wssfn
World Society for Stereotactic and Functional Neurosurgery
NEWSLETTER
Spring 2015




Dr. Joachim K. Krauss

## Letter From The President

Dear colleagues, dear friends,

Since we sent out our last newsletter almost a year ago, a lot of new information has become available which we want to share with you. While traditionally the period between the big quadrennial WSSFN congresses has been rather quiet we have been working busily in the background to further the development and to increase the impact of our society. The superspeciality of functional and stereotactic neurosurgery is growing faster than ever before and we all can be proud to be part of this process.

Let me start with the very good and inspiring news that spread last fall. Professors Benabid and DeLong were awarded with the most prestigious Lasker - DeBakey Clinical Medical Research Award 2014 for their development of STN DBS in Parkinson disease. Congratulations! This award is well deserved. It is not only a recognition of the achievements of these two pioneers but it also shows that stereotactic and functional neurosurgery has become a major player receiving wide public attention.

Tempus fugit. We will soon meet at the WSSFN Interim congress to be held from September 3 – 6, 2015, in Mumbai, India. We are very excited with this truly special conference since we think that we managed indeed to create a new format. This congress will serve two purposes – while it will maintain the character of the WSSFN interim meeting with a focus on teaching and education, it will adopt also some of the spirit of the traditional quadrennial congress featuring a one day international meeting. And, in addition the Indian Society for Stereotactic and Functional Neurosurgery will convene in Mumbai too. We tied the links - all of this has been made possible by the diligent work of our local host Paresh Doshi supported by the scientific committee chaired by Mojgan Hodaie and Joseph Neimat along with the WSSFN officers. I hope you will be able to come and share the spirit with us!

The membership basis of WSSFN has become very solid now with ASSFN and ESSFN as the two major contributing societies. Meanwhile, I have had intensive discussions with the leadership of the Japanese Society for Stereotactic and Functional Neurosurgery, the Korean Society for Stereotactic and Functional Neurosurgery and the Sociedad Latinoamericana de Neurocirugía Funcional y Estereotáxia to further my new mutual benefit plan in order to open WSSFN membership to all members of stereotactic societies worldwide. Of course this is a difficult and lengthy process, but we are well advanced with our negotiations and I hope the first arrangement will be settled soon. Imagine we would accomplish to have all functional and stereotactic neurosurgeons joining our society – without political or ideological barriers restricting the education of specialists and the free communication of all experts in our discipline!

Another important issue to be mentioned- surgical techniques often may come and go. Of course we all try to improve techniques, produce better outcome, and from time to time reinvent ourselves and what we are doing. But, also often we do not fully understand why one particular method disappears or is out of fashion within a few years. It is time to think about how we can preserve knowledge and hand-on expertise to the next generation of functional and stereotactic neurosurgeons. Many of us took part in the second wave of radiofrequency lesioning in the 1990s and performed pallidotomies for Parkinson disease and dystonia, and thalamotomies for

*continued, pg. 2*


Dr. Erich Richter

## From The Editor

We are very pleased to showcase the growth and impact of the WSSFN in this latest newsletter. You can see the hard work of Dr. Krauss and our leadership, particularly as the umbrella of the WSSFN has grown to include additional continental and national societies. The upcoming interim meeting in Mumbai is the most prominent example of the rich opportunities that reflect the vibrant nature of our membership worldwide. Two articles feature the WSSFN's role in extending the experience and knowledge of senior functional neurosurgeons to further areas around the world. Dr. Alterman traveled to Chile to introduce DBS in the public hospital system. Drs. Hariz, Taira, Cosgrove, and Regis collaborated to lead the Noble Art of Lesioning course, passing on surgical experience for more uncommonly performed procedures. To highlight the intellectual discourse among our membership, we have included an opinion piece on the relationship between DBS and lesion surgery. We hope you find this update of our recent activities interesting and inspiring. We look forward to meeting in Mumbai to continue these conversations.

## TABLE OF CONTENTS

*Letter From The President, continued from pg. 2*

tremor or targeting other nuclei for psychiatric disorders, epilepsy and pain. There are some signs on the horizon that a third wave of lesioning procedures might slowly approach, and it is our responsibility to keep the torch burning. The courses on the Noble Art of Lesioning are a true example of how WSSFN can manage to deal with such challenges! I wish to give my particular appreciation to Takaomi Taira, our past president, and the other colleagues who organized the last course in November, 2014, in Tokyo.

The Executive Committee of the MDS Pedunculopontine Nucleus DBS Working group in collaboration with WSSFN which as indicated earlier is supported by a grant from Medtronic has met in December 2014 in France to continue working on the PPN project. We now plan to prepare four manuscripts covering all different aspects associated with this topic. And still our final goal is to keep research active in this field and prevent this important target from disappearing before it was fully explored!

Mark your calenders! While we are looking forward to travel to Mumbai, we are already preparing the WSSFN 2017 congress to be held in Berlin, Germany. The congress will be in June which is the most pleasant period in early summer in Germany. It will provide a thorough update on current evidence and technique, but it will also look at the cutting edge in our discipline. Furthermore we want to review the rich history of our superspeciality as it developed in different parts of the world.

Finally, I wish to thank all who contributed to this newsletter. We hope it is of interest to you, and we appreciate your input and continued support!

Joachim K. Krauss,
Hannover, Germany
President WSSFN

## WSSFN Interim Meeting

Attend. Learn. Apply.

This motto represents the spirit of the upcoming WSSFN interim meeting, to be held in Mumbai from 3rd-6th September, 2015. The organizing team has put in great efforts to enlist eminent faculty to impart training for the aspiring functional neurosurgeon. There will be 12 workshops over two days, conducted by more than 100 international faculties. Most speakers will focus on basic training, to enable attending neurosurgeons to utilize their training in day to day practice. There are some workshops that are also geared towards practicing functional neurosurgeons to impart advanced training. One of the workshops is only dedicated to research.

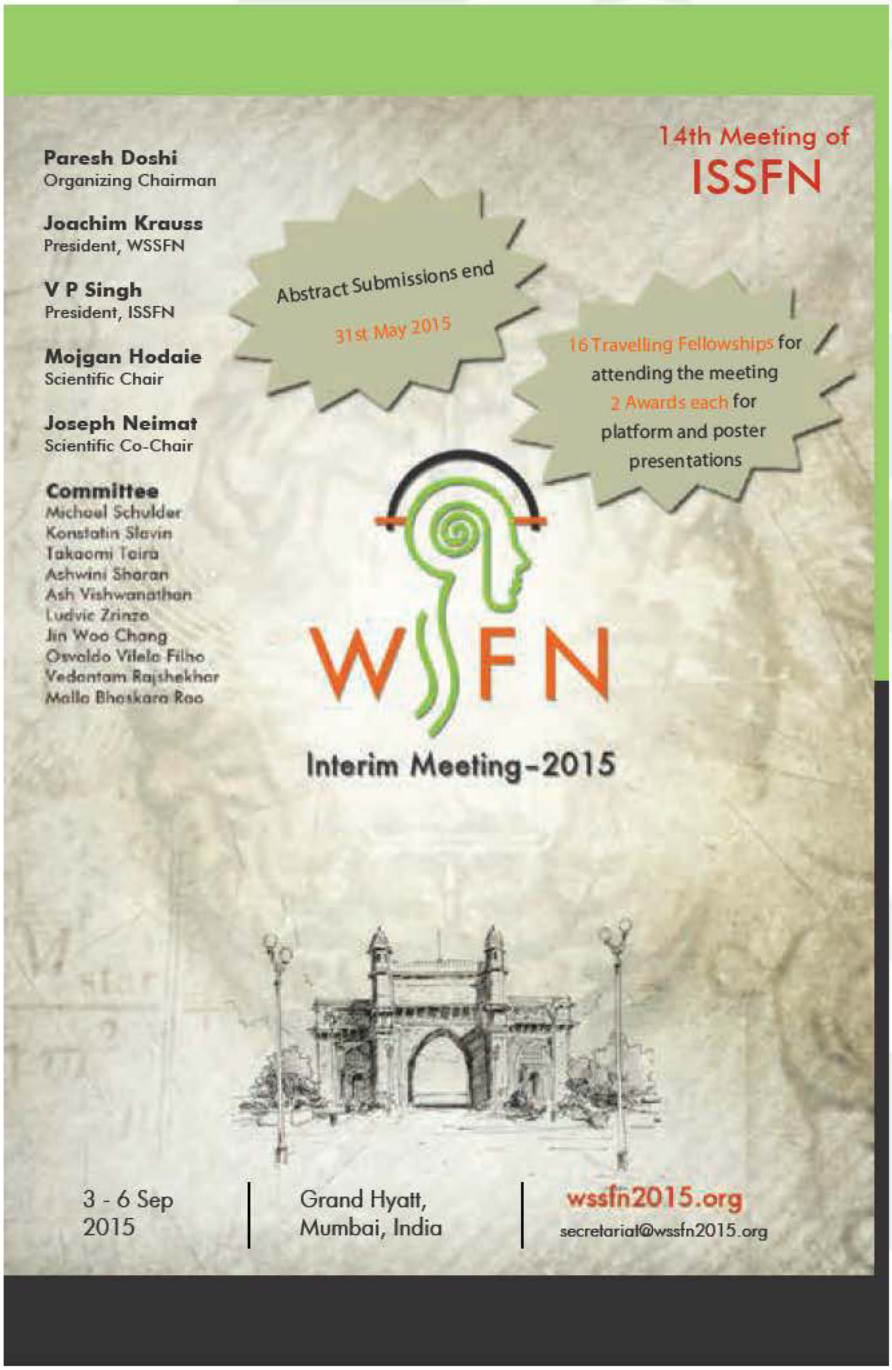
Workshops will be followed by a one-day WSSFN congress, involving interesting debates, focused breakfast seminars, and discussions around cutting edge advances. The last day is dedicated to the bi-annual meeting of the Indian Society for Stereotactic and Functional Neurosurgery (ISSFN) congress. We plan to provide ample opportunities for delegates to present work in platform and e-poster formats. Scientific committee has worked very hard to enlist eminent faculty to contribute to this meeting. Jaslok Hospital and Research Centre has supported 16 traveling fellowships to facilitate young neurosurgeons to attend this meeting.

We have introduced a novel concept of country ambassadors for this meeting. Twenty-five leading neurosurgeons have been selected to promote the meeting to neurosurgical colleagues in their country, distributing meeting information and working as a conduit in facilitating delegates.

Mumbai is the financial capital of India and features high on tourist maps. It has excellent connectivity from all parts of the world. I look forward to welcoming you all to Mumbai and offering you a memorable experience.

Warm regards,

Dr. Paresh K Doshi
Chairman
WSSFN Interim meeting 2015
Director of Neurosurgery and Functional Neurosurgery
Jaslok Hospital and Research Centre
Mumbai



# Professors Ron Alterman and David Aguirre-Padilla Perform First DBS Procedure in a Chilean Public Hospital

Last spring, Dr. David Aguirre-Padilla of the University of Chile e-mailed me to ask if I would travel to Santiago to help him perform the first-ever deep brain stimulation procedure in the Chilean Public Health System. I was honored by the request and quickly accepted. Dr. Aguirre-Padilla, a faculty member at the University and a member of the staff at San Borja-Arriarán Clinical Hospital in Santiago, had spent a few months with us in Boston in 2013 during which time we had become friendly. David is hoping to return to Boston to take a formal fellowship in Stereotactic and Functional Neurosurgery, but the current situation required a more urgent response. The patient, a 13 year-old girl from the south of Chile named Fernanda, had been diagnosed with DYT1-associated generalized dystonia. Of late, her symptoms had become more severe. She could no longer ambulate independently or attend school due to active dystonic contractions that were unresponsive to standard medical therapies. In short, she had developed a moderately severe dystonic crisis, one that did not require intensive care but was nevertheless debilitating (see accompanying video on website).

Despite the well-documented success of pallidal DBS for DYT1 dystonia, the public health service refused to buy Fernanda a DBS device and would not consider transporting her to the US for care. The easy thing would have been to apologize to the family and blame the injustices of the Chilean Healthcare System for Fernanda's continued suffering; but to their credit, Dr. Aguirre-Padilla and his Pediatric Neurology colleague, Dr. Monica Troncoso, persisted. They appealed to the Chilean people through a local news broadcast. The response was overwhelming and the hospital raised enough money to purchase a rechargeable DBS system, rent all of the necessary OR equipment for the procedure, and to fly me to Santiago so I could perform the operation with Dr. Aguirre-Padilla.

Having little margin for error, we prepared carefully before my arrival. I first gave Dr. Aguirre-Padilla a detailed list of the equipment that would be required. Medtronic, Chile was able to lease the hospital a Leksell frame and LeadPoint™ navigation/recording system so I would be working with familiar tools. The hospital did not have an MRI scanner, so one week prior to the surgery, the patient underwent MRI under general anesthesia at an outside facility and the images were made available to me so I could check their quality before my arrival.

I arrived on a Monday morning in mid-May having flown from Boston overnight. Despite the 13-hour flight I suffered little jet lag thanks to Zolpidem and the fact that Santiago and Boston share the same time zone. After a quick shower and change of clothes, we proceeded to the hospital to meet Fernanda and her parents, and to check all of the equipment prior to sterilization.

I was of course interested in Fernanda's family history, wondering how a mutation found predominantly in Jews of Ashkenazi heritage ended up in a girl from Southern Chile. Interestingly, Fernanda's father, who had a mild focal hand dystonia, was descended from a Converso family that had left Spain for Chile generations ago. Though Spanish Jews are Sephardic and not Ashkenazi, at least we had found a link to European Jewry that could explain the family's mutation. After discussing the procedure in detail and taking some photographs, we proceeded to central processing to inspect the equipment. It was in mint condition. We were on.

The circumstances of this surgery were unusual to say the least. I had once before performed a DBS procedure at a South Korean hospital but that was a very modern academic facility and there was no press involved. In contrast, San Borja-Arriarán Clinical Hospital is exactly what one might imagine a South American Public Hospital to be- large, old, unwieldy, and tired; a place where only those who have no other option would come for their care. On the other hand, there was an energy among the staff unlike anything I've experienced in the U.S. There was a sense of mission among the doctors and nurses- a rapport that was infectious and motivating. This was about Fernanda, period. All egos were shelved. And it was clear they wanted to prove that they could do this operation, even in this facility. There were also no boundaries- I literally had to push TV cameramen out of the OR as Fernanda was wheeled in. It was chaos.

Fernanda was quickly sedated, lined up, and the frame was applied. We transported her to CT (the only CT scanner in a facility with more than 300 beds and >2000 clinic patients per day) and the images were uploaded onto the workstation for planning. Initially, the Stealth software would not merge the CT to the MRI; but I was eventually able to make it work using a trick an old friend from Medtronic had once shown me. I created the surgical plan. From there, the surgery proceeded smoothly, though there was a significant amount of electrical interference, which made the micro-electrode recordings virtually useless. Confident in my anatomical targeting we proceeded with the lead implant and observed no capsular effects with test stimulation.

What was most impressive to me was the fact that my scrub nurse, Miss Carol Alicera, who speaks no English (I speak no Spanish), anticipated each instrument I would require for the second implant, having simply observed my performance of the first. What fun to work with such an attentive, dedicated assistant. It was during this second implant, however, that I was informed of our next obstacle. Right after performing Fernanda's targeting study, the one CT scanner crashed and was unavailable to perform the post-operative scan. Thank goodness it had not crashed beforehand! Desiring to check lead position before implanting the only pulse generator we had, we took Fernanda out of the frame, bundled her up, and transported her via ambulance to another public hospital across town, the Institute of Neurosurgery Asenjo, where she had undergone the prior MRI. The new scan revealed excellent lead placement and we returned to implant the IPG. We were done by 6PM, Fernanda was tucked away in the Pediatric ICU, and we went out to celebrate.

The next day, we arrived at the hospital early to activate the devices. As I have always worked with outstanding movement disorders neurologists, I've had little experience programming DBS devices myself. Fortunately, the programming went smoothly, with few adverse effects. I left activated the ventral-most contacts on both sides and set her at 80Hz, 210 msec, and 3.5V. With nothing else to do that day, we headed to wine country and Valparaiso. The day was overcast and a bit cold but immensely enjoyable. We lunched at a vineyard where I learned of Carmenere, one of the original six varieties of red grape approved for the production of Bordeaux. The fungus Oidia all-but eliminated Carmenere in France but the species was rediscovered in South America and has become the national grape of Chile. It yields a rich, spicy wine that rivals Argentinian Malbec and American Zinfandel. I recommend it highly. After lunch, we traveled on to Valparaiso (no worries- we had a driver!), a port city that was also home to Pablo Neruda, the cherished poet of Chile. We toured Neruda's home, which has expansive views of the city and port below, and walked the city's streets before returning home.

On Thursday morning we arrived to find Fernanda already improved. Her phasic dystonic movements were slowly dissipating and she was far more comfortable. I presented at Pediatric Neurology Grand Rounds after which David and I spent the afternoon sightseeing. By Friday, Fernanda was further improved and I said good-bye, confident that she would do well so long as she did not develop an infection. I was honored to present Neurosurgery Grand Rounds at the Institute of Neurosurgery Asenjo where, surprisingly, I met with great resistance regarding the use of DBS in Chile. I was disappointed that Neurosurgeons in such a wealthy nation would not see DBS as a technology they should embrace, even for a patient such as Fernanda.

After a lovely lunch at a park in Santiago, it was time to say good-bye. I flew back overnight, arriving in Boston early Saturday morning, relieved that everything had gone well. Fortunately, Fernanda did not develop an infection. She has continued to improve, though she did require additional orthopedic procedures to treat contractures at her ankles. I cannot thank Dr. Aguirre-Padilla enough for this incredible experience. I also want to thank the representatives of Medtronic, Chile and the staff of the San Borja-Arriarán Clinical Hospital who were incredibly warm, supportive, generous, and professional. In the US, we can become so entangled in the business of medicine that we forget why we became physicians in the first place. It's important that we take on challenges such as this to keep ourselves grounded in the gift of modern medicine and to support the WSSFN's mission to promote the development of stereotactic neurosurgery throughout the world. It is without question that I benefited from this experience almost as much as Fernanda, whose bravery throughout this process was inspiring.

Ron L. Alterman, MD
Professor, Harvard Medical School
Chief, Division of Neurosurgery, Beth Israel Deaconess Medical Center

# Save the date – AASSFN in Cairns, Australia

March 3-5

Asia and the Pacific constitute 60% of the world's population, and have 60% of the world's neurosurgeons. Thus there is a tremendous level of clinical and scientific neurosurgical activity in the region. Within this, the field of stereotactic and functional neurosurgery has been expanding exponentially. The 10th Scientific Meeting of the AASSFN will be held in Cairns, Australia from March 3-5, 2016. Building on previous meetings , particularly those of Shanghai in 2014 (Bomin Sun, President) and Jeju in 2012 (Jin Woo Chang, President ) this meeting will host distinguished international speakers as well as showcase advances in stereotactic and functional neurosurgery in Asia and the Pacific.
Cairns is set in beautiful tropical Australia, and is the gateway to the Great Barrier Reef, one of the natural wonders of the world, and the world's largest single living ecosystem. The social program will feature highlights of Australia in general and the tropical north in particular. There will be numerous options for participants and their families to explore other parts of Australia, near and far, before and after the meeting.

The meeting itself will be held at the Shangri-La Hotel, which is fabulously located on the Cairns waterfront looking out over the blue tropical Pacific Ocean.

Cairns is readily accessible by air from all major Australian cities, and by direct flights from Tokyo, Hong Kong, Singapore (from mid 2015), and Auckland.
The website and preliminary program are imminent, so stay tuned.

Terry Coyne
Meeting President

# Opinions

The Lasker Prize, pallidotomy, and the curse of randomized controlled trials in movement disorders and psychiatry; a viewpoint

by: Marwan Hariz, MD, PhD, Professor of Functional Neurosurgery
UCL Institute of Neurology & National Hospital for Neurology and Neurosurgery, Queen Square, London, UK

In JAMA Neurology published online January 5, 2015 we could read: "This year's Lasker-DeBakey Clinical Medical Research Award honors Mahlon R. DeLong, MD, at Emory University in Atlanta, Georgia, and Alim-LouisBenabid, MD, PhD, at Université Joseph Fourier in Grenoble, France, for their development of deep brain stimulation of the subthalamic nucleus (STN) for patients with advanced Parkinson disease (PD)." There was no mention, neither in this publication nor in any of the other published celebrations of this award (Nature Medicine, Vol 20, No 10, October 2014; PNAS, December 16, 2014, vol. 111, no. 50; N Engl J Med, Vol 371, No 15, October 9, 2014) of the pivotal role played by scientist Hagai Bergman who was the lead author of the original publication in 1990 on lesioning the STN in MPTP monkey, nor of neurologist Pierre Pollak, who was lead author of the first publication in 1993 of STN DBS in human, and whose decades-long work as an academic and clinician neurologist was instrumental in the analysis, evaluation, documentation and popularization of STN DBS.

Of course these omissions do not at all diminish the seminal contributions of De Long and Benabid who more than deserve the award! Ironically, though, the award concerned STN DBS whereas De Long's main focus has been on…pallidotomy. De Long is considered in the US as the father of posteroventral pallidotomy which was pioneered in the post-L-dopa era by Laitinen in 1992 when he revitalized the old Leksell pallidotomy of the 1950s. Interestingly, in 2001 "Moving Along", the newsletter of the Movement Disorder Society featured a Controversy section titled "Controversies in the Treatment of Parkinson Disease" (Moving Along, Volume 3, issue 2, December 2001, page 3, continued on page 5). Here there was a debate between DeLong arguing "Why Pallidotomy Should Not Be Abandoned" and Benabid arguing "Why Should We Abandon Pallidotomy?" De Long argued that "… pallidotomy offers significant advantages over DBS " and is "far less expensive, there is no need for time-consuming adjustments of stimulation parameters or replacement of batteries, and the patient is freed from the risk of infection and mechanical breakdown of leads or of the stimulator " De Long concluded that "It remains uncertain whether unilateral pallidotomy offers any long-term advantage over DBS or visa versa", and advised that "Thus, before abandoning pallidotomy we should do the necessary studies and compare the different procedures head-to-head. "

The famous Follet et al trial (Follett KA, et al, N Engl J Med. 2010;362:2077-91), compared blindly the results of GPI DBS and STN DBS in PD patients 2 years after the surgery and concluded not only that there was no difference between brain targets, but also that the percentage of improvement in the off-medication scores of the motor part of the Unified Parkinson´s Disease Rating Scale (UPDRS) amounted in both groups to between 24 and 28%, which is far below the improvement reported in the great majority of open label trials of STN DBS worldwide. The irony is that this degree of improvement is exactly the same as that of unilateral pallidotomy reported in three controlled randomized trials comparing pallidotomy to best medical management, or to bilateral STN DBS: Vitek, DeLong and collaborators showed in 2003 in their randomized study of pallidotomy versus best medical management (Vitek JL, et al. Randomized trial of pallidotomy versus medical therapy for Parkinson's disease. Ann Neurol. 2003;53:558-69) a similar level of improvement of 25% at 2 years following pallidotomy, similar both in percentage and in absolute scores of the motor UPDRS to the Follett trial results. Also, Lang et al. reported in 1997 same level of improvement at 2 years following pallidotomy (Lang AE, et al. Posteroventral medial pallidotomy in advanced Parkinson's disease. N Engl J Med. 1997;337:1036-42). Finally,

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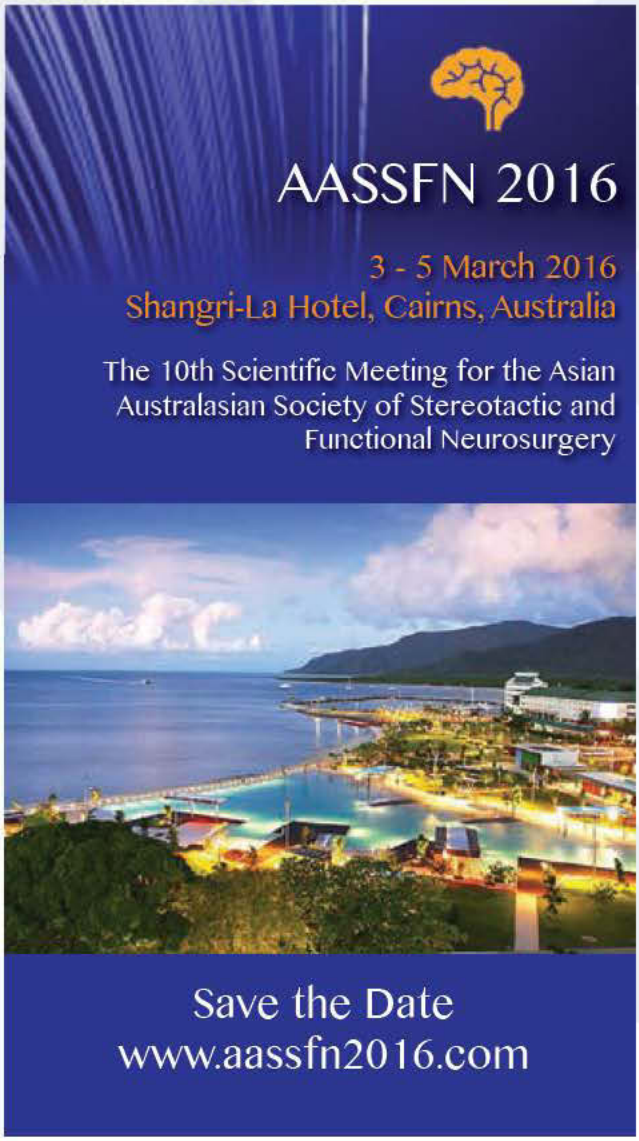


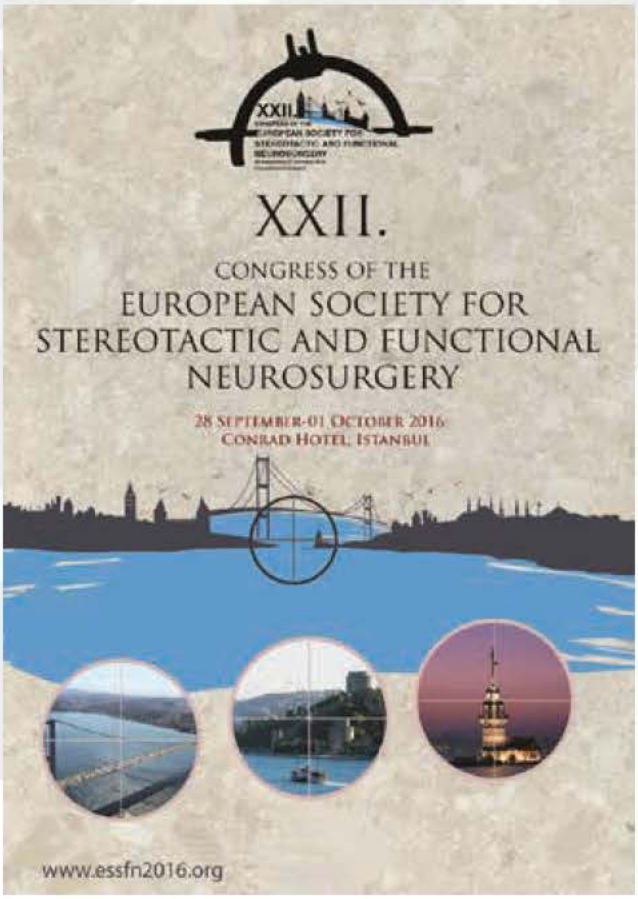
*Opinions, continued from pg. 4*

The Amsterdam group comparing randomly unilateral pallidotomy to bilateral STN DBS showed that at 4 years follow up, unilateral pallidotomy patients had improved 27% and bilateral STN DBS patients 46% (Esselink et al. Unilateral pallidotomy versus bilateral subthalamic nucleus stimulation in PD: a randomized trial. Neurology. 2004;62:201-7).

So, in summary, bilateral DBS whether in GPi or in STN showed in a randomized trial the same degree of improvement at 2 years in-between targets, both in percentage and in absolute figures, and as compared to improvement 2-4 years following pallidotomy, as reported in three randomized trials of pallidotomy. Hence the predictions of De Long in 2001 about pallidotomy, were, after all, not injustified. The comparative published results of DBS and pallidotomy presented above beg the question of whether it is worthwhile to continue to use an expensive, cumbersome, and laborious method such as DBS, when PD patients can benefit as much from a less complicated unilateral pallidotomy procedure? This question is even more justified given that there were less complications in the pallidotomy trials shown above than in the recent randomized STN DBS vs GPI DBS study! Should the Lasker prize have been awarded also to Laitinen posthumously?

North American Randomized Controlled Trials (RCT) in functional neurosurgery seem to have a curse following them. We all remember the failure of two independent RCTs of fetal cell transplants for PD. We also remember the failure of RCT trial of intraventicular as well as putaminal GDNF delivery in PD patients. In the latest online publication "AANS Neurosurgeon" (Volume 24, Number 1, 2015), Douglas Kondziolka argues for "Clinical Registries for Neurosurgery" as an alternative to RCTs stating that "Data collection and analysis drives change in practice, whether used locally or published for a broad readership...." In fact I think that in a way Kondziolka is right. How else to explain that despite the results of the RCT of Follet et al equating STN DBS and GPi DBS, most workers in the field, whether in North America or elsewhere still favor STN DBS over GPi DBS and certainly over pallidotomy. It is the wealth of the literature in the field – a kind of scholar registry - that "drives the change in practice" while the high impact publication of the Follett et al RCT mentioned above did not at all result in a "change in practice" anywhere in the world.

The curse affecting North American RCTs has now struck again resulting in the discontinuation of two RCTs of DBS for depression, one targeting the ventral striatum and one targeting the subgenual cingulum. This setback has so far not led to a self-critical analysis and meditation about the rational to do such trials when so few open label studies have been done in this field and so many targets have been investigated with a microscopic number of patients in each target. Instead, just few days ago, a statement by "The Psychiatric Neurosurgery Committee and Board of Directors of the ASSFN" appeared in Stereotact Funct Neurosurg (2015;93:69). Reading this statement is like reading a religious sermon not a scientific, analytical or self-critical scholar document: " The Psychiatric Neurosurgery Committee and Board of Directors of the American Society for Stereotactic and Functional Neurosurgery (ASSFN) would like to express their enthusiastic and unwavering commitment to research exploring the neuromodulatory treatment of psychiatric disease." And: "An unintended consequence of the discontinuation of these two trials is the interpretation by the public, industry, regulatory bodies, and health care professionals, that trial discontinuation represents a failure of the therapy, rather than just an unsuccessful trial." And: "we continue to believe that there is great promise for the therapeutic application of neuromodulation to diseases of mood, behavior, and cognition. We wish to reassure the many sufferers of psychiatric disease that we are committed to untangling these complex disorders and remain steadfast in our conviction that neuromodulation will ultimately be an important therapeutic modality." I would not have been surprised if that published statement had ended with the word "Amen".




Strangely, I cannot recall that I have seen any similar statements following the failure of the two fetal transplant trials, or following the failure of the GDNF trials.

The issue with DBS for depression (or OCD) is that perhaps the two trials were highly premature. As a comparison, in STN DBS, it took about a hundred open label papers worldwide with hundreds of published patients who were followed for sometimes several years, BEFORE the accumulated experience was enough for a team to design and conduct the first multicenter RCT of STN DBS!

In DBS for depression, the two failed trials took place when nobody knew (and still, nobody knows) what exactly is the target, how is the long term follow up, which stimulation parameters to be used, what are the challenges of DBS in this population of patients, etc, etc, let alone the existence of about 8 different brain targets published for DBS for depression with a minimal number of patients for each target, and this despite several years of intense activity in the field, starting with the famous paper of Mayberg and Lozano in 2005 or the German papers on ventral striatum DBS. In other words, was it too early to embark on a trial in this indication based on at most anecdotical reports from open label studies? This fundamental question is not mentioned or acknowledged in the bombastic statement of The Psychiatric Neurosurgery Committee of the ASSFN. Nor is it acknowledged that the main difficulty in DBS for depression (or OCD) is the difficulty to recruit patients, the reluctance of most psychiatrists worldwide to refer patients for DBS, and the fact that unlike the hundreds of neurologists worldwide heavily implicated clinically and academically in DBS for PD, those psychiatrists –worldwide- who have shown a genuine and serious interest and knowledge in DBS for depression (or OCD) can still be counted on the fingers of both hands! I would have expected a more humble, balanced, analytical and self-examining statement from my dear colleagues neurosurgeons of the psychiatric committee of the ASSFN. I am sure that many psychiatrists who would read their statement in Stereotact Funct Neurosurg may raise an eyebrow or two.

Finally, I read with some amazement in the statement that "The ASSFN Board of Directors has begun a dialogue with the leadership of the neuromodulation industry. There is a shared belief in the therapeutic potential of neuromodulatory approaches to psychiatric disease and a universal acknowledgment of the need for more refined, innovative, and effective solutions. Ultimately, progress will require a partnership between academia and industry to produce viable solutions for the treatment of psychiatric disease." I think The Psychiatric Committee of the ASSFN will do well to begin a serious dialogue with psychiatrists, to try to have "a shared belief" with them to start with, about "the therapeutic potential of neuromodulatory approaches to psychiatric disease" and to try to convince them "of the need for more refined, innovative, and effective solutions". Partnership with psychiatrists is more of a key than partnership with industry. In fact Industry will but follow such a serious partnership. Look at DBS in movement disorders: it is the worldwide partnership between functional neurosurgeons and motivated movement disorder neurologists that has ensured the swift and long lasting success of DBS in the field of movement disorders! The industry just followed…

Marwan Hariz
London 26 February, 2015

# Symposium on Neuromodulation & Psychiatric Disorders – From Neuroscience to Clinical Practice

21 - 23 June, 2015
Shanghai Jiao Tong University Ruijin Hospital, China

Chairs of symposium:
Mu-ming Poo, PhD (Institute of Neuroscience, Chinese Academy of Science)

Bomin Sun, MD, PhD (Center for Functional Neurosurgery, Shanghai Jiao Tong University Ruijin hospital)

Neuromodulation, the alteration of nerve activity through the delivery of electrical stimulation or chemical agents to targeted sites of the body, is a new approach to research concerning how the brain works and how to treat psychiatric diseases. There are many ways in which neuromodulation is a new paradigm shift, as well as a valuable addition to traditional treatment of mental disorders.

This international meeting, organized by Shanghai Jiao Tong University Ruijin Hospital, Shanghai Mental Health Centre, and The Institute of Neuroscience, Chinese Academy of Scientific, will be the first neuromodulation meeting to integrate all of the various techniques and subspecialties involved in the psychiatric field. This program emphasizes our field's transformative force on the treatment of psychiatric disorders.

More than 20 invited speakers in neurosurgeons, psychiatrists, basic researches in neuroscience and engineers of neuromodulation device have been invited. This productive multidisciplinary meeting will propel the next generation of advances in the psychiatric field.

Topics will involve cutting-edge researches and clinical applications in neuroimaging, neurophysiology, deep brain stimulation, transcranial magnetic Stimulation, focused ultrasound and other novel neuromodulation techniques.

Lucy Cao ( Bomin Sun, MD,PhD)
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# Noble Art of Lesioning 2014 in Tokyo

I would like to report an experience of attending the conference 'Noble Art of Lesioning 2014 in Tokyo', held in international house of Japan from Nov 17 to Nov 19, 2014. Under the title of "Hands-on training course for lesioning procedures in stereotactic and functional neurosurgery", four of the senior functional neurosurgeon in our generation gathered and delivered the history and techniques of lesioning in the field of movement disorders and psychiatric surgery. Professor Marwan Hariz in Queen Square, Professor Jean Regis from Marseille, Professor Rees Cosgrove in Providence, and the course director, Professor Takaomi Taira have organized 'Noble art of Lesioning'. Indeed, this Tokyo meeting is the 2nd course of 'Noble art of Lesioning' which was first held in Marseille, France in October 2013. (Fig 1)

The reason why I attended 'Noble art of lesioning' in Tokyo is that I felt that this is an excellent chance to summarize the knowledge about lesioning with lessons from experienced seniors. Although most recent reports regarding stereotactic and functional neurosurgery are dealing deep brain stimulation, lesioning procedures such as unilateral thalamotomy for disabling tremor in the dominant hand with essential tremor is still an attractive, logical means of treatment. For several years ago, I requested Professor Taira that lesioning techniques is challenging to younger generation and senior functional neurosurgeons have to transfer detailed methods and tactics of radiofrequncy lesioning procedures. Indeed, I, as a functional neurosurgeon of more than 10 years in this field, have tried DBS almost always and my RF lesioning is one or two cases a year at most. In the papers regarding RF lesions, I was curious about that the coagulation times, tip temperatures, and the tip length of uninsulated RF electrode for successful and safe lesioning in VIM and GPI differs from center to center, and I think we need perspectives from experienced senior functional neurosurgeons in previous generation who have experienced the era of pre-DBS.

Unsurprisingly, many doctors (50 neurosurgeons and neurologist from 17 countries worldwide) who are still interested in lesioning techniques attended Noble Art of Lesioning. We are deeply impressed about the histories of lesionings and advantages of lesionings, and informed about several weak points of DBS, controversies of micro electrode recordings, importance of image-guided surgery, coagulation techniques, etc. Furthermore, information about posterior subthalamic areas, gamma thalamotomy for tremor, lesioning for psychiatric illness was quite helpful to me. Hands-on course using the planning softwares from diverse companies and real time inspection with RF egg-white coagulation seemed an excellent means to understand that the actual

*continued, pg. 7*

# Officers

*Noble Art of Lesioning 2014 in Tokyo, continued from pg. 6*

coagulation differs with various diameters and length of uninsulated tip of the RF electrode. (Fig. 2, 3) I really appreciate the dedicated effort of four course directors to provide a perspective of stereotactic and functional neurosurgery.

Of course, all attendees and lecturers enjoyed a warm hospitality and beautiful scenery of Roppongi Hills in Tokyo night. We were happy with sharing our own experiences with distinguished authors and friends from many countries. I might not forget the exciting and enchanting drinking bar (Gompachi; the movie 'Kill Bill' was taken). We shared all the presentation files, relevant references, and historic video clips of great antecedent seniors such as Narabayashi, Ohye, Cooper, etc. I hope this kind of nice opportunity is, indeed, a unique chance of transferring spirits and traditions of stereotactic and functional neurosurgery from experienced seniors to next generation surgeons who are willing to dedicate themselves in this field and I decide myself that I could join again the next 'Noble Art of Lesioning' with my juniors. I express my great thanks to four course directors, Drs. Hariz, Taira, Regis, and Cosgrove for their dedication and passion in functional neurosurgery.

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