T.; Van Dijk, J. M. C.; Staal, M. J. (Groningen, Netherlands)

EFFICACY AND SAFETY OF DBS IN TREMOR OF MULTIPLE SCLEROSIS
Eljamel, S.; Jeyalan, V. (Dundee, United Kingdom)

STIMULATION-INDUCED SIDE EFFECTS IN THE POSTERIOR SUBTHALAMIC AREA: DISTRIBUTION, CHARACTERISTICS AND VISUALIZATION
Fytagoridis, A.; Åström, M.; Wårdell, K.; Blomstedt, P. (Umeå, Sweden)

GAMMA KNIFE THALAMOTOMY FOR TREMOR. OUTCOME IN THE MARSEILLE SERIES AND CORRELATIONS WITH NEUROIMAGING FEATURES OF THE THALAMIC LESION
Carron, R.; Witjas, T.; Azulay, J.; Régis, J. (Marseille, France)

GAMMA KNIFE RADIOSURGERY THALAMOTOMY FOR INTRACTABLE? TREMORS: A BLINDED ASSESSMENT
Witjas, T.; Carron, R.; Krack, P.; Delfini, M.; Azulay, J. P.; Régis, J. (Marseille, France)

GPI OR SUBTHALAMIC DEEP BRAIN STIMULATION FOR HOLMES´TREMOR: HOW TO CHOOSE THE BEST TARGET
Espinoza, J.; Escobar, O.; Arango, G. (Bogota, Colombia)

FUNCTIONAL NEUROSURGERY FOR SECONDARY DYSTONIA: INDICATIONS AND LONG TERM RESULTS
Espinoza, J.; Escobar, O.; Arango, G. (Bogota, Colombia)

PALLIDAL DEEP BRAIN STIMULATION FOR SEGMENTAL DYSTONIA: IMPACT ON GAIT

BODY WEIGHT CHANGES AFTER DEEP BRAIN STIMULATION FOR DYSTONIA

DEEP BRAIN STIMULATION IN DYSTONIA: DOES AETIOLOGY MAKE THE DIFFERENCE?
Del Álamo, M.; García-Caldentey, J.; Cabañes, L.; Regidor, I.; Ley, L. (Madrid, Spain)

CEREBELLAR STEREOTACTIC STIMULATION - ITS IMMEDIATE CLINICAL AND EEG RESPONSES
PS 11 - 13 / MOVDIS / F / 55
DEEP BRAIN STIMULATION FOR PKAN-RELATED DYSTONIA

PS 11 - 14 / MOVDIS / F / 177
REPORT OF GPI-DBS IN TWO PATIENTS WITH PANTOTHENATE KINASE-ASSOCIATED NEURODEGENERATION: LONG TERM FOLLOW-UP AND VIDEO ILLUSTRATION.

Parallel Session 12 // Room XII+XIII – 10h30-12h30

BASIC SCIENCE, IMAGING AND DEVELOPMENT TECHNIQUES
Session Chairmen:
Jürgen Voges & Juho Tuominen

PS 12 - 1 / BSIDT / O / 297
STUDY ON TRANSCRANIAL MAGNETIC RESONANCE-GUIDED FOCUSED ULTRASOUND TREATMENT OF NEUROPATHIC PAIN AND MOVEMENT DISORDERS: SAFETY, ACCURACY AND INITIAL CLINICAL OUTCOMES

PS 12 - 2 / BSIDT / O / 71
OPTIMIZING RESECTION OF LESIONS IN CENTRAL AREAS WITH PREOPERATIVE NAVIGATED TRANSCRANIAL MAGNETIC STIMULATION
Colle, H.; Alessi, G.; Colle, D.; D’Haen, B.; Noens, B. (Gent, Belgium)

PS 12 - 3 / BSIDT / O / 230
PLASTICITY INDUCTION BY HIGH-FREQUENCY CORTICAL SUBDURAL STIMULATION PERMITS ENHANCED RESECTION OF TUMORS IN ELOQUENT AREAS

PS 12 - 4 / BSIDT / O / 270
DBS IN CRITICAL CARE CONDITIONS
Cordella, R.; Messina, G.; Marras, C.; Rizzi, M.; Dones, I.; Broggi, G.; Franzini, A. (Milan, Italy)

PS 12 - 5 / BSIDT / O / 114
DEEP BRAIN STIMULATION AT THE CROSSROADS: HOW FAR IS ENOUGH?
Hariz, M.; Coubes, P. (London, United Kingdom)

PS 12 - 6 / BSIDT / F / 167
THE IMPACT OF INTRAOPERATIVE MRI ON AN IMAGE-VERIFIED APPROACH TO DEEP BRAIN STIMULATION

PS 12 - 7 / BSIDT / F / 139
THE SILENT LOSS OF NEURONAVIGATION ACCURACY
Stieglitz, L.; Beck, J.; Raabe, A. (Bern, Switzerland)
PS 12 - 8 / BSIDT / F / 318
SPINAL CORD STIMULATION MODULATES CEREBRAL FUNCTIONS AND NEUROBIOLOGY: AN FMRI STUDY AND 1H MRS STUDY
Moens, M.; Sunaert, S.; Marien, P.; Brouns, R.; De Smedt, A.; Droogmans, S.; Van Schuerbeek, P.; Poelaert, J.; Nuttin, B. (Jette, Belgium)

PS 12 - 9 / BSIDT / F / 47
ROBOTIC IMPLANTATION OF DEEP BRAIN STIMULATION ELECTRODES, ASSISTED BY INTRA-OPERATIVE, FLAT-PANEL CT

PS 12 - 10 / BSIDT / F / 294
NEW EVIDENCES IN THE ANATOMY AND FUNCTIONAL ROLE OF INFERIOR FRONTO-OCCIPITAL FASCICULUS PROVIDED BY ANATOMICAL DISSECTION, DTI AND DIRECT INTRAOPERAT
Sarubbo, S.; De Benedictis, A.; Basso, G.; Cavallo, M.; Granieri, E.; Duffau, H. (Ferrara, Italy)

Parallel Session 13 // Room I – 15h00-16h00

EPILEPSY
Session Chairmen:
Alexandre Campos & István Valalík

PS 13 - 1 / EPIL / O / 131
PROSPECTIVE EVALUATION OF GAMMA KNIFE SURGERY IN HYPOTHALAMIC HAMARTOMAS: ABOUT A SERIES OF 64 PATIENTS
Régis, J.; Laghmari, M.; Daquin, G.; Villeneuve, N.; Bartolomei, F.; Chauvel, P. (Marseille, France)

PS 13 - 2 / EPIL / O / 65
LONG-TERM RESULTS OF VAGAL NERVE STIMULATION FOR ADULT PATIENTS WITH INTRACTABLE EPILEPSY, WITHOUT CHANGING THE ANTI-EPILEPTIC MEDICAL TREATMENT
García-Navarrete, E.; Torres, C. V.; Pastor, J.; Navas, M.; Gascía da Sola, R. (Madrid, Spain)

PS 13 - 3 / EPIL / O / 237
INVLVEMENT OF THE ANTERIOR NUCLEUS OF THE THALAMUS DURING FOCAL TEMPORAL SEIZURE: AN EXPERIMENTAL STUDY IN THE NON HUMAN PRIMATE
Chivoret, N.; Piallat, B.; Sherdil, A.; Prabhu, S.; Fontaine, D.; David, O.; Chabardès, S. (Nice, France)

PS 13 - 4 / EPIL / O / 277
TARGETING DBS TO ANTERIOR NUCLEUS OF THE THALAMUS FOR REFRACTORY EPILEPSY

PS 13 - 5 / EPIL / O / 246
STIMULATION OF THE ANTERIOR NUCLEUS OF THALAMUS FOR THE TREATMENT OF EPILEPSY: INITIAL EXPERIENCE AT THE UNIVERSITY HOSPITAL SANTA MARIA, LISBON
Gonçalves-Ferreira, A.; Rainha Campos, A.; Herculano Carvalho, M.; Morgado, C.; Bentes, C.; Peralta, A.; Pimentel, J.; Ground of Epilepsy Surgery (Lisbon, Portugal)
XX Congress of The ESSFN // PROGRAM

28TH SEPTEMBER 2012 // Friday

PS 13 - 6 / EPIL / O / 266
SINGLE PULSE ELECTRICAL STIMULATION IS A PROMISING TOOL FOR LOCALIZING ELOQUENT CORTICES AND Delineating the Seizure Focus Using Network Analysis.

PS 13 - 7 / EPIL / F / 88
COMPARISON OF FMRI AND BRAIN MAPPING WITH CORTICAL STIMULATION TO LOCATE CORTICAL ELOQUENT AREAS IN EPILEPSY SURGERY CANDIDATES

PS 13 - 8 / EPIL / F / 238
EPILEPSY SURGERY IN TUBEROUS SCLEROSIS COMPLEX – A SINGLE CENTER EXPERIENCE
Santos, A.; Romero, C.; Marques, C.; Cabral, J. (Lisboa, Portugal)

Parallel Session 14 // Room II – 15h00-16h00

RESEARCH FROM INDUSTRY
Session Chairmen:
E. Garcia Navarrete & Stephan Chabardès

PS 14 - 1 / RESIND / O / 206
SHORT-TERM IMPEDANCE VARIABILITY DURING PROGRAMMING SESSIONS IN A PRE-CLINICAL MODEL OF DEEP BRAIN STIMULATION

PS 14 - 2 / RESIND / O / 120
CONTOURING STIMULATION FIELDS TO OPTIMIZE TARGET COVERAGE USING INTERLEAVED PULSES IN DEEP BRAIN STIMULATION
Molnar, G. (Minneapolis, USA)

PS 14 - 3 / RESIND / O / 159
INTRAOPERATIVE AND LONG TERM LFP PROFILES IN PD: ANATOMICAL AND TEMPORAL DIMENSIONS OF STN PHYSIOMARKERS
Gupta, R.; Wu, J.; Nelson, D.; Abosch, A.; Firat Ince, N. (Minneapolis, USA)

PS 14 - 4 / RESIND / O / 178
LONG-TERM RECORDINGS OF LOCAL FIELD POTENTIALS FROM DBS ELECTRODES IMPLANTED IN THE STN
Molnar, G.; Abosch, A.; Ince, N.; Wu, J. (Minneapolis, USA)

PS 14 - 5 / RESIND / O / 145
DEVELOPMENT OF PATIENT-SPECIFIC TOOLS FOR DBS ELECTRODE VISUALIZATION
Goetz, S.; Molnar, G.; Lazarewicz, M. (Fridley, M. N., USA)

PS 14 - 6 / RESIND / O / 146
BIOINFORMATICS APPROACH TO DEEP BRAIN STIMULATION
Goetz, S.; Molnar, G.; Lazarewicz, M. (Fridley, M. N., USA)
PARALLEL SESSIONS

PS 14 - 7 / RESIND / O / 111
OUTCOME OF ACADEMIC COLLABORATION GAUGED BY PUBLICATIONS OF INVESTIGATOR INITIATED TRIALS SUPPORTED BY MEDTRONIC NEUROMODULATION EUROPE

PS 14 - 8 / RESIND / O / 143
CHRONIC VALIDATION OF A FULLY IMPLANTED BIDIRECTIONAL NEURAL INTERFACE WITH AUTOMATED FEATURE DETECTION IN A NON-HUMAN PRIMATE
Denison, T.; Ryapolova, E.; Afshar, P.; Stanslaski, S.; Stypulkowski, P.; Starr, P. (Fridley, M.N., USA)

PS 14 - 9 / RESIND / O / 144
THE PRELIMINARY EVALUATION OF MACHINE LEARNING AND CLOUD-BASED DATA MANAGEMENT PROTOTYPES FOR PATIENT-SPECIFIC ALGORITHMS IN IMPLANTABLE SYSTEMS

Parallel Session 15 // Room XII+XIII – 15h00-16h00

MOVEMENT DISORDERS – TRANSPLANTATION: TRANSEURO CONSORTIUM
Session Chairmen:
Guido Nikkhah & Michiel Staal

PS 15 - 1 / MOVDIS – T / O / 317
INCLUSION AND ASSESSMENT CRITERIA FOR THE OBSERVATIONAL AND TRANSPLANTATION STUDY IN PARKINSON PATIENTS
Widner, H. (Lund, Sweden)

PS 15 - 2 / MOVDIS – T / O / 313
CRITICAL PRE-CLINICAL STUDIES TOWARDS ESTABLISHING THE FINAL PROTOCOL FOR THE TRANSEURO CLINICAL TRIAL OF NEURAL TRANSPLANTATION IN THE TREATMENT OF P. D.
Döbrössy, M. (Freiburg, Germany)

PS 15 - 3 / MOVDIS – T / O / 316
TRANSPLANTATION STRATEGIES IN PD PATIENTS
Rehncrona, S. (Lund, Sweden)

PS 15 - 4 / MOVDIS – T / O / 315
PET- AND MRI-BASED EVALUATION OF THE NATURAL COURSE OF PD AND FOLLOWING TRANSPLANTATION OF FETAL DOPAMINERGIC NEURONS
Piccini, P. (London, United Kingdom)

PS 15 - 5 / MOVDIS – T / O / 314
NEW APPROACHES WITHIN THE ETHICS OF CLINICAL TRIALS: THE ETHICAL GOVERNANCE OF TRANSEURO FROM FOCUS GROUPS
Just, P.; Gottweis, H. (Vienna, Austria)
Parallel Session 16 // Room I – 08h30-10h00

PAIN
Session Chairmen:
Jean Ciurea & Manuel Dominguez

PS 16 - 1 / PAIN / O / 196
PERCUTANEOUS BALLOON COMPRESSION FOR THE TREATMENT OF TRIGEMINAL NEURALGIA: CLINICAL EXPERIENCE WITH 80 PATIENTS
Akcakaya, M. O.; Aydoseli, A.; Aras, Y.; Dolgun, M.; Barlas, O. (Istanbul, Turkey)

PS 16 - 2 / PAIN / O / 79
PERCUTANEOUS BALLOON COMPRESSION VERSUS PERCUTANEOUS GLYCEROL RHIZOTOMY FOR THE TREATMENT OF TRIGEMINAL NEURALGIA
Bergenheim, T.; Asplund, P. (Umeå, Sweden)

PS 16 - 3 / PAIN / O / 127
LONG-TERM OUTCOME OF RADIOSURGERY FOR ESSENTIAL TRIGEMINAL NEURALGIA: A PROSPECTIVE SERIES OF 130 CONSECUTIVE PATIENTS WITH MORE THAN 7 YEARS OF FOLLOW-UP
Régis, J.; Tuleasca, C.; Resseguier, N.; Carron, R.; Donnet, A.; Roussel, P. (Marseille, France)

PS 16 - 4 / PAIN / O / 187
PREVIOUS MICROVASCULAR DECOMPRESSION DECREASE THE CHANCES OF PAIN FREE IN PATIENTS TREATED WITH GAMMA KNIFE RADIOSURGERY FOR TIC
Tuleasca, C.; Carron, R.; Resseguier, N.; Donnet, A.; Roussel, P.; Gaudart, J.; Levivier, M.; Régis, J. (Lausanne, Switzerland)

PS 16 - 5 / PAIN / O / 148
GAMMA KNIFE IRRADIATION OF THE SPHENOPALATINE GANGLION IN THE SELECTED PAIN SYNDROMES
Urgosik, D.; Liscak, R.; Vymazal, J.; Vladyka, V. (Prague, Czech Republic)

PS 16 - 6 / PAIN / O / 126
GAMMA KNIFE SURGERY FOR GLOSSOPHARYNGEAL NEURALGIA
Leveque, M.; Moura, A.; Donnet, A.; Régis, J. (Marseille, France)

PS 16 - 7 / PAIN / O / 109
MANAGEMENT OF MEDICALLY INTRACTABLE GENITOFEMORAL AND ILIOINGUINAL NEURALGIA
Acar, F.; Özdemir, M.; Bayrakli, F.; Cirak, B.; Coskun, E.; Burchiel, K. J. (Denizli, Turkey)

PS 16 - 8 / PAIN / F / 93
CUSTOM MADE ELECTRODE FOR INTRACTABLE TRIGEMINAL NEURALGIA
Beute, G. (Tilburg, Netherlands)

PS 16 - 9 / PAIN / F / 117
TRIGEMINAL NEURALGIA - MICROVASCULAR DECOMPRESSION. SURGICAL EXPERIENCE OF 19 YEARS (1993-2012) FROM THE NEURORSURGICAL DEPARTMENT OF HUC-CHUC, PORTUGAL
Ribeiro Da Cunha, P.; Rito, M.; Belo, F.; Pereira, R.; Gomes, F.; Cabrita, F.; Lima, T.; Carvalho, M.; Costa, G.; Reis, I.; Barbosa, M. (Coimbra, Portugal)
**Parallel Session 17 // Room II – 08h30-10h00**

**BASIC SCIENCE, IMAGING AND DEVELOPMENT TECHNIQUES**

**Session Chairmen:**
Ioannis Panourias & Joaquim Monteiro

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**PS 17 - 1 / BSIDT / O / 161**

**THE EFFECT OF SUBTHALAMIC NUCLEUS INHIBITION IN THE SURVIVAL OF DOPAMINERGIC VENTRAL MESENCEPHALIC GRAFT IN A RAT MODEL OF PARKINSON’S DISEASE**

Cordeiro, J. G.; Cordeiro, K. K.; Garcia, J.; Winkler, C.; Dobrossy, M.; Nikkhah, G. (Freiburg, Germany)

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**PS 17 - 2 / BSIDT / O / 278**

**ULTRA-FLEXIBLE, THIN-FILM ELECTRODE ARRAYS FOR CHRONIC NEURAL RECORDING AND STIMULATION OF BRAIN CAVITY WALL**

Nuttin, B.; Van Kuyck, K.; Ceyssens, F.; Puers, B. (Leuven, Belgium)

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**PS 17 - 3 / BSIDT / O / 263**

**CLINICAL IMPROVEMENT IN NON-RESPONSIVE PATIENTS WITH TRANSCRANIAL DIRECT CURRENT STIMULATION**


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**PS 17 - 4 / BSIDT / O / 89**

**EXPERIENCE FROM OPTICAL MEASUREMENTS DURING 100 DBS IMPLANTATIONS**

Wårdell, K. (Linköping, Sweden)

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**PS 17 - 5 / BSIDT / O / 90**

**LASER DOPPLER FOR GUIDANCE DURING DBS - TYPICAL OPTICAL TRAJECTORIES TOWARD VIM AND STN**

Hemm, S.; Zsigmond, P.; Richter, J.; Wårdell, K. (Switzerland)

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**PS 17 - 6 / BSIDT / O / 309**

**SURFACE ELECTROGRAPHY AS A DIAGNOSTIC TOOL IN TROUBLESHOOTING DEEP BRAIN STIMULATION**

Alesch, F.; Lanmüller, H. (Vienna, Austria)

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**PS 17 - 7 / BSIDT / F / 172**

**DEEP BRAIN STIMULATION FOR THE EARLY TREATMENT OF THE MINIMAL CONSCIOUSNESS STATE AND VEGETATIVE STATE**

Chudy, D.; Deletis, V.; Rogic, M.; Paradzik, V.; Grahovac, G. (Zagreb, Croatia)

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**PS 17 - 8 / BSIDT / F / 276**

**DEEP BRAIN STIMULATION IN PATIENT WITH PSP DIAGNOSIS; REPORT OF TWO CASES**

Servello, D.; Zekaj, E.; Sassi, M.; Menghetti, C.; Anasetti, F.; Porta, M. (Milan, Italy)

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**PS 17 - 9 / BSIDT / F / 253**

**SYNCHRONOUS MICROCATHODE RECORDINGS FROM PARIETAL CORTEX AND THALAMUS OF VEGETATIVE AND MINIMALLY CONSCIOUS PATIENTS**

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29th September 2012 // Saturday

PS 17 - 10 / BSIDT / F / 305
PRACTICAL USE OF AN AUDITORY DEVICE TO IMPROVE GAIT IN PATIENTS WITH PARKINSON’S DISEASE
Contreras Lopez, W. O.; Espinoza Martinez, J. A.; Escalante Higuera, C. A. (Freiburg im Breisgau, Germany)

Parallel Session 18 // Room XII + XIII – 08h30-10h00

MOVEMENT DISORDERS
Session Chairmen:
António Verdelho & Marek Harat

PS 18 - 1 / MOVDIS / O / 221
WHAT DO MEDICAL STUDENTS KNOW ABOUT DEEP BRAIN STIMULATION?

PS 18 - 2 / MOVDIS / O / 191
MOTION ANALYSIS IN THE ASSESSMENT OF THE EFFECTIVENESS OF STEREOTACTIC SURGERY FOR MOVEMENT DISORDERS
Valálik, I.; Jobbágy, Á. (Budapest, Hungary)

PS 18 - 3 / MOVDIS / O / 63
IMPACT OF BILATERAL SUBTHALAMIC NUCLEUS DEEP BRAIN STIMULATION ON PHARYNGO-OESOPHAGEAL MOTILITY: RESULT OF A RANDOMIZED CROSS-OVER STUDY

PS 18 - 4 / MOVDIS / O / 192
INTRATHecal BACLOFEN THERAPY FOR THE TREATMENT OF SPASTIC HEMIPARESIS

PS 18 - 5 / MOVDIS / O / 208
SURGICAL COMPLICATIONS IN DEEP BRAIN STIMULATION SURGERY (DBS)

PS 18 - 6 / MOVDIS / O / 254
FOREIGN BODY REACTION IN DBS: A COMPLICATION NOT DESCRIBED IN THE LITERATURE
Cattoni, M. B.; Herculano Carvalho, M.; Coelho, M.; Guedes, L.; Ferreira, J.; Rosa, M.-M.; Gonçalves-Ferreira, A. J. (Lisbon, Portugal)

PS 18 - 7 / MOVDIS / O / 113
SKIN-EROSION AND INFECTION IN DEEP BRAIN STIMULATION: FOLLOW-UP OF TREATED PATIENTS
Ruiz De Gopegui, E.; Bilbao, G.; Lambarri, I.; Lezcano, E.; Gómez, J.C.; Tijero, B.; Rodríguez, O.; Villoria, R.; Pomposo, I. (Barakaldo, Spain)

PS 18 - 12 / MOVDIS / F / 295
EFFECTS OF GLOBUS PALlidus INTERNUS DBS ON QUIET STANCE IN PRIMARY MULTISEGMENTAL DYSTONIA: PRELIMINARY DATA
Sarubbo, S.; Mancini, M.; Granieri, E.; Chiari, L.; Manca, M.; Ferraresi, G.; Quatrale, R.; Capone, J.; Sensi, M.; Cavallo, M. A. (Ferrara, Italy)
PARALLEL SESSIONS

PS 18 - 8 / MOVDIS / O / 220
CONVERGENCE OF PARALLEL CIRCUITS WITHIN SUBTHALAMIC NUCLEUS: EVIDENCE FROM MULTICHANNEL-MICROELECTRODE RECORDING STUDY
Talamoni Fonoff, E.; Morya, E.; Sameshima, K.; Jacobsen Teixeira, M.; Nicolelis, M. (São Paulo, Brazil)

PS 18 - 9 / MOVDIS / F / 125
MANAGEMENT OF HARDWARE-RELATED INFECTIONS IN DEEP BRAIN STIMULATION: WHAT TO DO?
Temel, Y.; Wetzelaer, P.; Evers, S.; Visser-Vandewalle, V.; Van Overbeeke, J.; Ackermans, L. (Netherlands)

PS 18 - 10 / MOVDIS / F / 195
A SINGLE CENTER 12 YEAR EXPERIENCE OF INTRATHecal BACLOFEN THERAPY

PS 18 - 11 / MOVDIS / F / 141
INTRATHecal BACLOFEN THERAPY AND QUALITY OF LIFE
Rainha Campos, A.; Cordeiro, I.; Moitinho, M.; Lopes, A.; Condeça, B.; Vegiros, I.; Margalho, P.; Gonçalves-Ferreira, A. (Lisbon, Portugal)

PS 18 - 13 / MOVDIS / F / 46
CLINICALLY SILENT CEREBRAL ISCHEMIA AFTER DBS SURGERy

PS 18 - 14 / MOVDIS / F / 203
LOCALIZATION OF THE SUBTHALAMIC SENSORIMOTOR REGION BY ANALYSIS OF NEURAL POPULATION SYNCHRONY
Karamintziou, S.; Tsirogiannis, G.; Tagaris, G.; Nikita, K. (Athens, Greece)
POSTERS

DISPLAYING AND DISMANTLING

Posters should be displayed in the Posters Room (ROOM XV) on 26th September and dismantled on the 29th September between 13h00 and 14h00 at the latest. Posters not removed until 14h00 of the 29th September will be automatically removed by the organization and will not be kept.

POSTER SESSIONS

There are 4 poster sessions

Part 1: 27th September from 10h00-10h30
Movement Disorders - Parkinson + Tremor

Part 2: 27th September from 16h30-17h00
Pain + Psychosurgery + Radiosurgery

Part 3: 28th September from 10h00-10h30
Movement Disorders - Dystonia + DBS in general

Part 4: 28th September from 16h00-16h30
Epilepsy + Basic Science, Imaging and Development Techniques
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The Organizing Committee wishes to acknowledge and express its appreciation to the companies that have greatly enhanced the scientific standards of the ESSFN Congress 2012 by inviting eminent and widely recognized speakers and sponsoring entirely the following Symposia:

**Wednesday, 26th September 2012**
14:15/17:30  
Room I: Satellite Symposium // Medtronic

**Thursday, 27th September 2012**
12:30/14:00  
Room II: Lunch Seminar // St. Jude Medical  
Room XII+XIII: Lunch Seminar // Elekta

**Friday, 28th September 2012**
12:30/14:00  
Room XII+XIII: Lunch Symposium // Medtronic
Congress Venue

Hotel Cascais Miragem
Av. Marginal n.8554
2775-536 Cascais - Portugal
(LAT) 38.702118, (LONG) -9.411007

Congress Secretariat

Eurocongressos Ltd.
Avenida Elias Garcia n° 147, 5° Esq.
1050-099 Lisbon, Portugal
Tel. +351 211 147 170 | Email: meet@eurocongressos.pt

The Congress Secretariat will operate as follows:
Wednesday, 26th September 2012: 10:30 – 18:00
Thursday, 27th September 2012: 08:00 – 19:00
Friday, 28th September 2012: 07:30 – 19:30
Saturday, 29th September 2012: 07:30 – 13:00

Congress Language

The official language of the Congress is English

EACCME Accreditation

"The 'European Society for Stereotactic and Functional Neurosurgery' (or) 'XX Congress of the European Society for Stereotactic and Functional Neurosurgery' is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.

The 'XX Congress of the European Society for Stereotactic and Functional Neurosurgery' is designated for a maximum of (or 'for up to') 14 hours of European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/go/internationalcme.

Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECMC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada."
Grants and Awards
ESFFN Grants and Awards 2012.
Best Oral Presentation – Best Poster Presentation – Best Publication – Research Grant.

Oral Presentation
All Oral Presentations in the current programme are preceded with the letter “O”: each oral presentation has been allocated a maximum presentation time of 8 minutes with 2 minutes for Q & A.

Flash Presentations
Each Flash Presentation in the current programme is preceded with the letter “F”: each Flash presentation has been allocated a maximum presentation time of 3 minutes with 2 minutes for Q & A.

ESSFN General Assembly
The General Assembly of ESSFN members will be held on September 28, 2012 at 16:30 in Room I.

Exhibition
An exhibition of technological equipment, pharmaceuticals and medical publications will take place during the Congress.

Conference Dinner - 28th September
The Conference Dinner is a paid dinner (€80,00). You can buy your Conference Dinner participation on the ESSFN Welcome Desk in the Hotel Cascais Miragem.

Disabled Person Access
In Cascais Miragem Congress Center there is access for disabled persons. If special arrangements are required for an individual with a disability to attend this congress, please contact the congress secretariat.

Lost and Found
Lost items should be handed to the congress information desk. Should you lose or find anything please report to this desk for assistance.

Slide Desk
A Speaker’s Slide Desk will operate throughout the duration of the Congress. Speakers are kindly requested to hand out their presentations at least one hour prior to their presentation at the designated area.
Welcome Reception

Casa de Santa Maria  -  Raul Lino
Cascais

Buses will leave from the Hotel Cascais Miragem at 18h45.

The history of the Santa Maria House began in 1902 when Jorge O’Neill commissioned it from the architect Raul Lino as a residence for his daughter Maria Thereza O’Neill. Fifteen years later, it was acquired by José Lino Junior, the architect’s brother, who sold it to Manuel do Espírito Santo Silva in the late 1920s.

Situated between the Santa Marta lighthouse and the so-called Pedra do Cavalo (horse stone), with a broad façade facing the sea, it was built in three phases, which can still be clearly seen today. The first was in 1902, the second in 1914 and finally the third in 1918.

One of Lino’s first projects, this house reflects a tendency towards typically Mediterranean architecture, valorizing the solar aspect, the Arab revival with its horseshoe arches and the use of tiles.

The richness of the Santa Maria house can be appreciated in its wealth of 17th century tiles from an old chapel on Quinta da Ramada in Frielas, designed by António de Oliveira Bernardes.

The panels were placed on the stairs and in the chapel with the original order inverted. They are arranged as follows: Jesus among the Doctors, and three more panels with country scenes and ruins; in the chapel: the Purification of Our Lady, the Virgin Mary with the young Jesus and St. John and the Flight into Egypt; on the other wall, the Circumcision, Rest on the Flight into Egypt and, next to the oratory, Our Lady Sewing; on the front of the altar, Talavera tiles from the late 16th or early 17th century were applied. The border tiles, with cherubs, atlantes, garlands and festoons with flowers and fruit, now placed at the entrance, were highlighted in those panels.

17th century tiles were applied on the dining room walls. These have a polychrome pattern and on the ceiling, painted in oils, you can contemplate the virtues: Constance and Mercy.

In the ground floors corridors and rooms, 17th century tile panels with various polychrome patterns from other chapels and palaces were adapted to the Santa Maria house.

Another highlight is the ceiling of the Caravel Room in oils, inspired by the Book of Caravels.

CIUL, Coro Infanto-Juvenil da Universidade de Lisboa (Children and Youth Choir of Lisbon University), is an internationally recognized choir, known for the originality and quality of its work, which integrates various types of artistic expression in the matrix of coral singing. Its main purpose is the artistic development of children and youngsters and the research of new ways on the musical pedagogy.

Maestrina: Erica Mandillo
Piano: João Lucena e Vale

- Puestos estan Frente a Frente - Anon. Sec. XVI
- Vós Chamas-me moreninha - Fernando Lopes Graça
- Era uma Vez* - João Lucena Vale
- Dancing-Song - Zoltan kodaly
- The Joiku - Jukka Linkola
- This Little babe - Benjamin Britten
- Niska Banja - Serbian Gypsy Dance (Arr. Nick page)
- Clap Your Hands - George Gershwin
- Geographical Fugue - Ernst Toch
- Siahamba – South African Trad.

*With special participation of pianist Leonor Cardoso.
Gala Dinner
28th September 2012
Dinner €80,00/Person
A Conference dinner ticket can be bought on the ESSFN Welcome Desk, in the Hotel Cascais Miragem.

Hotel Palácio Estoril
Adress: Rua Particular, 2769 - 504 Estoril

Buses will leave from the Hotel Cascais Miragem at 19h45.

Located in the heart of Estoril, just 20 minutes from the centre of Lisbon, the Palácio Estoril Hotel is a five star hotel set in beautiful gardens and with outstanding views over Estoril and the Bay of Cascais.

The Palácio Estoril Hotel was built in 1930, today’s Palácio Hotel retains many of the characteristics of that period. The ambience of exclusiveness that pervades the Hotel makes an impression on everybody who enters it, from its imposing, entirely white facade and beautiful gardens to its elegant classic decor, which has been updated over the years but without losing its combination of timeless, luxury and sophistication.

During the Second World War, due to Portugal’s neutrality several royal families went into exile in Estoril, which became known as the “Coast of Kings”. The Hotel Palácio was the chosen home of numerous members of European royalty and was also the haunt of British and German spies, who could often be found in its bar. Later, these stories of intrigue and espionage inspired famous novelists and filmmakers and the Hotel served as the set for the James Bond movie “On Her Majesty’s Secret Service”.

The Palácio Estoril was the second home of the Spanish, Italian, French, Bulgarian and Romanian royal families and even today remains a favourite with their descendants. In February 2011, the Royal Gallery was created in their honour, where you can view photographs of the important members of European royalty who stayed at the Hotel. The Royal Gallery is now also one of Estoril’s tourist attractions.

From the beginning, the Palácio has hosted heads of state, emperors, kings and princes, European nobility, the world’s great artists, writers, sports champions, filmmakers and actors and many politicians who have shaped the destiny of the West. Private or State visits, festivals and major summits bring to the Palácio a long list of distinguished guests who mingle in the public rooms and corridors with all the Hotel’s other patrons. In the public rooms, corridors and even at breakfast one can often come across a Crown Prince, a film director, a European sovereign, an actress or an internationally renowned musician.

The Palácio has been updated and has benefited from several refurbishments and renovations. Today, it offers all the comfort and convenience of a modern luxury five-star hotel while retaining all its charm of the olden days.
LISBON CITY TOUR

Date: 27th September 2012
Time: 09:00–14:30
Meeting Point: Hotel Cascais Miragem

TOUR DESCRIPTION

This tour starts driving down Liberty Avenue to Rossio, the very heart of the city. We will then invite you to discover Alfama, the oldest and most picturesque quarter of Lisbon with its Moorish influence and the best preserved of Lisbon’s popular quarters. Alfama is a cobbled labyrinth of narrow turning alleys, cut by steps and archways, sometimes blocked at the far end; the houses with whitewashed or painted façades are decorated with wrought iron balconies and panels of “Azulejos” and with windows from which lines of washing hang to dry gay with flowers.

We will continue with a drive along the river moving towards Belém quarter, where you will find the most emblematic monuments of Lisbon city, such as:

The Belém Tower: built in the middle of the Tagus river, this elegant Manueline Tower is nowadays located at the water’s edge on the north bank, since the river altered its course since medieval times; (outside visit only);

The Monument to the Discoveries: built in 1960 beside the Tagus on the 500th anniversary of the death of Prince Henry, the Navigator, it represents the prow of a ship with the prince pointing the way to a crowd of personages; (outside visit only);

The Monastery of Jeronimos: it was founded by King Manuel I and designed by the architect Boytac and it is considered to be the jewel of Manueline architecture style. Works begun in 1502 not long after the return of Vasco da Gama from the Indies. It is located in Restelo harbour, in Belém from which the explorer’s ships had sailed and it benefited from the riches then pouring into Lisbon.

Lunch will be served in one of the typical restaurants in Lisbon, with view over the Tagus River.
CASCAIS, ESTORIL & SINTRA TOUR

Date: 28th September 2012
Time: 09:00–14:30
Meeting Point: Hotel Cascais Miragem

TOUR DESCRIPTION

This visit will take you to discover Sunny Coast and its beaches, the cosmopolitan Estoril, the colourful bay of Cascais, Guincho and finally Cabo da Roca, the westernmost point of continental Europe.

Drive across the luxuriant Sintra, hidden behind a chain of hills. This is one of the most beautiful little villages in Portugal and has inspired many great writers and poets, like for example the English poet Lord Byron. Sintra was also one of the favourite residences of the Portuguese Kings, being before that time a Moorish stronghold, as witnesses the ruins of the Moorish Castle on the hilltop.

The small town of Sintra, built right up against the north slope of the serra, was for six centuries the favourite Summer residence of the kings of Portugal, who were attracted by cool climates and the beauty of the town’s setting. Three different areas make up the town of Sintra: the old Town which is grouped round the royal palace; the modern town - Estefânia - and the former village of S. Pedro.

Visit of the Royal Palace: it is an irregular structure due to the additions made at different times; the central building was erected by King John I at the end of the 14th century and the wings by Manuel I early in the 16th century. Apart from the two tall conical chimneys, the paired Moorish style and Manueline windows are the most striking features of the exterior. The interior is interesting for its remarkable decoration of 16th and 17th centuries azulejos, as well as the magnificent ceilings mainly the ones of the Armoury, Magpie Room and Dining Room.

Lunch will be served in Sintra.
BLUE LINE SHUTTLE

A - Hotel Estoril Palácio
B - Hotel Londres Estoril
C - Hotel Cascais Miragem

YELLOW LINE SHUTTLE

A - Hotel Oitavos
B - Hotel Senhora da Guia
C - Pestana Atlantic Gardens Hotel
D - Hotel Vila Galé Cascais
E - Hotel Cascais Miragem

RED LINE SHUTTLE

A - Pestana Pousada Cascais
B - Hotel Albatroz Seafront
C - Hotel Cascais Miragem
## SHUTTLES SCHEDULE

### 26TH SEPTEMBER 2012 // Wednesday

<table>
<thead>
<tr>
<th>From Hotels to Hotel Cascais Miragem</th>
<th>DEPARTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From:</strong> Pick up places are the hotels written in capital letters</td>
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<tr>
<td><strong>Route A</strong></td>
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<tr>
<td><strong>HOTEL ESTORIL PALÁCIO</strong></td>
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<td><em>Hotel Inglaterra (100 m - walking distance to Hotel Estoril Palácio 1 min)</em></td>
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<td><em>Hotel Vila Galé Estoril (200 m - walking distance to Hotel Estoril Palácio 2 min)</em></td>
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<td><strong>HOTEL LONDRES ESTORIL</strong></td>
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<td><em>Hotel Amazônia (450 m - walking distance to Hotel Londres Estoril 3 min)</em></td>
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<td><strong>HOTEL CASCAIS MIRAGEM</strong></td>
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<td><em>Hotel Estoril Éden (250 m - walking distance to Hotel Cascais Miragem 3 min)</em></td>
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<td><strong>Route B</strong></td>
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<td><strong>HOTEL OITAVOS</strong></td>
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<td><strong>HOTEL SENHORA DA GUIA</strong></td>
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<tr>
<td><strong>HOTEL PESTANA ATLANTIC GARDENS CASCAIS</strong></td>
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<tr>
<td><strong>HOTEL VILA GALÉ CASCAIS</strong></td>
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<td><em>Grande Real Vila Itália Hotel &amp; Spa (25 m - walking distance to Hotel Vila Galé Cascais 1 min)</em></td>
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<td><em>Farol Design Hotel (35 m - walking distance to Hotel Vila Galé Cascais 1 min)</em></td>
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<td><strong>HOTEL CASCAIS MIRAGEM</strong></td>
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## SHUTTLE SERVICES BETWEEN HOTELS

### 26TH SEPTEMBER 2012 // Wednesday

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<tr>
<th>From: Hotel Cascais Miragem to Hotels</th>
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#### Route A

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<td><strong>Hotel Estoril Eden</strong> (250 m - walking distance to Hotel Cascais Miragem 3 min)</td>
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<td><strong>Hotel Vila Galé Estoril</strong> (200 m - walking distance to Hotel Estoril Palácio 2 min)</td>
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<td><strong>Hotel Londres Estoril</strong></td>
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<tr>
<td><strong>Hotel Amazônia</strong> (450 m - walking distance to Hotel Londres Estoril 3 min)</td>
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<td><strong>Hotel Pestana Atlantic Gardens Cascais</strong></td>
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<td><strong>Hotel Senhora da Guia</strong></td>
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<td><strong>Hotel Oitavos</strong></td>
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<td><strong>Albatroz Seafront Hotel</strong></td>
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**Pick up places are the hotels written in capital letters**
### SHUTTLES SCHEDULE

**27TH and 28TH SEPTEMBER 2012 // Thursday & Friday**

From Hotels to Hotel Cascais Miragem

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</tr>
<tr>
<td>Farol Design Hotel (35 m - walking distance to Hotel Vila Galé Cascais 1 min)</td>
<td></td>
</tr>
<tr>
<td><strong>HOTEL CASCAIS MIRAGEM</strong></td>
<td>7:40</td>
</tr>
<tr>
<td><strong>Route C</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PESTANA POUSADA DE CASCAIS</strong></td>
<td>07:00</td>
</tr>
<tr>
<td><strong>ALBATROZ SEAFRONT HOTEL</strong></td>
<td>07:15</td>
</tr>
<tr>
<td><strong>HOTEL CASCAIS MIRAGEM</strong></td>
<td>07:30</td>
</tr>
</tbody>
</table>

From: Pick up places are the hotels written in capital letters.

**DEPARTURES**

Route A
- **HOTEL ESTORIL PALÁCIO**
  - 7:00
  - 8:00
  - 9:00
  - 10:00

Route B
- **HOTEL OITAVOS**
  - 7:00
  - 8:00
  - 9:00
  - 10:00

Route C
- **PESTANA POUSADA DE CASCAIS**
  - 07:00
  - 08:00
  - 09:00
  - 10:00

- **ALBATROZ SEAFRONT HOTEL**
  - 07:15
  - 08:15
  - 09:15
  - 10:15

- **HOTEL CASCAIS MIRAGEM**
  - 07:30
  - 08:30
  - 09:30
  - 10:30
**SHUTTLE SERVICES BETWEEN HOTELS**

**27th and 28th September 2012 // Thursday & Friday**

From: Hotel Cascais Miragem to Hotels

### Route A

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Pick up Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Estoril Eden</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
<tr>
<td>Hotel Vila Galé Estoril</td>
<td>17:15 18:15 19:15 20:15</td>
</tr>
<tr>
<td>Hotel Inglaterra</td>
<td>17:30 18:30 19:30 20:30</td>
</tr>
<tr>
<td>Route B</td>
<td>Return Times</td>
</tr>
<tr>
<td>Hotel Pousada de Cascais</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
<tr>
<td>Hotel Senhora da Guia</td>
<td>17:15 18:15 19:15 20:15</td>
</tr>
<tr>
<td>Hotel Vila Galé Cascais</td>
<td>17:30 18:30 19:30 20:30</td>
</tr>
<tr>
<td>Grande Real Villa Itália Hotel &amp; Spa</td>
<td>17:40 18:40 19:40 20:40</td>
</tr>
<tr>
<td>Farol Design Hotel</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
</tbody>
</table>

### Route C

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Pick up Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Estoril Eden</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
<tr>
<td>Hotel Vila Galé Estoril</td>
<td>17:15 18:15 19:15 20:15</td>
</tr>
<tr>
<td>Hotel Inglaterra</td>
<td>17:30 18:30 19:30 20:30</td>
</tr>
<tr>
<td>Route B</td>
<td>Return Times</td>
</tr>
<tr>
<td>Hotel Pousada de Cascais</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
<tr>
<td>Hotel Senhora da Guia</td>
<td>17:15 18:15 19:15 20:15</td>
</tr>
<tr>
<td>Hotel Vila Galé Cascais</td>
<td>17:30 18:30 19:30 20:30</td>
</tr>
<tr>
<td>Grande Real Villa Itália Hotel &amp; Spa</td>
<td>17:40 18:40 19:40 20:40</td>
</tr>
<tr>
<td>Farol Design Hotel</td>
<td>17:00 18:00 19:00 20:00</td>
</tr>
</tbody>
</table>

*Pick up places are the hotels written in capital letters*
<table>
<thead>
<tr>
<th>From Hotels to Hotel Cascais Miragem</th>
<th>DEPARTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Route A</strong></td>
<td></td>
</tr>
<tr>
<td>HOTEL ESTORIL PALÁCIO</td>
<td>7:00</td>
</tr>
<tr>
<td>Hotel Inglaterra (100m - walking distance to Hotel Estoril Palácio 1 min)</td>
<td></td>
</tr>
<tr>
<td>Hotel Vila Galé Estoril (200 m - walking distance to Hotel Estoril Palácio 2 min)</td>
<td></td>
</tr>
<tr>
<td>HOTEL LONDRES ESTORIL</td>
<td>7:15</td>
</tr>
<tr>
<td>Amazônia Hotel (450 m - walking distance to Hotel Londres Estoril 3 min)</td>
<td></td>
</tr>
<tr>
<td>HOTEL CASCAIS MIRAGEM</td>
<td>7:30</td>
</tr>
<tr>
<td>Hotel Estoril Éden (250 m - walking distance to Hotel Cascais Miragem 3 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Route B</strong></td>
<td></td>
</tr>
<tr>
<td>HOTEL OITAVOS</td>
<td>7:00</td>
</tr>
<tr>
<td>HOTEL SENHORA DA GUIA</td>
<td>7:10</td>
</tr>
<tr>
<td>HOTEL PESTANA ATLANTIC GARDENS CASCAIS</td>
<td>7:20</td>
</tr>
<tr>
<td>HOTEL VILA GALÉ CASCAIS</td>
<td>7:30</td>
</tr>
<tr>
<td>Grande Real Villa Itália Hotel &amp; Spa (25 m - walking distance to Hotel Vila Galé Cascais 1 min)</td>
<td></td>
</tr>
<tr>
<td>Farol Design Hotel (35 m - walking distance to Hotel Vila Galé Cascais 1 min)</td>
<td></td>
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<tr>
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<tr>
<td>HOTEL CASCAIS MIRAGEM</td>
<td>07:30</td>
</tr>
</tbody>
</table>

**Airport Shuttles: 29th September 2012 // Saturday**

<table>
<thead>
<tr>
<th>Hotel Cascais Miragem &gt; Airport</th>
<th>DEPARTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Cascais Miragem</td>
<td>6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00</td>
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<tr>
<td>Lisbon Airport</td>
<td>6:30 7:30 8:30 9:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:00 21:00</td>
</tr>
</tbody>
</table>
Quite simply, it delivers.

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Programmable Infusion System