

WORLD NEUROLOGY

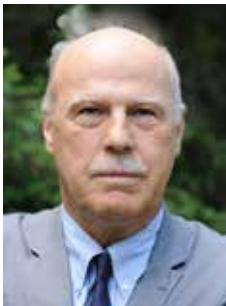
THE OFFICIAL NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

ENS + EFNS = EAN

Two European Neurological Societies Merge into the European Academy of Neurology

BY WOLFGANG GRISOLD

Earlier this year, the first Joint Congress of European Neurology took place in Istanbul. This was the final stage in the process of merging the two European neurological societies — the European Neurological Society (ENS) and the European Federation of Neurological Societies (EFNS) — into the European Academy of Neurology (EAN). The first elections of the new society were held during the congress, naming G. Deuschl, Germany, as the first president of the EAN, and F. Fazekas, Austria, as its first vice president. The merger of the two societies was a logical step and now that it has occurred, it seems to be a natural



Wolfgang Grisold

development, but it took a huge effort and the engagement of many individuals to make it possible.

The ENS was the first European neurological society, founded in 1986. It held its first congress in Nice in 1989. That congress was organized by G. Said.

Said along with his co-founders, P. K. Thomas and Anita Harding, were the heart of the ENS at its founding. Their idea was to create a European society based on individual membership, with a strong emphasis on science and a structure similar to that of the American Academy of Neurology (AAN). As a consequence of this philosophy, the ENS traditionally has been less engaged in political aspects of neurology, fostering individual rather than national

representation. The ENS, apart from holding excellent congresses, increasingly engaged in education through teaching, scholarships and international support for countries in need. Its major publication



was the Journal of Neurology, which was supplemented by informative newsletter that appeared regularly.

The EFNS was founded in Vienna in 1991 by Prof. Gerstenbrand who had a vision of creating a large European society
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Arthur Simons and Tonic Neck Reflexes in Hemiplegic Persons

Arthur Simons conducted an investigation of the tonic neck reflexes in hemiplegics. **PAGE 11**

Asia Initiative: Neurology Service and Beyond

BY RYUJI KAJI, MD, PHD

In his 2010 inauguration speech as the president of World Federation of Neurology (WFN), Prof. Vladimir Hachinski conveyed a message: "Asia has more than 60 percent of the global population, yet in some areas, the education of neurology to young neurologists does not keep up with the patients' needs of neurological care." He organized the Asia Initiative as a part of WFN to bring attention to this region.



Ryuji Kaji, MD, PhD

As the chair of this initiative, I have met many Asian neurologists and have begun to realize that there are unique problems that require attention from the rest of the world.

The 14th Asian & Oceanian Congress of Neurology was held in March in Macao, China. This is an official meeting of Asian Oceanian Association of Neurology, whose history dates back almost half a century ago. Charles M. Posner, a WFN representative, toured the Asian and Oceanian countries and challenged local neurologists to form an association that would



promote and foster the advancement and exchange of information within the area. In response, Shigeo Okinaka, then the executive of Japanese Society of Neurology, invited the region's neurologists to a planning meeting in Tokyo. This gave birth to the Asian and Oceanian Association of Neurology (AOAN) on June 26, 1961. Its official meeting, Asian & Oceanian Congress of Neurology (AOCN), had been held every four years until the current 14th meeting in China, which followed the 13th meeting in Melbourne in 2012 by two years. There was uncertainty over the financial and scientific outcomes of this short-interval meeting,

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FROM THE EDITOR-IN-CHIEF

Immune-Mediated Neurologic Disorders Recognition and Management in LMCs

BY DONALD SILBERBERG

Since Josep Dalmau's 2007 report of Anti-N-Methyl-D-Aspartate Receptor Encephalitis associated with ovarian teratoma¹, there have been several studies that make it clear that he and his colleagues uncovered just the tip of the iceberg. Clinical presentations ranging from seizures, movement disorders, autonomic dysfunction, behavioral changes to frank psychosis and disordered consciousness are being reported in association with a variety of antibodies, mostly directed against synaptic molecules². Some proportion of what is being termed Pediatric Autoimmune Neuropsychiatric Disorders (PANS) also may be antibody-mediated³.

Although these seem to be uncommon disorders, their epidemiology at present is unknown. However,

as is the case with virtually all neurologic disorders, immune-mediated disorders are likely to be at least as common in low- and middle-income countries (LMCs). In those situations in which a preceding infection plays a role, these disorders may even be more common. Their recognition depends on physician or other health care provider awareness; diagnosis depends entirely on sophisticated laboratory testing. This raises the problem of how to get affordable diagnostics and interventions to LMCs where they are needed.

This problem, of course, extends far beyond this group of disorders. More than 100 genetically determined disor-



DONALD H. SILBERBERG

ders can now be detected before birth. Even more neurologic disorders can be accurately diagnosed throughout childhood and adolescence where the genetic testing is available.

Advances in the capacity to deal with this issue in LMCs will depend on raising awareness at many levels, training diagnostic laboratory personnel, lowering the cost of the reagents that are needed, and through developing partnerships with centers in wealthy countries.

World Neurology Online welcomes your commentary concerning this issue. •

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Hachinski Addresses Dementia Prevention at Royal Symposium

Her Majesty Queen Sofia of Spain has a special interest in Alzheimer's disease and chaired a symposium on The Advancement of Psychosocial Care and Research in Dementia in May in Salamanca, Spain. It was sponsored by the Fundación Reina Sofia, CRE Alzheimer's (IMERSO), Fundación General de la Universidad de Salamanca and other organizations.

Vladimir Hachinski, distinguished university professor, University of Western Ontario, London, Canada, speaking in Spanish on "Can We Prevent or Delay Dementia?" explained that stroke and Alzheimer's pathologies increase with age, occur together in the same brain and may interact.

Lesions in the brain do not add up; they multiply making it important to control what pathology we can. Currently, no treatment exists for Alzheimer's, except for the symptoms. On the other hand, all dementias have a vascular component, ranging from 60 percent in frontotemporal dementia to 80 percent in Alzheimer's disease. Having Alzheimer's pathology and a vascular component doubles the chances of developing dementia. Currently, Alzheimer's disease and brain vascular disease are being managed as if they were separate and isolated entities.

An alternative approach is that of vascular cognitive impairment, which is



Her Majesty Queen Sofia of Spain (center) and Prof. Vladimir Hachinski (left of Her Majesty), keynote speaker at the II International Symposium on the Advancement of Psychosocial Care and Research in Dementia. PHOTO COURTESY OF AGENCIA DICYT

any impairment caused by or associated with vascular factors. Vascular disease is treatable and preventable. Therefore, identifying the vascular components of all dementias offers the possibility to prevent or delay dementia.

Other participants included Ana Mato, Spanish Minister of Health; Benoit Lavalart, leader of Plan Alzheimer's France, who spoke on "The French National Alzheimer's Plan"; Marc Wortmann, Alzheimer's Disease International (AD)

on "Global Dementia Policy Overview"; Eamon O'Shea, Irish Center for Social Gerontology (ICSG) on "Psychosocial Interventions for People with Dementia" and Maria Isabel Gonzalez Ingelmo, director of CRE Alzheimer's International.

Hachinski said he was glad to see the Queen again, whom he had met June 2013 at a symposium in Madrid. He was pleased to return to the University of Salamanca, where he was made a Doctor Honoris Causa in 2000 •

PRESIDENT'S COLUMN

Moving Neurology Forward

Many important events shape our future, and in the neurology world, one of those has happened since the last issue of *World Neurology*. The WFN has six regions across the world and one of them is Europe. For historical reasons, two neurological societies were created in the continent, and through the diligent work of many people, the EFNS and the ENS

have now joined together to create the European Academy of Neurology (EAN). This occurred through good will and compromise on both sides. The newly established organization has inherited the work and funds of the two previous ones. This puts it in an excellent position to hit the ground running.



RAAD SHAKIR

This amalgamation would not have been possible were it not for the farsighted view taken by the leaders of the EFNS and ENS, Prof. Richard Hughes, EFNS president, and Prof. Claudio Bassetti, ENS president. The new constitution would not have been possible without the hard work of the transitional team: Prof. Jacques De Reuck and Prof. Gustave Moonen from Belgium; Jose Ferro, Portugal; Detlef Kömpf, Germany; and Gunhild Waldemar, Denmark.

I might add that, in a way, history repeats itself as the WFN itself was created in 1957 by the initial efforts of three Belgians: our first President, Ludo Van Bogaert; Charles Poser, our first editor of *World Neurology* and Armand Lowenthal. The two Belgian members of the EAN's transitional team have again been instrumental in creating a new and rather ingenious constitution for the new European Academy. This is a

unique structure that serves to instruct us all on how to overcome differences and create functional and egalitarian professional organizations.

It was my pleasure to attend the first general assembly and elections held June 3, 2014, in Istanbul. Prof. Günther Deuschl from Kiel, Germany, was elected president. (See picture at right.) The EAN is now the single organization that unites and supports all neurologists across Europe. Currently, 45 European national societies as well as 800 individual registered members constitute the assembly. The EAN represents 19,000 European neurologists.

The next regional organization, which is due to be formally created, is the Pan American Federation of Neurological Societies (PAFNS) representing the WFN Latin America region. The constitution and by-laws have been approved, and it is expected that the organization shall be incorporated during the next WFN Council of Delegates meeting on Sept. 11, 2014, in Boston. The forthcoming World Congress in Santiago, Chile, is the most appropriate place for PAFNS to do all of its future planning and activities across Latin America.

By the time this issue of *World Neurology* is published, the first World Brain Day will have happened in July 2014. (See program cover on this page.) This date was chosen as it is the date of the creation of the WFN in 1957. Prof. Mohamed Wasay, chairman of the Public Awareness and Advocacy Committee, has worked tirelessly with the close collaboration of Prof. Wolfgang Grisold, secretary-treasurer general, to make this first day a success across the world. The emphasis is on celebrating the brain and its wonders and informing the public of our activities as well as inviting anyone who is interested in participating in them. The plan is to build on this first experience for the future and create new and novel activities in years to come.

These events can only happen as the WFN has a rich history, and many of our

activities have their roots going back decades. Prof. Johan Aarli's book, "The History of the World Federation of Neurology, The First 50 Years," was published June 2014, and launched during the joint EFNS/ENS Congress in Istanbul. This is an excellent effort from our past president, and a review by Prof. François Boller is published in this issue of *World Neurology*.

Many of our committees met in Istanbul. The Publications and Communications Committee now incorporates the website, and Prof. Christopher Kennard, U.K., as chair of the committee, held its first meeting with many issues discussed regarding the future of the WFN contract with Elsevier. The website has changed dramatically, and the configuration is now more responsive and will be updated regularly.

The WFN finances continue to grow and allow the organization to increase its grants and activities. The Finance Committee under the chairmanship of Prof. Eduard Auff, Austria, reviewed the 2013 finances including the WFN investments. The conclusion is that the WFN is in good financial shape and the trustees, on behalf of all member societies, want to register their gratitude to the Austrian society and the EFNS for partnering with the WFN in the Vienna Congress, which was a great scientific and financial success.

The grants applications have been received, and the reviewers will produce their final decisions by the end of the summer. Again, the WFN is partnering with speciality and regional organizations. This has proven to be an excellent way to have global involvement in neurology research. The administration and monitoring of the grants is an integral part of the WFN secretariat, and this is performed most successfully.

The recent meeting of members of the World Brain Alliance was most rewarding, and members of peer organizations have all agreed on close collaboration at various levels to promote our activities at the highest levels, especially at the WHO and the United Nations. The noncommunicable

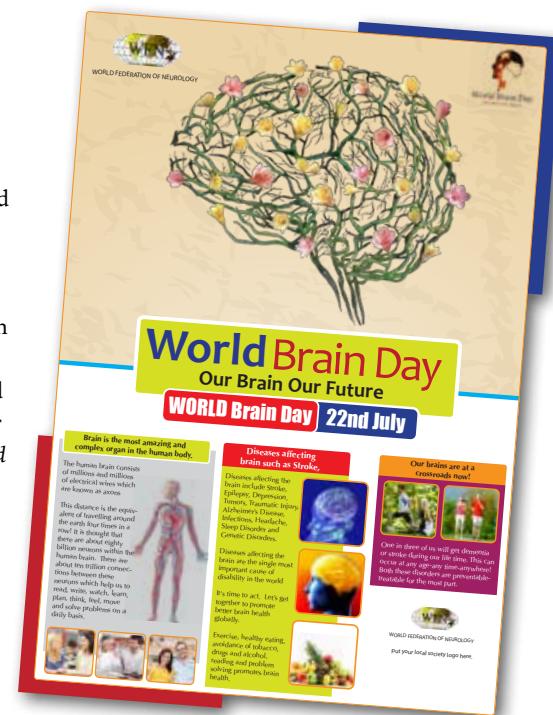


Figure 2. World Brain Day logo.



A billboard for World Brain Day 2014 in Karachi, Pakistan. Submitted by Mohammad Wasay, Aka Khan University.



Figure 1. Raad Shakir and Günther Deuschl.

diseases project is crucial for brain health. The aim is to promote awareness and support for brain-related disorders with their massive consequences leading to death and disability.

The WFN has to have an annual Council of Delegates (COD) meeting to fulfill the requirements of being a U.K.-based charity. This year's meeting will be held during the joint ACTRIMS/ECTRIMS meeting in Boston. The COD will meet at 9 a.m. on Sept. 11, 2014. The delegates will have the opportunity to hear all about our activities during the year and elect a new trustee to replace Prof. Gustavo Roman whose second term comes to an end. Roman has been involved in various activities of the WFN for many years. His contributions have moved the WFN forward. He will continue his role as WFN director of the Latin America Initiative.

The WFN is moving full steam ahead with its program of global involvement, and I welcome all ideas from all the membership. •

Impressions of the First Joint Congress of the ENS and EFNS

BY BIRGIT SURBÖCK, ALEXANDER TINCHON
LEYLA ALPASLAN, SABINE POLLANZ,
AND ANNA GRISOLD

The First Joint Congress of the ENS and EFNS took place in June 2014 in Istanbul.

Peripheral Neuropathies

Rudolf Martini, Würzburg, Germany, was the first speaker of this session and talked about opportunities for treatment of CMT diseases. At the moment, there is no cure for these genetic neuropathies. Studies (mouse and human) with many substances studied, such as ascorbic acid, progesterone antagonist, curcumin, neurotrophin 3, carried out without success. In the German laboratory, mediators for the involvement of phagocytosing macrophages have been detected in the demyelination and perturbation of axons. These mediators are monocyte chemoattractant protein-1 (MCP-1; Ccl2) and colony-stimulating factor-1 (Csf-1). The idea was that attenuating macrophage-related peripheral nerve inflammation could be a putative option to ameliorate disabling symptoms associated with CMT-1.

Phase 1 clinical trials with a highly selective Csf-1-receptor inhibitor were promising. Another approach injected human adipose-derived mesenchymal stem cells (MSCs) isolated from lipo aspirate into tail veins of Cx32-deficient mice, a model for CMT-1X. Single injection of these immune modulatory xenografts caused macrophage attenuation and mild preservation of myelin.

Next, Rayaz A. Malik, Manchester, United Kingdom, presented on diabetic neuropathy. The problem in finding the optimal tools for diagnosis and treatment is the design of studies. What should be used for primary endpoint? Clinical status, vibration threshold, electrophysi-

ological findings?

Often, there is only an evaluation of the A β -fibers and not C-fibers, which are responsible for pain, skin blood flow, inflammation and ulceration. An alternative diagnosis tool to skin biopsy could be corneal confocal microscopy, as there are more than 7,000 nociceptors per mm² in the cornea. In studies, the loss of corneal C-fibers was in concordance with the progression of the neuropathy. Malik concluded with the statement: "Look into my eyes and predict my risk of amputation."

Pieter A. van Doorn, Rotterdam, discussed how to optimize treatment in immune-mediated neuropathies. About one-fourth of patients with GBS develops respiratory insufficiency, and many have signs of autonomic dysfunction and pain. Prognostic models can help to predict the chance that an individual patient will require artificial ventilation, and to predict the probability to walk unaided after half a year. EGRIS score and mEGOS are tools that can be used early in the course of disease.

Treatment is well known with intrave-



Birgit Surböck



Alexander Tinchon



Leyla Alpaslan

nous immunoglobulin (IVIg) or plasma exchange. Important to consider that about 10 percent of GBS patients will have a treatment-related deterioration (TRF), requiring a repeated treatment course. Other patients initially diagnosed as GBS will turn out to have acute-onset chronic inflammatory demyelinating polyradiculoneuropathy (A-CIDP). Treatment of CIDP include steroids, IVIG and plasma exchange. Most patients need intermittent maintenance treatment.

The session ended with an overview of treatment in amyloid neuropathy (AN) from David Adams, Kremlin-Bicêtre, France. As AN is a systemic disease, patients should be screened for cardiologic, renal and ocular manifestations in transthyretin FAP (TTR-FAP) or hematologic involvement for light-chain amyloidosis (AL-amyloidosis).

To remove the main source of variant TTR, liver transplantation is performed depending on the stage of the neuropathy, the variant TTR, the age of the patient and severity of organ involvement. Liver transplantation, which has been performed since 1991, has better results in early onset. Pacemaker implantation should be discussed in case of significant conduction disorder. Heart or kidney transplantation must be discussed in end-



Sabine Pollanz



Anna Grisold

stage cardiac or renal failure in Stage 1 neuropathy.

For light chain amyloidosis, chemotherapy, in combination with high dose dexamethasone, is used to control the underlying plasma clone that produces amyloidogenic light chain. Another option is the application of monoclonal antibodies against human serum amyloid P component. At the moment, a Phase 1 study is ongoing in the U.K.

Chemotherapy-Induced Neuropathies

Prof. Cavaletti, Italy, talked about chemotherapy-induced neuropathies (CIPN), which present an increasingly clinically relevant issue. Due to improvement and extension of chemotherapies, the overall survival rate of tumor patients is rising, though the number of the exact incidence is lacking.

However, neurotoxic drugs with substances such as platin derivatives, taxanes, vinca-alcaloids, bortezomib and thalidomide are becoming a major dose-limiting factor. The epidemiology is still unclear.

CIPN are dose-dependent and occur after a cumulative dose, mostly after three to four cycles.

CIPN are predominantly sensory with dysaesthesia, paraesthesia, burning sensations, pain, ataxia and gait disorders. Motoric or autonomic, as well as, cranial nerve involvement is rare. Oxaliplatin should be highlighted, as it induces acute transient side effects as coldness-associated pain, and muscle cramps especially in the jaw and bulbar distribution.

An important issue is "coasting." Patients treated with platinum derivatives may develop worsening neuropathic symptoms after treatment has ceased.

For the clinical involvement and evaluation of CIPN, questionnaires are used, such as the Total Neuropathy Score (TNS) or the National Institute Cancer Toxicity Scale (NCI-CTC). The sensitivity is limited due to interindividual reliability.

Measurement of sensory and motor nerve conduction velocity (NCV), sensory nerve action potential (SNAP) and compound muscle action (CMAP) together with electromyography (EMG)

Joint Congress of European Neurology

BY WOLFGANG GRISOLD

**May 31-June 3
Istanbul**

[EAN: \(Click Here\)](#)

[EAN Newsletter: \(Click Here\)](#)

[Joint Congress: \(Click Here\)](#)

At this unique meeting organized by the European Federation of Neurological Societies (EFNS) and the European Neurological Society (ENS), more than 5,900 neurologists

from 102 countries attended. The top countries included France, Germany, Greece, Italy, Romania, Russia, Spain, Switzerland, Turkey and the United Kingdom. But, of course, many participants came from outside of Europe.

From a total number of 2,700 abstracts submitted, the Congress Program Committee led by Prof. Jacques De Reuck and Prof. Gustave Moonen selected 1,500 to be presented as electronic and paper posters. The ePoster session was a great success.

There were 68 sessions, including

eight symposia, focused workshops, oral sessions and special sessions. The education program consisted of 25 teaching courses and three practical courses.

During the lunch breaks and in the evening, pharmaceutical companies organized 11 satellite symposia.

Similar to previous congresses, young scientists had the opportunity to compete in the Tournament for Young Neurologists. The Subspecialty Scientific Panels chose the best presentation in their field. All the partici-

pants were winners, since the congress evaluations showed that the scientific program as well as the organization was excellent.

The highlight of this congress was the foundation of the European Academy of Neurology (EAN). EFNS and ENS came together to found this new society. Currently, 45 national neurological societies and 800 individuals are registered members of EAN. EAN represents more than 19,000 European neurologists.

The Assembly of Delegates elected

are standard neurophysiological tests used. Diminished amplitude of SNAP in NCV is thought to reflect axonal loss from sensory nerves. In case of inconclusive results, a skin/nerve biopsy may be considered.

Pre-existing neuropathies, due to diabetes, alcohol abuse or hereditary neuropathies as well as concomitant chemotherapies may facilitate or worsen CIPN. However, the correlation remains unclear.

Neuroprotectives are still lacking. Several substances have been tried but without success. Symptomatic treatment targeted with either neuropathic pain therapy or physical therapy and rehabilitative measures must always be considered.

In summary, CIPN present a serious adverse effect due to limitation in quality of life. Studies with the evaluation of biomarkers to identify patients with the high risk of developing CIPN are needed. Data of long-time effects are lacking. Further studies are needed to achieve a standardized treatment of CIPN and its complication.

Movement Disorders

Oral sessions and teaching courses were provided throughout the congress, spanning all relevant topics from idiopathic Parkinson's disease to hyperkinetic movement disorders. The first two days were dedicated to Parkinson syndromes in general and organized as oral sessions focused on novel diagnostic and therapeutic strategies. The first session included an interesting prospective cohort study, which explained the potential meaning of a particular olfactory assessment in early diagnosis of Parkinson's disease in patients with rapid eye movement sleep behavior disorders.

The use of apomorphine was highlighted as good therapeutic option in patients with morning akinesia and reviewed as a reasonable drug for improved quality of life in a multicenter prospective French trial.

Atypical Parkinson syndromes were discussed in a separate session, underlining autonomic disorders as a leading symptom in the diagnosis of MSA. An extrapyramidal syndrome with rapid progression, poor response to L-Dopa and other uncommon

symptoms such as early dementia, apraxia or stridor should be considered as an atypical Parkinson's syndrome. Stridor in particular seems to be an underestimated symptom in this differential diagnosis.

On the other hand, fragile-X-associated tremor-ataxia-syndrome was introduced as a rare but possible differential diagnosis in patients with atypical Parkinson syndromes.

The therapeutic approaches on MSA are still limited, since rasagiline, lithium and fluoxetine failed to prove a significant benefit. Although accompanied by a poor prognosis, MSA should be considered as a heterogeneous disease with a challenging effort in diagnostic and therapeutic efforts.

A highlight of this year's congress was the interactive sessions in which patient videos were presented, and the audience could vote among several differential diagnoses. In the session "paroxysmal events" intermittent movement disorders, as the paroxysmal kinesigenic dyskinesias (PKD)

required bacterial meningitis and focused on strategies to optimize antibiotic efficacy in view of increasingly drug-resistant bacteria. He also discussed the role of current and future adjunctive therapies. Clinical data to support new antibiotics in the treatment of multidrug-resistant bacteria are scarce.

Whether adjunctive anti-inflammatory therapies (e.g. dexamethasone) improve outcomes in patients with bacterial meningitis remains controversial and are being tested further. In the European clinical trial from 301 adults with meningitis who started dexamethasone 40 mg/d for four days before/with first dose antibiotics, it decreases mortality and hearing loss. Another adjunctive therapy, hypothermia, tested by a randomized open-label, blind endpoint trial has no beneficial effect. Rapid diagnosis and treatment reduces mortality, therefore it should be started simultaneously with an adjunctive therapy.

Johann Sellner, Austria, then talked

encephalitis, the clinical picture, treatment and outcome. Clinical symptoms, abnormal CSF with lymphocytic pleocytosis, raised total protein and oligoclonal bands; abnormal EEG and MRI are essential for the diagnosis. After a prodromal phase, the clinical deterioration starts with symptoms of agitation, psychosis, catatonia, memory deficit, speech reduction, abnormal movements and seizures to coma, hypoventilation and dysautonomia.

Other types of encephalitis as LGII-encephalitis and its clinical symptoms such limbic encephalitis, memory loss, myoclonic-like movements, hyponatremia, seizures and its outcome were presented and discussed.

Uncommon Causes of Dementia

Philip Scheltens, Amsterdam, opened with comments about prevention for Alzheimer's disease. It is a challenge not only for neurologists but also for all health

see *JOINT CONGRESS*, page 7

A highlight of this year's congress was the interactive sessions in which patient videos were presented, and the audience could vote among several differential diagnoses.



with sudden attacks of involuntary movements, including dystonia, chorea, athetosis or ballism, precipitated by sudden movements were shown. Also presented, patients with paroxysmal non-kinesigenic dyskinesias (PNKD), that usually occur spontaneously or may be triggered by consumption of alcohol or caffeine, and the paroxysmal exercise-induced dyskinesia (PED).

Examples of faciobrachial dystonic seizures, nocturnal frontal lobe epilepsy and L-Dopa-induced dystonic-ballistic dyskinesias in Parkinson's disease demonstrated the difficult differentiation against psychogenic movement disorders.

Improving Outcomes of CNS Infections and Autoimmune Encephalitis

Diederik van de Beek, Amsterdam, presented the first session about bacterial meningitis. He presented the dilemmas in the diagnosis of acute community-ac-

quired bacterial meningitis and focused on strategies to improve the outcome of viral encephalitis. Early suspicion and diagnosis are crucial. A delay of more than two days between admission to the hospital and antiviral treatment has a poor outcome. The clinical spectrum of presentation is broad and leads to misdiagnosis such as altered mental status, sepsis and seizures. Herpes simplex virus (HSV) and varicella zoster virus (VZV) are most commonly involved in sporadic disease, while in about one third of the patients the agent cannot be identified despite extensive diagnostic efforts.

The correct dosage of acyclovir is given in 75 percent of cases and should be IV 10 mg/kg every eight hour for a period of 14-21 days. In cases of negative PCR and no alternative diagnosis by suspected HSE, the duration of therapy is for 10 days.

M. Titulaer, Barcelona, Spain, then discussed autoimmune encephalitis. He mainly focused on anti-NMDA receptor

its Board on June 3. The following officers were elected:

President: Günther Deuschl, Germany

Vice President: Prof. Franz Fazekas, Graz, Austria

Secretary General: Prof. Didier Leys, Lille, France

Treasurer: Prof. Marianne de Visser, Amsterdam, The Netherlands

Chair Scientific Committee: Prof. Antonio Federico, Siena, Italy

Chair Liaison Committee: Prof. David Vodusek, Ljubljana, Slovenia

Member at Large: Prof. Per Soelberg Sorensen, Copenhagen, Denmark

The first EAN Congress is scheduled to take place June 20-23, 2015, in Berlin. •

Mark Your Calendars

2014

[Congress of the European Committee for Treatment and Research in Multiple Sclerosis 2014](#)

Sept. 10-13

Boston, United States

[Fourth European Headache and Migraine Trust International Congress \(EHMTIC\)](#)

Sept. 18-21

Copenhagen

[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

The African Commission on Epilepsy

BY DR. EZEALA-ADIKAIIBE BIRINUS

The enormous challenges facing epilepsy care in Africa, especially in poor and rural areas, cannot be overemphasized. All human development indicators, despite some improvement, remain low and unacceptable. Faced with other pressing issues and social conflicts, bringing epilepsy to the forefront has been an uphill task. In recent years, the number of training institutions for doctors and nurses has increased and more qualified personnel in the area of neurological disorders have been trained. The number of diagnostic equipment and specialist centers for neurological diagnosis has grown. However, for a reasonable impact to be made, efforts geared toward increasing awareness, advocacy, reducing the price of medications and improving access to care and research to a more coordinated approach are required.

To achieve these aims, the International League Against Epilepsy (ILAE) set up the Commission on African Affairs in 2010 in Dakar, Senegal.

The official inaugural meeting of the African commission of ILAE took place in November 2010. The parent body, ILAE, convened, and Prof. Amadou Gallo Diop of Senegal and Senegalese League Against Epilepsy served as a facilitator.

Representatives from the following countries were present: Dr. Calixte Kuate-Tegueu (Cameroon), Dr. Sammy Ohene (Ghana), Prof. Amara Cisse (Guinea), Prof. Paul Kioy (Kenya), Prof. Baba Koumare (Mali), Dr. Birinus Ezeala-Adikaibe (Nigeria), Prof. Amadou Gallo Diop (Senegal), Dr. Brian Kies (South Africa) and Dr. Angelina M Kakooza (Uganda).

ILAE delegation was led by Prof. Solomon Nico Moshe (President, U.S.), Prof. Emilio Perucca (Treasurer, Italy), Prof. Sam Wiebe (Secretary General, Canada), Prof. Michel Baulac (Second Vice President, France) and Prof. Lionel Carmant (Canada). Invited observers were Prof. Alfred Njamnshi (President of Pan African Association of Neurological Sciences, Cameroon), Prof. Pierre-Marie Preux (Tropical Neurological Institute of Limoges, France) and Dr. Anthony Zimba (IBE Africa Commission, Zambia).

Prof. Mansour Ndiaye, head of the Department of Neurology of the University of Senegal, read a welcome address. Prof. Solomon Moshe followed and talked about the history of African Commission, including failures and challenges. The present and past efforts of the country's Leagues Against Epilepsy were discussed in presentations.

Carmant, Wiebe and Preux made presentations, showing the great opportunities and prospects of working as a team to develop the African Commission. It was

noted that a lot of work has been done or is presently going on in various parts of the continent, but there is a need for proper coordination and collaboration.

The second day of the meeting was dedicated to the formation of the commission (ILAE-CAA). The executive members of ILAE emphasized the benefits of working as a team and the successes achieved in other regions of the world and the scope of the future CAA based on ILAE bylaws.

Moshe encouraged the African Commission to move forward and work as a team despite the envisaged challenges. He urged them to call on the parent body for help when the need arises. He said the North American Commission is looking forward to building a partnership in Africa to promote the treatment of epilepsy and research into newer epilepsy syndromes.

Later in the day, the potential members of CAA discussed and elected the officers that will run the commission until 2015. The officers were selected (see below) and were later endorsed by the international executive. Further work was done in setting out the commission's Action Plan for 2011-2015.

Delegates and staff of the Dakar Conference on the formation of CAA are Paul Kioy, Anthony Zimba, Gallo Diop, Lionel Carmant, Calixte Kuate, Sokhna Ba, Mansour Ndiaye, Mareme Sene, Nico Moshe, Late Bryan Kies, Birinius Adikaibe, Emilio Perucca, Pierre-Marie Preux, Baba Koumare, Sammy Ohene, Amara Cisse,



Delegates and staff of the Dakar Conference on the formation of CAA. Paul Kioy, Anthony Zimba, Gallo Diop, Lionel Carmant, Calixte Kuate, Sokhna Ba, Mansour Ndiaye, Mareme Sene, Nico Moshe, Late Bryan Kies, Birinius Adikaibe, Emilio Perucca, Pierre-Marie Preux, Baba Koumare, Sammy Ohene, Amara Cisse, Michel Baulac, Sam Wiebe.

- To establish and strengthen the education activities of the CAA
- To improve the access to care for patients with epilepsy
- To establish and coordinate epilepsy-related research activities in the African continent
- Work with pharmaceutical companies on programs that at term will help to lower the cost of main drugs and provide better access to care for people with epilepsy in Africa

- and Montreal (2013). All meetings were held either during the International Epilepsy Congresses or African Epilepsy Congress
- Organization of the first African Epilepsy Congress (June 21-23, 2012, in Nairobi, Kenya)
- Organization of the second African Epilepsy Congress (May 22-24, 2014, in Cape Town, South Africa).
- Organization of regional training courses. (June 20, 2012, during the first African Epilepsy Congress in Nairobi)
- Enhancement and promotion of the use of online training courses for health workers in the continent (VIREPA courses)
- Increase in the number of chapters from 12 to 16. Burkina Faso, Cote D'Ivoire and Congo Democratic Republic were re-activated
- Publication of the regional newsletter

Work in Progress

- Epilepsy training courses will be organized in French, English and Portuguese.
- Provide the list of epilepsy training centers in Africa and organize the visiting professorship in these centers. Consistency and feasibility of ideas remain the goal of commission.

(ILAE/IBE member countries: Burkina Faso, Cameroon, Congo, Congo Democratic Republic, Ethiopia, Gambia, Ghana, Guinea, Kenya, Malawi, Mali, Mauritius, Namibia, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe) •

Birinus is the communication officer for the Commission on African Affairs, International League Against Epilepsy.

The commission's task was to consolidate gains and create awareness of epilepsy and related disorders. Every avenue should be used, including newspapers, radios, television and community-based programs.

Michel Baulac, Sam Wiebe.

The commission's task was to consolidate gains and create awareness of epilepsy and related disorders. Every avenue should be used, including newspapers, radios, television and community-based programs.

Goals of the Commission

- To set up the organization of the newly formed Commission on African Affairs (CAA)
- To strengthen the communication and ILAE global outreach campaign of the CAA

- Provide the list of epilepsy training centers in Africa and organize the visiting professorship in these centers
- Set up biannual training courses in the two main foreign languages used in Africa: French and English

Achievement of the Commission 2010-2014

- 2011: participation in the meeting of the task force on distance education (Brussels, Belgium)
- Commission meeting. Since its inception, the commission has had three meetings: Rome (2011), Nairobi (2012)

JOINT CONGRESS

continued from page 5

care systems in Europe because dementia will become the most significant brain disorder in the next 30 years.

Obesity and smoking increase the risk of developing dementia, while physical activity and moderate alcohol consumption decrease the risk. Consequent blood pressure treatment is successful in prevention whereas statins and vitamin B12 substitution showed no effect. A current ongoing trial is the pre-DIVA (Prevention of Dementia by Intensive Vascular Care) study with 15,000 person years. It will be completed in 2015.

Protective genes are identified – for example, APOE 2 and APP mutation A673T.

Anti-amyloid strategies with immunotherapies (bapineuzumab, gantenerumab), anti tau therapies, neuroprotection and dietary interventions are subjects of studies and are expected soon.

Jonathan Schotts, London, presented

on the connection between dementia and immune mediated syndromes. Whereas patients with degenerative dementia are older and show slow progression with “little neurology” as well as atrophy in MRI-scans, autoimmune dementias occur in young/middle-aged patients with sub-acute onset. Symptoms include confusion and delirium. Progression is rapid and MRI shows signal changes. Classical antibodies are anti Hu, Ma1+2, amphiphysin, in the last 10 years, antibodies directed against the voltage-gated potassium channel complex have been detected, which can produce a sub-acute and potentially treatable limbic encephalopathy usually in the absence of an underlying tumor.

Subsequent studies have defined specific antigenic targets (LGII, CASPR2 and contactin-2) within the potassium channel complex. Facio brachial dystonic seizures precede the development of cognitive decline and are immunotherapy responsive. As a consequence, the treatment may prevent cognitive impairment. Other rare antibody-mediated encephalopathies, including those associated with antibodies directed against NMDA, AMPAR, GABA-B, GAD and Glycine receptors, are now recognized.

Sandro Sorbi, Florence, talked about causes for rare dementias. An overlap between uncommon dementias and young-onset dementia can be derived from the epidemiological data. This could be young-onset forms of common neurodegenerative dementias such as familial Alzheimer’s disease, dementia associated with other neurological disorders (Huntington’s disease, myotonic dystrophies, autosomal dominant cerebellar ataxia or hereditary spastic paraparesis) or late-onset forms of childhood conditions, such as mitochondrial disorders, lysosomal storage disorders and leukodystrophies. Inflammatory disorders and infectious or toxic-metabolic abnormalities also can be the causes of rare dementia. Clinical data are not sufficient. Most of them are based on single case reports.

Murat Emre from the host city Istanbul, closed out the congress talking about Parkinsonism associated with

cognitive impairment. Two forms can be discriminated dementia with Lewy Bodies (DLB) and dementia associated with Parkinson’s disease (PD-D). There also are mixed forms such as “Lewy-body variant of Alzheimer’s disease.” In both biochemically a cholinergic deficit exists, which can be demonstrated in autopsy and PET studies. For this reason, cholinesterase inhibitors have been shown to provide some benefits in both conditions. Clinically, patients show decreased performance in executive functions, visual spatial functions and present with hallucinations. There are more similarities than differences in these two syndromes. •

Surböck is from the Department of Neurology, Kaiser Franz Josef Hospital, Vienna, Austria. Tinchon is from the Department of Neurology, Kaiser Franz Josef Hospital, Vienna, Austria. Alpaslan is from the Department of Neurology, Kaiser Franz Josef Hospital, Vienna, Austria. Pollanz is from the Department of Neurology, Kaiser Franz Josef Hospital, Vienna, Austria. Grisold is from the University Clinic of Neurology, AKH Vienna, Austria.

ISTANBUL UNIVERSITY CERRAHPASA SCHOOL OF MEDICINE

Visiting the Neurology Department

BY ANNA SAUERBIER, WALTER STRUHAL

ANTONELLA MACEROLLO

The first Joint Congress of Neurology, combining both the European Federation of Neurological Societies (EFNS) and European Neurological Society (ENS), was held in June in Istanbul, Turkey.

Each year, the European Association of Young Neurologists and Trainees (EAYNT) organizes several activities during the conference to give young neurologists and trainees from different cultural backgrounds all over Europe the opportunity to get together and exchange their individual, professional and personal experiences.

In addition to the lottery, the photo contest and the special EAYNT session, one of the annual highlights of the EAYNT

activities is a local hospital visit followed by a get-together. This year’s hospital visit led 90 interested and curious young neurologists and trainees to the Istanbul University Cerrahpasa School of Medicine Neurology Department.

The visit organized by the Congress President Prof. Aksel Siva and the Turkish Neurological Society.

The participants learned about the

general history of the hospital and the educational system in Turkey from hospital residents.

In 1933, the Neurology Department was established. This makes it to one of the oldest institutions of higher education in Turkey. The current name Cerrahpasa School of Medicine was introduced in 1963 when the hospital was restructured and an additional Istanbul School of Medicine was founded.

The Istanbul University Cerrahpasa School of Medicine is now one of the three Government Medical Universities in Istanbul and one of the main medical schools in Turkey offering Turkish and English Medical programs. The Neurology Department consists of 36 adult and six children beds. In total, six consultants, 16

residents, seven fellows and 24 master students in electrophysiology work in the department.

The undergraduate (medical school) training is followed by a minimum of four years of residency training in neurology, which

includes three-month rotations in each neurology division, and laboratories and short periods in different other specialties. In addition, numerous graduate and

postgraduate educational programs are available at the Istanbul University Cerrahpasa School of Medicine Neurology Department

Due to the large variety of divisions and units covering the complete field of neuroscience complemented by a multidisciplinary approach, the Neurology Department is able to provide comprehensive services for the diagnosis, treatment and care of patients with a wide range of neurological conditions. Further, it is one of the most esteemed centers for research and education in Turkey.

The young neurologists and trainees then enjoyed a guided hospital visit through the Neurology Department where each unit’s health professional welcomed them and explained their field of expertise. The divisions in the Neurology Department include Clinical Neurophysiology and Epilepsy, General Neurology, Pain Disorders and Headache, Neuromuscular Disorders, Neuroimmunology/Multiple Sclerosis, Sleep Medicine, Paediatric Neurology, Vascular Neurology and Movement Disorders.

This allowed the participants to discover the Clinical Neurophysiology/EMG unit where more than 3,000

patients are investigated annually. In addition, more than 500 patients are followed up for various neuromuscular disorders and more than 300 patients for botulinum toxin injections.

Afterward, the neurologists visited the epilepsy center with an electroencephalography laboratory where annually more than 2,000 patients referred from all over

Turkey are seen, and more than 6,000 patients are followed up with different epileptic disorders.

At the end, Siva invited all participants to a dinner and get-

together at the restaurant of the Istanbul University. Besides this profound insight into the clinical practice and the education system of neurology in Turkey, the 90 impressed young trainees and neurologists were able to experience another important aspect of the Turkish culture by tasting the delicious flavor of original Turkish food ranging from different forms of kebab, kofte, dolma, borek, mezes and other lovely desserts.

Acknowledgment: The EAYNT is grateful to Siva and the Turkish Neurological Society for their friendly invitation and excellent organization of the hospital visit. In addition, we would like to thank Siva and the team of the Neurology Department for their kind provision of the presentations and pictures during the hospital visit. •



Young neurologists and trainees during the hospital visit at the Istanbul University Cerrahpasa School of Medicine Neurology Department, EFNS-ENS Joint Congress in Istanbul.



Young neurologists and trainees during their visit to the Istanbul University Cerrahpasa School of Medicine.

European Academy of Neurology Sixth Regional Teaching Course in Sub-Saharan Africa

BY WOLFGANG GRISOLD

The Sixth Regional Teaching Course (RTC) of the EAN took place in June in Lusaka, Zambia. There were 124 participants from 20 Sub-Saharan countries in attendance.

The course, which was organized by the EAN, was supported by a consortium of European and international scientific societies also by the WFN.

- American Academy of Neurology (AAN)
- Epilepsy Association of Zambia
- International Brain Research Organization (IBRO)
- International Parkinson and Movement Disorder Society (MDS)
- Pan African Association of Neuroscience Societies (PAANS)
- University of Zambia
- World Federation of Neurology (WFN)
- World Stroke Organization (WSO)
- Zambian Ministry of Health



Wolfgang Grisold

involved in the diseases under discussion could be implemented.

The program was selected by participants from the previous year, based on a poll. The lectures were presented with PowerPoints. Some sessions were supported by video demonstrations. All presentations were followed by discussions, and there was time for questions after each main lecture session. At the end of each block, a question-and-answer session was allowed, which was highly interactive. The faculty joined in guessing the answers and in the discussions, and several academic points of view were aired.

In the afternoon teaching sessions, a pair of lecturers demonstrated cases and encouraged participants to be actively involved in breakout sessions. These cases were either based on video demonstrations, images or classic narrative case descriptions. Participants were asked for their opinions. In some instances, an emphasis on a structural approach was studiously followed. This proved to be interesting, and the teaching sessions were highly informative. In addition, the participants were exposed to the different teaching styles of the faculty depending on the school of teaching (U.K., France, Italy, U.S.) or personal styles.

Both the case discussions as well as the general discussions revealed positive and critical aspects: It seems that young neurologists are exposed to a huge quantity of diseases and patient needs in their countries, but they have limited resources in so many ways. But their knowledge and interest is great, and this is what makes this course exciting.

Also, as a critical remark, their sometimes limited knowledge of English can be noted, and there is often some hesitancy to express their opinions in discussions with the teaching professors. Notably, however, the interaction between residents and faculty improved considerably during the course.

Some selected lectures were given by young neurologists, which were technically well prepared, and discussed with the audience.

A special experience was the session on "How to Write Paper." Three experienced teachers — Dr. Gallo (Senegal), Dr. Kalaria (UK) and Dr. Bowers (US) — each gave a presentation and discussed many aspects, from the selection of a topic, the preparation, technical aspects of the manuscript and how to deal with journal editors and reviewers.

Social Interaction

There was an official reception on Thurs-



day, which was attended by the First Lady of the State Christine Kaseba-Sata, Goodwill Ambassador to WHO, who gave the meeting an official standing. This cannot be estimated highly enough in a country with 40 million inhabitants and only one neurologist. This meeting also was covered by local news and TV, which will likely increase the awareness of neurology in Zambia.

Lunch and coffee breaks were used eagerly for information and exchange.

Local Society of Neurology and Psychiatry

The local neurology department is based on the work of Anthony Zimba and Masharip Atadzhanov. The department in Lusaka contains a WFN-sponsored neurological institute, which now has established EEG and EMG. The university has one MRI and laboratory investigation also offering PCR techniques for neuro-infectious diseases.

Impression

This sixth course seems like a big effort to make, demanding a lot of resources for a small group of attendees in relation to the large number of countries without neurology services. However, all of the attendees are devotedly involved in neurology and are important proponents

for neurology.

Furthermore, this course can be considered the ignition or spark for newly developing neurological societies, units and neurologists. The fuel is the knowledge of the importance of neurology and education, which will drive the development in individual countries. An example is Ethiopia, which has profited from the first TC and which has since produced a training program.

WFN's role is to keep up this spirit of teaching, and encourage and partner with other organizations to improve this momentum of teaching, learning and creating neurology in Africa.

To meet this continuing need, the EAN-led planning group met in Lusaka to plan the next course. The participants were asked to list three topics of interest they would like to see addressed in a future RTC. From the compilation of the suggested topics, two that had the highest number of requests were identified for the 2015 RTC. The seventh RTC will be held in October 2014 in Khartoum, Sudan, and will be hosted by Prof. Osheik Seidi and the University of Khartoum. The themes of the conference will be neuro-pediatrics and stroke. •

Grisold is with the Department of Neurology, Kaiser Franz Josef Hospital, Vienna, Austria.



An unrestricted educational grant was obtained from the Lundbeck International Neuroscience Foundation. The course faculty of international educators included: Erich Schmutzhard and Wolfgang Grisold (Austria); Riadh Gouider (Tunisia); William Howlett (Tanzania); Jean-Michel Vallat (France); Anthony Zimba and Masharip Atadzhanov (Zambia); Raj Kalaria, Peter Sandercock and Tim Steiner (UK); Amadou Gallo Diop (Senegal); Angelo Antonini (Italy); James Bower (U.S.); Osheik Seidi (Sudan); and Mehila Zebeginus (Ethiopia).

This three-day RTC covered infection and nervous system disorders, including stroke and movement disorders and disorders of the peripheral nervous system.

The topics were relevant and up to date. In addition to the teaching aspects, all of the visiting professors emphasized how the latest developments and ideas



Editor's Update and Selected Articles From *JNS*

BY JOHN D. ENGLAND, MD

Readers of the *Journal of the Neurological Sciences* will soon notice a few changes between the covers. The Editorial Board and I are gradually changing the way in which case reports are handled

and published. *JNS* continues to receive a large number of manuscripts submitted from around the world.



John D. England, MD

Because of publication limitations, we can accept only a minority of these manuscripts for publication. Although case reports are usually considered reports of "anecdotal" observations, most clinical neurologists find them educational and interesting. Rather than reject all of these case reports, we have decided to publish many of them as "Letters to the Editor." In this way, we can accommodate them within *JNS*.

The journal also will be featuring more "editorials" to highlight and enhance important original articles, which will be published simultaneously. These will usually be solicited by invitation from one of the associate editors or me.

However, if you are asked to review a manuscript for *JNS* and believe that an accompanying editorial would be useful, please provide this as a recommendation in your review.

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:

- 1) In the first article, [Dennis Paul](#) and colleagues provide new observations about the ubiquitous and important Na⁺-K⁺ ATPase pump. This research team previously documented that inflammation results in an up-regulation of sodium channels (especially Nav1.7) in dorsal root ganglia (DRG). Using the same experimental paradigm, they have now demonstrated that there is a simultaneous up-regulation of the Na⁺-K⁺ ATPase pump. The researchers had hypothesized that this would occur since without an up-regulation of the Na⁺-K⁺ ATPase to pump Na⁺ out of the cells, an increase in Na⁺ influx would lead to an osmotic influx of water. Consequently, the DRG cells would swell and burst. As proof of the protective mechanism provided by an increase in the Na⁺-K⁺ ATPase pump, the authors blocked the activity of the

pump with ouabain. This pharmacologic blockade resulted in the swelling and death of the DRG cells which had an inflammation-induced increase in Na⁺ channels. These observations have important implications for the pathophysiology of inflammatory conditions and concomitant neuropathic pain. They may have broader importance for the pathophysiology of other diseases such as diabetes mellitus, which is known to interfere with Na⁺-K⁺ ATPase pump expression and function. Specifically, interference with the function or blockade of the Na⁺-K⁺ ATPase pump might cause premature cell death in susceptible cells.

[Paul D, Soignier RD, Minor L, Tau H, Singu-Mize E, Gould HJ. Regulation and pharmacological blockade of sodium-potassium ATPase: A novel pathway to neuropathy. J Neurol Sci 2014;340:139-143.](#)

- 2) In the second article, [Craig Stevens](#) provides a thoughtful and comprehensive editorial about the biological importance of the Na⁺-K⁺ ATPase pump. This paper serves as a

brief primer on the importance of the Na⁺-K⁺ ATPase pump for maintaining the resting membrane potential and volume in all cells. He also highlights the growing evidence that Na⁺-K⁺ ATPase dysfunction may be involved in several neurological diseases in addition to peripheral neuropathy. [Stevens CW. New pathways for an old molecule: The role of the Na⁺-K⁺ ATPase pump in peripheral neuropathy. J Neurol Sci 2014;340:3-4 •](#)

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



EAYNT SPECIAL SESSION AT EFNS-ENS JOINT CONGRESS

Do's and Don't's in Neurology

BY MONICA MOARCAS, ANTONELLA MACEROLLO, JOHANN SELLNER, WALTER STRUHAL

During neurology training, there are crossroads where the best decision is based on advice from more experienced colleagues and professors. The choice to dedicate to research or pursue the clinical path is among the first steps, and visiting departments of other sites may aid in building a career plan.

The European Association of Young Neurologists and Trainees (EAYNT) (www.eaynt.org) is a non-profit independent organization aimed at linking young neurologists across Europe in respect to educational and exchange of experience opportunities. In the last 14 years, it has brought together young neurologists at its Special Sessions organized at EFNS meetings where experienced speakers have discussed aspects of training and planning professional development.

During the EAYNT Special Session at EFNS-ENS Joint Congress Istanbul 2014, Prof. Jose Ferro, Prof. Walter Paulus and Dr. Laszlo Sztrihai offered lectures on the "Do's and Don't's in Neurology Training" covering the complementary perspectives of research and clinical work of young

neurologists.

Sztrihai from King's College Hospital, London, talked about mobility across Europe during training in neurology as seen by a young neurologist. He showed that the goals of visiting a hospital in a different country include improving clinical expertise, research opportunities and possibilities to apply the new knowledge in home department. He also recommended identifying the most suitable place to visit — based on language compatibility — by looking for opportunities published on department homepages or journals or by meeting staff members at conferences or through special mobility programs that offer the opportunity to visit departments. He also discussed funding for EFNS and ENS programs, fellowship from home departments or from host institution. Sztrihai also offered valuable practical advice regarding opportunities for experience exchanges for young neurologists.

Prof. Jose Ferro from Santa Maria Hospital, Lisbon, Portugal, talked about the do's and don't's of research. Ferro presented the steps a young researcher needs to take to build a successful career based on skills and knowledge and focused on

the mission, which is determined by goals and values. He emphasized personal and interpersonal competencies of a researcher, as well as the importance of self-analysis. He also discussed the essential role of a mentor. He shared aspects from his own professional path as a researcher and presented the importance of working in foreign departments. The importance of being constant in the research topic and issues regarding authorship of papers were two important points of this talk. Ferro concluded by highlighting that determination and hard work are key characteristics of researchers who should never forget their missions.

Prof. Walter Paulus from University Medical Center Goettingen, Germany, focused on do's and don't's of clinicians. Paulus presented data regarding how satisfied trainees are with their training process through a German survey. Next, he showed the current work situation of a clinician, which is between growing clinical demands, the competition for research, more administrative issues to handle that are partially compensated by stability of job and a less stressful environment after work. The lecture continued with focus on attributes a successful clinician should have, including empathy, perseverance, ambition, structured thinking, curiosity

see DO'S AND DON'T'S, page 11



Dr. Laszlo Sztrihai discussed mobility across countries.



Prof. Jose Ferro identified research challenges.



Prof. Walter Paulus discussed clinician training.

ASIA INITIATIVE

continued from page 1

but thanks to the dedication of the Hong Kong Society members, it became an unprecedented meeting with the largest number of international participants ever. Its surplus funds should significantly contribute to the activities of AOAN, chaired by Dr. Man Mohan Mehndiratta from India. The next AOCN will be held in 2016 in Malaysia.

On March 4, there was a plenary session on "Special Issues in Asia," in which three speakers spoke. Prof. Chong-Tin Tan from Malaysia gave a talk on education in Asia. He serves as the editor of *Neurology Asia*, the official journal of AOAN and Association of Southeast Asian Nations Neurological Association (ASNA). He pointed out that Asia accounts for 60 percent of the world population, but less than 20 percent of neurologists in the world, and stressed that education is the key to development of neurology in Asia. Next, Dr. Li-Ping Liu from China emphasized rapidly advancing frontiers of neuroscience research in China. At the last of this session, I gave a talk on neurology service in Asia. Asian countries are rapidly exploding in population and economy. Some are facing unique problems not experienced in other regions¹.

Figure 1 depicts the projected increase of the population over 65 years among nations. While Western countries have a linear increase of the aged over years, Asian countries (Japan, Korea and China) have S-shaped curves indicating a steep surge of the aged population during 2000-2020 (Japan) and 2020-2030 (Korea and China). India will probably join this group by the end of this century.

Japan is the first to be exposed to this surge, and medical needs for the aged people are highlighted. Among these, neurological disorders such as stroke and Alzheimer's disease came to the forefront. For instance, the number of stroke survivors has steeply increased from 1.7 million in 2000 to 2.8 million by 2013. Stroke was the No. 2 killer in the 1970s, but it is currently the fourth, following cancer, heart disease and pneumonia. Although the number of stroke attacks is six times as frequent as heart attack, it has largely become non-fatal, although it typically leaves disabilities; two-thirds of the patients are unable to return to pre-morbid activities.

From the global point of view, stroke is the second leading cause of death after ischemic heart disease, with an estimated 5.5 million people dying from stroke every year worldwide. Two thirds of these deaths occur in countries with limited resources². Approximately 80 percent of patients survive the acute phase of stroke, but are left with varying degrees of chronic disability.

Not only the number of deaths, but also the quality of life after stroke is an important aspect. Disease-adjusted life years (DALYs) are defined as number of

years of healthy life lost by disease³. They reflect the impact of a disease in the aging societies.

Figure 2 shows DALYs among various neurological diseases with respect to the economic status of a nation. Stroke is more important than Alzheimer's disease, because many Asian nations are still in the state of low-middle income by World Bank Criteria. Japan had been among those with limited resources with high mortality of stroke, but her economy grew up in a short period to high income state, and other Asian nations should follow this path.

The drop of stroke mortality in Japan is due to change in diet, western lifestyle and the efficient social health care system. However, the main factor is the control of hypertension by medication, which decreased the number of fatal massive hemorrhages³. The impact of thrombolytic therapy is limited, rather increasing those disabled by preventing stroke deaths⁴.

The expense related to caring for stroke survivors is now exceeding \$25 billion (U.S. dollars) per year in Japan. Now the Japanese economy is revolving around those aged patients and their care. In fact, a major diaper maker saw sales of adult diapers outpace infant diapers. Stroke centers with staff dedicated to thrombolytic therapy are urgently needed, and we are investing effort into increasing awareness of stroke among Asian people. Educating health professionals in neurology is the Asian Initiative's first priority.

The roots of neurology lie in Europe and this specialty matured in the U.S. Asia has its own priorities in coping with neurological diseases. In this regard, I propose "autonomy" as a key word for activating regional neurological organizations. We need a forum to discuss the problems in each region, and to provide unique educational opportunities for neurologists, general practitioners, allied health professionals and the patients.

The expense related to caring for stroke survivors is now exceeding \$25 billion (U.S. dollars) per year in Japan.

With these aims in mind, the WFN has decided to make the best use of the existing regional neurological organizations such as AOAN to fulfill its mission.

Another key for success would be "synergy". Symposia and workshops were held in collaboration with international organizations such as the Movement Disorder Society (MDS) and the International Federation of Clinical Neurophysiology (IFCN). These joint activi-

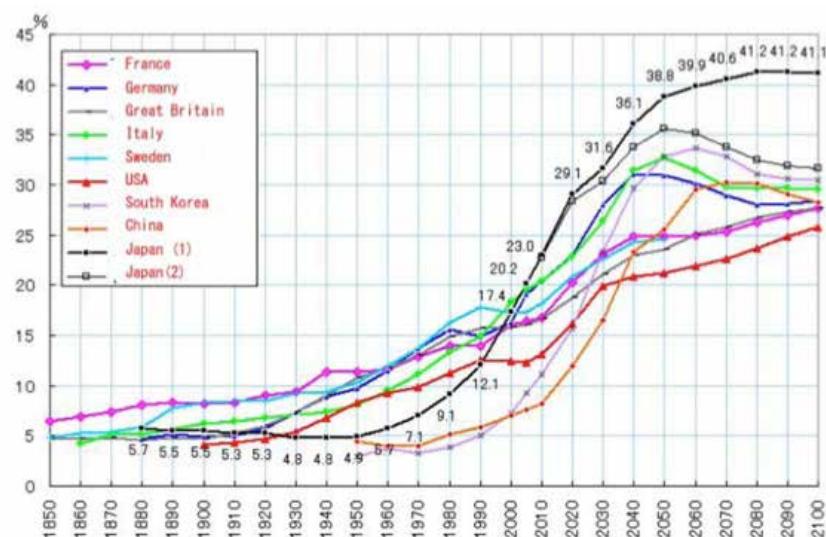


Figure 1. Projected increase of the aged (>65) populations among nations. Adapted from [Current Status and Predictions for an Aging Society with Fewer Children](#), Japanese Ministry of Education, Sports, Culture, Science and Technology (with permission).

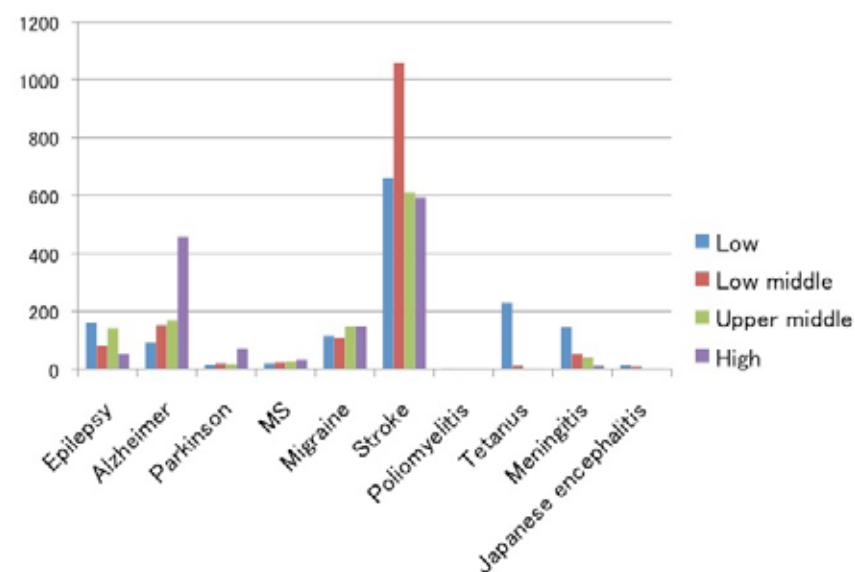


Figure 2. Disease-adjusted life years (DALYs) of neurological diseases with respect to nation's income status. Data from WHO (2005).

ties provided the financial support for the meeting and increased the attendance. The event also helped the supporting organizations increase their visibility. I hope that the March 2014 meeting in Macao becomes a model for the future meetings in Asia, and the meeting will serve as an equivalent to EFNS, ENS or American Academy of Neurology meetings.

Alzheimer's disease is a little harder to tackle. Traditionally, Asian people had a large family, three generations living together. The aged people lived with younger family members. In my childhood in 1950s, the aged are naturally thought to have memory loss to some degree. It is still a virtue that children respect and take care of the parents by Asian standard. Re-appraisal of this system in the face of increasing Alzheimer's disease might be a solution for countries with limited resources. For the aged, it would be appropriate to prepare for the intellectual decline.

Steve Jobs, the former CEO of Apple Computer, gave a speech at the commencement at Stanford in 2005. Facing the recurrence of cancer, his message on coping with imminent death might be a hint: in the morning he thought about

his life as if ending in the evening. Whenever he thought the activities of the day were not what he really wanted to do, he changed his life. These were actually the words of the old Chinese philosopher, Confucius (551–479 BC), which he probably was familiar with. Alzheimer's disease is still unpreventable and incurable probably for the next decades to come. "Think Oriental" might be the key for the societies and the neurological community in the world. •

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Arthur Simons and Tonic Neck Reflexes in Hemiplegic Persons

BY BERND HOLDORFF

Tonic neck reflexes in animals and men were described by Magnus and de Kleyn in 1912.

It became his most important publication and remained unsurpassed for the next years.

A film from the years 1916-1919, with Arthur Simons as examiner, shows these nearly forgotten phenomena. (See Figure 1.) He already emphasized their everyday significance in 1920, long before the rules of antispastic positions were defined by Bobath.

After several clinical activities, mostly in unpaid positions, and subsequently as the leading assistant in the outpatient service (Poliklinik) of Hermann Oppenheim in the years before WWI, Simons (1877-1942) had to do military service as a physician from 1914 to 1918. He succeeded in assembling neurological case reports and publications to fulfill the academic requirements for the "Privatdozent" or "Habilitation Act" in 1921 and for a professorship (a.o. = extraordinary professor) in 1923.

After Oppenheim's death in 1919, he worked in an outpatient practice and as consultant neurologist in Berlin hospitals until 1933, where he was continuously deprived by the Nazi regime, because of his Jewish origin. Requests for immigration to England failed and meanwhile



Bernd Holdorff

his private practice lost more and more patients. In 1938, he lost his medical license and had to accept the profession of "Krankenbehandler." Alimony for his divorced wife forced him to sell more and more of his art collections as well as his household. In September 1942, he did not return from a citation to the Gestapo, and after intermediate detention in October 1942, he was taken to Reval (the present Tallinn, Estonia) where he was murdered.

In 1912, Magnus and de Kleyn, in the Netherlands, studied in detail the labyrinthine and the postural reflexes in animals as well as humans. Following Rudolf Magnus, tonic neck reflexes are the consequence of a change of the position of the head in relation to the trunk, which causes an increase or decrease of tonus of ipsilateral muscles (asymmetrical tonic neck reflexes), while dorsi- and retroflexion of the head results in bilateral change of tonus (symmetrical tonic neck reflexes).

As a result of Magnus' animal experiments, the anatomical basis of tonic neck reflexes could be located in the upper cervical spine. They are decreased after extirpation of the first cervical root and completely disappear after cutting of the second cervical root. Tonic neck reflexes are elicited in the newborn during the first weeks and reappear only in cerebral disease.

After the coincidental observation in his first patient at the military hospital, Simons wrote: "In the autumn 1916, I examined a hemiplegic patient in the field two months after an injury by gunshot in the head"¹. Simons undertook

and management through better supervision. He highlighted the importance of mentoring residents throughout their training.

Neurology training represents a sequential process that needs personal effort to improve knowledge and skills, determination, understanding of the aims and goals and of methods to achieve them. In addition, there needs to be the touch of personality of a true mentor who not only teaches and supervises, but also serves as a model.

The three lectures gave young neurologists the opportunity to have a better understanding of aspects of training both in clinical field and research, in home departments and abroad. •

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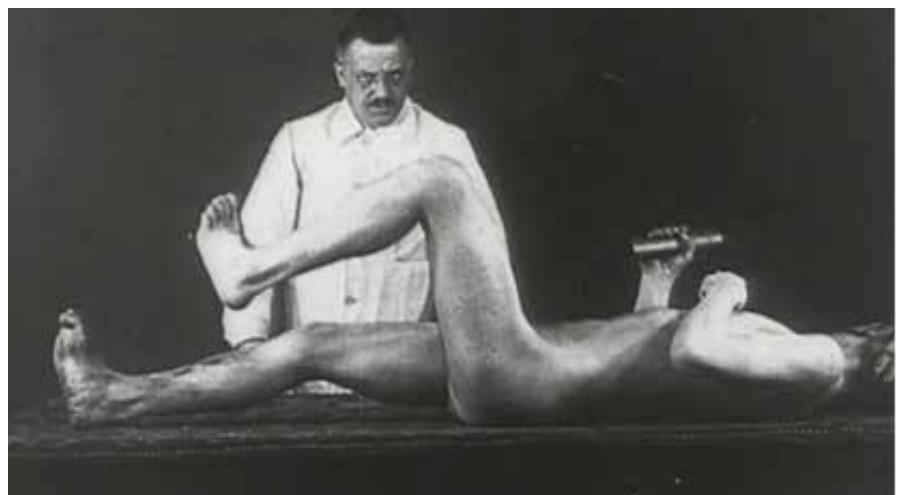
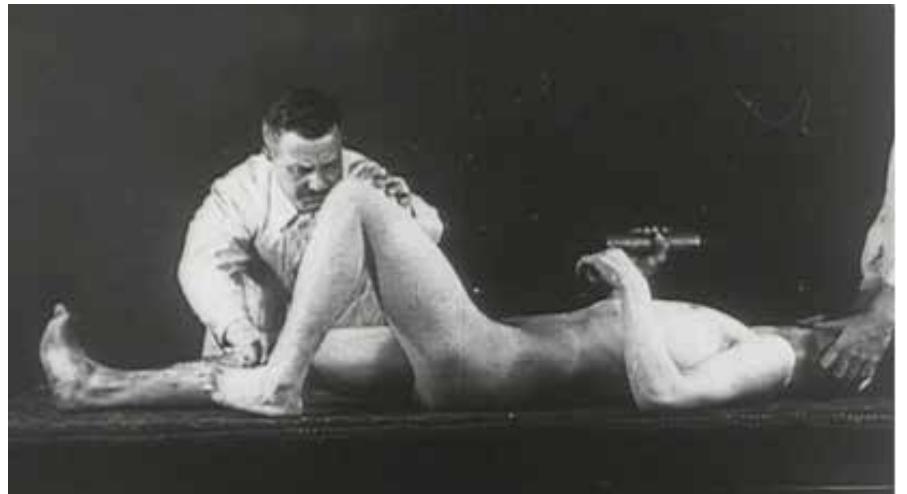


Figure 1. Still with Arthur Simons as examiner. Upper part: left hemiplegia after brainshot wound, metal rod loosely in the right hand, paretic leg slightly bent and passively held by Simons Lower part: head rotated to right, hemiplegic associated reactions (Mitbewegungen) on the left side elicited by voluntarily right forced grasp: abduction of upper arm, elbow flexion, elevation of the left hand and fist clench, flexion of hip and knee, adduction of the thigh, dorsiflexion of the foot and the toes as well as inversion. (Not shown here: head rotation to the left in combination with voluntarily forced grasp of the right hand resulting in slight extension, adduction and pronation of the forearm, hand extension and clench of the fingers, as well as left leg in strong extension, inward rotation, foot flexion and toe extension.)

a thorough series of investigations, and at the end of the war, he had observed 31 hemiplegics. By 1919, he had seen 248 cases, of which 25 percent presented tonic neck reflexes with hemiplegic "Mitbewegungen" (synkinesias). He produced a film (Filmarchiv, Bundesarchiv, Berlin) that shows 11 cases from the years 1916-1919, mostly with war brain injuries.

The asymmetric neck reflexes with flexion or extension on the hemiplegic side, called "Mitbewegungen" (synkinesias), identical to Francis Walshe's "associated reactions" (1923)², are induced (increased or varied) by neck rotation with simultaneous co-contraction of the non-affected extremities, e.g. by closure of the fist. They are restricted to the paralyzed side. The stills shown in Figure 1 are taken from the film.

Investigations by Simons and Walshe were done exclusively in the adult and awake hemiplegic, show that tonic neck reflexes are bound to a lesion of the pyramidal tract and should be understood as a form of decerebrate rigidity. They belong to Magnus' postural reflexes, or "Stellreflexe," the English term of which is "position" or "righting reflexes" and are situated in the brain stem.

Walshe was fair enough to acknowledge Simons' milestone discovery in his final addendum. In 1925, the Hamburg neurologist Heinrich Pette stated in his own investigation on tonic neck reflexes that "up to now, they remain unique in

this manner of large scale work." The reproduction of Simons' film stills by Magnus in his 1924 *Körperstellung*³, by Rademaker in his 1931 *Das Stehen*, as well as by Stenvers in his chapter in Bumke's & Foerster's *Handbook of Neurology* (Vol. 5, 1936) bestowed them a historical value.

After that period, the couple Berta and Karl Bobath, in their English exile, used the neck reflexes in physiotherapy and position of hemiplegics in order to decrease their spastic tonus, unfortunately relying only on Walshe's work and not on Simons' efforts. •

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DO'S AND DON'T'S

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and good clinical skills. On the contrary, he discussed characteristics that a clinician should not have: a lack of interest, insufficient skills, inappropriate attitude toward colleagues and forcing the symptoms into a diagnosis.

Paulus highlighted the importance of minimizing the clinician's own mental distress in order to ensure patient safety, and a good working atmosphere is a collective effort along with the information exchange and acquisition.

He also talked about problems he observes in residents, including poor clinical judgment, patient management, absenteeism, inappropriate interaction

IN MEMORIAM

A Centenary Tribute to Silas Weir Mitchell

BY DAVID G. KLINE MD FAANS, FACS

This year, we celebrate the 100th anniversary of the death of an extraordinary individual Silas Weir Mitchell (SWM), 1829-1914¹. He was not only a celebrated neurologist, but also a classic experimental physiologist, a critic of insane asylums as well as an innovative therapist for neuroasthenia or what was known in those days as the “vapors.” He authored many poems and works of fiction where his descriptions of characters with mental disorders were both accurate and unique^{2,5,6}. (See Figure 1.)

SWM was born and raised in Philadelphia, a son of Dr. John Kersley Mitchell, a graduate of the University of Pennsylvania Medical School and member of the Jefferson faculty, and the third of nine children borne by Sarah Matilda Henry. He was raised in a family setting stressing versatility in reading literature as well as writing and reciting poetry⁸. He went to Penn as an undergraduate, but was a desultory student, preferring reading and billiards to his studies. He left after several years to help his family because his father



David G. Kline, MD, FAANS, FACS

had fallen ill. Even though Mitchell felt SWM had little aptitude for medicine, he entered Jefferson Medical School in 1848, graduating in 1850 at the age of 21.

SWM and his sister, Elizabeth, went to Europe where he spent time with Claude Bernard, the Parisian physiologist who taught him “if you need an answer, do an experiment.” He applied for an internship at Pennsylvania Hospital, but was turned down for political reasons connected with his father. He joined his father’s practice and then assumed it when he retired in 1855.

During that period, he became an experimental physiologist studying among other topics, the effect of rattlesnake venom on various animals, the blood crystals of sturgeons, the generation of uric acid and the mental effects on himself of ingestion of mescal buttons^{10,11,12}.

When the Civil War began, SWM wanted to avoid conscription so he could keep his practice alive and help his mother with the large Mitchell family since his father died in 1858. A friend who became Surgeon General for the Union Army,

William Hammond, made him a contract surgeon at Turner Lane Hospital on South Street in Philadelphia⁴. There, along with Keen and Morehouse, he cared for a large number of war wounds, many involving nerves and leading to amputation. SWM and his colleagues went to battlefields such as Gettysburg and brought back the wounded in wagons. He sold his contract for \$400 after several years so that he could return to civilian life, but this Civil War experience led to the classic text, “Gunshot Wounds and Other Injuries of Nerves” (1864) and in 1872, “Injuries to Nerves and their Consequences.”

Of interest, SWM’s fictional account of a union officer and physician titled, “The Strange Case of George Dedlow,” was published under a nom de plume in the *Atlantic Monthly* and became immensely popular¹⁴. His accounts of causalgia and phantom limb pain or disorder attracted the public’s imagination and led to a second rendering published by *Lippincott’s* magazine⁹. (See Figure 2.)

SWM published many scientific papers, his neurologic practice thrived and he found time to write “Wear and Tear: Hints for the Overworked” (1871). It sold out in 10 days, and four other editions were published. He also published “Fat and Blood” (1877). Eight editions were published. He married Mary Middleton Elwyn in 1858, and she bore two sons. Tragically, they both died of diphtheria in 1862. He remarried Mary Caldwell from a socially prominent Philadelphia family in 1874. That same year, he lost his sister, to whom he was very close, also to diphtheria. Yet another family tragedy included the loss of a daughter from his second marriage whom he doted on. She was 22 years old. This prompted his publication of a poem, “Ode to a Lycian Tomb,” which again for that period became quite popular¹³.

As was the custom at that time, prominent Philadelphians traveled north for the summer months, and SWM’s family was no exception. Initially, they summered in Newport, Rhode Island, and subsequently in Maine and occasionally Canada. SWM

was an avid reader, and on these lengthy sojourns, he soon ran out of fiction to read so he began to write novels himself. His first book, “In War Time” (1884) was initially published in 12 issues of the *Atlantic Monthly*. Beginning in his 50s, he began to write and publish 13 novels, mainly about society at that time in Philadelphia and the effect of conflicts such as the Civil

War and the American and French Revolutions on civilian life². (See Figure 3.)

SWM had developed a keen interest in mental disorders, and he used that in a very descriptive way with his fictional characters. His literary detractors

even extolled that trait, but faulted his lack of substantial plots or at least ones that moved along. He did tend to emphasize the genteel in society instead of the common man. He ignored or failed to develop any fictional, sexual encounters or connotations^{3,8}. Despite these criticisms about plots, one can find distinct exceptions among these novels. Thus, substantial plots at least for this reader can be found in “The Adventures of Francois — a French Revolution Juggler and Thief” (1897) or “Hugh Wynne. Free Quaker:

I found that the great mass of men who had undergone amputations, for many months felt the usual consciousness that they still had the lost limb. It itched or pained, or was cramped, but never felt hot or cold. . . . I should also add, that nearly every person who has lost an arm above the elbow feels as though the lost member were bent at the elbow, and at times is vividly impressed with the notion that his fingers are strongly flexed.

Another set of cases present a peculiarity which I am at a loss to account for. Where the leg, for instance, has been lost, they feel as if the foot was present, but as though the leg were shortened. If the thigh has been taken off, there seems to them to be a foot at the knee; if the arm, a hand seems to be at the elbow, or attached to the stump itself.¹

Figure 2. Text extracted from Silas Weir Mitchell’s publications about phantom limb pain (syndrome).

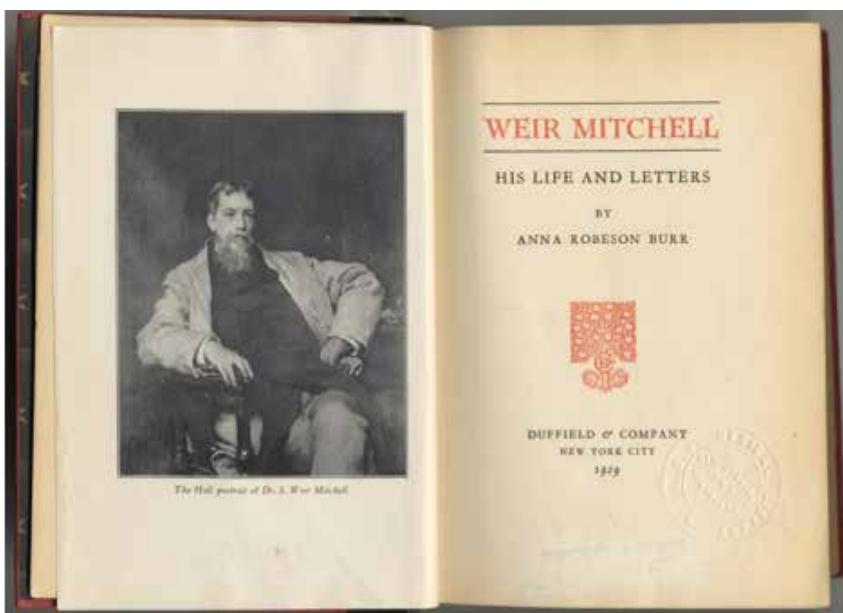


Figure 1. Frontispiece of A.R. Burr’s book, “Weir Mitchell: His Life and Letters,” including portrait of Silas Weir Mitchell, published in 1929 by Duffield and Company, New York.

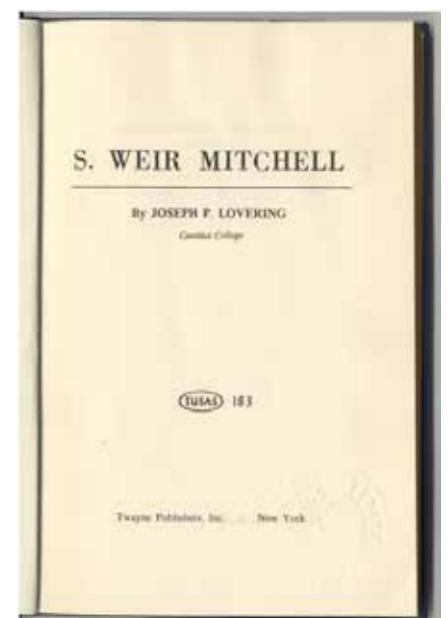


Figure 3. The frontispiece of J.P. Lovering’s “S. Weir Mitchell,” published in 1929 by Twayne Company, New York.



Figure 4. Mitchell's final home with Mary Caldwell, 1524 Walnut Street, Philadelphia. On this home was mounted a brass plaque commemorating his many lifetime accomplishments.

Sometime Brevet Lieutenant — Colonel on the Staff of His Excellency General Washington" (1896) and "Constance Trescott" (1905). "Constance Trescott" portrays a vengeful widow who moves to Missouri from New England shortly after the Civil War.

Despite moving into the top social circles in Philadelphia, SWM treasured his medical and fictional authorship more than social pleasures. Perhaps in part because of his social status though as well as his popularity as a physician, he was made a trustee at Penn in 1875 and helped found a Department of Mental Diseases, mentoring two subsequent chairs — Mills and Burr⁷. He recruited William Osler from Canada to the chair of the Medicine Department and even helped his son obtain an academic appointment, something he had always cherished for himself but never gained at least as a chair at either Penn or Jefferson.

Mitchell became president of the Association of American Physicians (1887), president of the American Neurological Association (1908-1909) and was given honorary degrees at Harvard, Edinburgh, Princeton and Toronto before dying of influenza in January 1914¹. He was buried in the Philadelphia area in the Woodland Cemetery¹⁶.

Along with Benjamin Rush, SWM is considered the father of neurology in America⁴. Some described him as pompous and dictatorial, and as he grew older, somewhat irascible but "as a young man he took first place among the physiolo-

gists of the day, in middle age first among physicians, and as an older man, he was among the novelists of his country¹⁴." (See Figure 4.)

This paper was presented June 9, 2014, to the 86th dinner meeting of the Philadelphia Neurological Society founded 134 years ago by Silas Weir Mitchell. •

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EUROPEAN ACADEMY OF NEUROLOGY

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based on prior activities in Eastern Europe, such as the International Danube Symposia and the proposed Pan-European Society of Neurology. The philosophy of the EFNS was federal in constitution and structure, where individual European countries were the constitutional members. This construction was effective. Since its founding, the EFNS has contributed greatly to European neurology. The EFNS sponsored a number of activities, many of which were originally conceived within the EFNS, promoting education, CME accreditation and supporting neurology in the former Eastern European countries, by teaching courses, holding lectures and helping in the establishment of national neurological organizations. The primary publication of the EFNS is the *European Journal of Neurology*, which will become the official journal of the EAN. Neuropenews is an online publication serving the purpose of a newsletter.

Due to differences in their philosophies, the two societies were effectively in competition, resulting in what many European neurologists concluded was an unnecessary duplication of effort. The initial event of their coming together was the creation of the European Board Examination in Neurology, where the examination's creator, the UEMS - European Board

of Neurology (UEMS/EBN) invited both societies to participate in its development. The presidents of the two organizations at that time — De Reuck of the EFNS and Moonen of the ENS — were both from Belgium. That facilitated the process of initiating a proposal for the creation of a joint EAN.

There were many additional steps necessary for the eventual merger. One major step was the agreement of the European delegates of the EFNS to this proposal in Florence 2009 and the subsequent agreement of ENS members. A joint task force was then formed that meticulously prepared the details for the merger and also created a new constitution and voting system.

The EAN combines the best of the developments of both societies. It is expected to foster neurology within Europe for the best of patient care, and to support and encourage science, teaching and education, as well as to be a transparent, open-minded and member-oriented society that provides an essential service for its members.

The WFN acknowledges this development toward a strong European society, and we hope to cooperate in further projects, especially where those involve furthering neurological education in countries in need of additional resources

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WFN ELECTION 2014: RECOMMENDATIONS FOR NOMINATING COMMITTEE

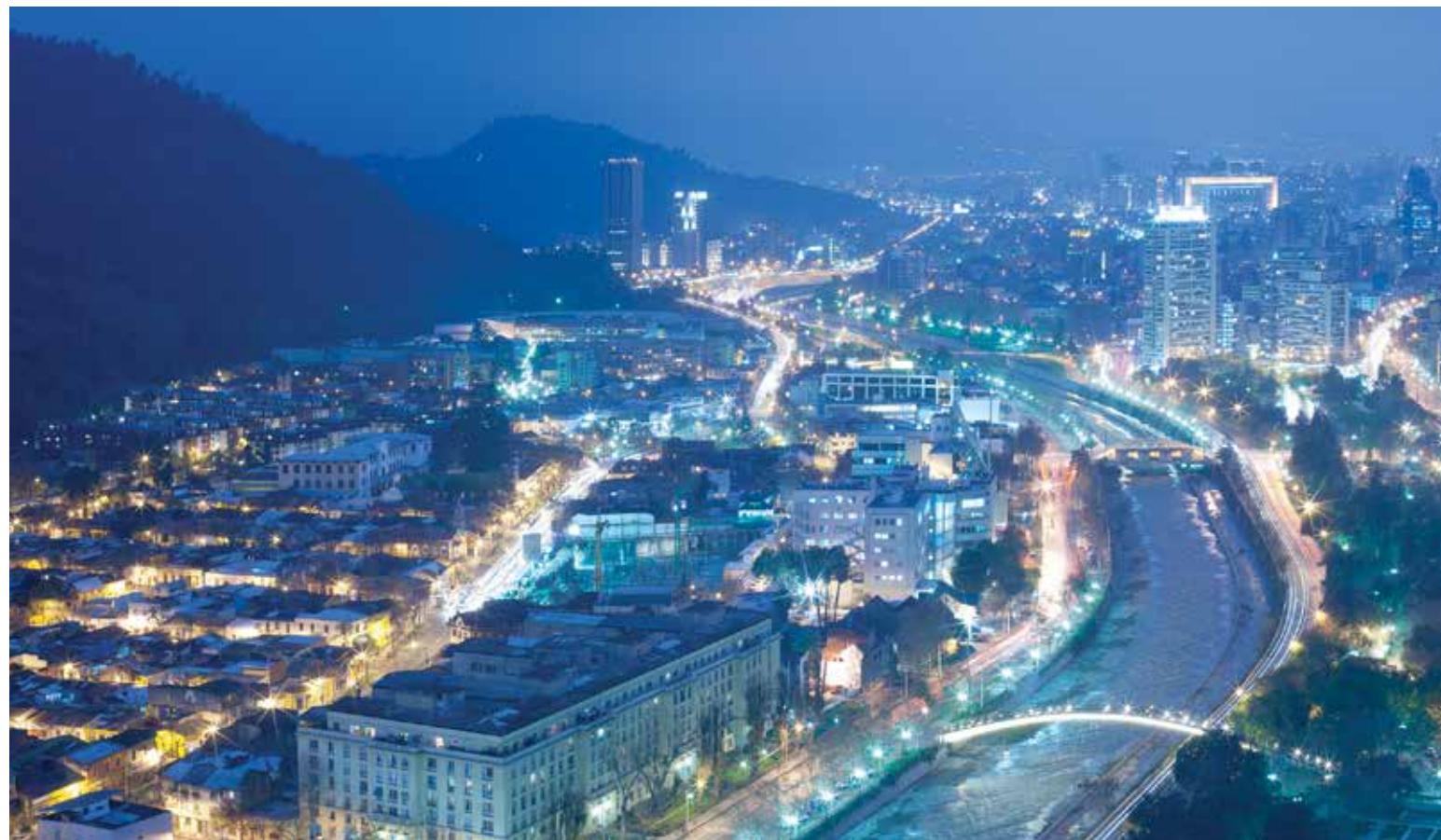
The Nominating Committee of the World Federation of Neurology having invited nominations for one elected trustee post falling vacant with effect, from the 2014 Annual General Meeting (Council of Delegates) on Sept. 11, 2014, recommends the following candidates to the membership:

- Prof. José Biller (U.S.)
- Prof. Riadh Gouider (Tunisia)

- Prof. Dr. Serefnur Ozturk (Turkey) It is open to anyone to make additional nominations by:
- Obtaining the supporting signatures of five or more authorized delegates
- Submitting the name(s) of the individual(s) in question to the Secretary-Treasurer General, c/o the London Secretariat office, to arrive at least 30 days prior to the date of the Council of Delegates meeting.



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