

# WORLD NEUROLOGY

THE OFFICIAL NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

## Council of Delegates 2014

### Report to WFN Members

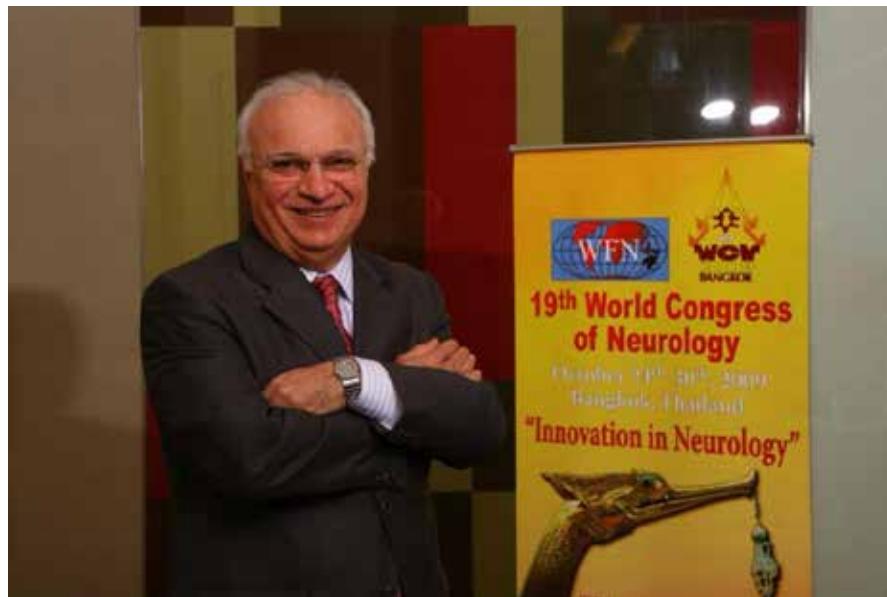
BY RAAD SHAKIR, PRESIDENT, WFN

The WFN holds an annual general meeting. As a U.K. registered charity, it is legally required to be accountable to its membership and report its activities and finances on an annual basis.

The Council of Delegates is the highest authority of the WFN. It holds the elected officers and trustees to account and has the full power over all matters related to the activities of the WFN as stated in the WFN Memorandum and Articles of Association. These can be found on the WFN [website](#).

The 2014 Council of Delegates (COD) was held on Sept. 11, 2014, during the joint ACTRIMS/ECTRIMS meeting in Boston, Massachusetts. A total of 34 out of 116 delegates, including those with proxies, were eligible to vote. (See Figure 1 on page 15)

This was my first COD as WFN president, and I thanked the delegates for their trust in electing me as well as thanked my predecessor Vladimir Hachinski for his role in developing the WFN during his



term of office. I will do my best to move the organization forward.

The continued collaboration with peer organizations through the World Brain Alliance will be further cemented to ensure that it will prosper. The creation of the Regional Directors Liaison Committee under the chairmanship of Tim Pedley, WFN North America regional director,

was reported to council. This committee is independent from WFN officers and is charged with implementing the principle of global involvement through regional empowerment.

The COD approved several items presented by the trustees. Changes to the WFN Memorandum and Articles of

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Turkish Brain Action Group was founded from suggestions of the European Brain Council in August 2013.

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## 54th International Neuropsychiatric Congress

The 54th International Neuropsychiatric Pula Congress (INPC) was held in Pula June 18-21, 2014, under the auspices of the Croatian President of Republic Prof. Dr. Ivo Josipović.

The organizers of the Congress are: Kuratorium International Neuropsychiatric Congress, Department of Medical Sciences of the Croatian Academy of Arts and Sciences, the Association of Neuropsychiatry and Zagreb's Institute for the Culture of Health. It was endorsed by the World Federation of Neurology and supported by the European Psychiatric Association, the Central and Eastern European Stroke Society (CEESS) and

International Interdisciplinary Medical Association of Russia. The main sponsors of



Opening of the 54th International Neuropsychiatric Congress in Pula.

the congress were the Ministry of Science, Education and Sports of the Republic of

Croatian, City of Zagreb, City of Graz, and Istria County. There were more than



President of the INPC Congress, Prof. Vida Demarin and Prof. Michael Chopp with his wife.

350 participants from Croatian, Albania, Austria, Bosnia and Herzegovina, Monte-

negro, Czech Republic, Greece, Iran, Italy, Ireland, Hungary, Macedonia, Germany, Poland, Romania, Russia, United States, South Korea, Slovenia, Serbia, Ukraine, United Kingdom.

The main theme of the congress was "Lifestyle and Prevention of Brain Impairment." In addition to lectures on the main theme, there were numerous accompanying symposia, in particular: third European Summer School of Psychopathology, seventh International Symposium on Epilepsy, second Neuro-Interdisciplinary School, third Symposium on the Interface Providers in Neurorehabilitation, psychiatric

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**WORLD NEUROLOGY**, an official publication of the World Federation of Neurology, provides reports from the leadership of the WFN, its member societies, neurologists around the globe and news from the cutting-edge of clinical neurology. Content for *World Neurology* is provided by the World Federation of Neurology and Ascend Integrated Media.

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*World Neurology*, ISSN: 0899-9465, is published bimonthly by Ascend Integrated Media, 7015 College Blvd., Suite 600, Overland Park, KS, 66211. Phone +1-913-344-1300 Fax: +1-913-344-1497.

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# Putting the Brain on the World Map

## Report of a highly successful debut World Brain Day

BY MOHAMMAD WASAY, MD, FRCP, FAAN

The idea of World Brain Day received a lot of appreciation and enthusiasm since its approval by World Federation of Neurology (WFN). Time was short, and the task was huge but the Public Awareness Committee (PAC) and Grisold Wolfgang, secretary-general, WFN, worked over a three-month period to make it a success.

Developing a public message and theme was the foremost task. AAN's palatucci list serve made it easier. Many slogans, themes and messages were discussed and finally PAC suggested a list of themes, logos, messages and publication material.

All member country delegates were sent a memo by President Raad Shakir regarding information and suggested activities for World Brain Day. *World Neurology's* article on World Brain Day also created awareness and momentum for this day.

Publication material including banners, posters and brochures were designed by a professional team of an advertising agency. These materials were made available to all delegate societies by the WFN website. The WFN Facebook page actively posted these materials that were shared by thousands. The number of WFN Facebook page likes were increased by 500 percent over one month. A special post on our Facebook page was a specially recorded video briefing of World Brain Day by Shakir. This video was shared by thousands creating awareness about World Brain Day.

An international media agency was hired to prepare a press briefing and disseminated throughout world media in four languages (English, German, Spanish and French). It was additionally translated into Urdu, Arabic, Hindi and other local languages. July 22, 2014, was a memorable

day for WFN in terms of media propagation. Hundreds of newspapers around the world published our press briefing in more than 10 languages. Radio and TV programs were produced and telecast.

Member societies played an exceptional role in the day's success. Despite limited time, more than 50 member societies organized public awareness activities in their countries. These included press conferences, seminars, patient awareness activities, briefings to media, students and health care workers. The largest numbers of activities were organized in India, Turkey and Pakistan. In India, other professional organizations including epilepsy foundation and Indian Neurorehab society organized activities. A prominent feature of World Brain Day activity in Janakpuri Hospital, New Delhi (organized by M.M. Mehndiratta) was Skype address of Raad Shakir.

The highest impact of this day was created on social media. Many societies shared and posted the World Brain Day banner on their websites. The American Academy of Neurology posted World Brain Day info on its website and Facebook pages with thousands of sharing.

Activities were largely organized by WFN and member societies. Due to a shortage of time, we were not able to actively involve other professional organizations especially Brain Council and Brain Research Organizations, World Health Organization and affiliated organizations like UNICEF.

In my knowledge, none of world days have received so much attention and media coverage as World Brain Day in its debut year. Our goal is to establish it as a joint WFN-WHO day. That requires years of awareness and advocacy. We should start planning for 2015 World Brain Day now with a target to approach millions of people, thousands of doctors (especially neurologists) and hundreds of health care and government officials in 2015. •



Prof. Mohammad Wasay

Wasay is a professor in the Department of Neurology, Aga Khan University, Karachi, Pakistan, and the chair, public awareness and advocacy committee, World Federation of Neurology.

## Rabat Center

Following the accreditation of the Center of Rabat as a training center of African neurologists, the Department of Neurology at the Mohamed V University hosted Dr. Mohamed Albakay from Mali Sept. 9, 2014, as the first African intern.

Albakay received a grant from the World Federation of Neurology of 12,000 Euros to cover the stay in Rabat, the accommodation, a return ticket Bamako-Casablanca and health insurance.

Following the agreement between the WFN and the Moroccan Foundation Against Neurological Diseases, the scholarship of Albakay will be managed by the foundation.

Albakay has already begun his training in electromyography in the Department of Clinical Neurophysiology of the Hôpital des Spécialités, headed by Prof. Rida Ouazzani. During this stage, he also experienced the expertise of the team in the diagnosis of myopathies and peripheral neuropathies.

The second part of the course will take place in the Department of Clinical Neurophysiology of Mohammed-V

Military Hospital, headed by Prof. Hamid Ouhabi. This department is well known for its expertise in EEG, video EEG and in the treatment of epilepsy.

Albakay may participate in the various multidisciplinary staffs organized by our department.

Furthermore, the Moroccan Society of Neurology decided to support his participation to the Maghreb Congress of Neurology that will be held Nov. 13-15, 2014, in Agadir. •

Prof. Mustapha El Alaoui Faris, Department of Neurology and Neuropsychology, Mohamed-V University, Rabat, Morocco

## PRESIDENT'S COLUMN

# World Brain Day 2014

During the summer of 2014, an important date was introduced into the neurological calendar with the creation of the first World Brain Day (WBD) on July 22 – the anniversary of the founding in 1957 of the WFN. This was celebrated across the world. Many neurological associations publicized the marvels of the brain and promoted neurological care. The impact on decision makers and on the public will take time to evaluate.



RAAD  
SHAKIR

## World Brain Day Across the Globe

There were many examples. *The Times of India* published a World Brain Day Supplement and its reporter from Nagpur detailed the events happening in that city, which lies at the heart of India:

"Listen to the heart, goes a saying. But science eulogizes the brain, which controls every organ, including the heart. Unfortunately, the general public as well as doctors have not accepted the importance of the brain over the heart. Hence, the



## Sağlıklı Beyin Sağlıklı Gelecek Demektir

Selçuk Üniversitesi Nöroloji Anabilim Dalı Başkanı Prof. Dr. Serefur Öztürk, Dünya Beyin Günü münaseletiyle yaptığı açıklamada beyin ile ilgili hastalıklardan korunma ve beyin sağlığının önemine dikkat çekti. Prof. Dr. Öztürk, "Dünya genelinde hastaların en basit ilaçlara bile erişememesi çok acı bir tablodur. Epilepsi'de hastanın yüzde 70'i ilaç aldıklarında nöbet geçirmeyen ilaç alamayan düşük gelirli ülkelerde hastaların yüzde 80'i bu ilaçlara ne yazık ki ulaşamıyor." diye konuştu. Devletlerin ve uluslararası örgütlerin

beyin sağlığına öncelik vermeleri gerektiğini söyleyen Prof. Dr. Öztürk acıdamasında, "Nörolojik hastalıklar kişisel kayıplara sebep olduğu gibi sosyal ve ekonomik etileri de oldukça ağırdır. Beyin hastalıklarının sadece Avrupa ekonomisine yıllık yükü 798 milyar Avro'dur. Bu rakamın yüzde 60'ı doğrudan hastalıklara harcanan para, yüzde 40'ı da iş gücü kaybıdır. Bu tabloya rağmen nörolojik hastalıkların yükü hala azımsanmaktadır. Bu nedenle 'Dünya Beyin Günü' ile vermek istediğimiz mesaj çok açıktır." dedi.

**Figure 1.** Prof. Serefur Ozturk, president of the Turkish Neurological Society. Article in a local newspaper (Anadolu manjet, konya, 23 temmuz) talking about the World Brain Day.

World Neurological Federation (WNF) has declared July 22 as World Brain Day to create awareness about early detection of brain diseases and trauma, and understand their importance over other diseases. Dr. Chandrashekhkar Meshram, national president of Indian Academy of Neurology, has extended the awareness drive to a 'Brain Week'."

The [Supplement](#) highlighted many facts and figures on neurological diseases including the fact that "15 percent people suffer from neurological (brain) disorders."

Prof. Mohammad Wasay, chair of the public awareness committee, WFN, and I had the pleasure of participating in a Skype appearance at the Janakapuri Super Speciality Hospital in New Delhi organized by Prof. Man Mohan Mehndiratta. This was well attended, and there was a lively question-and-answer session. Similar events happened elsewhere: for instance, in Kolkata with Prof. Arabinda Mukherjee, president-elect of the Indian Academy of Neurology.

Another example of the intense media coverage of WBD was in Turkey. (See Figure 1.) Prof. Serefur Ozturk, president, Turkish Neurological Society, worked hard to promote the day, and many Turkish newspapers covered the activities.

In Zagreb, Croatia, Prof. Vida Demarin and Olga Plazibat, secretary of the Croatian Stroke Society, are pictured in Kvaternik's Square promoting WBD. (See Figure 2.)

The WFN is most grateful to the EAN for the coverage WBD had in Europe with the publication in *Neuropenews*. Prof. David Vodusek (Slovenia), one of the current editors, had the poster and news publicized across Europe.

Prof. Marco Medina notified all Latin American societies to celebrate WBD in their countries.

Following this global success, the WFN is looking to consolidate the first WBD by involving the WHO and all its regions in the next one on July 22, 2015.

## WFN Grants

The WFN has decided on its grants allocations for 2014. The number of applicants was again healthy, and the reviewers were active in their advice. Perhaps one of the most important aspects of the process is the collaboration with neurology specialty organizations and World Brain Alliance members in partnering the WFN for funding. This is the essence of international collaboration for the advancement of neurology.

## World Health Organization

The collaboration with the WHO continues, and the time has come for all to partici-

pate in the second edition of the *Neurology Atlas*. All WFN member societies have received a questionnaire from the WHO on the status of neurology in their countries. This coupled with information from governmental health authorities should produce a comprehensive picture on the status of neurological services and availability of all facilities needed in neurological practice. I am positive that all neurological societies will provide information to update the current atlas, which is now 10 years old.

The WHO is moving full speed ahead with ICD11, and the process is making progress. The neurology section is nearly complete, but there remains a number of issues, which need further action. Many of you have contributed and given of your time and experience to the project. As with any major endeavor, at the end of the day, the WHO coding team will have the final say in the layout of the classification, and we may have to accept some compromises.



**Figure 2.** Prof. Vida Demarin (right) and Olga Plazibat at World Brain Day in Zagreb.

There are many areas up for discussion, and one has to say that the WHO has been most helpful and accommodating to the neurosciences and has agreed to many reasonable requests without any major difficulties. As an example; the issue of Prion diseases is under discussion now. In ICD10, it was classified under 'slow virus infection'. Now the whole classification and etiology is clarified; however, the issue of transmissibility is being discussed, with the infectious diseases group. Double parenting of various conditions and their coding is being discussed, and compromises are happening across the classification.

## Changes in the Constitution and Bylaws

The WFN is embarking on a major change in its trustees' structure. Over many years, the organization of the WFN has been

under review, and we have had several recommendations to divide the position of secretary-treasurer general into two posts. This has gone through many committees, in particular the Constitution and Bylaws Committee. The WFN's legal adviser has now looked at the proposal, and it was put to the Council of Delegates as a recommendation from the trustees at their meeting in Boston. Thereafter, the Nominating Committee will look for suitable applicants for the post of treasurer, and the Council of Delegates will make a selection during the forthcoming World Congress in Santiago in November 2015.

## Election of a Trustee

By the time this column is published, the Council of Delegates meeting will have elected a new trustee to replace Prof. Gustavo Roman who has completed two terms of office. My two predecessors Vladimir Hachinski and Johan Aarli, both of whom have worked with Gustavo, and I would like to register our appreciation for all of the years of service he has given to the WFN. His work globally and in particular in Latin America has come to fruition in the establishment of the Pan American Federation of Neurological Societies. His expertise will be called upon to continue working

for the WFN. There are four candidates competing for the position of trustee. The trustees welcome the election of Dr. Riadh Gouider as a new trustee; Dr. Gouider will add depth and experience to the WFN management team.

## WCN 2015 Santiago

The preparations for WCN 2015 are well under way, and the program is now practically finalized, the abstract submissions opened in October for six months. The scientific program is finalized and the speakers will provide the highest quality of current neurological information for those neurologists in clinical practice and research. Having been to Chile, I can only say that the organization is impeccable, and the country is delightful. I am sure all of us will have a memorable congress in Santiago. •

# World Brain Day Celebration in India

BY DR. CHANDRASHEKHAR MESHAM AND DR. SANJEEV THOMAS

On July 22, 2014, the World Federation of Neurology (WFN) launched the first **World Brain Day – Our Brain, Our Future**. It was dedicated to bring more attention to the importance of human brain in health and disease and highlight the need to prevent the neurological and psychiatric illnesses prevalent in the society. In India, the first World Brain Day was celebrated under the aegis of Indian Academy of Neurology all over the country with great enthusiasm. The banners, brochures and press release from WFN were circulated to all IAN members. The event helped in spreading the awareness regarding brain health, brain diseases and their prevention. A breakdown of how different centers celebrated activities follows.

## Nagpur

Dr. Chandrashekhkar Meshram, president, Indian Academy of Neurology, convened the meeting of neurologists, neurosurgeons, physicians, psychiatrists and media. It was decided that looking at the magnitude of the issue deserves more than one day so the activities were held for the whole week. A press conference was held on July 18 and a press release in English and local languages was distributed to media. Accordingly, on July 22, a symbolic rally walkathon was organized in the city which was flagged off by Commissioner of Police, K.K. Pathak. Three hundred persons including doctors, school children and senior citizens wearing World Brain Day t-shirts and caps, holding banners and playcards participated in the rally despite the rain. An interview with Dr. Meshram was broadcasted by Aii India Radio.

Three billboards carrying the message of World Brain Day were displayed at prominent places in the city.

Lectures for common public and interactive sessions were organized at ESIS Hospital, Government Medical College and Hospital, Indira Gandhi Medical College and Hospital and Lata Mangeshkar Hospital on July 23-30, respectively. Dr. Poornima Karandikar, Dr. Pravir Waradkar, Dr. Avinash Joshi, Dr. Fulare and Dr. Anand Saoji delivered the lectures and answered questions.

On July 25, a program was organized at Dayanand College. Dr. Meshram presented Talks on Brain Health Supreme Wealth and Neurosurgeon Dr. Nilesh Agrawal presented on Head Injury. It was attended by 500 college students, their parents and teachers.

On July 26, a large public forum was organized at IMA Auditorium. Members of parliament Vijay Darda and Ajay Sancheti and Senior Neurologist Dr. G.M. Taori graced this occasion and ad-

ressed the gathering. Dr. Meshram highlighted the importance of World Brain Day celebration. Lectures on stroke, dementia, brain functions, epilepsy and head injury were delivered by Dr. Dinesh Kabra, Dr. Prafull Shembalkar, Dr. Poornima Karandikar, Dr. Sangram Wagh, Dr. Nilesh Agrawal and Dr. Lokendra Singh. Dr. Nitin Chandak showed clippings of movies. The program was attended by about 400 people. Television channels covered the program and televised it.

On July 27, a painting competition for school children was organized in collaboration with Basoli group. 150 children from 65 schools displayed their creativity on the theme “Our Brain — Our Future.” 11 prizes were given to the students by Girish Gandhi and Dr. Meshram.

Visits to the Brain and Mind Museum were organized daily for students and common public. Specimens of human brain and some animal brains were shown, while brain structure, function and manifestations of various diseases were explained to visitors with the help of models and charts by neurologists, psychiatrists and neurosurgeons.

World Brain Day and Brain Awareness week was celebrated under the aegis of Indian Academy of Neurology in collaboration with Nagpur Neuro Society, Indian Psychiatry Society Nagpur branch, Indian Medical Association Nagpur, Academy of Medical Sciences Nagpur, Nagpur Union of Working Journalists and Basoli Group.

The activities for the whole week were extensively covered by all newspapers in the city with publication of articles, interviews, news items and photographs.

## Janakpuri Superspeciality Hospital, New Delhi

World Brain Day was celebrated at Janakpuri Superspeciality Hospital on July 22, 2014, under the aegis of Advocacy Subsection of Indian Academy of Neurology. More than 250 persons with neurological disorders and their caregivers attended the program and asked the queries related to neurological disorders. The activity was organized by Dr. Man Mohan Mehndiratta, past president of Indian Academy of Neurology. Dr. Sumit Singh, Dr. Shamsher Dwivedi, Dr. Anuj Mittal, Dr. (Brig.) S.P.Gorthi, Dr. Rajeev Anand, Dr. Vikash Gupta, Dr. Subodh Gupta, Dr. Solanki and Dr. Nilesh Kurwale participated in the panel.

A highlight of the World Brain Day celebration was the address by Prof. Raad Shakir, president, WFN, from London, and Prof. Mohammad Wasay, chairman advocacy subsection, WFN, through video conferencing and distinguished faculty comprising of neurologists, epilepsy surgeon, psychiatrist and neurosurgeon

from the public and corporate hospitals. Prof. Shakir and Wasay answered the issues raised by the public, and the faculty members had an introduction session with the president.

## Army Hospital (R&R) Delhi Cantt

World Brain Day was celebrated by Army Hospital (R&R) Delhi Cantt on July 24, 2014, due to service commitments. The program was chaired by Maj. Gen. CS Narayanan, dean, Army Hospital (R&R) Delhi, and the following talks were delivered.

1. Neurology from Bench to Bedside – Brig. SP Gorthi, professor and head of department of neurology
2. Approach to Headache – Dr. Sumit Singh, professor neurology, Medanta Medicity
3. Deep Brain Stimulation in Movement Disorders – Dr. Vinay Goyal, professor neurology at AIIMS

The program was well attended.

A cap was released in honor of the occasion to popularize the day.

In addition, stroke club was organized on July 25 and multiple sclerosis meet was organized on July 28 as part of promotion of World Health Day.

The event was organized by Brig. S.P. Gorthi, Col. Y. S. Sirohi, Lt. Col. Pawan Dhul and the Neurology Team at Army Hospital (R&R) Delhi.

## NIMHANS, Bangalore

National Institute of Mental Health and Neuroscience (NIMHANS) at Bangalore, a premiere institute in the country dedicated to the diagnosis and treatment of neurological and psychiatric disorders is also committed to promoting positive mental health. NIMHANS has established a unique facility “Center for Wellbeing” away from the hospital environment, but managed by NIMHANS’ senior faculties from the Departments of Social Psychol-

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# World Brain Day in Croatia

BY VIDA DEMARIN

In celebration of the first World Brain Day, the Croatian Stroke Society in cooperation with Zagreb’s Institute for the Culture of Health, Associations of People’s Health Andrija Štampar, Society for Neuropsychiatry and the Student Council of the Faculty of Medicine in Zagreb, organized a public health action in Zagreb, Croatia, on July 27, 2014.



Public health action during World Brain Day in Croatia.

The public health action, which was held on Kvaternik’s square in the center of the city of Zagreb, was to celebrate World Brain Day by promoting the activities of the associations and to raise the awareness among community that brain diseases are mostly preventable and that actual perception of the brain should be changed. The day’s activities included measuring stroke risk factors such as blood pressure, blood sugar and body mass index. More than 250 people have measured their stroke risk factors, and more than 1,000 promotional materials were distributed during a day.



Volunteers measuring stroke risk factors.

Prof. Vida Demarin, president of the Croatian Stroke Society and the Zagreb’s Institute for the Culture of Health, was a guest at a TV and a radio show dedicated to celebration of World Brain Day. She pointed out the necessity of such activities in promotion of brain health and prevention of brain diseases.

The community response was more than great, even though it was time of summer vacations in Croatia, which encourages us to continue with such activities in the future. •



TV broadcasting with Prof. Vida Demarin during public health action.

Demarin is the president of the Croatian Stroke Society and Zagreb’s Institute for the Culture of Health.

# World Brain Day Celebrated at Janakpuri Superspeciality Hospital, New Delhi

BY DR. MAN MOHAN MEHNDIRATTA, DR. NATASHA SINGH GULATI, DR. ASHOK KUMAR, DR. BHAWNA SACHDEVA AND DR. MADHU SINHA

The brain: the body's most complex organ harbors about 80 million neurons and controls every thought and action<sup>1</sup>. It can be affected by various diseases and disorders affecting about one billion people worldwide and causing around 6.8 million deaths annually. Neurological diseases and disorders have now been declared as a global epidemic. Knowledge and awareness of brain diseases by individuals and communities can play a crucial role in the prevention, detection and treatment, thus emphasizing outreach public health approach<sup>2</sup>. Recognizing the magnitude of the burden and disability and mortality consequent to neurological disorders the World Federation of Neurology (WFN) took the initiative to celebrate the first [World Brain Day](#) on July 22, 2014<sup>1</sup>. To take this forward and foster brain health in our community, we celebrated World Brain Day (WBD) at our Institute, Janakpuri Super Speciality Hospital (An Autonomous Post Graduate Institute under N.C.T of Delhi) in Janakpuri, New Delhi, under the aegis of Indian Academy of Neurology (IAN). (See Figure 1.) In India, the day was also celebrated in cities like Indore, Nagpur, Kolkata and Bangalore.

Programs like these are very beneficial in a developing country like India where there are many barriers to the neurological education and care such as poor neurologist to population ratio, geographical barriers, illiteracy, lack of trained staff and inadequate resources<sup>3</sup>. These barriers pose a great challenge to our health care

system, which can be overcome by such advocacy campaigns.

The objective of this program was

- 1) To emphasize the types of neurological disorders and their frequency and severity
- 2) To inform that most of these disorders are preventable and curable
- 3) To answer the queries and problems of the patients and their caregivers and understand their needs
- 4) To alleviate the myths and misconceptions related to these disorders
- 5) To serve as a platform for various national and international experts to interact with the patients and their caregivers through video conferencing and panel discussions

More than 250 persons with neurological disorder and their caregivers attended the program and asked the queries related to neurological disorders and patients felt satisfied to get the answer and to interact.

A highlight of WBD celebration was address by Prof. Raad Shakir, president, WFN, from London and Prof. Mohammad Wasay, chairman advocacy subsection, WFN, through video conferencing and distinguished faculty comprising of neurologists, epilepsy surgeon, psychiatrist and neurosurgeon from the public and corporate hospitals. Prof. Shakir and Wasay answered the issues raised by the public and the faculty members had an introduction session with the president.

Dr. Man Mohan Mehndiratta, director (JSSH) and past president, Indian Academy of Neurology, briefed about WBD and its importance, vision and mission of the institution.

Doctors from various hospitals were invited to interact with the patients. Dr. C.S. Meshram, president, IAN, could not make it because of other commitments.

The expert panelists who attended the program include: Dr. Sumit Singh, senior consultant neurologist, Medanta, Medicity, Gurgaon; Dr. Shamsheer Dwivedi, Prof. and HOD, Neurology, Fortis Gurgaon; Dr. Anuj Mittal, HOD, Psychiatry, Deen Dayal Upadhaya Hospital, Delhi; Dr. (Brig.) S.P.Gorthi, senior consultant neurologist, R & R, Army Hospital, New Delhi; Dr. Rajeew Anand, senior consultant neurologist, B.L.Kapoor Hospital, New Delhi; Dr. Vikash Gupta, senior consultant, neurosurgeon, B.L.Kapoor Hospital, New Delhi; Dr. Subodh Gupta, neurosurgeon, Deen Dayal Upadhaya Hospital, Delhi; Dr.Solanki, neurosurgeon, B.R.Ambedkar Hospital; Dr. Nilesh Kurwale, epilepsy surgeon, All India Institute of Medical Sciences, New Delhi; and Rehabilitation Experts, JSSH.

The program continued for more than two hours and still the patients had keenness to ask several questions related to various neurological disorders. Patients, rehabilitation experts, doctors, nurses and technical staff joined for refreshment after the event. Initial feedback from patients and their caregivers included appreciation for the program and a number requested more awareness programs in future.

The Internet is a leading source of disseminating public awareness worldwide both for people seeking health information and those who access it for entertainment and social networking purpose as they are passively influenced by health associated content<sup>4</sup>. The function's videos and photographs are on the video-sharing website [YouTube](#)<sup>5</sup> and social networking site [Facebook](#)<sup>6</sup>.

In conclusion: raising awareness is an ongoing effort which is never done so IAN will continue to build strong grassroots movement all over the country to increase public understanding about neurological disorders and diseases to combat this global epidemic. The World Day program in our hospital as well as other cities in India has paved the way for future programs. •

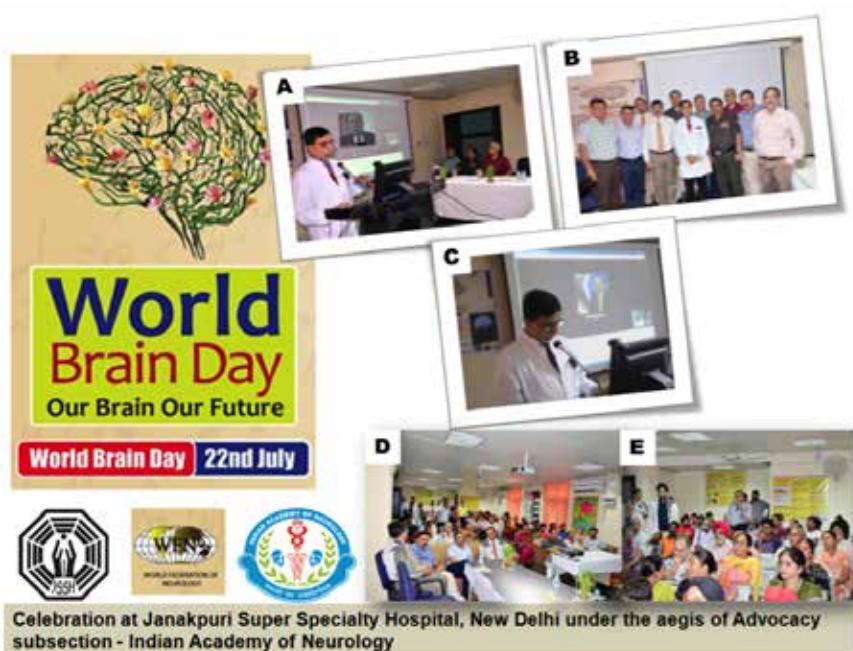
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**Figure 1.** A: Dr. Man Mohan Mehndiratta, director (JSSH) in India and Prof. Raad Shakir, president, World Federation of Neurology, from London addressing the delegates through video conferencing. B: Expert panelists from various hospitals in New Delhi for World Brain Day at Janakpuri Superspeciality Hospital, New Delhi C: Prof. Mohammad Wasay, chairman advocacy subsection World Federation of Neurology from Pakistan addressing the delegates through video conferencing. D and E: Patients and their caregivers attending the program.

## Mark Your Calendars

# 2014

#### [Ninth World Stroke Congress](#)

Oct. 22-25  
Istanbul

#### [Ninth International Conference on Frontotemporal Dementias](#)

Oct. 23-25  
Vancouver, Canada

#### [10th International Congress on Non-Motor Dysfunctions in Parkinson's Disease and Related Disorders](#)

Dec. 4-7  
Nice, France

# 2015

#### [The 12th International Conference on Alzheimer's and Parkinson's Diseases](#)

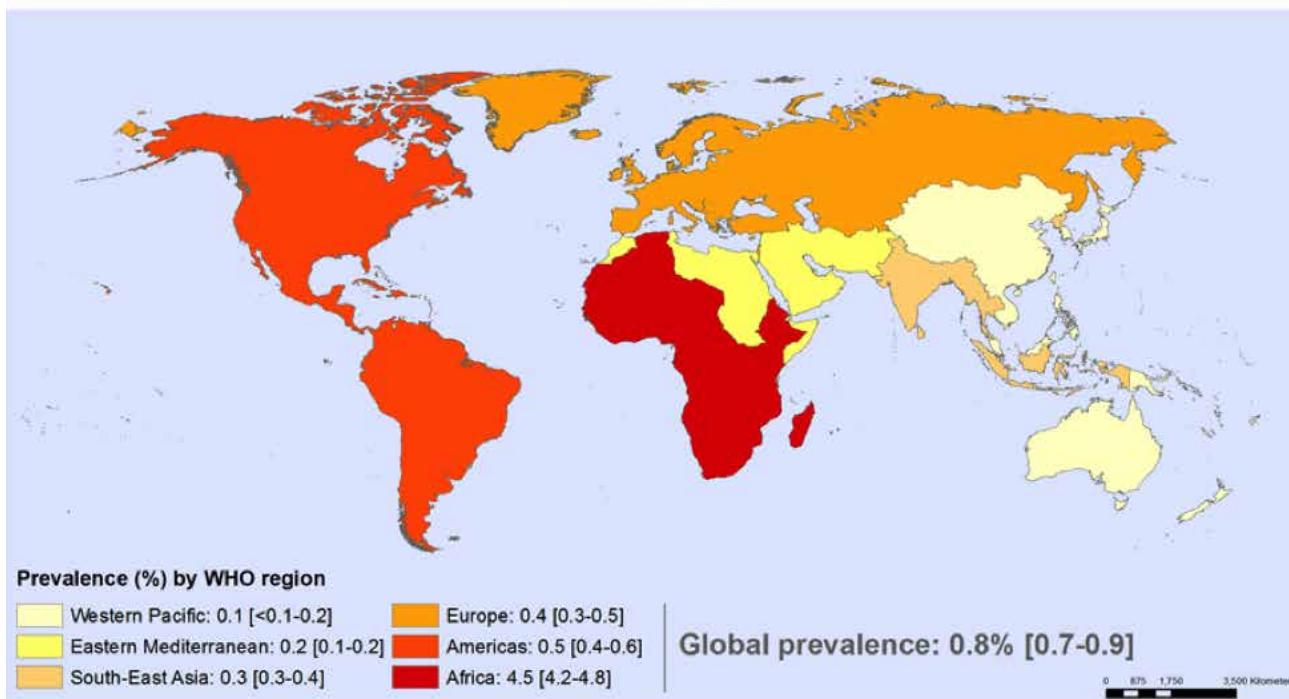
March 18-22  
Nice, France

#### [17th Congress of the International Headache Society](#)

May 14-17  
Valencia, Spain

# HIV in Sub-Saharan Africa

Adult HIV prevalence (15-49 years), 2012  
By WHO region



BY GIRISH MODI

According to data from the World Health Organization (WHO), almost 75 million people worldwide have been infected by the HIV virus. About 36 million people are estimated to have died as a result of being infected. At the end of 2012, globally 35.3 million [32.2–38.8 million] people were living with HIV. In the young economically active adult population (15–49 years) 0.8 percent are living with HIV.

Sub-Saharan Africa bears the brunt of this burden and

remains the most severely affected. In Sub-Saharan Africa, one in every 20 adults are HIV infected accounting for 71 percent of the people living with HIV worldwide.

In South Africa, the total number of persons living with HIV increased from an estimated 4 million in 2002 to 5.26 million by 2013. For 2013, an estimated 10 percent of the total population is HIV positive. Also, 17 percent of South African women in their reproductive ages are HIV positive.

These statistics are important to help understand the impact they have had on the practice of clinical medicine in Sub-Saharan Africa and for us here in South Africa. In the teaching public hospitals in South Africa, 40-60 percent of medical admissions are in some way linked to HIV infection. In the non-teaching rural hospitals, these figures are much higher.

Naturally, neurology has been affected and to a large extent has borne the brunt



Girish Modi

of this epidemic. Neurological involvement in HIV is described to affect 40-75 percent of HIV infected patients admitted to the medical wards in a tertiary care setting<sup>1</sup>. In a prospective study of 506 in-patients at the Helen Joseph Hospital, Johannesburg, South Africa, 75 percent of patients had some clinical neurological involvement, and in 11 percent neurological disease was the sole presenting feature. The neurological presentation of the patient is dependent and to an extent determined by the immunological state of the patient.

## Seizures and Epilepsy in HIV

Seizures in HIV can occur at any stage of the infection and have been described in patients with presumed acute HIV induced seroconversion illnesses through to advanced disease or AIDS.

Incidence data on seizures in HIV infection has mostly been focused on new onset seizures (NOS). All the studies have been hospital-based and most are retrospective. The incidence ranges from 2-20 percent. The differences in incidence can be explained by the different inclusion and exclusion criteria in the studies and the specific groups surveyed. The relatively low incidence of two percent was from a study in New York where patients with provoked seizures were excluded. The high incidence of 20 percent came from Bangalore in India where the study population group was pre-selected in that all their patients had a pre-existing neurological disorder.

In terms of seizure types, in these study populations, generalized seizures were by far the commonest occurring in 58-100 percent of patients. This high proportion may be due to the under-reporting of focal origin seizures that cause immediate secondary generalization or inaccurate details from eyewitnesses.

Focal seizures may in some patients indicate the presence of an underlying focal brain lesion but they have also been described in patients with diffuse disease. Status epilepticus also occurs in this population group and has been described in 8-18 percent of patients.

In terms of causes, NOS in HIV positive persons can be categorized or grouped into:

- Focal brain lesions (FBL)
- Meningitis
- Metabolic causes
- No identifiable cause (NIC)

The majority of patients with NOS have a specific underlying cause for their seizure.

The most commonly identified causes are focal brain lesions (FBLs) and meningitis. FBLs occur in 30-50 percent of patients. FBLs can be infectious; neoplastic; demyelinating or due to cerebrovascular disease. Toxoplasmosis has been identified as the commonest infectious cause of FBLs in patients with HIV and occurs in up to 88 percent of patients presenting with NOS in most of the studies that have been published. However, in populations where tuberculosis is endemic, this has been found to be the commonest cause of FBL in HIV patients with NOS. CNS lymphoma

is recognized as the second most common cause of FBL and has been reported in up to 11 percent of patients. Other reported causes of FBL include Progressive Multi-focal Leukoencephalopathy (PML); neurocysticercosis and strokes.

Meningitis has been described in 10-22 percent of patients presenting with NOS. Cryptococcal meningitis is the most frequent cause of meningitis except again in regions where tuberculosis is endemic.

The other aetiologies that need to be considered include metabolic abnormalities; medication side-effects and HIV-Associated Dementia (HAD).

In 6-46 percent of patients, NIC can be found for the seizure presentation and it is presumed that primary cerebral HIV infection is responsible. In keeping with this, SPECT scan studies have shown focal temporal lobe abnormalities.

Numerous abnormal electroencephalographic (EEG) findings have been reported in HIV-infected individuals presenting with seizures. The abnormalities have been both focal and generalized and are most commonly non-specific e.g. generalized slowing. Non-specific abnormalities have been well described in asymptomatic HIV-positive individuals and their significance in this setting is uncertain. Focal abnormalities on EEG do not necessarily signify an underlying focal lesion.

Seizures recurrence risk as expected from the potential causes listed above is high and therefore treatment even with a new onset first seizure requires medical intervention. Valproate has been described to increase viral replication but it has also been shown to be beneficial in HIV infected seizure patients and is therefore widely used. Phenytoin and carbamazepine induce the hepatic p450 system and interact with anti-retrovirals adversely and are therefore not recommended. Gabapentin, Levetiracetam and Lamotrigine do not have such interactions are preferred in the setting of HIV and seizures. Availability in resource limited regions is an issue with these anti-epileptics.

In an acute setting, standard epilepsy protocols should be adhered to. Long-term anti-epileptic therapy needs to be initiated in the majority of patients but this can be a difficult decision. Evidence-based guidelines (American Academy of Neurology) have been formulated for patients that require both HAART and anti-epileptics. The guidelines do not however specify when anti-epileptics should be initiated or how long they should be continued for.

Epilepsy and HIV remains a daunting neurological challenge. •

Modi is a professor and head of neurology, chief specialist and chair at the Division of Neurology, Department of Neurosciences, School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand in Johannesburg, South Africa.

# Re-emergence of Measles in the United States: A Warning to Neurologists

BY KIRAN THAKUR, MD

**B**efore the introduction of the measles vaccine in the United States in 1963, more than 500,000 cases of measles and at least 500 measles-associated deaths were reported annually<sup>1,2</sup>. Although measles elimination was declared in 2000, importations of cases from endemic areas of the world continue to occur, leading to secondary measles cases and outbreaks. This year, the United States is experiencing a record number of confirmed measles cases, with 592 cases and 18 outbreaks reported to the Centers for Disease Control's (CDC's) National Center for Immunization and Respiratory Diseases (NCIRD) between Jan. 1 and Aug. 29, 2014<sup>3</sup>. (See Figure 1.) Recent increases in the incidence of measles in the United States are attributed to the importation of measles virus through travel to other countries, including the Philippines, where there is a large, ongoing measles outbreak. Approximately 20 million cases of measles occur each year globally, and importations into the United States continue to pose a risk for measles cases and outbreaks. This is also coupled with greater rates of transmission because of unvaccinated or incompletely vaccinated United States citizens, a significant portion of which are children<sup>4</sup>.



Kiran Thakur

The large number of cases this year emphasizes the need for health care providers to have a heightened awareness of the potential for measles and the importance of vaccination to prevent infection, in particular in young children and travelers who are susceptible to severe infection. Health care providers should maintain a high level of suspicion for measles among febrile patients who present with rash, cough, coryza, and/or conjunctivitis. Patients should be asked about recent travel abroad and/or contact with returning travelers, and their vaccination status.

In particular, neurologists should be aware of the early and late neurological manifestations of the infection. Although neurological symptoms and signs have not been reported among the 592 cases in the United States reported this year, neurologists should be aware of the potential early and late central nervous system (CNS) complications of

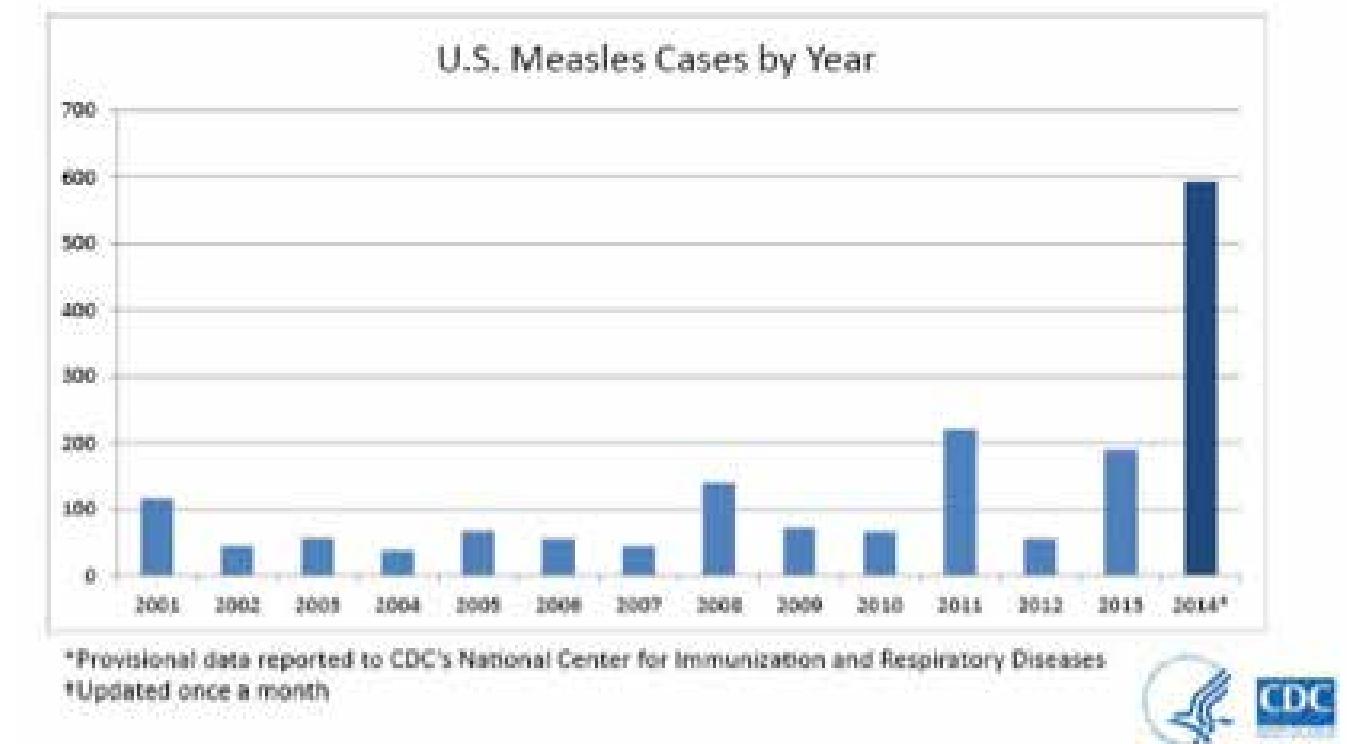


Figure 1. United States (U.S.) [measles cases by year](#)

the infection. CNS manifestations are indeed rare, but devastating when they occur. The most common CNS manifestation of measles infection is acute measles encephalitis (AME) occurring in approximately 0.1 percent of cases<sup>5</sup>. In AME, the virus replicates within neurons and triggers a lymphocytic infiltration within the brain parenchyma and meninges<sup>6</sup>. AME typically occurs during the exanthem phase of the systemic illness, but can rarely precede the onset of rash. Cerebrospinal fluid (CSF) typically shows a lymphocytic pleocytosis and mildly elevated protein<sup>7</sup>. Treatment for AME is largely supportive and prognosis is guarded as approximately 20 percent of patients die, with at least one quarter of survivors developing permanent neurologic sequelae<sup>8</sup>. Post-measles encephalomyelitis (PME) occurs in approximately one in 1,000 patients, occurring within two weeks of the onset of rash and is characterized by seizures and focal neurological deficits. Periventricular demyelination, induction of immune responses to myelin basic protein, and absence of measles virus in the brain suggest that PME is an autoimmune disorder triggered by measles virus infection<sup>9</sup>. Other CNS complications that occur months to years after acute infection are measles inclusion body encephalitis (MIBE) and subacute sclerosing panencephalitis (SSPE), both of which are caused by persistent measles virus infection. MIBE is a rare, but fatal complication associated with progressive neurological deterioration that affects individuals with defective cellular

immunity and typically occurs months after infection. SSPE is a rare delayed complication of measles that occurs in about one in 10,000–100,000 patients and is characterized by seizures and progressive deterioration of cognitive and motor function followed by death 5–15 years after measles virus infection<sup>10</sup>. On histopathology, neurons, oligodendrocytes, astrocytes and microvascular endothelial cells are infected<sup>11</sup>. SSPE most often occurs in people infected with measles virus before two years of age.

Rates of CNS manifestations due to measles infection have dramatically declined since the introduction of the measles vaccine, though with the resurgence of measles outbreaks around the world, and the increase in refusal of vaccines in resource-rich nations, the risk of these complications is now heightened. As travel to worldwide destinations becomes more accessible, neurologists should be aware of the potential neurological effects of acquired infections abroad, including measles and other neurotropic infections. Clinicians should also be aware of the increasing susceptibility to infection in those who are not vaccinated, including young children. •

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# WFN Education Committee Update

BY WOLFGANG GRISOLD, MD, STEVEN L. LEWIS, MD AND LAURA KENNEDY

The Education Committee of the World Federation of Neurology (WFN)

continues its mission to foster neurologic education worldwide via a number of ongoing projects and new initiatives. In January 2014, Dr. Steven Lewis (U.S.) became the new Chair of the



Wolfgang Grisold

Education Committee, following the extremely productive and successful tenure of Co-Chairs Dr. Stephen Sergay and Dr. Wolfgang Grisold. Current membership of the WFN Education Committee, which most recently met at the American Academy of Neurology (AAN) Annual Meeting in Philadelphia on April 28, 2014, includes, (with each name listed with their countries of residence): Sarosh Katrak (India), Cynthia Comella (USA), Morris Freedman (Canada), Riadh Gouider (Tunisia), Alla Guekht (Russia), and new members Bo Norrving (Sweden), Teresa Corona (Mexico), Dasheveg Shuren (Mongolia), Therese Sonan (Ivory Coast), Mostafa El Alaoui Faris (Morocco), Daniel Truong

(USA), Erich Schmutzhard (Austria), and Trustee Representatives Wolfgang Grisold (Austria) and Gallo Diop (Senegal). The Education Committee functions smoothly within the WFN under the administrative support of Laura Kennedy, Education Project Coordinator.

Some of the ongoing projects of the Education Committee include the monitoring and awarding of educational grants, including the Junior Traveling Fellowships. This year, 28 neurologists from low or lower-middle income countries were awarded Junior Traveling Fellowships to attend international congresses, including the World Stroke Congress and the joint EFNS-ENS congress.

The accreditation of Teaching Centers continues, with the goal being to provide high-quality fellowship training centers to fulfill educational needs in specific regions of the world. Current accredited training centers are located in Trujillo, Peru, and Rabat, Morocco, the latter being the most recently accredited site. Dr. Mohamed Albakaye from Mali was recently chosen



Steven L. Lewis

to be the inaugural fellow in Clinical Neurophysiology at the Rabat Teaching Center under the supervision of Pro. El Alaoui Faris at Mohamed V. Souissi University. There is ongoing review of letters of interest and applications for accreditation from other potential Teaching Centers worldwide.

In addition to accreditation of Teaching Centers for year-long fellowships, the WFN and the Education Committee have an ongoing Department Visit program, where neurologists can visit training programs for shorter educational visits. The Department Visit Program in Turkey hosted 4-week visits this past academic year by Dr. Abdullahi Ibrahim and Dr. Yahaya Olugbo Obiabo, both from Nigeria, who visited the Cerrahpasa School of Medicine in Istanbul, and the Gazi University Faculty of Medicine in Ankara, in addition to attending the Annual Congress of the Turkish Neurological Society. Plans for a number of additional Department Visit programs in various regions of the world are in various stages of discussion and development at this time.



Laura Kennedy

Austria has just signed the agreement for this program and will host two visitors from Africa.

The *Continuum: Lifelong Learning in Neurology* program is a longstanding and very successful joint AAN/WFN project, whereby 400 copies of *Continuum*, the official Continuing Medical Education Journal of the AAN, are donated by the AAN to the WFN for distribution to 45 countries for *Continuum*-based teaching conferences. The WFN continues to monitor this project closely, with updates twice yearly to the *Continuum* Editorial Board, with ongoing discussions about ways to even further enhance this important program.

Finally, the Education Committee is also working on a recent proposal to develop and draft a worldwide neurology training curriculum, which may be of benefit not only to the WFN Teaching Centers but also to any neurology training program. We also look forward to the potential for increased cooperation with the European Academy of Neurology (EAN) in this and other educational initiatives including eBrain.

The Education Committee looks forward to continuing its many ongoing programs and pursuing new independent initiatives as well as synergies with other organizations, all to foster and improve the quality and reach of neurologic education globally. •

## BOOK REVIEW

# “The History of the World Federation of Neurology: The First 50 Years” by Johan A Aarli

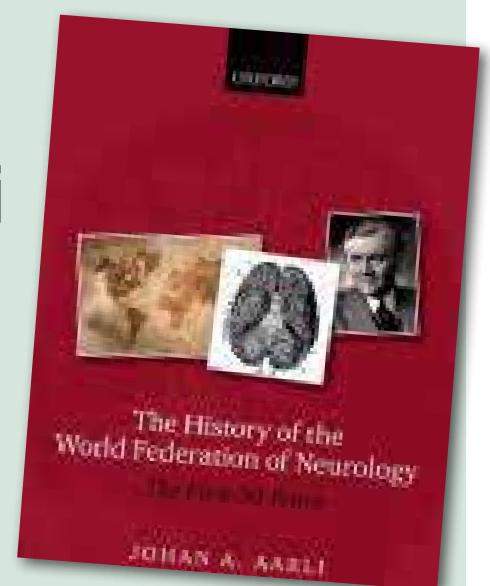
Oxford University Press, 2014.

This book reviews the history of the first 50 years of the WFN which was officially founded in 1957. One question immediately comes to mind: Why 1957? There may be a debate about the “date of birth” of neurology, but everybody agrees that it was firmly established as a discipline by the first part of the 20th century or even before that time. In subsequent years, there were several meetings attended by international members, even though the two World Wars forced the cancellation of some of these meetings. Why then did we have to wait until 1957 to see the foundation of WFN? One probable reason is that international collaboration, like international travel, was much less common than it later became. It took the strength and charisma of one man, Ludo van Bogaert, to carry through

the creation of the federation. Note that in its early years, WFN was “worldly” only in name: Asia, Africa and Oceania were barely represented. Yet it was certainly quite international. A picture in the first pages of the book shows that of 10 delegates participating in an early WFN organizational meeting, one was from Cuba, one from Iran while a third was a neurosurgeon representing India. Iran and India were the only two Asian countries present in the initial years of WFN. In its first years, WFN survived mainly thanks to a grant from the US-based National Institutes of Health (NIH).

In this nicely presented volume, Dr. Aarli who has actively participated in the activities of WFN for many years, including a term as president, describes the state of neurology before 1957 and narrates how WFN took shape, evolving gradually into today’s structure and organization.

He then describes in varying amounts of detail the organization of the Research Committee and the Research Groups, at first called “Problem Commissions.” Subsequent pages of the volume provide details about the regional neurological associations and the relationship with the World Health Organization. The volume continues with a chapter which further illustrates the close ties of neurology with world events. The Indian neurologist Noshir Wadia went to jail and Jun Kimura (Kyoto, Japan) almost went to jail. Both were absolutely innocent: Wadia had been kidnapped and jailed by the police of the Portuguese dictator Salazar in retribution of India having annexed the tiny enclave of Goa; and the charges of embezzlement brought against Kimura were completely unjustified. Both Wadia and Kimura played important roles in developing neurology and neuroscience



in their respective countries and within the WFN. The book concludes with a review of the International Congresses that took place since 1957, first every four years and now every two years. A short but exciting epilogue is written by Vladimir Hachinski who, as president until 2013, perfectly embodied the motto Continuity and Change. This epilogue provides an interesting view into the future of WFN now under the helm

see **BOOK REVIEW**, page 13

# Neurology in Sub-Saharan-Africa

## Development, Opportunities, Hope and Challenges

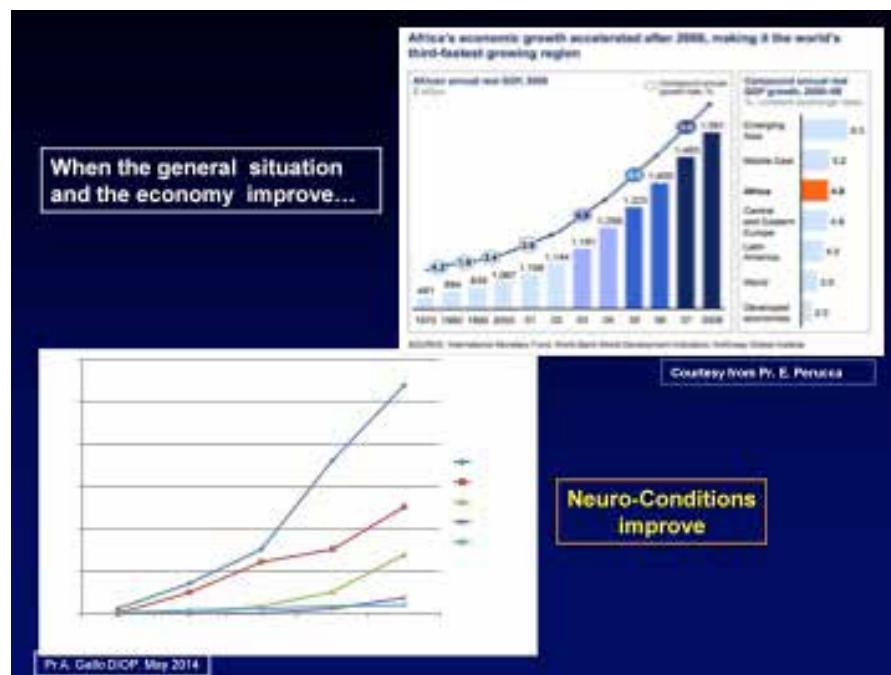
BY AMADOU GALLO DIOP AND RIADH GOUIDER

At the end of 2014, 15 new young neurologists will contribute to increase the number of rare specialists in Sub-Sahara-African countries. These new cohorts have been trained in Dakar, Abidjan and Addis-Ababa. They originate from Benin, Burkina Faso, Cameroon, Comoros, Ivory Coast, Ethiopia, Mali, Mauritania, Niger, Rwanda, Senegal and Togo. Their professors are from African universities with the support (by short visiting professorship collaboration) of French and North American colleagues. The four-year content of their training program was very broad, similar to any courses worldwide and composed of all aspects of neurology, including neuro-anatomy, neurophysiology, basic neuroscience, semiology, pathologies and strategies of care. Courses focus on the most prevalent neuro-conditions in the African continent and how to adapt ideal management to the local socio-economic realities. Practical training was obtained with clinical outpatient and inpatient tasks, under the auspices of assistant and senior professors. In neurological departments, but also in other services such as cardiology, psychiatry, internal medicine, pediatrics and some ground visits and duties in provinces or suburban areas. That type of course is applied to selected MDs who intend to specialize in neurology since two decades in Africa. Before the 1990's, African neurologists were, in majority trained abroad in ex-colonizing countries i.e. France, UK, Belgium, Portugal, Germany, Russia or Switzerland.

The good news is that in 50 years, from 1974 - 2014, the number of neurologists has multiplied by more than 30 while

the population has multiplied by three in Sub-Saharan Africa. It's crucial and very interesting to see that the same situation is noted regarding the economy. One can see that the Growth Development Product has followed the same dramatic evolution, rising from \$461 billion in the 70's to up to \$1,500 in 2008. The continent faces the third fastest GDP growth after the "Dragons" and Petrol-Middle-East Region as shown in Figure 1 (courtesy furnished by Pr Perucca, Pdt of the ILAE). The same remark can be done about diagnostic facilities (EEG, EMG, and neuro-imaging facilities). That let us see that when the general economic situation improves, the "neuro-conditions" improve in term of human and material resources. This is encouraging and is a reason for being more optimistic.

But there is still so much to achieve. While WHO recommendations is to reach at least the ratio of one neurologist for 50,000 people in a state, the fact in Sub-Saharan Africa is, in the "best" case, one for 500,000 (Ivory Coast and Senegal). In Ethiopia, the ratio was one for 10 million people 10 years ago; it is now one for 5 million. All the French-speaking countries have now at least one neurologist. Few countries have just one neurologist. Nowadays, only very rare sub-African countries do not have even one single neurologist (Cape Verde Islands, Gambia, Equatorial Guinea, Guinea-Bissau, Liberia, Sao Tome and Principe). One can remark that the majority of them are Portuguese-speaking states. Many countries have tenfold more native neurologists in North America, Europe or the Gulf countries than locally. In 15 years, few immigrant neurologists still residing



**Figure 1.** Evolutions, by the time, of economy data and number of neurologists and facilities in Sub-Saharan Africa (South Africa and Maghreb not included).

abroad are initiating annual or bi-annual short-term periodic come-back-home for teaching and supporting somehow research, equipment and care.

It's also very encouraging to see that the number of training courses has dramatically increased these last years. If we consider all training courses dedicated to the nervous system and co-organized by Pan-African Association of Neurological Sciences (which will soon become African Academy of Neurology), Society for Neurosciences in Africa, and almost a dozen of international bodies (WFN, IBRO, EFNS (now EAN), ILAE and IBE, AAN, SFN, WSO, PAUNS, HIS, ICNA, MDS) their number and quality is increasing. They occur every year in English or French.

But the challenges are still huge. The Sub-Saharan Region of Africa still needs many more neurologists for filling the gap. Every professor who has ever lectured in Africa is amazed by how motivated and thirsty for learning the trainees are. Many volunteers come and spend a few days with young MDs specializing in neurology and neurosciences for theoretical lessons and clinical activities. The ultimate goal is to increase, by massive training, the number of neurologists in Sub-Saharan Africa. Let us share this formula from Sam Kinyangui (cited by Charles Newton, Kenya) and which could be our common vision about Neuro-Training in Sub-Saharan Africa: "Attract, Train, and Retain." At this moment, several universities have set up curricula for training in neurology: Dakar since 50 years, Abidjan since 20 years and more recently: Addis Ababa, Cotonou, Kinshasa, Lome, Yaounde and some Nigeria's cities which university teaching hospitals are training grounds. They do not partake in the final diploma because the two awarding bodies are The West African Post Graduate Medical College, and the National post Graduate Medical college, if we refer to Pr Ogun, Nigeria. Four to six new trained neurologists from new training sites (Lome, Cotonou, Yaoundé) will graduate from 2015 and 2016. Individually, or under the auspices of bilateral academic cooperation or the umbrella of international neuro-institutions, the short visiting professorships, in cooperation with local faculty, should be encouraged by any mean (finances, teaching materials and slides, neuro examination means and books). •



A training course in neurology and epileptology in Dakar, with trainees and faculty coming from different continents.

Gallo Diop is with the World Federation of Neurology Africa Initiative. Guider is the World Federation of Neurology Africa Region Chair.

25TH SUMMER STROKE SCHOOL

# Healthy Lifestyle and Prevention of Stroke



Lecturers and participants of the 25th Summer Stroke School.

This year in Dubrovnik, under the auspices of the Department of Medical Sciences - Croatian Academy of Sciences and Arts, our traditional 25th Summer Stroke School was held from June 9-13. The event was organized by Inter-University Centre in Dubrovnik, Croatian Stroke Society, Zagreb Institute for the Culture of Health, School of Medicine University of Zagreb, Central and Eastern European Stroke Society and the Applied Research Group on Delivery and Care of the World Federation of Neurology.

Directors of Summer Stroke School are: Prof. Vida Demarin (Croatia), Prof. Roman Haberl (Germany), Prof. Kurt Niederkorn (Austria), Prof. Tatjana Rundek (U.S.) and Prof. Zlatko Trkanjec (Croatia). The course brought together top experts from all over the world: Natan Bornstein (Israel), David Russell (Norway), Moise Desvarieux (U.S.), Yoshikazu Yonei (Japan) who, together with above mentioned course directors, shared their knowledge and experience with participants during the whole week, both from clinical work as well as from their rich scientific life.

The aim of this course is to contribute to the global fight against stroke, by increasing the knowledge, exchanging experiences and supporting the cooperation among the 60 participants from all over the world, from Albania, Bosnia and Herzegovina, Serbia, Macedonia, and Slovenia as well as from distant Kazakhstan, Zambia and Japan. Also, participants had the unique opportunity to exchange national data on stroke and discuss specific problems that are unique in some countries and together try to solve problems related to stroke, be they medical, economic or other nature.

During the week, participants presented interesting cases of stroke patients; there have been a total of 32 lectures and 30 presentations of interesting cases by the participants themselves. It was a fruitful and unforgettable experience for all of us. •



Prof. Vida Demarin and Prof. Yoshikazu Yonei from Japan.



Prof. Vida Demarin with Flora Turner Vučetić.



Prof. Vida Demarin, Prof. Tatjana Rundek and a participant from Zambia, Njinga Kankinza, MD.



Prof. Yoshikazu Yonei, Prof. Tatjana Rundek, Prof. Vida Demarin and Prof. Milita Crisby.



Lecturers and friends of the Summer Stroke School at a Croatian traditional dinner.

## CONGRESS

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symposia on the new Croatian law on the protection of persons with mental disorders, forensic psychiatry, ADHD, treatment of advanced Parkinson's disease, the activities of the Association of Public Health "Andrija Stampar" in stroke prevention, a common approach to diagnosis, treatment and follow-up of Anderson Fabry's disease in South-East European region, cerebral aneurysms, palliative care and atrial fibrillation as a risk factor for stroke. A joint meeting with Alps-Adria Neuroscience Section, WFN Applied Research Group on the Organization and Delivery of Care and Central and Eastern European Stroke Society was held dealing with different therapeutic approaches in the treatment of neurological and psychiatric diseases.

Invited lecturers from all over the world gave 76 lectures, followed by vivid discussions. Special attention was also given to the poster session with numerous posters from neurology and from psychiatry and two best posters from each discipline got the prize given by the City of Graz.

International Neuropsychiatric Pula Congress, organized continuously for the past 54 years, is one of the congresses with the longest tradition in the world in the field of neurology, psychiatry and neuropsychiatry. With its multidisciplinary approach, covering many interesting topics in psychiatry, neurology, and in other related fields of medicine, it is still promoting the fundamental idea of long-established "Pula School of Science and Humanism." •



Prof. Vida Demarin with representatives of the Association of Public Health "Andrija Stampar."



Poster sessions.

# Breakthrough in Autism Prevention

## The Importance of Measuring Thyroid Function in the Expectant Mother

BY GUSTAVO C. ROMÁN, M.D.

Encouraging news for the prevention of autism emerged from the results of a research study conducted by an international collaborative team conformed by Prof. Gustavo C. Román, MD, from the Methodist Neurological Institute (Houston, Texas) and researchers from the *Generation R Study* at Erasmus University Medical Centre in Rotterdam, The Netherlands, including



Akhgar Ghassabian, MD, PhD; Jacoba J. Bongers-Schokking, MD, PhD; Vincent W.V. Jaddoe, MD, PhD; Albert Hofman, MD, PhD; Yolanda B. de Rijke, PhD; Frank C. Verhulst, MD, PhD; and Henning Tiemeier, MD, PhD. The results point to the deficiency of maternal thyroid function during the first trimester of pregnancy as a significant factor in the causation of autism in the child. Pregnant women with deficient thyroid hormone are nearly four times likelier to produce autistic children than women with normal thyroid function. The study was published in the prestigious journal *Annals of Neurology*<sup>1</sup>.

The research was conducted in a cohort of more than 4,000 Dutch mothers and their children, and it supports the view that autism can be caused by lack of maternal thyroid hormones T4, also called thyroxine, and T3, which is crucial to the migration of fetal brain cells during embryo development, early in pregnancy. The most common cause of thyroid hormone deficiency is a lack of dietary iodine, given that T4 contains four atoms of iodine. There are also environmental contaminants and dietary factors that affect thyroid function<sup>2</sup>.

According to Prof. Román, the hypoth-

esis linking thyroid and autism originated from his early experiences as a neurologist in the Andes of South America where the deficiency of iodine in table salt results in high prevalence of goiter and congenital problems in children including high rates of deafness, borderline mental retardation and, in the most severe cases, endemic cretinism. (See Figure 1.) Román recently described this topic in detail<sup>3</sup>.

Iodine deficiency remains common throughout the world; including industrialized countries where it was believed to be eradicated by the use of iodinated salt. This could explain the upward trend in the incidence of autism observed in these countries. Another factor is the lack of determination of T4, T3 and urinary iodine levels in expectant mothers early in pregnancy, and the use of prenatal vitamin supplements lacking the extra supplementary iodine needed during pregnancy and lactation.

The complex gene network regulated by thyroid hormone during brain development is being deciphered with the use of experimental animal models<sup>4</sup> and should provide a better understanding of the complex problem of autism spectrum disorders. •

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Gustavo C. Román, M.D., neurologist and first director of the [Nantz National Alzheimer Center](#) at Houston Methodist Hospital, has been awarded the Doctorado Honoris Causa, the highest academic accolade given by the National University of Colombia.

# Editor's Update and Selected Articles From JNS

BY JOHN D. ENGLAND, MD

The *Journal of the Neurological Sciences* (JNS) is a broad-based journal which publishes articles from a wide spectrum of disciplines, ranging from basic neuroscience to clinical cases. In an upcoming issue of JNS, we will be acknowledging our peer reviewers. The individuals whose names appear in the list have provided peer reviews of manuscripts which were submitted to JNS during the past year. This elite group of individuals from around the world includes some of the best and brightest minds in neuroscience and clinical neurology. They receive no remuneration for their work for the journal and take time from their busy schedules to review our articles. All of the associate editors and I thank them for their indispensable work. The journal would not survive without their expert advice. I express my most sincere gratitude to all of the reviewers. They inform and enlighten all of us in the editorial office and help to make JNS a journal of the highest quality.



John D. England, MD

In our ongoing attempt to enhance accessibility of JNS articles to members of the World Federation of Neurology (WFN), we have selected two “free – access” articles, which are profiled in this issue of *World Neurology*.

In this issue, we feature two paired articles regarding the diagnostic accuracy of the famous Babinski sign:

- Despite its legendary status, controversy exists regarding the diagnostic accuracy and usefulness of the Babinski sign in determining pyramidal tract dysfunction. Much of the variability in the assessment of the diagnostic accuracy of the Babinski sign is due to studies which do not follow simple but important methodological standards. The paper by S.P. Isaza Jaramillo, et al. is exceptional in this regard. This paper describes a simple but methodologically rigorous study to ascertain the diagnostic accuracy of the Babinski sign for identifying pyramidal tract disease. One hundred and seven (107) patients with limb weakness were assigned a random identification number for blinding purposes. Two neurologists elicited a plantar response in each patient in a standardized manner. The examination was performed in a blind and independent manner, and each examination was filmed to quantify intra-observer variability. The reference

standard for diagnosis of pyramidal tract dysfunction was provided by a senior neurologist who examined every patient independently and had available the patient's history, complete neurological examination, laboratory and neuroimaging results. Compared to the reference standard, the Babinski sign had a very high specificity of 99 percent (CI 97.7-100), but moderately low sensitivity of 50.8 percent (CI 41.5-60.1) in identifying pyramidal tract dysfunction. These findings indicate that a Babinski sign elicited in a standardized manner by an experienced practitioner has high diagnostic accuracy for identifying pyramidal tract disease. However, in view of the low sensitivity, the absence of a Babinski sign does not rule out pyramidal tract dysfunction. [Jaramillo SPI, Uribe CSU, Jimenez FAC, Cornejo-Ochoa W, Restrepo JEA, Roman GC. Accuracy of the Babinski sign in the identification of pyramidal tract dysfunction. J Neurol Sci 2014;343:66-68.](#)

- In an editorial in the

same issue of JNS, Austin Sumner provides an historical perspective on the Babinski sign and discusses the more recent controversy concerning its diagnostic usefulness. He concludes that the “confidence traditionally placed by clinicians on this simple test is justified” with the caveat that its absence does not rule-out pyramidal tract disease. [Sumner AJ. The Babinski sign. J Neurol Sci 2014;343:2.](#)

England is editor-in-chief of the *Journal of the Neurological Sciences*.



# Medical Marijuana for Epilepsy

## What Do We Tell Our Patients?



BY ANTOANETA J. BALABANOV

The idea to use cannabis plants to treat seizures is not new. From ancient China, through Babylonia and Palestine, Egypt and India, cannabis plants were used to treat many different maladies — among them seizures. Throughout the centuries, cannabis plants were considered magical by some and evil by others. This is not surprising given what is now known about the psychotropic properties of these formidable plants.

The interest of cannabis and their use for treatment of seizures has come in to the limelight in the recent years. Cases of epilepsy patients who have achieved seizure freedom using marijuana have been circulating on the Internet. Social networks have contributed by organizing interest groups and chat rooms to discuss this issue. The case of Charlotte, a child with Dravet syndrome who stopped having seizures after experiencing up to 50 seizures a day, ignited the epilepsy world when presented on CNN. Charlotte had failed all antiepileptic drugs (AED) available and when finally treated with cannabidiol (CBD), a component of marijuana, the effect was miraculous.

Our patients now know that medications based on cannabinoids are already being used for treatment of nausea, spasticity and pain. As epilepsy specialists, our patients ask us daily when medical marijuana will be available for use for treatment of seizures. Frequently, the following question is asked: “Why do I have to take medications with potential long-term side effects when I can use something more natural such as marijuana? If all medications that I have used have not help me stop having seizures, why can’t I try something that may potentially help my seizures without causing significant side effects?”

The patients are absolutely right to ask all these questions. Despite having 30 AEDs to use, about 30 percent of

all patients with epilepsy are medically intractable. They continue to have seizures that eventually cause cognitive, behavioral and psychiatric problems. Patients lose their jobs, their ability to drive, and to take care of their families. Stigma associated with epilepsy still exists, SUDEP is a real tragedy. In children, the effect of continued seizures on the developing brain could be devastating. Multiple studies have shown that children with uncontrolled seizures have a lower IQ later in life. Antiepileptic drugs, even when controlling the seizures, often cause side effects that interfere with the patient’s quality of life. The long-term safety profile is not known for most of the AEDs and that alone causes additional anxiety among patients and parents of children with epilepsy.

### Is cannabis the solution that we have all been waiting for?

This is what we know: Cannabis sativa and Cannabis indica are two species of the Cannabis genus plant. Both plants produce multiple compounds called cannabinoids. Among them, two are of particular interest to us: tetrahydrocannabinol (THC) and cannabidiol (CBD). These two cannabinoids were first isolated and characterized in the 1960s. THC has gained much more interest from the research world mostly because of its psychotropic properties causing significant cost to our society. CBD accounts for up to 40 percent of the plant’s extract and has none or very little psychoactive effects. CBD, however, has shown anticonvulsive properties when tested on animal epilepsy models. It is important to note that while the CBC anticonvulsant effect appeared to be promising in the acute models of seizures, there is less evidence that the effect is the same when tested on animal models of chronic epilepsy. The effect of seizure control in humans has not been studied well enough. There were only four randomized controlled trials (RCT),

which were all done between 1978 and 1990. These studies included small number of patients (total of 48) who underwent a short length of treatment. Due to these and other methodological limitations, these clinical trials failed to provide evidence about the efficacy or safety of cannabinoids in patients with epilepsy.

Cannabis and its effect on seizure control on kids with epileptic encephalopathies has been one of the most discussed topics among patients’ families. There are no studies done so far, but there was a recent survey of 19 parents that is worthwhile to note. Twelve of the parents who responded to the survey have children with Dravet syndrome, one parent was with a child with Lennox-Gastaut Syndrome (LGS). All patients were treated with CBD enriched cannabis and products containing primarily CBD. The results reported by the parents were impressive — 53 percent of the parents reported 80 percent seizure reduction and 11 percent of the children were seizure free during the three-month trial. Among the 12 patients with Dravet syndrome, 42 percent reported more than 80 percent reduction in seizures. Serious side effects were not reported, only few parents noted drowsiness and fatigue. Most parents reported increased alertness. While these results are very impressive, they should be taken with caution since they are based solely on the parents’ reporting. In addition, the exact formulation of the different cannabis extract used by the parents is unclear.

The exact mechanism of action of the cannabinoids is not completely known. TSH was found to bind to two G-protein-coupled cell membrane receptors, named type 1 (CB1) and type 2 (CB2). CB1 receptors were found primarily in the brain, but also in several peripheral tissues (GI tract, adipose tissues, pancreas, muscle). CB2 receptors are mainly found in immune and hematopoietic cells. THC is the main psychoactive agent found in cannabis. CBD does not have psychoactive properties. This is perhaps because it does not activate CB1 and CB2 receptors. CBD reduces the psychoactive effects of THC; therefore it enhances its tolerability. CBD may supplement the antispastic effect of THC. This is because when used in combination, patients can tolerate higher doses of THC. Moreover, its anti-inflammatory, antioxidant and antiexcitotoxic mechanisms also contributes to the effect. The mechanisms by which CBC works as anticonvulsant are not entirely known. Different mechanisms of action have been proposed— most of them related to the reducing of neuronal excitabilities and neuronal transmission, while some others propose an anti-inflammatory effect. CBD is potentially involved in neuroinflammation by the reduction of new astrocyte production. This summary of the mechanism of action of the cannabinoids is incomplete, leaving behind many

other molecular mechanism of action identified in animal models which are not clearly associated with any anticonvulsive effects, therefore, they will not be discussed here.

### So, what do I tell my patients?

I tell them that I am as interested as they are in finding new therapies for epilepsy and if cannabis is proven to be “The New Therapy” I will be very eager to use it on all my medically intractable patients. However, I tell them that the scientific evidence for cannabis is lacking. I also try to point out that the reports circulating the web should be taken with great caution. These reports are mostly biased from the selection of the patients to the reported outcomes. In addition, every case of epilepsy is different and the disease is highly variable. I ask them not to base their decision to move to a state where medical marijuana is now legal based on anecdotal reports. I remind them to consider the fact that the marijuana growers follow no regulations and safety standards and that the products that they are offering often contains different percentages of CBC and THC among the 80 or more cannabinoids that the cannabis plants produce. Interactions between cannabis and currently used AEDs have not been studied, and are therefore unknown. Adding a new substance to an already very complex mix of medications can be dangerous, especially when it is not supervised in a medical setting. The concern of the long-term side effects of the AEDs is valid, but the long term effects of cannabis products on the brain should be considered as well. There have been reports on negative effects of cannabis on the developing brain. In adults, use of cannabis has been associated with worsening of executive function over time. Viewing cannabis use as a more natural way of treatment does not mean that cannabis effects should be taken lightly. AEDs that we use today have gone through years of studies and extensive testing before being approved by the FDA. There should be no reason for the cannabis product to be treated any differently.

My conversations with patients about seizures and medical marijuana will continue. As a physician, I support the idea that CBC should be studied for its possible anti-convulsive properties. I do not support legalization of marijuana, but I also realize that current status of medical marijuana as a Federal DEA Schedule 1 controlled substance stands in the way of medical research that needs to be done, so I can give my patients more definite answers. Until this happens, I will continue with my mantra: randomized double blinded placebo-controlled studies are needed to determine the efficacy and safety of CBD and other cannabinoids as potential treatments of epilepsy. •

## BOOK REVIEW

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of Raad Shakir.

One of the interesting features of Dr. Aarli's narrative is the glimpses it provides into the features and developments of the world at large during those years. It reminds us of how much things have changed in this relatively short space of less than 60 years. For instance, we hear about the relations between the German Neurological Societies when a wall divided the Federal Republic and its Eastern counterpart, the German Democratic Republic. The relations ranged from non-existent to acrimonious. We witness the very gradual entry of African countries into the WFN as they became independent in the early 60's. In one of the most thrilling parts of the book, we read about the "slow boat to China." Dr. Aarli built on the efforts of his predecessors, John Walton and Jun Kimura, and managed a diplomatic exploit. That is certainly what it took to reach the point where delegates from the People's Republic of China, the Hong Kong Neurological Society and the Taiwanese Neurological Society agreed to sit together. A picture showing the presidents of the three societies posing next to Dr. Aarli illustrates that truly historic moment.

Dr. Aarli reminds us of that decentralization was always a theme of WFN, but different players interpreted the concept differently. On one hand, decentralization could provide a more equitable division of labor among the WFN members and thus Ludo van Bogaert and Pearce Bailey vigorously advocated it from the beginning. Others such as Hans Hoff from Austria and Russell DeJong from the USA feared that it could lead to fragmentation of the Federation. Regional societies now exist, but they have evolved in different fashions. The Asian Oceanian Association (AOAN) has attracted countries such as Mongolia and Myanmar to join both AOAN and WFN, but we are not told much about the Congresses of AOAN, which are held every two years. Similarly not much is said about the Pan Arab Union of Neurological Societies (PAUNS), which had its first meeting in Cairo in 1975. Recent PAUNS meetings have taken place in Damascus in 2010 and in Sharm el-Sheikh in 2013. In Europe, on the other hand, the regional society has developed considerably. The earliest European association known initially as Pan European included mostly neurologists from what was known as Eastern Europe and it did not have much prestige until it evolved into the European Federation of Neurological Societies (EFNS) in 1991. The other European scientific society, the European Neurological Society (ENS) was created in 1986 and its first meeting organized by Gérard Saïd (Kremlin-Bicêtre) and Pierre Rondot (Sainte-Anne) took place in Nice in 1988 with P.K. Thomas as first president. ENS was modeled on the American Neurological Association (ANA) and conceived as a body

of scientists elected because of their merit and not their nationality. The two societies have merged in the spring of 2014 into the European Academy of Neurology (EAN). It is presided by Günther Deuschl and will have its first meeting in Berlin in 2015. This process is in great part due to the determination of the presidents (particularly Franz Gerstenbrand, Jes Olesen, Jacques DeReuck and Richard Hughes for EFNS and Gustave Moonen, José Ferro and Claudio Bassetti for ENS) and also to the creation of the Journal, the European Journal of Neurology (François Boller and Per Soelberg Sørensen, founding editors; Anthony Shapira current editor) which will be the official organ of the EAN. Under the auspices of Gustavo Roman and others, an effort is under way to develop an American Federation of Neurological Societies.

As can be expected, the development of WFN was far from being always smooth. Dr. Aarli displays the full extent of his elegant diplomacy when he discusses some of the rougher moments of the WFN: "conflicts, problems" and "the usual suspects" are alluded to in ways that will be well understood by WFN insiders. He refers to a real or narrowly avoided catastrophe as "an unforeseen event." And all the players are hardworking, true leaders full of ideals and integrity. Of course this is true in most cases. However, it is amusing to read the descriptions of some of the same people given elsewhere, for instance the admirable and highly readable book "A Fragmented Memoir: Life and the Teeming Brain" (Bacchante Books, 2013, by John Moosy.) Moosy, a neurologist and neuropathologist, former editor-in-chief of the *Journal of Neuropathology and Experimental Neurology* lived through many of these events including a one year stay at van Bogaert's Bunge Institute. Moosy freely distributes high praises to some such as van Bogaert himself and the late Charles Poser, also a very important player in the creation and evolution of WFN. On the other hand, he does not hesitate to use much sharper words for people who played a dominant role in the development of WFN, but who he did not like as much. It is not clear whether Giancarlo Guazzi, an important collaborator of van Bogaert from 1958 to 1968, played any role in the early years of the WFN. Actually Guazzi is not mentioned in the book, but he is indirectly alluded to when we are told that van Bogaert received a Honoris Causa Doctorate in Siena (unfortunately misspelled), Guazzi's alma mater.

In conclusion, this book is a great tribute to a great organization. This reviewer fully shares the words of Lord Walton who writes in his preface: "Posterity will be very grateful to Prof. Aarli for this historical work of scholarship." •

This book was reviewed by François Boller MD, PhD, with the Department of Neurology at George Washington University Medical School in Washington DC.

## International Parkinson and Movement Disorder Society (MDS) International Congress in The Capital of Scandinavia

The 18th International Congress of Parkinson's Disease and Movement Disorders was hosted this year in the beautiful city of Stockholm, Sweden on June 8-12, 2014. As the city known for hosting the Nobel Prize winners, Stockholm was the perfect location for delegates to learn about the latest research, and perspectives in the field of Movement Disorders and to network and collaborate with colleagues. Everyone's participation made for several highlights during the week:

- 4,500 total people registered (including press and exhibitors)
- 86 countries represented
- 100 travel grants awarded by MDS
- 196 faculty members participated in the Scientific Sessions
- 1,558 posters accepted
- 34 late-breaking posters accepted
- 17 MDS study group abstracts accepted
- 4 therapeutic plenary sessions
- 9 plenary sessions
- 24 parallel sessions
- 8 teaching courses
- 24 video sessions and skills workshops
- 16 guided poster tours
- 28 companies exhibited
- 23 representatives from the press attended

Under the direction of Dr. Victor Fung, the Congress Scientific Program Committee (CSPC) made every effort to ensure that the science for the 18th International Congress was diverse and educational. The 2014 Scientific Program incorporated therapeutic plenary sessions, plenary and parallel sessions, teaching courses, video sessions, skills workshops, controversies, blue ribbon highlights, poster sessions and guided poster tours. There were 13 sessions focused on this year's theme of "Emerging and Experimental Therapies," which gave participants an educational and comprehensive overview on the subject.

A unique session was introduced this year to the Scientific Program called, "Late-Breaking Clinical and Scientific Topics Relevant to Movement Disorders." This parallel session was designed to help participants understand and appreciate the latest clinical and scientific discoveries relevant to movement disorders, as well as understand the role of new clinical discoveries for basic science and understand the role of new basic science discoveries for clinical progress.

Also of note was the Movement Disorders Grand Rounds Parallel Session. In this interactive session, volunteer patients with a known complex movement disorder were presented to one of four movement disorder "experts." This year's experts included Bastiaan Bloem (Netherlands); David John Burn (United Kingdom); Beom Jeon (Korea)

and Claudia Trenkwalder (Germany). The patient's history and clinical findings (including video of the movement disorder) were presented by the expert, who then reviewed the history with the patient and highlighted and demonstrated the neurological signs to the audience. The expert's job is to generate a differential diagnosis and management plan which can be critiqued by his/her fellow experts, the audience and the chairs. The final diagnosis and learning point were then presented after the expert and audience discussion was finished. The session showed how a movement disorders expert takes a clinical history and performs a movement disorders examination of a patient to generate a diagnosis and a management plan.

The always popular video challenge was held on Wednesday night with Masters of Ceremony Anthony Lang and Kapil Sethi. A world-renowned panel of Movement Disorders experts including Victor Fung (Australia); Orlando Barsotini (Brazil); Daniel Healy (Ireland); Björn Holmberg (Sweden) and David Riley (U.S.) guided participants through unique Movement Disorder cases. The cases were presented by representatives from Movement Disorder Centers around the world and discussed by the Panel of Experts. Awards were given for the most interesting and challenging cases. The goal of this session was for attendees to learn from a series of unusual, very interesting patients and see how senior experts approach these types of challenging cases.

At the opening ceremony, President Matthew Stern distributed the following awards:

Honorary Member Awards:

- Anthony Lang, OC, MD, FRCPC, Toronto, ON, Canada
- William Weiner, MD, Baltimore, MD, U.S.

President's Distinguished Service Award:

- Esther Cubo, Burgos, Spain
- The International Parkinson and Movement Disorder Society (MDS) would like to extend their gratitude to faculty, supporters, exhibitors and delegates for traveling to Stockholm and for helping make the 18th International Congress of Parkinson's Disease and Movement Disorders another successful meeting.

Mark your calendars! MDS is already planning for the 19th International Congress in San Diego, California, June 14-18, 2015. Please visit our website for details regarding 2015 Congress at [www.mdscongress2015.org](http://www.mdscongress2015.org) or contact the International Secretariat at [congress@movementdisorders.org](mailto:congress@movementdisorders.org) with any questions. •

# Turkey Brain Year Activities – Neurology for Public

The Turkish Brain Action Group was founded from suggestions of the European Brain Council in August 2013. Group members quickly organized a “Brain Year” in Turkey in 2014. The Turkish Brain Action Group consists of neurology, neurosurgery, psychiatry, and other disciplines related to neuroscience and patient organizations. Currently, 16 different societies presents in the action group.

The 2014 Brain Year Turkey opening conference moderated by Prof. Rana Karabudak, under the leadership of Turkish Neurological Society, was successfully held on Feb. 18, 2014, in Ankara, Turkey. The conference aimed to announce all the projects of Brain Year in 2014 and touch on the issues regarding the brain awareness in Turkey. (See Photo 1.) The invited speakers included the representatives from the Turkish Neurological Society’s board members, experienced members, vice chancellor of Hacettepe University of Medical School and the prominent representatives of the neurological sciences specialty societies.

The conference brought together up to 400 participants, including Turkish press, neurologists, neurosurgeons, medical students and members of cooperated societies. (See Photo 2.)



Photo 1



Photo 2

Our second meeting was held on March 12, 2014, in Ankara, Turkey. The meeting’s main topic, moderated by Prof. Serefnur Ozturk, was cerebrovascular diseases and mainly attended by medical students and delegates of the Patient Societies. (See Photo 3.) The event recorded and served from brain year web page as a continuing education. (See Photos 5, 6.)

On April 12, 2014 the Parkinson Disease Society held an event for the Brain Year. The Parkinson’s patients and



Photo 3



Photo 4



Photo 5



Photo 6

the neurologists had a long walk against to Parkinson disease. This event received great attention from the press. (See Photo 7.)

An Awareness Symposium was held for the neurological diseases in May. The symposium brought together around 600 patient and patients’ relatives. They had a chance to have an interactive discussion platform to increase their knowledge. (See Photo 8.)

In addition to scientific activities, we have visited eight secondary schools and held mini conferences. We reached around 1,000 students and increased their knowledge on brain. Turkish press being so interested to all our events and this makes it more accomplished. (See Photo 9.)

In the coming days, our public service announcements will be placed on TV which will be a great opportunity to spread our word to Turkey. (See Photo 10.)

Turkish Neurological Society holding an annual congress every year with 1,500 participants. This year we are celebrating our 50th Congress and planed a special session on Brain Year in Turkey. During our national congress the contest results will be announced at the gala dinner and an outdoor event will be organized “Walking With the Neurons”

The brain year [website](#) consists all the events and announcements and we use social media quite effectively with our Facebook and Twitter accounts. •



Photo 7



Photo 8



Photo 9



Photo 10

## COUNCIL OF DELEGATES

continued from page 1

Association were presented. This is an important amendment, which has been recommended by WFN reviewers and endorsed by successive Constitution and Bylaws Committees. The WFN trustees, following legal advice from Hunters, WFN lawyers, approved this change. This specifically separates the post of secretary-treasurer general into two, one of secretary general and the other of treasurer. The reasoning and background was presented to Council. Prof. Alastair Compston (UK) previous chairman of the Constitution and Bylaws Committee further explained the background. The amendment was accepted by unanimous vote. This means that there shall be two posts for COD to elect in Santiago 2015; that of treasurer and another trustee to replace the vacated post of Wolfgang Grisold following his election as secretary-treasurer general.

The Nominating Committee presented the COD with four candidates for the post of trustee. The vacancy was created by the end of the second term of Prof. Gustavo Roman. Prof. Roman has served the WFN for many years and will continue to do so as the chairman of the Latin America Initiative. He served with three WFN presidents; his wisdom and considered advice were invaluable.

The four candidates were Jose Biller (U.S.), Riadh Gouider (Tunisia), Man Mohan Mehndiratta (India) and Serefur Ozturk (Turkey). Following a second ballot, Prof. Gouider was duly elected as WFN trustee. (See Figure 2.) The officers and trustees welcome Riadh to the team. His experience in the WFN goes back many years and his current position as president of the Pan African Association of Neurosciences Societies would be most useful to the WFN. The WFN is most indebted to Prof. Eduard Auff (Austria), president of WCN 2013 Vienna for supervising the election process.

Prof. William Carroll, WFN first vice president, who chairs the WFN Congress

Committee and the Specialty Network, spoke at the meeting. He informed the council of the current status of the preparations for the forthcoming congresses in Santiago, Chile, Oct. 30-Nov. 4, 2015, and Kyoto, Japan, Nov. 14-19, 2017. The preparations for Chile are well on target and the submission of abstracts is open. As with all World Congresses, there are a substantial number of travelling fellowships to encourage young neurologists to attend. Prof. Carroll detailed the current status of the close relationship with specialty neurology organizations in partnered educational endeavors and members of the World Brain Alliance in matters of global advocacy; both of which are highly valued by the WFN. The existing disparity between the six WFN regions was emphasized. The trustees are keen to see the growth of stable and independent functioning regional organizations through the coordinated endeavors of the regional directors and initiative chairs.

Prof. Wolfgang Grisold, secretary-

amounted to £ 3,155,812. The rise in assets in spite of increased spending is mainly due to the excellent profit made by the Vienna WCN. We have to give our gratitude to the Austrian Society of Neurology and the now amalgamated European Federation of Neurological Societies for their efforts and close collaboration. The excellent collaboration will continue with the European Academy of Neurology.

A decision of the WFN trustees was made to allocate 30 percent of the annual budget to grants. The grants for 2013 were already dispersed and those for 2014 were decided and have started to be awarded. The WFN is most grateful to grant reviewers and to members of the World Brain Alliance and Specialty Network for their support and agreement to be partners in financing grants.

Prof. Grisold detailed the success of the World Brain Day, which was held on July 22, 2014. All member societies that participated were duly thanked. The day will be expanded in 2015, and more activities

## The continued collaboration with peer organizations through the World Brain Alliance will be further cemented to ensure that it will prosper.

treasurer general, presented the WFN financial status. The audited accounts were already sent to all delegates. The WFN is in good financial standing. The WFN is a lean organization run efficiently by two full-time and three part-time staff. The cost of the central office in London and elsewhere is relatively small. The total assets of the WFN at the end of 2013

are planned. The WFN publications and website report were detailed and activities on social media were brought to the attention of the council, these continue to grow and expand.

Prof. Grisold outlined the activities of the education committee chaired by Steven Lewis (U.S.) announcing the departmental visiting programs, which successfully started in Turkey, and have now been agreed to start in Austria. The start of the Rabat training program was mentioned, and Prof. Gallo Diop detailed this in his Africa initiative report. Negotiations are under way to establish further WFN accredited training centers.

Prof. Diop, WFN trustee, chair of the Africa Initiative, gave an account of the status of neurology across Africa. Although the situation is still dire in many countries, there is clear increase in



Figure 2. Prof. Riadh Gouider being elected WFN trustee.

neurological services and manpower. This is most welcome and plans to expand the role of the WFN on its own and in partnership with others including EAN, IBRO, IPMDS and AAN were detailed. The WFN is committed to the Africa initiative, which receives financial support through grants, and the reserved fund created following WCN Marrakesh.

Prof. Diop pointed out the start of training African neurologists in Africa with the commencement of training in September 2014, in the first WFN accredited training center in Rabat, Morocco. The WFN is most indebted to the Moroccan Neurological Society and the Moroccan Neurology Foundation for their continuous and indefatigable support for all WFN activities and in particular their commitment to training African neurologists in Africa.

Prof. Roman informed the council of the final stages of the formation of the Pan American Federation of Neurological Societies (PAFNS) to represent Neurology in Latin America. The WFN has designated grants for three developing regions: Asia, Africa and Latin America. This newly formed federation should unite the Latin American neurological world by the time the 22nd WCN is held in Chile.

Prof. Ryuji Kaji (Japan), chair of the Asia Initiative could not be in Boston. I pointed out the huge success of the Asian Oceanian Association of Neurologists. The association is now mature and active. First Vice President William Carroll and I had the pleasure of attending the Asian Oceanian Congress of Neurology in Macau in March 2014. The organization is moving ahead with its activities and is participating in the organization of the 23rd WCN Kyoto.

The COD official business is crucial and its decisions are legally binding to the WFN, but perhaps as importantly, is the interaction and relationships of delegates to renew friendships, start new ones, exchange ideas and news of the past year. There is no replacement for face-to-face meetings. The annual council of delegates meeting is that and much more. The next COD meeting will be held Oct. 31, 2015, in Santiago, Chile. •



Figure 1. Delegates voting on business at the Council of Delegates.

## HISTORY OF NEUROLOGY

## Kinnier Wilson and Anglo-French Neurology in the Early 20th Century

BY EDWARD H. REYNOLDS

Samuel Alexander Kinnier Wilson (SAKW) (1878-1937) is distinguished throughout the neurological world

for 1) the disease that bears his name, 2) his scholarly two-volume textbook which was published posthumously in 1940, and 3) his founding in 1920



Edward H. Reynolds

of the *Journal of Neurology and Psychopathology*, now known as the *Journal of Neurology, Neurosurgery and Psychiatry*.

Born in New Jersey, to a Scottish mother and an Irish missionary Presbyterian Minister father, he returned to Scotland for his education. He graduated from the Edinburgh Medical School in 1902 and obtained a BSc with First Class Honors in Physiology in 1903. With a Carnegie Fellowship, he immediately proceeded to Paris for a year to study neurology

under Pierre Marie at the Bicêtre Hospital, followed by a few months in Leipzig. In 1904 he was appointed House Physician to the National Hospital for the Paralyzed and Epileptic in London and remained at the National Hospital for the rest of his career, as resident medical officer, registrar, pathologist, assistant physician, and finally full physician in 1921. In 1919, SAKW was also appointed junior neurologist to King's College Hospital, one of the first of such posts in the UK to incorporate the word "neurologist."

In 1931, Sherrington invited SAKW



Pierre Marie (1853-1940). SAKW's first influence in Paris.

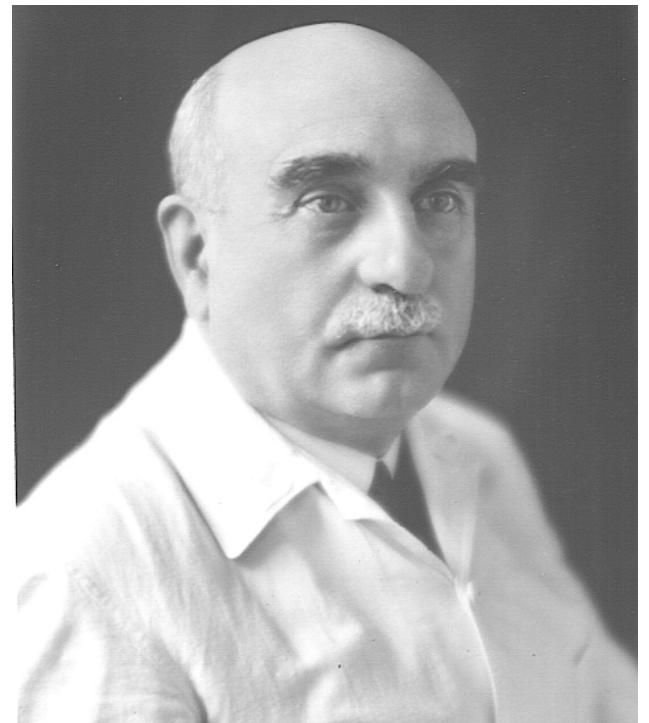
to participate in a symposium on muscle tone at the first International Congress of Neurology in Berne. Sherrington and SAKW were elected as president and secretary-general respectively of the second International Congress of Neurology in London in 1935, but Sherrington later had to withdraw due to ill health. In 1933 Sherrington and his joint Nobel Prize (1932) winner, Adrian, both proposed SAKW for the fellowship of the Royal Society.

Guided by his future father-in-law Alexander Bruce (1854-1911), an Edinburgh physician, with an interest in neurology, who also founded a neurological journal (*Review of Neurology and Psychiatry* 1903-1916), SAKW understood that Paris was the leading world neurological center at the turn of the 20th century. Hence, his seminal year (1904) influenced by Marie,

Babinski, Dejerine and Meige among others, before proceeding to the National Hospital, Queen Square. He published his famous Edinburgh thesis on hepatolenticular degeneration (later called Wilson's disease) in 1912, not only in *Brain* but also in *Revue Neurologique*. Furthermore he presented his work in French to the Société de Neurologie de Paris on Jan. 25, 1912, where it was very well received, but I cannot trace any record of a presentation to any UK society, such as the Section of Neurology of the Royal Society of Medicine in London. Just as Charcot had been a regular visitor to the UK in the late 19th century, so SAKW was a frequent visitor in the new century to France, where Crouzon, Guilain and Léry were particular friends and collaborators.

It is interesting that even at the 17th International Medical Congress in London in 1913 the French delegation was the dominant influence in the Section of Neurology/Neuropathology, the proceedings of which were published in detail in *Revue Neurologique* but not in any English journal. Following that Congress SAKW and nine other British physicians were elected "Membres Correspondants Etrangers" of the Société de Neurologie de Paris, which had been founded in 1899.

In the last 25 years, I have had the privilege of working with SAKW's son, James KW, a Cambridge-based assyriologist, on the subject of Babylonian neurology and psychiatry. Through James KW, I have learnt most about his father's French connections. I have in my possession SAKW's original seven-page brochure listing the members of the Société de Neurologie de Paris for 1926. It now includes 76 Paris-based neurologists, 60 French neurologists from beyond Paris and 128 international



Octave Crouzon (1874-1938). SAKW's contemporary and friend in Paris. (Courtesy of Emmanuel Broussolle).

members from around the world, mainly Europe and the U.S./Canada, including 14 from the UK. Although the Neurological Society of London had been founded earlier in 1886 and had evolved in 1907 into the Section of Neurology of the Royal Society of Medicine, it had remained a small almost exclusively London-based Society. When the Association of British Neurologists (ABN) was founded in 1933, it had only 25 members. •

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Edward Reynolds is consultant neurologist and former director of the Institute of Epileptology, King's College, London, and former president of the International League against Epilepsy. Peter J. Koehler is the editor of this history column. He is neurologist at Atrium Medical Centre, Heerlen, The Netherlands. Visit his website at [www.neurohistory.nl](http://www.neurohistory.nl)



Samuel Alexander Kinnier Wilson (1878-1937).

# INVITATION

**12th International Meeting Society of Neuroscientists of Africa**  
**Southern Sun Elangeni & Maharani Hotel**  
**Durban, South Africa**  
**26-30 March 2015**



***Theme: Brain sciences - addressing research needs and priorities in Africa***

Dear Colleagues

The 12<sup>th</sup> International Conference of the Society of Neuroscientists of Africa (SONA) is only 6 months away. The biennial SONA meeting is a premier neuroscience conference in Africa. In this regard, it brings together clinicians (amongst others neurologists, psychiatrists and psychologists) into contact with basic neuroscientists (physiologists, anatomists, pharmacologists etc) under the same roof to showcase research advances in the different neuroscience research fields. As an affiliate of the International Brain Research Organization, SONA has also managed to draw interests from scientists living outside of Africa. In keeping with the theme of the conference Brain Sciences - Addressing Research Needs and Priorities in Africa, our plenary speakers will give lectures covering topics ranging from neurological consequences of HIV infection to neurodegenerative disorders and addiction. For the first time at a SONA meeting, we will also be looking at ways on how to move research from the bench top to the market place i.e. looking at ways to generate income in order to sustain research in Africa. The conference will be held at the Southern Sun Elangeni and Maharani hotel which is situated on the Durban beachfront from 26-30 March 2015.

The city of Durban is found on the east coast of South Africa. It has a rich cultural and natural heritage. It is home to four universities with close links to a number of academic hospitals. The University of KwaZulu-Natal, which is one of the sponsors for this conference is home to the world renowned Centre for the AIDS Programme in South Africa (CAPRISA) and the KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH). It gives me great pleasure to invite you to attend the SONA Congress in 2015.

Dr Musa Mabandla  
SONA President



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## INDIA

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ogy and Psychiatry to counsel the seekers in psychological stress. NIMHANS has been actively involved in assisting the Ministry of Health and Family Welfare, Govt. of India in planning and execution of National Mental Health Programs, especially in the areas of neurotrauma, epilepsy and psychiatric disorders. NIMHANS has also established Human Brain Bank for research and Neuropathology Brain Museum to promote public awareness about neurological disorders and the strategies to prevent them.

Keeping in the spirit of World Federation of Neurology, NIMHANS celebrated World Brain Day – Our Brain, Our Future on July 22, 2014.

An event was organized at Neurobiology Research Center, NIMHANS, addressing 200 school children and teachers who visited the Human Brain Museum. In addition, a few from the general public and senior citizens also joined the celebrations. We dedicated this first celebrations to the children in whom we are kindling curiosity in the field of neurosciences. The students were from Class X and XI, preparing to enter college, thus representing the young minds who can participate in leading the country.

Director/Vice Chancellor Prof. P. Satishchandra and In-charge Registrar Prof. S.K.Chaturvedi, professor of psychiatry, addressed the students highlighting the need to understand the brain-mind axis and their role in neuropsychiatric disorders. In addition, they stressed healthy living by proper food intake, exercise and strictly avoiding addiction forming drugs. The session was interactive; the students actively participated in the discussion.

Dr. S.K. Shankar, emeritus professor, neuropathology and principal coordinator of Human Brain Bank, addressed the gathering on the topic “Let Us Learn Neuroscience Together” talking through the evolution of nervous system in animals and human and human brain in disease states. Subsequently, the structure of the human brain and the internal anatomical areas with their physiological and psychological functions were demonstrated using the human brains collected at autopsy with informed consent of close relatives.

“Human Brain in Health and Disease” was conducted showing the real human specimens, including the human articulated skeleton. The faculty, post doctoral fellows of Department of Neuropathology, staff of Human Brain Bank and volunteers from Neurovirology Department explained the specimens in an interactive basis. Finally the young students were thrilled touching the real human brain, heart, lung, kidney and intestine and had the real feel of the organs in their hands.

Simultaneously, the College of Nursing, NIMHANS organized a day-long exhibition with health awareness posters in English/Kannada and human brain specimens in the outpatient section of the

hospital. The exhibition was inaugurated by Prof.Lalitha, head of the Department of Nursing. The faculty and the tutors of nursing college actively participated taking the knowledge about the brain to the common man visiting the hospital for treatment.

The public greatly appreciated the opportunity to see and touch the real human brain and fruitful discussion about food habits, the common infections of nervous system and the useful strategies to prevent them.

The Director/Vice Chancellor visited the exhibition organized by the Nursing Department and appreciated their efforts for taking the knowledge to the common man.

NIMHANS, Bangalore, decided to continue the tradition with greater scien-

emy of Neurology.

The event was extensively covered by print and electronic media like *Times of India* and Door Darshan TV .

**Madras Medical College, Chennai**

World Brain Day was celebrated at Madras Medical College. Dr. Bhanu, head, Institute of Neurology, welcomed the gathering. Dean Dr. Vimala delivered the presidential address. Dr. A.V. Srivasan, emeritus professor, Dr. Lakshmi Nrasimhan, Dr. S. Balasubramanian spoke on the importance of brain functions. The event had wide media coverage in *The Hindu*, *dinamaalar*, *dinathandhi* etc. About 200 people participated and benefitted.

It is a good initiative to talk more on protection than on treatment of illness, though that is also important.

## The event helped in spreading the awareness regarding brain health, brain diseases and their prevention. A breakdown of how different centers celebrated activities follows.

tific inputs in the future as well.

**St. Paul College, Kolkata**

The Institute organized the World Brain Day in a prominent school locally at Burdwan on July 22.

It was attended by students from class six and above along with teachers. Dr. Shyamal Kumar Das and two of his residents gave nice speeches about nervous system and their importance including basic illness such as epilepsy, stroke, dementia, etc. The meeting was well organized by the school authorities. It was a very stimulating experience, and the students and teachers enjoyed the program.

We have planned to celebrate next year as well.

**Calcutta Medical Research Institute, Kolkata**

World Brain Day was celebrated at Calcutta Medical Research Institute, Kolkata, on July 22 under the aegis of World Federation of Neurology and Indian Academy of Neurology. The goal was to increase the awareness regarding common neurological diseases. The half-day program consisted of a seminar where eminent neurologists of the city discussed on topics like stroke, epilepsy, dementia and neurotrauma. The seminar was attended by about 75, including doctors, patients, social workers and press. The event was organized by Dr. Arabinda Mukherjee, president elect, Indian Acad-

**Mumbai**

The first World Brain Day with the theme of Our Brain - Our Future was celebrated by Epilepsy Foundation India, on the July 22, 2014. Chief guest Dr. B. K. Upadhyay, Jt. Commissioner of Police, (Traffic) inaugurated and Dr. Nirmal Surya chaired the program.

A total of 150 people attended the program, most of them were patients suffering with epilepsy and other neurological disorder and their caregivers.

Dr. Nirmal Surya, founder trustee and chairman of Epilepsy Foundation in his presentation, informed the audience about the brain, its function and its disorder and how the injury to brain can affect the individual life in local and regional language. He also explained about the early intervention and treatment in disease like stroke epilepsy and head injury.

Dr. B. K. Upadhyay, Jt. Commissioner (Traffic) Mumbai, Chief Guest was delighted to be part of this function. He mentioned the importance of protecting brain while riding a bike, using a seatbelt while driving car and obeying traffic rules. He made the audience aware about following four simple traffic rules and stressed the need to safeguard your brain like gold, which is the most important organ of body. In the end, there was a session where the audience participated to know more about brain and its disorders.

**Varanasi**

World Brain Day was celebrated at the

Department of Neurology, Institute of Medical Sciences, Banaras Hindu University Varanasi, a central government university, on July 22 under the aegis of advocacy subsection of Indian Academy of Neurology.

About 150 persons with neurological disorders and their caregivers were present.

Prof. M.K. Thakur, Prof. R.K. Goel, Prof. Deepika Joshi, Prof. S.P. Singh, Dr. N.K. Agarwal, Dr. V.N. Mishra and Dr. R.N. Chaurasia participated in the activity. They addressed the public and gave knowledge about our brain and its importance in life and how we can keep our brain healthy and answered the questions asked by public.

**Rohatak**

On the occasion of World Brain Day, Dr. Pawan Sharma organized public awareness program in Rohtak.

**Indore**

On the occasion of the first World Brain Day Neuro-Club Indore and Rotary Club of Indore Uptown organized a series of lectures at secondary schools where Dr. Apoorva Pauranik addressed hundreds of adolescents (class 10-11-12) about the anatomy and physiology of brain along with introduction for common neurological diseases. The presentation and interaction was lively and interesting with the help of charts, posters and models. The curiosity, intelligence, inquisitiveness of the boys and girls was impressive.

**Karimnagar**

World Brain Day was celebrated in Vijaya Hospital. Dr. E. Pawankumar conducted awareness program on hospital premises on the importance of brain and disorders of brain, mainly stroke, epilepsy and head injury and risk factors in our local language i.e telugu. Around 100 people were educated and given advice to prevent brain diseases. They really appreciated the program, and it was a grand success.

He prepared 4,000 posters about symptoms, risk factors, prevention and treatment of stroke and pasted it across various public places, offices and local hospitals in our entire district to bring awareness about stroke and received good feedback from many people.

The event was also celebrated at other centers, but they were late in sending the report. We would like to compliment WFN for this very important public health initiative. It was the best way to reach out to the people and interact with them. Some members expressed that they did not get enough time to organize the activity to their potential and expectations. We are sure next year the event will explode and reach greater heights as some members have already started planning. •

Dr. Meshram is the president of Indian Academy of Neurology. Dr. Thomas is the secretary of Indian Academy of Neurology.



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