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### THE OFFICIAL NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

## The Journey of a Stroke Patient in Cairo: A Story of Success



### PRESIDENT'S COLUMN

HANY NAREF AND NEVINE EL NAHAS

n the afternoon of June 30, 2014, while she was preparing food for her family in a fasting day of Ramadan, she suddenly felt weakness in her left arm, with speech difficulty, and she asked her daughters for help. Two hours later, she presented to our stroke unit.

Knowing the importance of acting rapidly, the resident immediately ordered a CT scan brain and laboratory workup. Then the resident discussed the feasibility of thrombolysis. However, the responses of the radiology and laboratory staff were rather slow, as they did not appreciate the urgency of the situation.

The brain CT eventually showed that she was eligible for thrombolysis; however, we were left with one and a half hours for the window to close. Moreover, rtPA was not available in our hospital. Also, we had to pay for it. The senior staff (having donations from the department staff) decided to buy it from the nearest pharmacy. Several pharmacies were contacted until it was finally sourced and dispatched just 15 minutes before the end of the window.

The patient started to move her limbs one hour after receiving rtPA.

"Ma'am, what were you been doing when you got this stroke?" our resident asked.

In an intelligible speech, she said:

"I was cooking chicken and soup for my children to eat after a long fasting day. I thought I would never be able to cook for my kids anymore."

With a smile of satisfaction, our resident said:

"Well, Happy Ramadan. Now you have recovered from the stroke, and you will go back and cook for your children."

In 2014, rtPA was used in less than 1% of stroke cases and was not reimbursed by the Egyptian Ministry of Health (MOH). This case was a spark that ignited





a sequence of corrective actions for acute stroke management. The stroke team at Ain Shams University (ASU) conducted research to identify the obstacles for reperfusion therapy, and by the end of 2015, an action plan was instituted. Neurology residents and nursing staff received training, and a guidelines manual for reperfusion therapy was established. Concomitantly, fundraising started in the ASU stroke unit to provide rtPA through donations. In a 6-month period, the rate *see* **SUCCESS** *page 7* 

his year's Council of Delegates meeting occurred in Amsterdam, just before the ECTRIMS Congress. The meeting was held at the excellent RAI facilities and was preceded by a one-day seminar-like

trustee meeting, which was the first in-person meeting of the trustees in a long time. All trustees attended the meeting. However, Prof. Guy Rouleau attended virtually, as he was being awarded the prestigious Gairdner award in Canada at the time. All of us at WFN congratulate him on this award.

In total, 60 people attended the Council of Delegates

(CoD), 20 in person, three of whom were delegates. This confirmed the need for future CoD meetings to be hybrid. The WFN trustees recommended and the members approved, a change in wording

WOLFGANG GRISOLD

to the articles of association to ensure that future meetings can be held electronically without ambiguity. Trends show that traveling is still limited and costly since the pandemic, and with visa restrictions,

> it can be difficult to arrange. The WFN leadership hopes this meeting format will allow more people to participate in future CoD meetings.

> The meeting was opened with a minute of silence for Jun Kimura, Ettore Beghi, and all those who served the WFN and are not with us any longer. The president's, first vice

president's, and treasurer's reports were well received. They were

reports were well received. They were followed by reports from each trustee and several committee chairs, which provided an overview of the present state of WFN activities. A key highlight of the meeting was the election results. Prof Steven Lewis (U.S.) was elected secretary general, taking office from Jan. 1, 2023, and Prof. Chandrashekhar Meshram (India) was elected as a trustee. Both have long experience with the WFN and are motivated and eager to participate in further WFN developments.

The terms of two co-opted trustees, Riadh Gouider (Tunisia) and Marco Medina (Honduras) ended. The WFN leadership is grateful for their work and input. The co-opted trustees came from Africa (Pan-Arab Region), Asia, and Latin America, which has meant that the WFN has benefitted from a wide de facto regional representation. I am happy to report that both Prof. Medina and Prof. Gouider have agreed to be co-opted again for an additional term.

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### World NEUROLOGY



### WORLD FEDERATION OF NEUROLOGY

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### WORLD NEUROLOGY

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### FROM THE EDITORS

BY STEVEN L. LEWIS, MD, EDITOR, AND WALTER STRUHAL, MD, CO-EDITOR

### e'd like to welcome all readers to the December 2022 issue of World Neurology.

This issue begins with this issue's President's Column, where WFN President Dr. Wolfgang Grisold reports on the recent Council of Delegates (COD) meeting that occurred in Amsterdam in October and updates us on many of the continuing and evolving global activities of the WFN including the active preparations for the upcoming World Congress of Neurology (WCN) to be held in Montreal in October 2023. Dr. Hanv Aref and Dr. Nevine El Nahas then discuss the successful development and ongoing activities of the stroke center in Ain Shams University in Cairo. Dr. Steven Peters then updates us on the history of the Canadian Neurological Sciences Federation and the unique federated model of this organization, in anticipation of the WCN in Montreal. In a unique article in the issue, and in

STEVEN L. LEWIS, MD

lieu of the usual history contribution, Dr. Joost Haan provides a thought piece on the existence of migraine as an entity; this is accompanied by a thoughtful commentary of this article by Dr. Richard Stark. Dr. Christina Zjukovskaja and Dr. Jacques Reis then update us on the fifth international meeting on environmental health held in Strasbourg, France in September.

Dr. Syrine Ben Mammou provides a report of her experience as a recipient of a WFN Junior Traveling Fellowship that provided the funding for her to present her research at the EAN Congress in Vienna this past June. Dr. Ovidiu Selejan and Dr. Dafin Muresanu then report on the successful 17th International Summer School in Neurology that was held on the shores of the Black Sea in Romania in July 2022. Dr. John England next updates us on the new metrics of the *Journal of the Neurological Sciences*, the official journal of the WFN.

Finally, this issue features in memoriam articles on two international giants of neurology. Dr. Robert Lisak and Dr John England provide their obituary on Dr. Arthur Knight Asbury. Dr. Alla Guekht and the WFN Specialty Group on Neuroepidemiology each present their obituaries on Dr. Ettore Beghi.

In this last issue of World Neurology of this calendar year, we want to thank all readers for their interest in and attention to World Neurology and we continue to invite ideas for contributions to be sent to us at the email addresses listed in the issue. We hope everyone is marking their calendars and making plans to attend the WCN in Montreal in October 2023—it will be a remarkable international event. •

## The Canadian Neurological Sciences Federation: Stronger Together

BY STEVEN PETERS, MD

he Canadian Neurological Sciences Federation (CNSF) has been a unifying organization in Canada since 2006, though its roots stretch back to the 1940s. Neurosurgeons, adult and pediatric neurologists, neuroradiologists, and electrophysiologists all have a home under a single federation. In this unique arrangement, each member society also maintains its own executive and specific initiatives but works collaboratively with all CNSF societies. The cooperation between societies enriches the annual national congress, where the entire spectrum of physicians in the neurosciences are able to join together for networking and to address issues specific to Canadian health care.

Canada has long supported innovations in neurologic and neurosurgical care, from the pioneering epilepsy surgeries of Wilder Penfield to the endovascular stroke trials of today. Despite an abundance of expertise and innovation, Canada's relatively small population, spread out over vast distances, has required unique solutions to maintaining a national organization

### The CNSF Today

This unique partnership of neurologists, neurosurgeons, clinical neurophysiologists, child neurologists, and neuroradiologists continues to hold a combined annual Congress in June every year, with rotating locations from the Pacific to Atlantic oceans, from the Rocky Mountains to the skyscrapers of Toronto and Montréal. The CNSF has approximately 1,100 members and four staff in the Secretariat Head Office. Both the CNSF and member societies support advocacy initiatives across the country. Additionally, the CNSF publishes the *Canadian Journal of Neurological Sciences (CJNS)*.

### History of the Federated Model

The current close relationship between clinical neurosciences specialties has developed over many years. The Canadian Neurological Association was founded in 1948 in Montreal and was attended by Wilder Penfield, Allan Waters, Walter Hyland, Jean Saucier, Francis McNaughton, and Roma Amyot. Thirtyeight members attended the inaugural general meeting.

In 1965, the Canadian Neurological Society, representing both neurologists and neurosurgeons, was dissolved, and two new societies were formed representing two distinct disciplines: the new Canadian Neurological Society for neurologists and the Canadian Neurosurgical Society for neurosurgeons. A liaison committee, with executive officers from the two societies, was formed to administer conjoint activities. This committee was important in planning the first annual joint meeting held in 1965: the first Canadian Congress



of Clinical Neurophysiologists) and the Canadian Association of Child Neurology. In 1990, the Canadian

Congress of Neurological Sciences was formally

of Neurological Sciences. In

subsequent years, the two

societies were joined by the

Canadian EEG Society (later

named the Canadian Society

incorporated with a Board of Directors representing each of the four member societies, with a permanent Secretariat Office in Calgary. In 2006, the name was changed to the Canadian Neurological Sciences Federation (CNSF). The Canadian Society of Neuroradiology and Canadian Stroke Consortium have since joined the family.

### Eyes to the Future

Canada's federation of neurologic and neurosurgical physicians and surgeons combines the advantages of a large organization with the focus and specificity of smaller, tailored organizations. Although the organization will undoubtedly continue to evolve and adapt, the CNSF organizational structure can be a successful model for many small and mid-sized countries with growing expertise in the neurosciences. Canada is ecstatic to host both the 2023 World Congress of Neurology in Montréal and the 2023 World Stroke Congress in Toronto. Come join us! •

Steven Ray Peters, MD, is president of the Canadian Neurological Society.

### HISTORY

## **Does Migraine Exist?**

BY JOOST HAAN, MD, PHD, BA

here is no objective test for migraine. Migraine cannot be proven with a scan, blood test, or EEG. The neurological examination during and outside attacks is usually normal. A diagnosis of "migraine" can only be made on the words with which patients describe past experiences. Their words must be "read" to get a diagnosis. Based on sparse, remembered, and metaphorical information, doctors worldwide make a diagnosis of migraine to distinguish it from, for example, tension-type headaches, a diagnosis that is also based on words.

There are strict rules that advise doctors when to diagnose migraine. These rules depend on an agreement. The currently used classification of headache is from 1988<sup>1</sup> with updates in 2004, 2013, and 2018. Most clinical features mentioned in the criteria for migraine (such as pain severity, pulsating, sensitivity to stimuli) have no reference in reality, except for the words of the patient. This may lead to the question of whether migraine really exists.

The criteria were seen as a major breakthrough and one of the most important developments in the headache field of the last 100 years<sup>2</sup>. The Danish neurologist Jes Olesen was the main force behind this classification. The preface

This article is based on Chapter 3: "Migraine's Existence in Discourse" in Joost Haan *Migraine, Words and Fiction,* Cambridge Scholars Publishing 2022 of the 1988 classification mentions that "mistakes have inevitably been made." Next to scientific use, the authors expected that the criteria would probably influence how to diagnose patients. Further, they stated that "only patients who really have the disease should have the diagnosis, but on the other hand, all patients who really have the disease should fulfill the diagnostic criteria." The question here is what it really means in "patients who really have the disease." How is this reality defined? The words of the patients have to be translated into the criteria. The criteria are used to give a name to a disease state. The "patients who really have the disease should fulfill the diagnostic criteria" make it a selffulfilling prophesy.

This was recently illustrated in an article with Olesen as co-author. The article starts with: "Only when headache attacks fulfill specific diagnostic criteria consistently does a primary headache disorder occur<sup>3</sup>. Here, it even seems that the occurrence of the headache depends on the criteria.

Due to the nature of an agreement and not that of a biological test, the criteria are subjected to choices and interpretations. There is always the possibility that these choices and the selection are wrong. As such, the headache criteria strongly resemble a discourse.

There are numerous definitions of "discourse." Here, I will use the definition of the French philosopher Michel Foucault (1926-1984). For him, "a discourse provides a set of possible statements about a given area, and organizes and gives structure to

the manner in which a particular topic, object, process is to be talked about<sup>4</sup>." An important aspect of this philosophy is that discourses construct reality and produce meaning. They include and exclude, and form a way of thinking. Discourses are based on arbitrary choices, but sometimes it becomes invisible that these only are assumptions. One had lost sight on the alternatives and the reasons for some of the choices. The human need to provide order, unfortunately, can have negative effects by blocking new thoughts and preventing from thinking otherwise. Such discourses will become the paradigm and make a paradigm shift very difficult. This is also true for the current headache classification.

It may be difficult at first sight to see the role of discourse when we are dealing with a biological process such as migraine. One of the reasons for this role is that natural and biological processes are not fixed and often depend on interpretations, shared opinions, and subjective observations. So, a diagnosis made by doctors can be seen as emerging as something that is simultaneously certain and uncertain. Except for the so-called "evidence-based medicine," which exists between very narrow borders and must apply to very strict rules, most diagnoses are conceptual entities. This is not a problem as long as one realizes that it is not the "truth" or "reality."

Foucault asks: "Who has the power to make a discourse?" He stresses the importance of persons with authority in the process<sup>4</sup>. Founders of discursivity are individuals whose ideas become so important that it is difficult to talk about a given domain without referring back to them. Obviously, Jes Olesen may be seen as the authority in this sense.



His criteria became the "truth" of headache diagnosis. The terminology of the criteria gradually took root in the daily conversation and writings of headache specialists. Although the criteria were created to separate recognizable and "pure" groups of patients for scientific investigations, they became also increasingly used to diagnose patients in daily practice. Thousands of scientific studies were based on the basis of these criteria, mainly published in devoted journals, such as *Cephalalgia, Headache*, and *The Journal of Headache and Pain*.

In these publications, it sufficed to mention that the diagnoses were "made according to the criteria of the International Headache Society" when describing the patient groups included. As Lane and Davies (2015) write, "it would now be impossible to publish a paper on headache without referencing the see DOES MIGRAINE EXIST? page 8

## **Commentary: Does Migraine Exist?**

BY RICHARD STARK

D r. Haan raises some important points that have practical as well as semantic implications. It is obviously legitimate to raise questions about the definition of migraine when this is based on criteria derived from the patient's description of symptoms (without objective biomarkers) with the criteria determined by expert opinion. However, there would be few people who would deny the existence of a condition that approximates the current definition and which, one day, may have more precisely defined biomarkers.

If one accepts that a condition approximating the current definition of migraine exists, criteria for diagnosis are necessary to enable research into the underlying biology, including potential treatments. It has been argued that such criteria need to be strict so that studies of "migraine" exclude borderline, atypical, or "non-migrainous" cases from research studies to improve power and precision of conclusions.

A problem arises then when the same criteria are used in clinical practice. Borderline or atypical cases may share biological features with strictly defined migraine and may, for example, respond well to treatments for migraine. If the strict criteria for defining migraine are used by insurers or other health funders, these patients may be disadvantaged.

The distinction between migraine and tension-type headache (TTH) is an example of this dilemma. There appears to be a range of clinical opinion about the practicalities of distinguishing between these disorders. Some take the view that with detailed and directed history taking, most patients with disabling headache initially considered to be TTH will prove to meet criteria for migraine. As Dr. Haan points out, many effective treatments have been established for migraine and few for TTH, so patients carrying the diagnosis of TTH are disadvantaged compared with those carrying a diagnosis of migraine.

The incidence of migraine is so high that it is tempting to believe that we all have the pathophysiological substrate for this disorder which, if sufficiently provoked, may produce the clinical picture of migraine. Of course, some are clearly more susceptible than others, resulting in a range of thresholds and severity. This may help explain why some, but not all, patients suffering from mild traumatic brain injury, or idiopathic intracranial hypertension, or COVID-19 (for example) develop persistent headaches with a migrainous phenotype. These headaches would be considered secondary headaches under ICHD3, but may, in some cases at least, respond to

migraine treatments.

I believe we would all accept that objective diagnostic criteria based on biomarkers derived from a sound understanding of the pathophysiological basis for migraine are preferable to the current consensus-based criteria derived from the patient's history. But at present, no such biomarkers exist, and the ICHD3 criteria seem to most to be a practical solution. The ICHD has justifiably been considered one of the foundations on which our rapidly expanding understanding of migraine is based. We must remember however that these criteria can and must be changed as more information becomes available, and the criteria have been written primarily to ensure "purity" in clinical research studies rather than as a constraint to clinical practice. •

Richard Stark is treasurer of the WFN.

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### **RISE 2022: Fifth International Meeting on Environmental Health** Hybrid meeting Sept. 6-7, 2022, Strasbourg, France

BY CHRISTINA ZJUKOVSKAJA, MSC, AND JACQUES REIS, MD, PHD

his year's meeting on environmental health took place over two days and in a hybrid format in order to allow active participation unencumbered by travel. Participants and speakers from all over the world were able to gather, report findings as well as discuss relevant topics. Day 1 included sessions on neurotoxicology, exposure science, and the clinical approach of exposure sciences. Day 2 included neurological impacts of climate change, health impacts of air pollution, long COVID as well as diseases and environmental risk factors.

The first day's session on neurotoxicology started off with a look at animal models that both referenced the autism spectrum disorder and delved into the impact of red meat on neuroinflammation.

The exposure science session brought to light the indoor exposome and the current projects in the EU that are driving progress in the field. Also, surveillance of volatile organic compounds was discussed along with the ongoing attempts to connect the exposome and immunome.

The clinical approach of exposure sciences session introduced the audience to the extensive French network PREVENIR, which is used as a measure of prevention of reprotoxic exposure from the perspective of environmental and occupational hazards. This was followed by a thorough review of the new hypotheses surrounding environmental factors and amyotrophic lateral sclerosis. The session was closed with an engaging report on the experience of UPRISE, a course in Uppsala, Sweden, co-founded by RISE, that attempts to enlighten the young science and medical community about environmental health issues.

The second day's session on neurological impacts of climate change introduced the audience to the issue of how human sleep is and will be further affected by a warmer climate. This was preceded by the topic of global warning and neurology and the impact of increasing temperature on neurological diseases. These topics were well complimented by the following lectures on multiple sclerosis and climate change as well as the perception of risk of ticks for Lyme disease.

The health impacts of air pollution session started with an in-depth look at air pollution and stroke, including direct and indirect affects, as well as its global burden. This was followed by a report on the short-term effects of air pollution on respiratory health using a time series. Finally, a comparison of the impact of first lockdown by COVID-19 in 2020 on the hospitalization rates of stroke and myocardial infraction in France debated and stipulated the cause of the drop in rates.

The long COVID session opened with reflections on the management of the



pandemic. This was followed by several lectures on the impact of COVID on the brain and cognition. Along with long COVID and its impact, the pathogenesis and treatment of the neurological aspects were also discussed.

The concluding session, relating to diseases and environmental risk factors, delved deeper into the interdependent aspects of environmental impact on possibly overlooked health aspects. Along with brain and risk perception, vestibular function, balance, and dementia were all thoroughly discussed. Additionally, the hurdle of contamination dating back to inadequate World War I ammunition disposal and the issues within research in the intersection of the fields of neurodegenerative disease and environmental factors were reviewed and deliberated over.

With the conclusion of the Fifth International Meeting on Environmental Health, the audience was left with an appreciation of the work done the world over, the progress yet to be made, camaraderie, and the inspiration to reach new heights. This will undoubtedly help expedite the search for solutions to current and future environmental health challenges. •

### JUNIOR TRAVELING FELLOWSHIP 2022 REPORT

## **EAN Congress**

BY SYRINE BEN MAMMOU

hanks to World Federation of Neurology, I had the opportunity to attend the Eighth European Academy of Neurology Congress June 25-28, 2022, in Vienna Austria.

Since the COVID-19 pandemic, many conferences were cancelled or presented virtually. This was my first participation in an international congress of neurology as a junior resident.

During the three days of the conference, I was in sessions revolving around different interesting topics in the field. I am highly interested in inflammatory diseases, and thanks to this opportunity I was able to attend multiple sclerosis discussions. The highlight of my journey was the plenary symposium about improving lives and reducing burden. It was interesting to me as a medical doctor from a low-income country. Overall, it was an enriching experience during which I had the opportunity to meet and connect with professors and residents in neurology from all over the world. We had various talks about our countries' health systems, our current work, and future projects. I also had the honor to meet Dr. Claudio Bassetti.

Finally, I hope that I will have the opportunity to attend a conference again in the upcoming years to do presentations about the work that we do in my country. I hope these opportunities of travel fellowships will be more accessible for junior doctors/residents from low-income countries. •

Dr. Ben Mammou is a neurology resident in Tunis, Tunisia.





### 5 WORLD NEUROLOGY

## The 17th International Summer School of Neurology

BY OVIDIU SELEJAN AND DAFIN MURESANU

he 17th International Summer School of Neurology took place July 8-10, 2022, and was organized as a hybrid event. This educational activity along with the Fifth Teaching Course on Rare Neurological Diseases, brought together a lively audience of over 1,400 participants in a hybrid format, both online and on-site. In addition, the 3-day event hosted an online parallel session, "Psychiatry Perspectives in Neurocognitive Disorders" and a satellite session (on-site, on the shores of the Black Sea in Romania), focused on clinical case studies. This session was coordinated by Prof. Raad Shakir (UK), CBE, former World Federation of Neurology (WFN) president. The event was organized by Prof. Dafin Muresanu (Romania) and presided over by wellestablished international specialists. such as WFN President Wolfgang Grisold (Austria), Natan Bornstein (Israel), Volker Homberg (Germany), and Raad Shakir (UK). In addition, the events featured strong collaboration and endorsement from the World Federation of Neurology (WFN), the World Federation of Neurorehabilitation (WFNR), the European Federation of Neurorehabilitation Societies (EFNR), and the European Academy of Neurology (EAN), among other institutions.

The EFNR, presided by Prof. Dafin F. Muresanu (Romania), represents a forum dedicated to creating an academic, scientific, and work environment with a focus on patient care. EFNR welcomes all professionals interested in neurorehabilitation across Europe to create a multidisciplinary hub for knowledge exchange. The EFNR stands out through projects such as "The young European Federation for Neurorehabilitation" (yEFNR), a group dedicated to connecting professionals in the early stage of their careers who share a common interest in neurorehabilitation; the annual European Teaching Course on Neurorehabilitation; a wide range of

## **EFNR** The European Federation of NeuroRehabilitation Societies

educational programs; and the newly developed blog acting as a platform for promoting education and awareness on neurorehabilitation matters to a broad and diverse audience.

Strongly endorsed by the WFNR, EFNR acts as the umbrella society for European societies centered on neurorehabilitation and focuses its activity on three pillars:

- Supporting the development of neurorehabilitation across European countries.
- 2. Hosting a forum for all health professionals involved in the neurorehabilitation process across Europe.
- 3. Enabling young professionals (scientists and clinicians) to work on a joint platform and support education and training.

During the The 17th International Summer School of Neurology, personalities from the world of neuroscience presided over the sessions and offered insight into inspiring topics from neurology and neurosciences.

- Wolfgang Grisold (Austria), WFN president, discussed the educational activities of the WFN, showcasing the IGAP (Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders) and also presented the WFN mission and activities, along with the eLearningHub and the Young Neurologists program.
- Dafin Muresanu (Romania), EFNR president, showcased updates in the post-stroke neurorecovery, underlining the need for more evidence-based approaches supported on three pillars: theory and basic research, evidencebased parameters, and external validity. In addition, Prof. Muresanu discussed

the EAN guidelines, pinpointed the role of multimodal agents in neurorehabilitation, and underlined the relationship between microcirculation and stroke.

- Natan Bornstein (Israel), director of the Brain Division and chair of the Israeli Stroke Society (ISS), offered a presentation on the topic of diabetes and stroke, showcasing the role of primary and tertiary prevention and the importance of neurologists in the management of patients with type-2 diabetes Mellitus.
- Volker Homberg (Germany), WFNR president-elect, presented future perspectives on neurorehabilitation in the context of the WFNR pillars based on the improvement of science, services, and education in neurorehabilitation. In addition, Prof. Homberg discussed neurorehabilitation methods, including high-tech developments, enriched environments, and pharmacological options.
- Michel Brainin (Austria), immediate past president of World Stroke Organization (WSO) and Emeritus Professor of Neurology and chair at the Department of Clinical Neurosciences and Preventive Medicine of Danube University in Krems (Austria), discussed vascular diseases leading to cognitive impairment, the risk and protective factors for dementia and stroke, and also touched upon subjects of small vessel disease and strategic infarct.

The presentations from the three days of the Summer School on Neurology centered on common themes in the world of neurology and neuroscience research, such as:

- Stroke and cerebrovascular diseases
- Neurodegenerative diseases

- Neuropathies
- Neuroprotective and recoveryenhancing drugs, and many more. Broader perspectives from public

health and sociological points of view were showcased through presentations on the burden of neurological disorders in Europe and on the aspects of neurology and neurosciences in migrants and refugees. In addition, the learning process was enhanced through insightful clinical case studies on stroke, rare diseases, and headaches.

During the parallel psychiatry session, psychiatrists discussed inspiring case studies from their practice on various topics showcasing that addressing "brain health" through collaborative efforts among psychiatry and neurology represents a stepping stone to improving patient care and research outcomes worldwide.

The satellite session took place on the shores of the Black Sea, featuring Romanian speakers who approached various perspectives on Parkinson's Disease (PD) – diagnostic challenges, guidelines, and recommendations, on-time optimization, patient journey, and life with PD – among other topics. Moreover, the session included a roundtable session on the opportunities and challenges in the multidisciplinary approach, featuring Romanian centers from Targu Mures, Constanta, Cluj, and Bucharest.

To further support and encourage the development of multimodal intersectoral approaches to the inspiring world of neurosciences, the organizers stated their wish for future on-site scientific events and hands-on programs.

More information on the event, including the complete program and list of speakers, can be accessed here. •



### WORLD FEDERATION OF NEUROLOGY

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Tube

### IN MEMORIAM

## Arthur Knight Asbury, MD 1928-2022

BY ROBERT P. LISAK, MD, AND JOHN D. ENGLAND, MD

hen Arthur K. Asbury, Van Meter professor of neurology emeritus at the Perelman School of Medicine of the University of Pennsylvania, died on Oct. 19, 2022, at the age of 93, the neurologic world lost a true giant, and many of us lost a friend and mentor.

Art was born in Cincinnati to a medical family. He was raised in Cincinnati and Nicholas County, Kentucky, where his family bred horses, including the 1954 Kentucky Derby winner, Determine. He received his BS in agriculture from the University of Kentucky, and after two years of active service in the army, decided on a career in medicine.

Art graduated first in his class from the University of Cincinnati School of Medicine and then trained in medicine, neurology, and pathology at the Massachusetts General Hospital/ Harvard Medicine. It was there as a faculty member he began his research into diseases of the peripheral nervous system, including several important papers on diabetic neuropathies and the classic seminal paper, co-authored with Barry Arnason and Raymond Adams, on Guillain-Barre syndrome.

Art moved to the University of California, San Francisco, as vice chair and chief of neurology at the Ft. Miley Veterans Affairs Hospital. Subsequently, he was appointed professor and chair of neurology at the University of Pennsylvania (Penn) in 1973, arriving there in 1974. He served as chair until 1982. During that period, he rapidly expanded and enhanced the department by building on the foundation provided by his predecessors, G. Milton Shy and Lewis "Bud" Rowland.

After stepping down as chair, he continued to be active nationally and internationally in academic neurology. Over the next several decades, he remained one of the world's leading figures in the field of peripheral nerve neurology and clinical neurology.

In addition, at the University of Pennsylvania, he served as interim dean and executive vice president for health affairs on two occasions as well as serving at different times as associate dean for research and associate dean for faculty affairs. Other institutions and societies benefited greatly from Art's remarkable administrative and leadership skills. In the American Neurological Association (ANA), he served as program committee chair, membership advisory committee chair, and president. He was also a vice pPresident of the World Federation of Neurology (WFN), and served as editorin-chief of the Annals of Neurology, the official journal of the ANA. He served in many leadership positions in the College of Physicians of Philadelphia, including president and interim CEO. His papers from his time at the University of Pennsylvania are in the college's historical library.

Arthur Asbury's scientific contributions in the field of peripheral nerve disease are remarkable for their quality, breadth, and impact. Notable contributions include seminal papers on inflammatory demyelinating polyneuropathies (especially Guillain-Barre syndrome and chronic inflammatory demyelinating polyneuropathy), diabetic neuropathies and neuropathies associated with renal disease. He was the author of over 230 articles, reviews, and chapters as well as serving as an editor and section editor of multiple well-known treatises and books.

Of equal importance was his role as a thought leader, teaching us how to approach the diagnosis and management of patients with peripheral neuropathy in a logical manner. Neurologists and patients are forever in his debt for this. Art served as the principal adviser to Estelle and Robert Benson for the Guillain Barre Syndrome Foundation, which grew to become the GBS/CIDP Foundation International.

Art was a superb teacher and adviser for residents, fellows, and faculty. His mentoring in career development was one of his major accomplishments and was not limited to those at his own institutions. The mentoring also included advice on leadership. Both of the authors of this article, and others, were counseled by Art, a devoted baseball fan, upon accepting positions as chairs: "You don't need to swing at every pitch." When asked how to create outstanding training programs in neurology, his advice was pithy and timeless: "You just need to recruit excellent people."

Both of us (RPL and JDE) were inspired by him to expand and focus our research on the pathophysiology of peripheral neuropathies. Although one of us (RPL) has a tremendous aversion to flying, he nonetheless got on a plane so as not to miss Art's wedding to his wife, Carolyn. Art was instrumental in several major fundraising efforts for medical education, junior faculty development, and research at the University of Pennsylvania and for the Philadelphia College of Physicians. He and Carolyn endowed the Arthur Knight Asbury MD Professorship in Neurology to be held by the chair of neurology at the University of Pennsylvania.



A listing of Arthur Asbury's honors would fill an entire book. Notable mentions include election to the Institute for Medicine (now named the National Academy of Medicine), The Royal College of Physicians (by distinction), IS Ravdin Master Clinician Award, the Lindback Award for Teaching Excellence, and Honorary Doctor of Sciences from the University of Pennsylvania. He was elected an Honorary Member of the American Neurological Association, the American Association of Neuromuscular & Electrodiagnostic Medicine, the Association of British Neurologists, and the European Academy of Neurology. He also received the Daniel Drake Medal and the Distinguished Graduate Award from the University of Cincinnati, the Lifetime Achievement Award from the World Federation of Neurology, and the Meritorious Service Award from the College of Physicians of Philadelphia.

Arthur Asbury is survived by his wife Dr. Carolyn Asbury, his children (Dana, Lyndia and William) with his first wife Patricia Asbury, two grandchildren, and three great grandchildren. We have all lost a most remarkable, inspiring, and gentle individual. •

## **New Metrics Released for the Journal of the Neurological Sciences**

BY JOHN D. ENGLAND, MD

am pleased to announce that new metrics have been released for the *Journal of the Neurological Sciences*, the official journal of the World Federation of Neurology (WFN). The widely cited Impact Factor (IF) has risen to 4.553, which is a +46.2% increase compared to the previously reported IF. This is an all-time high for the journal's Impact Factor.

The Cite Score, which is the average citations per published peer-reviewed document, has risen to 5.2, and the Cite

Tracker Score for 2022 is 5.5, another all-time high for the journal. Moreover, the worldwide penetration, usage, and number of downloads from the journal have increased steadily. The *Journal of the Neurological Sciences* is now truly an international and well-respected journal.

Many individuals are responsible for the success of our journal. I especially wish to recognize Dr. Nicole Villemarette-Pittman, our managing editor; and Drs. Carmel



ENGLAND, MD

Hamilton Farris, Daniel Truong, and Donald Silberberg, our associate editors. The continued support of Elsevier and the World Federation of Neurology (WFN) have allowed our journal to prosper and improve. I am grateful to the leadership of the WFN for its continued encouragement and support. Drs. William Carroll,

Armon, Andreas Charidimou,

Wolfgang Grisold, Walter Struhal, and Steven Lewis have all provided notably important contributions to the *Journal of*  the Neurological Sciences.

In addition, I wish to thank our editorial board members, authors, reviewers and readers for their support and encouragement. With the help of so many, I am confident that our journal will continue to serve the global community of neurology and neuroscience. •

John D. England, MD, is editor-in-chief of the *Journal of* the Neurological Sciences.

### 7 WORLD NEUROLOGY

## Ettore Beghi

BY ALLA GUEKHT

ttore Beghi passed away Oct. 10, 2022 at the age of 75 in Milan, Italy, fighting his last battle against a very serious illness with dignity.

Ettore Beghi was born in Milan, Italy, on Aug. 15, 1947. He received his MD at the University of Milan (1972), completed post-doctoral clinical fellowship in neurology with graduation at the neurologic clinic of the same university (1976), obtained a masters of pharmacologic sciences research at the Istituto Mario Negri in Milan (1981), and served as a research fellow in the department of medical statistics and epidemiology at Mayo Clinic in Rochester Minnesota (1982–1983).

His professional life was also associated with his favorite city. He was the head of the Laboratory of Neurological Disorders, Istituto di Ricerche Farmacologiche "Mario Negri," contract professor of neuroepidemiology at the University of Milan; past head of the neurophysiology unit and epilepsy center, Ospedale di Monza, Milan.

Although it is tragic to think of Ettore leaving us so early, he left behind a lifetime of extraordinary memories. He published more than 480 scientific articles, was one of the world leaders in neuroepidemiology with the special interest to epilepsy and motor neuron diseases, participated in the creation of registries for rare neurological diseases and COVID-19.

He made a prominent contribution to numerous working groups and research committees in the World Federation of Neurology (WFN), European Academy of Neurology (EAN), American Academy of Neurology (AAN), International League against epilepsy (ILAE), extensively collaborated with the WHO, especially at the time of COVID-19 pandemic. He was a prominent member of the WFN, contributing significantly to the WFN Research Group on motor neuron diseases. He was a Fellow of the AAN. Fellow of the EAN, and received the Ambassador for Epilepsy Award of the ILAE, Prof. Beghi chaired the AAN Neuroepidemiology Section and ILAE Commission on the Epidemiology of Epilepsy. He was a coordinator of the European ALS registry and one of the founders of the EAN NEuro-covid ReGistrY (ENERGY). He worked very actively in the Italian Neurologic Society (INS), being the president of its neuroepidemiology section, served in the executive committee of the Italian League against Epilepsy. Prof. Beghi was a consultant for ENEA. editor of the Cochrane Epilepsy Group, member of Commission on the Burden of Epilepsy of the ILAE, International Committee "Epilepsy and the Law," AAN Research Group in Neuroepidemiology. He was the associate editor of Epilepsia and Neuroepidemiology, served on the editorial boards of the journals Clinical Drug Investigation. Inpharma. Drugs R & D. Neurological Sciences, Clinical Neurology and

*Neurosurgery (CNN)* and was a reviewer of the major journals in neurology.

Ettore Beghi was a great teacher and mentor to many young neurologists and researchers in many countries all over the world. He was a very kind and remarkable person, great colleague, and collaborator. Prof. Beghi is survived by his beloved wife, Maria Lidia, his three children Massimiliano, Emanuele, and Nadia, and his grandchildren.

It was a great pleasure and honor to work with him, admiring his tireless passion for research and clinical practice, his excellence, humanity, and dignity.

We will always remember Ettore as a dear friend, remarkable scientist, excellent doctor. He will always be in our thoughts and prayers. •



Prof. Ettore Beghi, researcher at Istituto Di Ricerche Farmacologiche Mario Negri - IRCCS where he developed important contributions to the neuroepidemiological study of ALS and epilepsy, among other areas of neurological diseases.

### **Obituary: Ettore Beghi**

BY SPECIALTY GROUP ON NEUROEPIDEMIOLOGY, WORLD FEDERATION OF NEUROLOGY

ith deep sadness, we inform you that Ettore Beghi, after a long illness, has left us. We all remember the friendliness and devotion that Ettore has always shown in his excellent scientific work, presenting himself with humility, ready to pass on his skills to anyone who was close to him,

Prof. Beghi has been a key point of reference in neuroepidemiology, epilepsy, and motor neuron disease research in the global world by building new and original research paths. He worked closely with the World Federation of Neurology (WFN), being an active member of the WFN epidemiological group. In many instances, he was instrumental to build up the network of scientific and human relation of people from many countries that has been so characteristic of our group. In our meetings, he was always able with a smiling and calm leadership to convey a shared extraordinary and positive energy to all participants.

A great researcher and friend who will be missed by all of us.

### SUCCESS

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of thrombolysis increased significantly to reach 12.3% of all cases of ischemic strokes<sup>1</sup>.

As a result of this advocacy, the MOH was convinced to reimburse rtPA, and all the Egyptian universities were tempted to pursue the same track as ASU. The number of stroke units increased from 20 to reach 95 by 2020. Then, in collaboration with the Ministry of Higher Education, university stroke units became



Door-to-needle time progressively decreased and functional outcome increased over the past 5 years in two stroke centers of Ain Shams University Hospitals (ASUH). hubs for satellite stroke-ready hospitals that are under the umbrella of  ${\rm MOH^2}$ .

Due to the progress in stroke services, in 2018, thrombectomy became reimbursed by MOH. Thus, the number of thrombectomies increased from 17 cases in 2016 to 172 in 2019. In addition, by 2018, the first telestroke

unit in Egypt was introduced in ASU.



Certificate of accreditation of Ain Shams University stroke centers. It started to provide consultation to neurologists for stroke management in remote hospitals<sup>2</sup>.

The rate of acute stroke therapy kept steadily developing with a reduction of door-to-needle time and improvement of patient outcomes. This ultimately led to accreditation of the two stroke units of ASU by the German Stroke Society in August 2019 in addition to receiving ESO and WSO Angels awards<sup>3</sup>.

We started our journey by searching for rtPA in nearby private pharmacies, and now all types of reperfusion therapies are available and reimbursable, with door-to-needle time less than 1 hour<sup>4</sup>. Currently, we are expecting the launch of our new stroke unit with an angiosuite installed inside the unit to achieve door-to-angio service. It also comprises an acute rehabilitation facility, gait lab, and a dedicated neurosonology unit. The stroke patient journey in Cairo now is smooth with a much-improved outcome than it was 10 years ago. •

Hany Naref is professor of neurology at Ain Shams University, and Nevine El Nahas is professor of neurology and head of the stroke unit and neuromodulation lab at Ain Shams University.

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### **DOES MIGRAINE EXIST?**

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ICHD-3 beta or reiterating the ICHD-3 beta criteria for the headache entity under consideration<sup>5</sup>." In most studies, a control of whether the diagnoses of the individual patients were correct was, however, never performed (and was also impossible from the point of view of the reviewers and the publishers of the articles). Medication trials and clinical and genetic studies were based on the semiology of the criteria; drugs were allowed to the market and only reimbursed by insurance companies when used for the "right" diagnosis according to the criteria and studied in the "right" trials.

The sparse criticism arguing that there is no real scientific basis for the classification has been ignored<sup>5,6</sup>. Nevertheless, the arguments of Shevel and Shevel that the required number of attacks, duration of headache, unilaterality, pulsating quality, severity of pain, and aggravation by activity are insufficiently supported by scientific and clinical observations (not to speak of its self-fulfilling prophesy) seems sound<sup>6</sup>. They were right in stating that the criteria were mainly based on opinions.

Likewise, Lane and Davies argue that "the ICHD-3 beta criteria have assumed a status that is not justified by evidence5." It may be said that although the criteria are not the "truth" they have produced the

reality of the headache patient. No doctor, scientist, or patient can ignore the discourse produced by these criteria, based on opinions and inclusions and exclusions. In 2014. Olesen admitted that there are "some problem areas" in the classification, but in the meantime also emphasized that there are "no competing classifications"." Indeed, this is a dominant discourse.

The separation of "migraine" from other headache types is artificial, the distinction by criteria leads to a process of inclusion and exclusion. The headache diagnoses only exist due to the internationally accepted agreements of the dominant discourse offered by the International Headache Society. In fact, there is no place for alternatives, as even the inventors of the criteria admit themselves.

However, the reality of someone with "migraine" might not differ very much from that of someone with "tensiontype headache." There is much overlap between the various headache types, not only clinically, but also with regard to treatment. Also, different headache types often co-occur. The criteria, however, have categorized, split, and unfortunately also stigmatized headache and its sufferers. It even seems that being diagnosed as a migraine patient is a favor in contrast with getting a diagnosis of tension-type headache. Migraine gets more attention in the form of scientific research and funding, and therefore a better chance of effective treatment.

We have to do with the criteria as long as there is no robust identification available of migraine and other headache-types based on genes or other biomarkers. Only then, a transition of a symptomatic to an etiologic classification would be possible. In the meantime, we must rely on the words and the metaphors of the patients. It may be said that it "does not matter what we call migraine as long as all of us agree on what is called migraine8", but we must always keep in mind the discursive (and therefore sometimes deforming) interpretation of the word "migraine." The criteria have built a new entity, and its definition only results in a demarcation from other objects. Their significance does not lie in the fact that they offer a most detailed and accurate image of reality, but in the scientific consensus to use the word "migraine" in this particular way and to see this as what is really the matter.

Does migraine exist? Yes, in the form of a discursive definition, but also "No" in its real distinction from non-migraine headache types. In my opinion, this is what one should always keep in mind when dealing with headache patients. •

Joost Haan is a neurologist and headache specialist working in the Leiden University Medical Centre and the Alrijne Hospital, Leiderdorp, the Netherlands.

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### **PRESIDENT'S COLUMN**

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The WFN will continue to seek a wide geographic diversity on the Board of Trustees. In addition, quarterly meetings are planned with the leadership of the regions (AAN, EAN, AFAN, PAUNS, PAFNS, and AOAN) to ensure wide regional influence in WFN.

### **IGAP**

The Intersectoral Global Action Plan (IGAP) and its implementation worldwide is of much interest and was emphasized during the CoD. Alla Guekht reported on this and the importance of the WFN's cooperation with the WHO.

In a follow-up WHO meeting on IGAP, the WFN and ILAE were asked to provide joint proposals to the WHO on implementation. A small working group consisting of Helen Cross, ILAE president; Julie Hall, ILAE executive director; Kimberly Karlshoej, WFN strategy and program director; and me have created a general statement and are working on a series of joint webinars to introduce important elements of IGAP to member



WFN has agreed to fund the WHO's Brain Health Unit to employ a consultant for one year to work on the implementation of IGAP and to develop an implementation toolkit. The trustees are convinced that supporting WHO in this activity is crucial.

societies and the wider public.

In summary, IGAP's 10-year timeline aims to implement neurology at countrylevel. It is an ambitious project and a unique opportunity for neurology and neurologists with benefits for patients and carers. We will continue to keep WFN Member Societies informed about progress.

### Member Societies

The AFAN Congress and the Regional Teaching Course were financially supported by the WFN. In addition, the trustees have participated in several meetings. For example, we attended and had joint meetings with the World Stroke Organization in Singapore; the Mexican Academy of Neurology, León; and the Indian Academy of Neurology as well as the AOAN in Delhi. I was honored to give the Dr. Gilberto Gomez Memorial Lecture at the Philippine Neurological Association Annual Convention and was on the panel for the launch of the Optimizing Brain Health Across the Life Course: WHO position paper.

The WFN appreciates every opportunity to participate in and contribute to WFN member societies' meetings. All regular communication between the WFN and our member



societies is valued, and we believe it helps to improve brain health and quality neurology.

### **Educational Activities**

The educational activities of the WFN continue, and the Education Committee and several subcommittees have been appointed. Current priorities are creating a core curriculum, a practical global neurology training blueprint, addressing the minimal required knowledge, clinical and technical skills, and overall competencies for neurologists, while recognizing regional variations in resources, funding, and spectrum of diseases. The needs of faculty, trainers, and the structure of the teaching facility will be included.

WFN has also appointed a Young Neurologist Subcommittee. At the World Congress in Montreal, the subcommittee is hosting two sessions created for other young neurologists. It is the strong wish of the WFN to inspire and empower young neurologists in their education around the globe.



### eLearning

The WFN and AFAN will continue the highly successful eLearning Day next year, and WFN plans a joint AFAN and International Headache Society eLearning Day on headaches in 2023.

### **World Congress**

Organizing the World Congress of Neurology is an enormous task. In September, we did the first site visit to the excellent facilities with the engaged local team. We look forward to seeing you all in Montréal in October 2023.



WORLD FEDERATION OF NEUROLOGY



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