



# Newsletter

Leading headache science, education and management globally

## Letter from the President

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**Cristina Tassorelli**

Dear Colleagues and Friends,

A very active first quarter of the year has set the stage for the initiatives that will come to fruition in the second half of 2023.

Together with the Scientific Programme Committee, the Executive Committee and the Professional Congress Organisation, Professor Min Kyung Chu and myself have achieved several milestones on the way to IHC 2023, the 21st International Headache Congress of the IHS. After 11 congresses held in Europe, four in the US, two in Canada and one in Australia, IHS returns for the second time to Asia, after the 2005 edition held in Kyoto, Japan, for its bi-ennial international meeting. It is a huge organisational effort, which IHS is pursuing with determination and unwavering conviction because it perfectly fits with the vision of the society and its global initiatives.

The faculty includes more than 100 speakers, with a large number of key opinion leaders from different parts of the world, intermingled with young rising stars. Several hundred other attendees, among scientists and clinicians, will present their most recent research output and have the opportunity to network with a huge number of colleagues and other important stakeholders in the field of headache medicine and science. All this will happen in the Coex centre, a modern congress venue with top-notch technology and a perfect sound system, located in one of the most lively districts of Seoul, Gangnam, just above the Starfield Coex Mall, the largest underground shopping mall in Asia.

Registration for IHC 2023 is open and reduced early fees are available until 28 June. IHS members benefit from further reductions, so make sure your membership is secure for 2023 and register for the congress taking advantage of the early bird rates.

It is our wish to see as many of you as possible onsite in Seoul! For those who are interested, but will not be able to attend, we offer online registration, which will also be fantastic because it will allow participants to view and engage with key congress sessions and will provide access to exclusive live Q&A sessions with selected faculty members.

While IHC is obviously the centrepiece of 2023 for IHS, other global initiatives are ongoing. iHEAD, the IHS International Headache Academy started in 2012 in Copenhagen by Peter Goadsby and Hans-Christoph Diener, is a core educational activity of the Society for the training of young clinicians and researchers. Over the years, iHEAD has provided high-quality headache education to hundreds of juniors who have entered the headache community, providing in turn a tremendous contribution.



## IHS joins OneNeurology

In 2023 iHEAD will take place in Seoul, immediately before IHC. This edition is organised by Patricia Pozo-Rosich in collaboration with Todd Schwedt and Shuu-Jiun Wang (Co-Chairs) and will welcome and train almost 100 juniors.

In April, IHS joined OneNeurology, an initiative conceived by the European Federation of Neurological Associations and the European Academy of Neurology that has led to a wide partnership involving numerous international disease-specific organisations and regional umbrellas with the aim to ensure recognition and support for the wide range of neurological disorders. This will be achieved with multiple initiatives, from capacity-building to awareness raising.

## IHS developing Global Practice Recommendations for acute and preventive treatment of migraine

Led by Messoud Ashina, Hans-Christoph Diener and myself, with the support of Simona Sacco and Francesca Puledda, several groups representing all the different regions of the world are actively and busily working on *Global Practice Recommendations of the International Headache Society (IHS) for the acute and preventive treatment of migraine*, an initiative aimed at providing a general framework of migraine treatment that is suitable for use both in countries where all anti-migraine drugs are available, as well as in those where only the drugs of the World Health Organization's (WHO) list of essential medicines are accessible. Importantly, IHS plans to use these practice recommendations for fostering optimisation and harmonisation of migraine treatment across countries and improve the availability of anti-migraine drugs in regions with limited access. The initiative is perfectly in line with the **Intersectoral Global Action Plan 2022–2031** launched by the WHO in May 2022 for improving access to both services and support for neurological conditions all over the world. Using a combined methodological approach, the IHS expert panel involved in the preparation of the practice recommendations will elaborate a two-layer set of recommendations that will be presented at the IHC in September.

Tirelessly, the Committee of the IHS Guidelines for Clinical Trials, led by Gisela Terwindt, has finalised the *Guidelines for Clinical Trials in Idiopathic Intracranial Hypertension*, that are now ready for publication, while the set of *Guidelines for Controlled Trials of Preventive Treatment for Persistent Post-Traumatic Headache Attributed to Mild Traumatic Brain Injury* is currently under review by IHS members.

It is a lot, but it is not all. Stay tuned to know more!

Looking forward to seeing you all in Seoul for IHC 2023 in September.

Cristina Tassorelli, MD, PhD  
[Cristina4IHS@gmail.com](mailto:Cristina4IHS@gmail.com)

## Members – you can still renew your membership for 2023!

**Renew today and take advantage of discounted  
registration fees to IHC 2023!  
Early-bird registration deadline: 28 June**

Enjoy full access to the IHS learning centre, and discounted  
publication fees for *Cephalalgia* and *Cephalalgia Reports*

To renew, visit the **IHS website**

If you are not already a member, check out the  
IHS website to see our range of benefits and content



## Update from the Honorary Secretary



**Patricia Pozo-Rosich**

It is my pleasure to be able to share with you an Update on IHS activities since the last Newsletter distributed in December 2022.

### **IHC 2023**

We are delighted that so far we have many registrations for the 21st International Headache Congress which will be held in Seoul, Korea, from 14–17 September. This will be our first in-person congress since Dublin in 2019, and the first in Asia since 2005. We have put together a truly global programme with a faculty comprising the leading headache specialists worldwide, and also many local faculty who will bring their own special expertise and knowledge to the arena. The venue is the Coex in Seoul – situated in the vibrant Gangnam district and directly opposite the ancient **Bongeunsa Temple**, offering delegates the chance to connect with both ancient history and modern culture. Register today to join us in Seoul – early bird registration is open until 28 June. If you have pending research, late-breaking abstract submission will open at the end of May. For more information on IHC 2023 visit the **IHC website**.

### **Cephalalgia**

We are delighted to announce that Professor Simona Sacco has been appointed as Editor-in-Chief of *Cephalalgia* to succeed Professor Arne May in 2024. By December 2023, Arne May will have completed his two 4-year terms in the role and will step down, as per the IHS policy. IHS is deeply grateful to Arne for his dedication and scientific rigour, which has made it possible for *Cephalalgia* to reach its highest impact factor ever and to be regarded globally as one of the most influential expressions of headache science due to the very high quality of published research. Arne has admirably led the journal wisely and seamlessly into the new open access model.

His successor, Simona Sacco, is Professor of Neurology at the University of L'Aquila, Italy, where she is Director of the Neurology and Stroke Unit of Avezzano Sulmona Hospital and Director of the Residency programme of the University of L'Aquila. Simona will work closely with Arne during 2024 in order to ensure a smooth transition as our journal continues its journey as an open-access publication.

### **Membership**

Our membership numbers grow steadily over the years, confirmation that headache medicine and research is attracting more and more neurologists and other healthcare professionals into our field. In 2021 we had 1,700 members, and so far in 2023 our numbers are very positive. If you have not yet renewed, or wish to join and take advantage of our membership benefits, please visit **the IHS website**. Membership offers reduced registration to IHC 2023, reduced APC charges when publishing in *Cephalalgia* and *Cephalalgia Reports*, and access to our online educational learning centre, including the new CME-accredited Learning Institute.

### **Grants and fellowships**

We are delighted that we have had a very positive response to our call for applications for the IHS Fellowship, Junior Research grants, Child and Adolescent Seed Funding grants and IHC travel grants, as well as the IHS Trainee Programme and Short-Stay Scholarships. Junior members can still apply for the Secondary Headache Research

**IHC early registration deadline 28 June – register today for this unique international event in the vibrant city of Seoul**

**New Editor-in-Chief of *Cephalalgia* appointed**



**IHS member numbers increase year on year, confirmation that headache medicine and research is attracting more and more neurologists**

**Voting now open for IHS President-elect and Elected Trustees – members, don't forget to cast your votes**

grants and the Headache Science Awards. Please see below and **the IHS website** for more information

IHS also offers the Visiting Professors project which sends headache specialists as representatives of IHS to attend regional meetings, or teach at a headache centre, in countries that might need or want increased headache education and motivation and where, without financial support, attendance of an international specialist would not be possible. Usually, two key opinion leaders in headache visit to teach at a national or regional meeting/congress with the host country selecting the topics. This project is open to lower-income countries – you can find more information and an application form on **the IHS website**.

#### **IHS Governance**

In May elections will be held to elect a new President-elect and three Trustees to the IHS Board. Two candidates have been selected by the Board to stand for President-elect for the period 2023 to 2025, succeeding Rami Burstein who will become IHS President in September this year during the IHC in Seoul:

- Mario Peres, São Paulo, Brazil
- Shuu-Jiun Wang, Taipei, Taiwan.

In addition to the President-elect ballot, three new Trustees will be elected. Andrea Carmine Belin, Jan Hoffmann and Aynur Özge will remain as Trustees for their second 2-year term.

Members – the ballot papers should already have arrived in your Inbox! If you have not received the email, please contact **Carol Taylor**.

**Patricia Pozo-Rosich**  
**Patricia.pozo@vallhebron.cat**

## **IHS Grant Opportunities 2023**

### **Secondary Headache Research Grant**

The IHS Secondary Headache Research Grant aims to promote and support research related to secondary headache disorders, including preclinical and clinical aspects, from epidemiology, pathophysiology, clinical presentation to diagnosis and treatment. Applications for basic or clinical headache research, or a combination of basic and clinical research, will be considered

Applicants must be Junior members of IHS, the Primary Investigator of the research project, and the research project must be completed within 24 months

### **Deadline for applications: 1 June 2023**

### **IHS Headache Science Awards**

Two IHS Headache Science Awards are offered, one for early-career scientists, and one for mid-career scientists

The Awards are offered on an annual basis to recognise promising early- and mid-career basic, clinical or translational scientists who are members of IHS and whose research has contributed to the headache field

### **Deadline for applications: 16 June 2023**

**For more information visit the Grants page of the IHS website**





14 - 17  
September  
2023  
Seoul



# RISING SUN OVER HEADACHES

Remember how great it was to spend time with colleagues and friends in Dublin, Vancouver, Valencia, Boston, and Berlin?

It's important for each of us to have the opportunity to get together again and share knowledge, thoughts, and ideas with our international colleagues - so we invite you to join us in Seoul. This International Headache Society Congress promises to advance headache medicine in the very different cultures and clinical opportunities in which it is practiced. Don't miss it!

The 2023 Congress is taking place at Coex, one of Asia's finest centres with the latest in congress technologies. Coex is located in the Gangnam district of Seoul and is ideally located close to hotels, shopping malls as well as good links to the airport and historic parts of the city.



## PROGRAMME HIGHLIGHTS

- Special Event: IHS Practice Recommendations
- IHC Special Lecture - What do we know about sex-related differences on headaches?
- What's next after CGRP?
- Current research in biomarkers for headaches

**REGISTRATION NOW OPEN. VISIT THE IHC WEBSITE TO REGISTER!**

## KEY DATES

Abstract submission deadline  
**10 May 2023**

Late breaking abstract submission opens  
**31 May 2023**

Late breaking abstract submissions closes  
**15 June 2023**

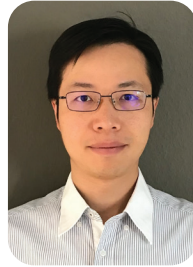
Early bird registration deadline  
**28 June 2023**



## Cephalalgia Highlights 2022

**Cephalalgia is now a fully open-access journal, to ensure no barriers to learning about the latest headache medicine research**

**CGRP continued to be the focus of migraine and headache research in 2022**



**Kuan-Po Peng and  
Arne May**

The seemingly never-ending COVID-19 pandemic has finally subsided and we are entering the post-pandemic phase. In the meantime, we have first seen a steep increase and now an equally remarkable reduction in the number of COVID-19-related submissions to *Cephalalgia*. Since then, inflation and the war in Ukraine have had a major impact on the post-pandemic recovery and on research, a task we continue to face on a daily basis. In 2022, *Cephalalgia* remained a highly respected and well-cited journal. It is with immense pleasure to see that beginning in January 2023, *Cephalalgia* has undergone a major transition to become a fully open-access journal under the careful consideration of the editorial team. We strongly feel that science should be freely available to all without barriers. Once again, we are pleased to highlight important research published in *Cephalalgia* in 2022. The selection reflects only a subset of the important advances in headache science and cannot cover all valuable research. However, from now on, with Open Access, readers have free and unrestricted access to all scientific advances published by IHS.

Calcitonin gene-related peptide (CGRP) continues to be the focus of migraine and headache research this year. The pharmacodynamics of anti-CGRP-antibodies strongly suggest a peripheral mechanism of action, but several studies have explored other possible mechanisms of anti-CGRP treatment at both peripheral and central levels.

Casillo et al. investigated how brain-generated responses change after erenumab application and showed a reduced blink reflex and cortical sensory-evoked responses after two doses of erenumab, suggesting that erenumab exerts central effects (possibly indirectly) at both the brainstem and the cortical levels. Another clinical study investigated how central non-headache symptoms change after the anti-CGRP treatment, and Iannone et al. showed a reduction in migraine auras and common prodromal symptoms in a prospective cohort study. Thus, the central effect exists and remains important in reducing both headache and non-headache symptoms. Basedau et al. investigated the effect of galcanezumab on CGRP-mediated vasodilation using a capsaicin sensitisation model. They found that galcanezumab significantly reduced capsaicin-induced peripheral blood flow, and the effect remained unchanged after 1 year of follow-up. More importantly, such inhibition did not differ between clinical responders and non-responders, suggesting that peripheral effects of anti-CGRP-antibodies are potent but irrelevant to the clinical response. In a longitudinal study, Alpuente et al. prospectively monitored salivary CGRP levels over 30 consecutive days in migraineurs and healthy controls and showed both a group difference between interictal migraineurs and healthy controls and a phasic difference in migraineurs during the ictal phase. At baseline, migraineurs have higher CGRP levels than healthy controls, and the CGRP levels continue to increase towards a migraine attack. Interestingly, such a cyclical change in CGRP levels across migraine phases can be detected in approximately 80% of the patients, suggesting the existence of both CGRP-dependent and independent attacks. In conclusion, accumulating evidence suggests that CGRP exerts central effects (at least indirectly) and that these effects may be important in modulating clinical responses. This paper by Alpuente et al. won the prestigious 2023 *Cephalalgia* award and will be presented at the International Headache Congress in Seoul later this year.



## New evidence suggests a genetic basis for migraine

Francesco Casillo, Gabriele Sebastianelli, Antonio Di Renzo, Ettore Cioffi, Vincenzo Parisi, Cherubino Di Lorenzo, et al. The monoclonal CGRP-receptor blocking antibody erenumab has different effects on brainstem and cortical sensory-evoked responses. *Cephalalgia* 2022;42:1236–1245.

Luigi Francesco Iannone, Francesco De Cesaris, Anita Ferrari, Silvia Benemei, Davide Fattori, and Alberto Chiarugi. Effectiveness of anti-CGRP monoclonal antibodies on central symptoms of migraine. *Cephalalgia* 2022;42:1323–1330.

Hauke Basedau, Thalea Oppermann, Elisa Gundelwein Silva, Kuan-Po Peng, and Arne May. Galcanezumab modulates capsaicin-induced C-fiber reactivity. *Cephalalgia* 2022;42:1331–1338.

Alicia Alpuente, Víctor J Gallardo, Laila Asskour, Edoardo Caronna, Marta Torres-Ferrus, and Patricia Pozo-Rosich. Salivary CGRP can monitor the different migraine phases: CGRP (in)dependent attacks. *Cephalalgia* 2022;42:186–196.

The pathophysiology of migraine has been further explored. First, new evidence suggests a genetic basis for migraine. Häppölä et al. evaluated the association between polygenic risk score and migraine diagnosis and characteristics in 8,602 migraineurs and showed that the number of migraine symptoms correlated with increasing polygenic risk in a dose-dependent manner. In a human model of pharmacologically induced migraine investigated by Butt et al. sildenafil reliably induced migraine headache, but to a much lesser extent induced a typical migraine aura, suggesting a dissociation between aura and migraine headache, at least with respect to the mechanism of phosphodiesterase-5 inhibition and cGMP accumulation. In another study, Olofsson et al. examined a population of healthy subjects who had never experienced a headache. They used a well-documented model of nitric oxide (NO) provocation, a method that has been adopted in numerous human studies as a pharmacologic trigger of migraine. Nevertheless, headache was inducible in this 'healthy' cohort, suggesting that headache freedom is not related to the NO pathway.

Paavo Häppölä, Padhraig Gormley, Marjo E Nuottamo, Ville Artto, Marja-Liisa Sumelahti, Markku Nissilä, et al. Polygenic risk provides biological validity for the ICHD-3 criteria among Finnish migraine families. *Cephalalgia* 2022;42:345–356.

Jawad H Butt, Heidi S Eddelien, and Christina Kruuse. The headache and aura-inducing effects of sildenafil in patients with migraine with aura. *Cephalalgia* 2022;42:984–992.

Isa Amalie Olofsson, Katrine Falkenberg, Jes Olesen, and Thomas Folkmann Hansen. Headache provocation by nitric oxide in men who have never experienced a headache. *Cephalalgia* 2022;42:598–607.

Other animal studies provided new insights into pharmacological trigger models of migraine and the sex-specific chronification of headaches. Christensen et al. used a migraine-relevant hypersensitivity mouse model and examined the effects of both glyceryl trinitrate (GTN) and levcromakalim – an ATP-sensitive potassium ( $K_{ATP}$ ) opener. The authors found that the  $K_{ATP}$  channels on the vascular smooth muscle cells were necessary for the development of hypersensitivity to both GTN and levcromakalim, further confirming a vascular contribution to hypersensitivity and suggesting that  $K_{ATP}$  channels are critical for GTN-induced hypersensitivity. In another preclinical model, Ikegami et al. investigated the prolactin-dependent mechanism of migraine chronification using an animal model of medication overuse headache. They examined repeated sumatriptan injection-induced up/down-regulation of both the long and short isoforms of the prolactin receptor, PRLR-L and PRLR-S, respectively. Only PRLR-L is downregulated in the trigeminal ganglion along with the development of cutaneous periorbital allodynia, and the change is sex-specific, exclusively in female rodents, suggesting a sexually dimorphic mechanism of sensitisation. CRISPR/Cas9 editing of both PRLRs prevented sumatriptan-induced allodynia and provides a novel therapeutic approach that requires further investigation.

Sarah L Christensen, Rikke H Rasmussen, Sanne La Cour, Charlotte Ernstsén, Thomas F Hansen, Lisette JA Kogelman, et al. Smooth muscle ATP-sensitive potassium channels mediate migraine-relevant hypersensitivity in mouse models. *Cephalalgia* 2022;42:93–107.

Daigo Ikegami, Edita Navratilova, Xu Yue, Aubin Moutal, Caroline M Kopruszinski, Rajesh Khanna, et al. A prolactin-dependent sexually dimorphic mechanism of migraine chronification. *Cephalalgia* 2022;42:197–208.

Well-designed clinical studies have answered important questions. It has been demonstrated that amitriptyline, a migraine preventive medication, was no better than placebo in reducing headache frequency in children and adolescents with migraine – both groups showed a remarkable reduction. Reidy et al. went a step further and studied 328 paediatric migraine patients treated with amitriptyline, topiramate, or

## New insights into pharmacologic trigger models of migraine and the sex-specific chronification of headaches



**Treatment with amitriptyline, topiramate or placebo showed a similar course up to almost 6 months of treatment in children and adolescents**

placebo. All three groups showed a similar course up to almost 6 months of treatment – headache frequency decreased similarly in all three groups, including the placebo group. It is of course well known that the placebo response in children is higher than in adults, but the important question that remains unanswered is what is driving the reduction in paediatric patient groups. In a multicentre post-hoc study by Garcia-Azorin et al., 905 patients with COVID-associated headaches were followed up for 9 months. Approximately 20% of patients had a persistent headache that clinically resembled the phenotype of new daily persistent headache (NDPH). However, it remains difficult to distinguish patients who had developed persistent headaches from those whose headaches resolved based on clinical presentation. Persistent headache is a new problem we have to face in the post-pandemic era and may share a similar disease mechanism with NDPH. To turn it the other way round: How many of the so called NDPH have been based on (other) infections? Perhaps we need to have a closer look. With CGRP-AB slowly closing up on the migraine standard medications, a study by Overeem et al. addressed the increasingly important clinical question of whether anti-CGRP ligand and receptor antibodies act differently. In a retrospective design, patients with an inadequate response or intolerable side effects to erenumab (receptor antibody) were switched to an anti-CGRP ligand antibody. One-third of the patients reported at least  $\geq 30\%$  response after 3 months of treatment following the switch, underlining the different physiology between the ligand and receptor antibodies and encouraging clinicians to test switching antibodies.

Brooke L Reidy, James Peugh, Andrew D Hershey, Christopher S Coffey, Leigh A Chamberlin, Dixie J Ecklund, et al. Trajectory of treatment response in the Child and Adolescent Migraine Prevention (CHAMP) study: a randomized clinical trial. *Cephalalgia* 2022;42:44–52.

David Garcia-Azorin, Almudena Layos-Romero, Jesús Porta-Etessam, Javier A Membrilla, Edoardo Caronna, Alicia Gonzalez-Martinez, et al. Post-COVID-19 persistent headache: a multicentric 9-months follow-up study of 905 patients. *Cephalalgia* 2022;42:804–809.

Lucas Hendrik Overeem, Andreas Peikert, Maxi Dana Hofacker, Katharina Kamm, Ruth Ruscheweyh, Astrid Gendolla, et al. Effect of antibody switch in non-responders to a CGRP receptor antibody treatment in migraine: a multi-center retrospective cohort study. *Cephalalgia* 2022;42:291–301.

**Study reveals need to investigate exact functional role of the GON in migraine**

Other treatment options for migraine have been investigated. Evidence suggests that certain meningeal nerve fibres leave the skull through the cranial sutures to innervate extracranial tissues, including the periosteum and pericranial muscles. Based on this finding, Stovner et al. tested the hypothesis that onabotulinumtoxinA would be more efficient and effective if the injection was focused on the cranial sutures, where some of the nerve endings come directly from the meninges. In this pilot study, most patients improved on parameters commonly used in migraine prevention trials. With a lower risk of cosmetic side effects, this study should be further evaluated in a randomised and placebo-controlled trial. Greater occipital nerve block (GONB) is a treatment option for cluster headache, but its role in migraine remains controversial. Malekian et al. investigated the preventive effect of GONB in patients with episodic migraine. In a randomized, double-blind placebo-controlled design, the authors evaluated four different regimens (lidocaine alone, steroid alone, lidocaine and steroid combined, saline) of GONB. All four groups showed significant reductions in headache severity and duration. However, none of the regimens was superior to the placebo group, echoing previous studies that were either negative or showed only a short-term pain modulatory effect of GONB. This provides further evidence for the limited role of GONB in migraine treatment or, more precisely, may be further evidence to investigate the exact functional role of the GON in migraine pathophysiology.

Lars Jacob Stovner, Knut Hagen, Erling Tronvik, Gøril Bruvik Gravdahl, Rami Burstein, and David W Dodick. FollowTheSutures: piloting a new way to administer OnabotulinumtoxinA for chronic migraine. *Cephalalgia* 2022;42:590–597.

Nazila Malekian, Pouya B Bastani, Shahram Oveisgharan, Ghaemeh Nabaei, and Siamak Abdi. Preventive effect of greater occipital nerve block on patients with episodic migraine: a randomized double-blind placebo-controlled clinical trial. *Cephalalgia* 2022;42:481–489.



# Cephalalgia is open access



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Hamburg, Germany*



**Cephalalgia** publishes original peer reviewed papers on all aspects of headache and trigeminal pain. Published on behalf of the International Headache Society, the world's leading membership organisation for those with a professional commitment to helping people affected by headache, readers receive timely cutting-edge original articles, editorials, reviews, letters and clinical correspondence on both clinical and basic research.

The journal provides an open access international forum for original research papers, review articles and short communications on headache and trigeminal pain and welcomes submissions on key topics such as:

- diagnosis and management of primary and secondary headaches and related syndromes
- pathophysiology
- mechanisms
- pharmacology
- epidemiology
- imaging
- genetics
- medico-legal aspects
- pharmacoeconomics

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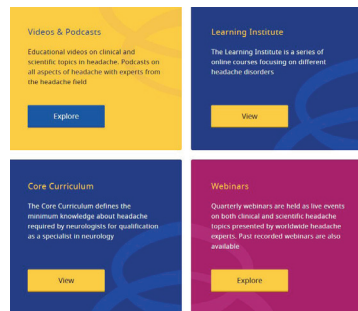
# IHS online education

More than 80 videos, podcasts and webinar recordings available in the IHS website Online Learning Centre



Henrik W Schytz, Chair of the Education Committee

Education has been, and continues to be, a big part of the mission of the IHS. Since June 2020, when the new IHS website was launched, the Education Committee has actively worked to create content for the Learning Centre. So far this has resulted in more than 80 videos, podcasts and webinars.



The videos consist of short, usually 5–10-minute informational presentations, where headache experts inform about different headache diseases or scientific discoveries. In the podcasts, experts discuss a topic, for example a new article published in *Cephalalgia* or other interesting current controversies in the headache field. We aim to have a webinar quarterly, where there are usually two presentations followed by a lively question and answer session, where attendees can write questions to the lecturers in real-time. All videos, podcasts and webinars from 2020 are now freely available.

In collaboration with the IHS Communications Committee, there have also been awareness campaigns on migraine, tension-type headache, cluster headache and soon medication-overuse headache (MOH). The concept is three short videos on: what is MOH, how to diagnose MOH, and how to treat MOH, as an example. The videos are presented in several languages to reach a large audience and inform about the topic for healthcare professionals around the world. All awareness campaign videos are freely accessible.

IHS Learning Institute – CME-accredited course on migraine available for members

The most exciting initiative is the new IHS Learning Institute – online courses on different topics. The first course launched earlier this year is on migraine. The course is CME accredited and available for all IHS members. We plan future courses on tension-type headache, cluster headache and other headache disorders.



A new activity being developed will be a monthly clinical case, in which IHS members can present clinical cases on various topics related to headaches.

All the videos, podcasts and webinars from 2020 are now freely accessible – check them out today!

**IHS members – you have full access to all learning centre content**

To view all the IHS content – visit the Learning Centre on the **IHS website**

All 2020 content freely available to non-members



Lastly, the Education Committee would like to encourage IHS members to contact us if they have ideas for new videos and webinars, where we together can create and support headache education globally.

To view all the IHS content – visit the Learning Centre on the **IHS website**.

Click here to contact the IHS Education Committee [learningcentre@i-h-s.org](mailto:learningcentre@i-h-s.org)

## The Regional Outreach Programme of the International Headache Society (ROPE-IHS)



### 1st On-site Training Event of the ROPE-IHS initiative

On 25–26 November 2022 the first On-site Training Event of the ROPE-IHS initiative *Headache, head pain syndromes, migraine and related disorders* was held in Blantyre, Malawi. The training is part of the *Regional Outreach Programme* (ROPE) of IHS, organised in partnership with the *Disease Relief through Excellent and Advanced Means* (DREAM) programme. The event is part of the national plan of the Government of Malawi on ‘*Education on non-communicable diseases (NCD) in primary care*’.

This is the first course for clinical officers (non physician clinicians) operating in primary care facilities. In sub-Saharan Africa (SSA) hospitals are few and overloaded, and neurologists are exceptionally rare, so a large proportion of headache patients are met in primary care and seen by clinical officers whose education on headache is insufficient. Headache is among the leading contributors to the neurologic disease burden in SSA.

The scientific societies, IHS and DREAM, share the vision to develop excellence care for headache patients in SSA primary care.

25-26<sup>th</sup> November 2022  
Blantyre, Malawi



FONDAZIONE  
MONDINO  
Istituto Neurologico Nazionale  
a Carattere Scientifico | IRCCS

**ROPE-IHS fulfils the society mission to improve care and science in the headache field all around the world**

**IHS representatives trained clinical officers in Malawi to understand the basics of headache medicine**



IHS, headed by Professor Cristina Tassorelli – Dean of the Medicine and Surgery School of the Università degli Studi di Pavia, Director of the Headache Research Centre of the Foundation Neurologic Institute Mondino, Pavia, and full professor of Neurology – has the mission to improve care and science in the headache field all around the world.

The DREAM (onlus) programme started in SSA in 2002 and now offers a network of 50 health centres in 10 SSA countries. All DREAM centres are managed by local personnel treating HIV, TB, malaria, and chronic non-communicable diseases such as hypertension, diabetes, cervical cancer, epilepsy, malnutrition, stroke, and myocardial infarction prevention, etc.

IHS chose the DREAM programme for a number of reasons: it is internationally recognised, has good relationships with national and local governments, offers local networks, is equipped with database and software to manage patients, has an advanced IT department, a reliable drug chain provision, and biolabs – all of which are necessary to deliver care to chronic patients.

Increasing access to care to patients with neurologic disorders including headache is the goal of the WHO **Intersectoral Global Action Plan 2022–2031 (IGAP)**. IGAP aims to grant access to care to 1 billion patients particularly in primary care of developing countries as SSA; its deadline is 2031.

Thirty-four clinical officers from different Malawi areas of both DREAM and Malawi Government health centres joined the course.

The teachers were neurologists from Italy, UK, Turkey and Africa. They delivered their lessons in a very interactive way and this much contributed to better tailor the take-home messages to clinicians working daily in primary care settings, very different from hospitals in western countries.

Pre- and post-questionnaires were completed to verify changes in participants' knowledge. Participants graded the course using a questionnaire.

There was also the opportunity to visit the local DREAM centre whose activities started in 2005. It is led by local personnel, with free-of-charge access to all, and a patient-centered approach: a healthcare model with European roots.







## IHS Fellowships

We carried out electrophysiological recording in vivo from neurons in the trigeminocervical complex that are activated by dural electrical stimulation

We uncovered female-specific nociceptive mechanisms relevant for migraine



**Alejandro Labastida, Mexico**

**Crosstalk between sex hormones and amylin signalling in the trigeminovascular system**

**Fellowship from April 2021 to September 2022**

**King's College London, UK**

**Mentor: Jan Hoffmann**

### Overview

The project aimed to investigate the effect of sex hormones (and its receptors) in the modulation of trigeminal nociceptive transmission. Moreover, the influence of sex hormones on the effects of amylin and CGRP in trigeminal nociceptive signalling was evaluated. To achieve this, we carried out electrophysiological recording in vivo from neurons in the trigeminocervical complex that are activated by dural electrical stimulation.



### Summary of research

We recorded neuronal activity in male and female rats with extracellular electrodes placed within the trigeminocervical complex and examined the effects of targeting the  $AMY_1$  receptor on ongoing spontaneous and dural-evoked firing rates of central trigeminovascular neurons. The selective  $AMY_1$  receptor agonist pramlintide and  $AMY_1$  receptor antagonist AC187 were used for the present study. The different stages of the oestrous cycle were identified and assigned by a blinded experimenter through two Cresyl violet-stained vaginal smears. Compared to males, intravenous administration of pramlintide significantly augmented the ongoing spontaneous activity and dural-evoked neuronal responses in the trigeminocervical complex, only during phases of the female oestrous cycle that are characterised by falling oestrogen levels, whereas this effect was not observed in the high-oestrogen phases. Moreover,

compared to vehicle, intravenous administration of AC187 significantly decreased the ongoing spontaneous and dural-evoked firing rates of central trigeminovascular neurons in males and females. Biochemical studies are ongoing.

### Results

We aimed to characterise the effects of sex hormones in the modulation of nociceptive transmission in the trigeminovascular system. We uncovered female-specific nociceptive mechanisms relevant for migraine, and this allowed me to attend two international conferences (Migraine Trust International Symposium and European Headache Congress) where I got the opportunity to present preliminary results and create new collaborations.



Being the recipient of this fellowship has given me visibility as an early career researcher

Little is known about the mechanism by which chronic migraine or a high frequency episodic migraine switch into a lower frequency episodic migraine



**Conclusion**

Working in a world-renown institute and high-profile research group was a great experience, which allowed me to acquire new research skills, broaden my scientific knowledge and expose me to translational neuroscience research. Furthermore, being the recipient of this fellowship has given me visibility as an early career researcher, which has resulted in being invited to present at different international meetings and being

part of scientific committees. Finally, this opportunity allowed me to work with Dr Jan Hoffmann, an excellent mentor, who let me bring and develop my own ideas, and with whom I have built a strong scientific collaboration.

One year is a very short period. I was fortunate that I chose a lab that had most experimental techniques already implemented, and the project animal licenses approved. I recommend to future Fellows to try to learn some of the techniques before the fellowship starts. Write a proposal that is precise and clear and, most importantly, be innovative.



**Cédric Gollion, France**

**Participation in REFORM (Registry for Migraine – structural and functional magnetic resonance imaging before and after erenumab treatment)**

**Fellowship from November 2021 to October 2022  
Danish Headache Center, Glostrup, Denmark  
Mentor: Faisal Mohammad Amin**

**Overview**

Chronic and high-frequency episodic migraine is a debilitating disorder and the mechanisms are poorly understood. Migraine is known to be associated with structural and functional changes in the brain, but little is known about the mechanism by which chronic migraine or a high frequency episodic migraine switch into a low frequency episodic migraine. Anti-CGRP treatments provide the opportunity to address this question.

Objective: to identify modification in cerebral connectivity when a chronic migraine/episodic high-frequency migraine is transformed into a low-frequency episodic migraine, among patients treated with erenumab.

Methods: 40 patients with chronic migraine/high frequency episodic migraine responders to an anti-CGRP treatment (erenumab) were planned. To reach 40 patients for the final analysis, we calculated 100 inclusions (20% of drop-out and 50% of anti-CGRP responders). IRM with resting state (BOLD signal) would be performed at baseline and after 6 months of treatment. BOLD signal would be analysed with Conn software (running under matlab). Functional connectivity was compared: 1) between patients with chronic migraine/episodic high-frequency migraine and healthy controls at baseline, and 2) between MRI at 6 months follow-up and baseline in responders.





**Our results highlight the influence of emotional and vegetative factors in migraine, which require a multidisciplinary therapeutic approach**

Additional methods: The connectivity of the ventro-postero-medial nucleus of the thalamus (VPM), relay of trigeminovascular nociception, was compared between responders and non-responders.

**Summary of research**

Results: A total of 260 patients with migraine (mean age ± SD = 41.7 ± 12.3 years; 88% female) and 148 healthy controls (mean age ± SD = 41.4 ± 11.6 years; 85% female) were included. Treatment response at 6 months was available for 149/260 (57%) of the patients, and was divided into four categories: reduction <25% of MMD, n = 48/149 (32%); 25–50%, n = 33/149 (22%); 50–75%, n = 42/149 (28%); >75% n = 26/149 (17%). Compared to responders >75%, responders <25% showed increased connectivity of the left VPM with the left amygdala: cluster (-12, -02, -14), size 82, size p-FDR = 0.0122, T = 4.68, p-FDR < 0.001. In ROI-to-ROI analysis, both VPM showed increased functional connectivity with both amygdala in non-responders.

Conclusion: Increased functional connectivity between the amygdala, a limbic structure, was found in non-responders. This result highlights the influence of emotional and vegetative factors in migraine, which require a multidisciplinary therapeutic approach.

An important part of the activity consisted of the pre-processing of MRI data of around 400 participants. Statistical analysis was carried out at the end of the internship. Other activities included diffusion tensor imaging, activation MRI analysis of patients who had experienced a migraine aura during MRI, and participation in three reviews of literature, two of which are already published.

**Conclusion**

All our planned objectives were reached and even more work (DTI, activation fMRI) was accomplished. The research team was characterised by a high availability of experienced supervisors and mentors, ensuring the success of projects.

This internship provided the opportunity to meet an internationally recognised team, to publish in this context, and to participate in a debate at an international conference. Working with such an internationally recognised team is an important step in pursuing an academic career in France.

## IHS Headache Trainee Programme



**Eliseo Barral, Argentina**

**King's College Hospital London, UK**  
**Mentor: Peter Goadsby**

**Attending the 2022 iHEAD and MTIS congress gave me the opportunity to meet worldwide renowned researchers in headache disorders**

First, I consider that my traineeship could not have a better beginning since during my first days in London I was able to attend to the International Headache Academy (iHEAD) 2022 and the Migraine Trust International Symposium 2022. Both events provided me with an impressive overview about headache disorders regarding pathophysiology, understanding, diagnostic criteria, novel therapeutics, and cutting-edge research projects, and I also participated in practical workshops on biostatistics, headache research methodology, presentation skills, and how to improve awareness about these highly prevalent conditions. In addition, these events gave me the opportunity to meet worldwide renowned researchers in headache disorders and also early career neurologists and research scientists who are starting their path in this captivating field.



**The Trainee Programme offered a variety of clinical work seeing patients with different headache disorders, and also work on research projects**

**This type of training programme is vital for neurologists from countries without headache infrastructure or expertise**



Headache group - King's College Hospital

Turning to my stay at King's College Hospital, I had the chance to participate in different clinical and research activities alongside Professor Peter Goadsby and other members of his headache group. In the clinical setting, I had the opportunity to observe and listen to the assessment of patients referred by other physicians with a wide range of headache problems, such as episodic or chronic migraine, refractory migraine, patients with migraine seeking novel acute or preventive treatments, and also patients suffering from trigeminal autonomic cephalalgias.

Furthermore, I could visit the orofacial pain clinic that is run by Dr Jan Hoffmann alongside dentists where patients suffering from cranial neuralgias are assisted. I also participated as an observer in the multidisciplinary periodic encounter by members of the headache group and neuroradiologists where complex cases of secondary headache were discussed.

Finally, I attended face-to-face clinics for interventional treatments such as botulinum toxin type A for migraine and greater occipital nerve injections for migraine and trigeminal autonomic cephalalgias. These clinics were also valuable opportunities to assess patients with cluster headache during bouts.

During my traineeship I was assigned two different research projects. First, alongside and supervised by Dr David Moreno-Ajona, we performed a retrospective analysis of the treatment response to anti-CGRP monoclonal antibodies on patients with migraine, specifically describing the different outcomes between two groups: migraine without vestibular symptoms and vestibular migraine.

Our main aim was to address if differences exist in the effectiveness of these migraine-specific novel treatments between the groups. We audited the clinical records of more than 300 patients who attended the King's College Hospital London. We tabulated the information using Excel and completed preliminary statistical analysis using SPSS and Stata. We look forward to presenting the data at the next International Headache Congress.



After office drinks at Covent Garden

Second, supervised by Dr Francesca Puledda and in cooperation with other colleagues, we carried out a literature review about differential diagnosis of visual phenomena associated with migraine focus on aura and visual snow syndrome. We discussed key clinical features of the two conditions, including pathophysiological mechanisms, their differential diagnosis and best treatment approaches. This review is intended for general neurologists and clinicians, and it will hopefully help them in recognising these distinct visual phenomena.

This Traineeship exceeded my expectations in all aspects, giving me the opportunity to improve academically and also personally. I consider that this kind of training programme is vital for neurologists from countries without headache infrastructure or expertise since this is a unique opportunity to visit leading headache research groups around the world.

Last but not least, I had the chance to meet remarkable professionals from whom I learnt so much and I hope that we can continue working together in the future.

Moreover, I would like to express my gratitude to Ms Carol Taylor (International Headache Society) and to Ms Alison Worth (Executive Assistant to Professor Peter Goadsby) who were always willing to assist and help me anytime that I needed.



This traineeship provided me with solid knowledge and expertise to manage different complex clinical settings related to headache disorders and I consider that this will have a significant positive impact on my professional practice. In addition, I consider that it gave a comprehensive overview about the requirements needed to conduct an appropriate headache clinic and made me realise the importance of keeping an accurate and detailed record of the information obtained during medical consultations in order to audit our activities correctly and to be able to utilise that valuable data for future research studies as well. Finally, it encouraged me to get involved in research projects and to maintain regular and active contact with colleagues from around the world.



### Nadir Hussain, Pakistan

**Hull Royal Infirmary, UK**  
**Mentor: Fayyaz Ahmed**

It was a lovely experience to work with Professor Ahmed. I had exposure to advancements in the field of headaches. I came across many rare cases of headache as well like hemicrania continua and a few cases with combined cluster headache and migraine. I learned of the IHS guidelines to treat cases with chronic migraine, when

to start Botox therapy, and when to switch to other suitable options like CGRP or flunarizine. I also learned about the dose, sites and methods of injection of Botox and CGRP and then monitoring the response and expectations and how to maintain headache diaries and parameters to look for while treating different kinds of headaches.



I came to know about new trials going on for episodic migraine like Botox and Lumi Shade glasses. I attended different lectures on headaches by Professor Ahmed delivered on different occasions (physical and virtual) to GPs as well as to overseas neurologists, i.e at Iranian and Pakistani neurology meetings.

Unfortunately I couldn't complete any research project during this short visit but I helped in recruiting patients for ongoing studies in patients with episodic migraine, i.e PEARL study, Botox therapy and Lumi Shade glasses.

I learned a lot of new things that will be helpful for me while treating my patients. I got a lot of support from Professor Ahmed and he also asked his colleagues and trainees to look after me if needed, and I am really thankful to all of them; they were very nice to me and that made my stay comfortable.



With this experience, I learned many new aspects of treating headaches and I will definitely apply them in my clinical practice. The guidelines and protocols learned during this training will help me to become a safe doctor and ultimately my patients will benefit from this, and that is the goal for every good doctor.

**I learned many new aspects of treating headaches and I will definitely apply them in my clinical practice**



## Khadija Saghir, Morocco

**LMU Klinikum, Neurologische Klinik und Uniklinik, Campus Großhadern,  
Munich, Germany**  
**Mentor: Andreas Straube**

**I was able to deepen my knowledge of migraine and other primary headache disorders**

The IHS trainee programme was a unique and exceptional opportunity for me. Attending the headache outpatients' clinic in the Ludwig Maximilian University of Munich, Campus Großhadern, helped me to deepen my knowledge regarding the diagnosis and treatment of migraine and other primary headache disorders.

The majority of the patients in the clinic had migraine, medication-overuse headache, cluster headache, and trigeminal neuralgia. During the headache consultations, I saw for the first time patients with cluster headache, new daily persistent headaches, glossopharyngeal neuralgia, and primary headache associated with sexual activity.

Thanks to Professor Straube, Dr Albert Gracenea and Dr Kamm, I got to learn the state of the art treatment of different types of headaches, like the anti-CGRP monoclonal antibodies (erenumab, galcanezumab, fremanezumab, eptinezumab); unfortunately, these medications are not available in Morocco. I also learned how to do Botulinum toxin injections and the great occipital nerve blockade (GON).

Furthermore, during my stay, I attended the daily neuroimaging staff and the weekly case presentations, which were very informative. I had the chance to participate in a scientific project and to attend the 2 days' intensive headache school which took place in the Großhadern clinic.

During my stay, I participated in a research project to determine tactile thresholds in patients with visual snow syndrome (VSS). VSS is a distinct clinical entity, characterised by the perception of continuous mostly black and white tiny flickering dots in their entire visual field (TV snow-like). It is usually reported in young adulthood, equally

affecting men and women. It is not clear whether visual snow syndrome should be considered as an organic disease or rather as a heightened perception of normal sensory phenomena.

Our aim in this study is to examine patients diagnosed with VSS according to the ICHD-3 to determine their tactile thresholds and to compare them with healthy adults.

The social and cultural differences that I experienced contributed to further enriching the experience of living abroad. As a neurology resident doctor living in a developing middle-income country, I was curious and wanted to know and see how medicine, especially headache medicine, is practiced and organised in developed countries such as Germany.



**I was curious to see how headache medicine is practiced and organised in developed countries**





**The Trainee Programme has helped me to consolidate previous knowledge and improve my approach to diagnosing and treating different types of headaches**



I am deeply grateful to IHS for the awarded grant and the privilege to do an internship abroad; I would like also to thank Carol Taylor for her amazing work and support before, during, and after my visit. Furthermore, I would like to thank Professor Straube and Dr Gracenea immensely for the teaching, kindness, and help I received; I also thank all the colleagues from the department of the Neurology LMU, Campus Großhadern for their collegiality. Special thanks to Mrs Andrea Maier Anft, Mrs Theresa Klonowski, Fay Felix, the nurses and staff of the Headache Clinic

The Trainee programme has helped me to consolidate previous knowledge, improve my approach to diagnosing and treating different types of headaches, and to acquire new skills such as Botox injection and GON blockade.

This experience opened my eyes to the fact that migraine and other types of headache disorders are a public health problem that is under-estimated, under-recognised, and under-treated in Morocco and other low-middle-income countries.

I now have new ideas for my career. I would like to deepen my knowledge of migraine and other primary and secondary headache disorders. I wish I could work in a hospital with a headache clinic, where I can be active in research, consolidate what I learned from my training, and enhance my knowledge and skills in the headaches domain.

## IHS Short-stay Scholarship



**Faraidoon Haghdoost, Australia**

**Danish Headache Center, Glostrup, Denmark**  
**Mentor: Rigmor Jensen**

**I learned how to take a good headache history, including using visuals and drawings to explain different headache characteristics and pain features**

I am Faraidoon, a medical doctor from Kurdistan of Iran, and a PhD student at The George Institute for Global Health, University of New South Wales, Sydney, Australia. I am very passionate about research on headache and migraine. Before the COVID-19 pandemic, I received the IHS Short-stay Scholarship to join the famous Danish Headache Center (DHC) under the supervision of Rigmor Jensen. I was very excited about the opportunity, but unfortunately, I had to wait until the restrictions were over. I finally went to Denmark in September 2022 to stay for about 5 weeks.

Each day I joined one of the experts in DHC from 9 am to 3 pm (with a 1-hour lunch break). DHC provided a detailed schedule for me. All staff were super friendly and tried to help me have a lovely stay and learn as much as possible. Everything was clear and provided. All I needed was to experience and learn without being worried about anything. After receiving the uniform, I totally felt part of the team.

I started my first day by joining Messoud Ashina, the Past-President of IHS. I learned from Messoud how to take a good headache history and ask questions that might sometimes be difficult to explain, for example, using visuals and drawings to explain





**Being at DHC helped me improve my connections with researchers and clinicians from other countries**



different headache characteristics and pain features. I met Scott from The Jefferson Headache Center that day as he was also visiting DHC. Being in DHC helped me improve my connections with researchers and clinicians from other countries. I learned how Nunu Lund made management plans by listing the next treatments to offer to help other doctors, nurses or herself for future visits. Doctors and patients should know that managing headache takes time, and maybe we should try different treatments to find the best one.

Rigmor accepted to become my supervisor and helped me with the application for the IHS Short-Stay Scholarship. I learned much from her in her clinic and during my stay at DHC. She is a real role model and a great leader. I learned from her that patients with chronic pain, headache and migraine can have severe pain but look calm, so you may think it is not as intense as they say. We should be careful and never misjudge.

Aydin Gozalov is the best person if you want to learn about trigeminal neuralgia and facial pain. I got familiar with the techniques of occipital nerve block and Botox injection. Aydin is very kind and supportive. He helped me to have the best schedule to get the most out of my stay at DHC. I spent some days with Henrik Schytz in his clinic. Devoting time and energy to managing patients with headache disorders and also conducting research, and adding to the literature is an impressive job done at the DHC, especially by Henrik. Faisal Mohammad Amin showed me how important it is to consider all comorbidities and related conditions like stress and anxiety in managing people with headache disorders. Evidence-based medicine and remaining updated daily are other important things I learned from Faisal and at DHC.

Another fantastic experience happened in the Diagnostic lab at DHC run by Merete Bak Bertelsen and Janne Jensen. Checking papilledema, reactions and reflexes, etc., are performed in this lab.



I had the chance to meet professor Lars Edvinsson at the Glostrup Research Park in Copenhagen. I learned there, mainly thanks to Philip Reducha, about animal models for migraine, settings for their basic research, and current projects. It was super exciting and very impressive. I learned from Anja Petersen that migraine could be managed by approaches like neck physio, massage, and relaxation techniques, but we may forget to try them. General practitioners who usually see many people with headache and migraine could adequately manage the condition if they were well-trained. In addition to managing complicated cases of headache disorders, I learned how seniors like Professor Lars Bendtsen support junior doctors and help them manage their patients. This culture and setting are what we need in all countries.

Ina Nørgaard showed me how to listen to patients (a skill we all need to have) and let them discuss their concerns, especially about side effects of the treatments we offer. The best treatment without effective communication can become the worst. I learned from Rune Häckert Christensen about his research and the current projects at the DHC. Lily Kokoti showed me how they perform migraine provocation. Thanks to her and the participants who let me observe, I learned what I have always wanted to know. Communication, taking history, and follow-ups can be difficult if there are barriers, like not speaking the same language. Seeking translation and ensuring the message is received and nothing is unclear needs patience, experience, and commitment.

**We all need to listen to our patients and let them discuss their concerns**



Anders Hougaard was a great person to learn this from.

In the group photo below you can see some legends in the field of headache disorders and me (not a legend). They are fantastic role models and super kind human beings. They are a source of knowledge for managing headache disorders and an important part of our beautiful culture among headache researchers.



I had the chance to meet many others from different European universities during the annual meeting of DHC. I was lucky that the event happened during my visit. There were many great presentations with updates on the management of migraine.



It was not all about research and science. My visit to DHC was the beginning of many friendships. I came back to Australia with more knowledge and less hair, as during my stay in Denmark, I cut my hair to support the woman, life, freedom movement in Iran. I want to thank DHC and IHS for providing this opportunity and Rigmor for supporting me. I came back to Australia as a different person with more knowledge and more experience.

## IHS Visiting Professors

**70 participants from many disciplines joined the week-long neuroscience course highlighting headache disorders**



### Cambodia, November 2022 Soma Sahai-Srivastava

The IHS Visiting Professor (VP) grant, awarded in late 2019, was delayed until November 2022 due to COVID pandemic-related travel restrictions with limited teaching programmes in Cambodia during this period. The IHS VP grant provided travel expenses to two headache specialists for teaching a week-long neuroscience course highlighting headache disorders in Cambodia and was held in Phnom Penh from 28 November to 2 December 2022. The course was taught by Dr Soma Sahai-Srivastava and Dr Liza Smirnoff, both headache specialists from the USA. In addition, senior neurology resident Dr Ashim Ahuja from the University of Southern California, Keck School of Medicine participated in the programme.

The event was well attended by 70 participants from Cambodia which included neurologists, general physicians, ophthalmologists, pulmonologists, psychiatrists, emergency physicians, residents, and medical students. Training residents were predominantly from internal medicine, psychiatry, and neurosurgery since there is no neurology residency training programme yet in the country. All participants received a



**The course was a mix of a symposium, workshops with a focus on audience participation and Q&A, clinical rounds, case presentations and live demonstrations of procedural treatments**

**It is expected the highly anticipated neurology residency programme will be launched in Cambodia late 2023**



mid-week by a day-long headache symposium. The first ever headache procedure workshop in Cambodia was held on 30 November at the conference center of Khmer Soviet Friendship Hospital, Phnom Penh, the capital city of Cambodia, in collaboration with the University of Health Sciences, which allowed all their medical students, residents, and Faculty to attend the symposium. The morning session included lectures on neurobiology of migraine, case-based discussions, and treatment approaches to primary headache disorders, especially migraine and cluster headaches in a resource-limited setting. This was a highly interactive format with audience participation, and emphasis on Q and A during the presentation. The afternoon session included a lecture on



procedural treatments of headache disorders. This was followed by live demonstrations of injection treatment: Dr Sahai and Dr Smirnoff, both headache sufferers, volunteered and were injected by each other. A physician suffering from migraine headaches and myofascial pain was the third volunteer for the injection workshop. On the last 2 days of the week, there were clinical rounds and case presentations by local physicians and residents at the Khmer Soviet Friendship Hospital.



field of headache and pain in Cambodia. There was active participation by physicians from all over Cambodia and this paved the way for future collaborations between the Cambodian neurological association and the IHS. Dr Sahai has been holding a neuroscience global neurology course in Cambodia to undergraduate and postgraduates at the medical university every summer since 2015, and with her collaboration, it is expected that the highly anticipated neurology residency programme will be launched in Cambodia by next winter.



neuro exam tool kit which included hammer, tuning fork, and other neurological tools at the end of their week-long participation.

The week began with meeting the local faculty, followed by interactive teaching workshops on basic neuroscience and clinical rounds in the hospital. This was followed

This comprehensive approach to teaching headache disorders in resource-limited settings included basic neuroscience, neuroanatomy, neuroradiology, and clinical and procedural topics and was much able fill the knowledge gap in the

## 3rd Joint Congress of the African Academy of Neurology and Cameroon Academy of Neurology, Douala, October 2022

**400 attendees, mostly from Africa but also Europe and N America, attended a variety of workshops and plenary sessions**

**The international faculty members enlightened the participants on the interest of conducting quality research in headache**

After Hammamet in 2017 (Tunisia) and East London in 2019 (South Africa), the 3rd joint congress of the African Academy of Neurology (AFAN) and the Cameroon Academy of Neurology (CAN) was held in Douala, Cameroon, from 21–23 October 2022 at the Hotel La Falaise Bonanjo.



400 participants from 41 countries (Africa: South Africa, Benin, Burkina-Faso, Burundi, Cameroon, Congo, Ivory Coast, Egypt, Ethiopia, Kenya, Gabon, Ghana, Guinea Conakry, Mali, Morocco, Madagascar, Mozambique, Namibia, Niger, Nigeria, Uganda, Democratic Republic

of Congo, Rwanda, Senegal, Sudan, Togo, Tanzania, Chad, Tunisia, Zambia, Zimbabwe; Europe: Austria, Belgium, Finland, France, Italy, Netherlands, Spain, UK; America: Canada, USA) took part in the congress.

During the 3 days, the participants attended:

- three workshops led by internationally renowned experts: Electrodiagnosis studies for neurology trainees helped to precise diagnoses in three patients; Use of botulinum toxin for which three patients suffering from dystonia benefited from this treatment which is not yet available in Cameroon; EEG learning with several video cases
- eight plenary sessions: Research in neurosciences: challenges and opportunities (IBRO symposium); Stroke; Headaches; Dementia; Parkinson's disease and movement disorders; Neurology training across the continent; Neuro-rehabilitation; Health professionals session
- three parallel sessions in English and French: Neuro-infection/neuro-inflammation; Epilepsy; Paediatric neurology.

There were 130 communications – 60 free communications and 70 posters.

Professors Najib Kissani (Morocco) and Kuate Tegueu Callixte (Cameroon) Co-Chaired the first IHS plenary session with lectures on the ICHD-3 and general rules for classification (Dr David Garcia Azorin, Spain), Diagnosis of secondary headaches: emphasis on sub-Saharan Africa (Professor Christian Napon, Burkina Faso), Burden of headache in Africa and emerging challenges (Professor Najib Kissani, Morocco), Choosing the best treatment options for primary headache disorders (Dr Sarah Urasa, Tanzania), and Diagnosis and treatment of chronic daily headache (Dr Fogang Yannick, Cameroon). This was followed by a Q & A session. The second IHS session was Co-Chaired by Dr David Garcia Azorin and Professor Berthe Assi (Ivory Coast). The subjects for discussion focused on: Impact of headaches on children in Douala/Cameroon (Dr Annick M Magnerou, Cameroon); How to investigate headache patients in restricted resource-settings (Professor Mohammed Alfaki, Sudan); and 1st epidemiological door to door study about headaches in Cameroon (Professor Callixte Kuate Tegueu, Cameroon).

A post-test questionnaire on headaches was given to the 400 participants present in the main hall congress.

The organisation of this congress would not have been a success



Best oral prize presentation



Organising Committee

without the particular support of IHS, other societies (World Federation of Neurology, International Brain Research Organization, International League Against Epilepsy, European Academy of Neurology, International Parkinson and Movement Disorder Society), the Ministry of Public Health, General Delegation for National Security for facilitation of entry and exit in Cameroon for participants, the University of Douala, and some pharmaceutical companies based in Cameroon.

The two IHS sessions were highly appreciated by the participants. The organising committee would like to thank Professors Garcia Azorin, Najib Kissani, Christian Napon, Berthe Assi, Sara Urasa and Mohammed Alfaki who, through their presentations, enlightened the participants on the interest of conducting quality research in headache by highlighting African realities. Many thanks to IHS for the support.

## Copenhagen Master of Headache Disorders



**Bianca Raffaelli, Germany**

**The MHD was a unique opportunity to deepen my knowledge on headache in an inspiring and constructive environment**

The Master of Headache Disorders (MHD) in Copenhagen was for me a unique opportunity to deepen my knowledge on headache in an inspiring and constructive environment.

I started the MHD programme in October 2020, when I was a third-year resident in neurology with some experience in headache medicine. The MHD was initially designed as a mix of e-learning and face-to-face classes. However, due to the COVID pandemic, the lessons during the first two semesters took place almost exclusively online. Despite this readjustment, I was immediately impressed by the well-structured online materials, the vast experience and motivation of all teachers, and the high-quality didactic learning units. I got the opportunity to receive first-hand education from world renowned experts and to learn about the latest advances in headache medicine. Especially the Head of Study Professor Rigmor Jensen and the Co-director Associate Professor Henrik Schytz work with extreme dedication and enthusiasm to assure a successful education for all students.

Although through a screen, I quickly made friends with my fellow students. The exchange was always lively, warm, and respectful. These interactions can serve as the basis for future cooperations and joined projects. The joy was all the greater when we met in person for the clinical course in January 2022. On site at the Danish Headache Center, we had the possibility to observe patients' consultations, learn different treatment strategies and compare them with the ones of our own countries. I am particularly grateful to the administrative staff, who were always ready to help and advise us in all organisational matters and ensured that all courses went smoothly.





**Especially in headache medicine, interdisciplinarity is a quality that cannot be emphasised enough**



At the graduation ceremony in June 2022, I had the honour to hold the graduation speech. In preparation for this speech, I asked my fellow students to describe the MHD in just one word. What came up was exiting, comprehensive, professional, dedicated, stimulating, insightful. I could not agree more. Another word than comes to my mind when I think about the MHD is interdisciplinarity. Among the students of my cohort, we had physicians, nurses, physiotherapists, chiropractors and dentists. Among the lecturers, we also had psychologists and representatives from patients' associations. Generally in medicine, but especially in headache medicine, interdisciplinarity is a quality that cannot be emphasised enough. Only by joining forces and working together can we reach the best possible care for our patients.

I am very grateful to IHS for giving me the opportunity to participate in the MHD. This programme and all the work done by the faculty is an inspiration for every healthcare professional in the headache field. I have received the tools and many new ideas for a successful career in headache medicine and I can't wait to keep implementing what I have learned into my everyday practice.

## 3rd Global Migraine & Pain Summit, 6th MENA Meeting & 4th Turkish African Meeting of Headache and Pain Management, Antalya and virtual, November 2022



**Aynur Özge**

**The programme was enriched with case-based discussions, model-based workshops and update sessions**

Over the past few years, 1,500 colleagues from over 50 countries have come together to discuss practical approaches to headache disorders and other pain disorders, with consideration for the poor resources and other realities of the MENA (Middle East and North Africa) regions and eastern Asia.

The 3rd Global Migraine & Pain Summit, 6th MENA Meeting & 4th Turkish African Meeting of Headache and Pain Management was held from 2–5 November 2022 in the Xanadu Hotel, Antalya, Turkey, and virtually, with English and Turkish simultaneous translation. The meeting was held with sponsorship of IHS and as a hybrid meeting was able to reach a maximum number of participants while COVID-19 still restricted worldwide travel. Our programme was enriched with case-based discussions, model-based workshops and update sessions for ensuring current scientific approach and practical tips provided by important headache experts. Furthermore, the scientific committee aimed to widen the attendees' perspective with roundtable



**GMPS has adopted the principle of 'appreciation by sharing knowledge'**

**The meeting focused on achieving an efficient and sustainable practice of pain management for the benefit of current and future generations**



workshops about ongoing projects and to create new collaborations.

The Global Migraine & Pain Society (GMPS) management, which adopted the principle of 'appreciation by sharing knowledge', would once again maintain both its principle and tradition by creating an environment that could be followed not only in Turkey but also around the world. A privileged scientific committee was formed with the participation of new speakers who are

recognised and accepted in the international arena, as well as established speakers who want to meet again as a result of mutual desire and happiness.

The speaker presentations were prerecorded so all presentations would be accessible to participants who could not attend the event live; the presentations were made available through both the GMPS and IHS websites after the event.

Headache experts from all over the world contributed to the meeting with their valuable lectures and discussions

and the meeting was attended by several hundred delegates from all over the world. The meeting focused mainly on achieving an efficient and sustainable practice of pain management for the benefit of current and future generations. There were eight sessions: on migraine, chronic daily headache and medication overuse headache, minimalist approach in daily headache practice and interventional managements



of headaches. Four sessions were designed as case-based on differential diagnostic perspectives of migraine, diagnostic challenges of atypical headaches, differentiation of secondary causes of headache and cranio-facial pain. The relevant lectures and discussion sections were received with great interest by the participants. Diagnostic and management gaps in migraine as well as strategies to improve quality of life in migraine were also discussed. Furthermore, two additional update sessions presented on novel therapies in migraine and future perspectives of headache disorders. Real life data of preventive treatment of migraine was also discussed during the satellite symposium of the second day.

The meeting welcomed also members of the Turkic Linguistic Special Interest Group. Three case presentations from different countries were done and discussed during their special session on the second day. Interventional therapies in pain management were also discussed in detail. The programme included a special model-based workshop, with also the presence of an ultrasound device for interventional procedures, allowing the onsite participants to improve their knowledge and skills of these procedures in a practical way.

In addition to the scientific lectures, the meeting gave the opportunity to over 50 clinicians to present their work as oral or poster presentations. Awards were given to the best oral abstract and poster presentation with the winners posted on the GMPS website.

We would like to reiterate that all participants are valuable members of our growing family and repeat our motto: We are better together!



## 7th Iranian International Headache and 2nd joint Headache and Pain Congress, Tehran, October 2022

**47 national and 8 international headache experts presented the latest information on headache science and medicine**

**This headache congress was unquestionably able to play an important role in promoting the level of knowledge in the fields of headache and pain in Iran**



The 7th Iranian International Headache and 2nd Joint Headache and Pain Congress was successfully held from 20–22 October 2022 at the National Library of Iran in Tehran. The congress was organised by the Iranian Headache Association and supported by the Iranian Neurological Association under the auspices of IHS.

Participants included 270 neurologists, physical medicine and pain specialists from all over Iran. Forty-seven national speakers and eight international speakers, experts in the field of headache and pain, presented their latest information and experiences in these fields. Our distinguished virtual speakers were Alan Rapoport, Fayyaz Ahmed, Stefan Evers, Derya Uluduz, Aynur Özge, Hayrunnisa Bolay, Hossein Ansari, Nasrullah Muhammad and Faisal Mohammad Amin.

Various topics were discussed including updates in the treatment of primary headaches, various secondary headaches, cranial neuralgias, paediatric headache, neck pains and different treatment procedures. Two interesting workshops were held on the subject of botulinum toxin injection in migraine and other types of headaches, which were well received by the visitors.

An interesting characteristic of this congress was that the abstracts of lectures were available online on our website from the first day of the congress. Also, hard copies of the abstracts were freely available to all participants upon registration. Videos of lectures are also available on the website for registered attendees.

Several scientific programmes were held during the 3 days of the congress. The programmes were divided into the following categories: main lectures with presentations on new headache devices; peripheral interventional treatment in headaches; chronic headache disorders: systematic approach; sensorial dysfunctions in migraine: translational aspect; refractory headache management in children and adolescents; trigeminal neuralgia; guidelines for acute and preventive treatment of migraine; and headache secondary to autoimmune disorder.

Forty-seven Iranian speakers also presented lectures on a variety of headache and pain disorders. Among them were lectures on post-traumatic headache, and updates in the management of cluster headache and other TACs, acute migraine treatment, preventive migraine treatment, medication-overuse headache, diagnosis and medical treatment of idiopathic intracranial hypertension, clinical manifestations of headache in children, the role of cervical manipulation in the treatment of cervicogenic headache, trigeminal ganglion block indications and methods, and headache and dietary supplements.

Two workshops were offered: botulinum toxin injection for chronic migraine and techniques of botulinum toxin injection in other headache disorders. These workshops were expertly moderated by Mansoureh Togha and Nooshin Yamani.







Early feedback from our participants was impressive and positive commending the well-organised congress and highly interactive lectures.



This headache congress was unquestionably able to play an important role in promoting the level of knowledge in the fields of headache and pain in Iran. Indeed, the attendance of distinguished international headache specialists and esteemed Iranian neurologists and active participants from all over Iran will help the advancement of the headache field in Iran and the wider geographical region.

## IHS Visiting Professors Programme

The Visiting Professors Programme sends headache specialists as representatives of IHS to attend regional meetings, or teach at a headache centre, in countries that might need or want increased headache education and motivation and where, without financial support, attendance of an international specialist would not be possible

IHS will fund two headache specialists to teach at a national or regional meeting/congress. The engagement should comprise at least two lectures and one course/workshop by each specialist

## IHS Virtual Mentoring Programme

The IHS Juniors Group runs a virtual mentoring programme to promote global mentorship, collaborations, and support within our society

Mentors and mentees are paired based on either clinical, research, advocacy interests or career paths; the Juniors Group will do its best to match mentors and mentees applications together with a general consensus

## Deadline for applications: 1 June 2023

For more information on all IHS grants please visit the [IHS website](https://www.ihs-headache.org)





# Calendar of events

| Date                   | Event   | Country             | Contact/information  |
|------------------------|---|---------------------|----------------------|
| <b>2023</b>            |   |                     |                      |
| 15–18 June             | 65th Annual Scientific Meeting of the American Headache Society | Austin, TX, USA     | Visit website        |
| 1–4 July               | 9th Congress of the European Academy of Neurology               | Budapest, Hungary   | Visit website        |
| 7–9 September          | International Congress on Neuropathic Pain (NeuPSIG 2023)       | Lisbon, Portugal    | Visit website        |
| <b>14–17 September</b> | <b>21st International Headache Congress (IHC 2023)</b>          | <b>Seoul, Korea</b> | <b>Visit website</b> |
| 20–22 September        | 13th Congress of the European Pain Federation (EFIC)            | Budapest, Hungary   | Visit website        |
| 1–4 October            | International Symposium on Pediatric Pain 2023 (ISPP 2023)      | Montreal, Canada    | Visit website        |
| 15–19 October          | XXVI World Congress of Neurology                                | Halifax, Canada     | Visit website        |

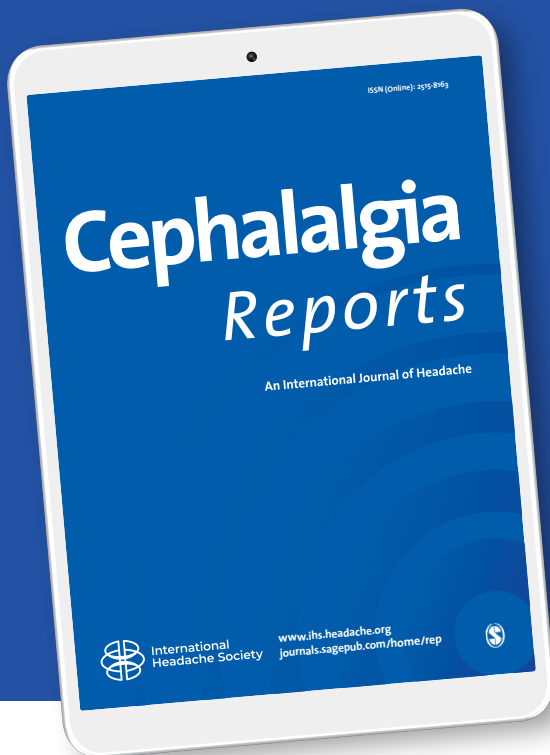
**Important note:** Events may be cancelled, postponed or go virtual due to the COVID-19 pandemic. Please check each event website for updated information.

If you would like IHS to include your meeting on the IHS website and newsletter please contact **Carol Taylor** with the details.



# Call for papers

# Cephalalgia Reports



International  
Headache Society

**Cephalalgia Reports** is a peer reviewed, open access publication published on behalf of the International Headache Society, the world's leading membership organization for those with a professional commitment to helping people affected by headache. The journal provides an international forum for research on all aspects of headache and facial pain including preclinical and clinical research, diagnosis and treatment referred to the head and face.

Published with the same internationally respected editorial team and rigorous peer review as Cephalalgia, Cephalalgia Reports operates under an open access publishing model, where an article processing charge (APC)\* enables the article to be free to access. Content published is available for anyone, anywhere to read, offering truly global dissemination. This includes those in developing countries and others who may not otherwise have access to the content, fulfilling one of the IHS's primary objectives to advance headache science, education, and management, and promote headache awareness worldwide.

\* *The article processing charge (APC) is payable when a manuscript is accepted after peer review, before it is published. The APC is subject to taxes where applicable*

The journal publishes international content encompassing a wide variety of article types on:

- Original research (basic science and articles with a clinical emphasis)
- Randomized Controlled Trials (RCTS) with negative outcomes
- Confirmatory case studies
- Feasibility and pilot trials which may stimulate therapeutic innovation
- Reports providing regional relevance which validate and add to existing studies
- Registered reports
- Qualitative and quantitative studies
- Scientifically rigorous pathophysiological and pharmacological studies
- Review articles (narrative reviews and systematic reviews)
- Educational pieces on technical reports and best practice
- Current topics and opinion pieces (such as clinical perspectives, emerging observations with translational potential not yet realized and brief communications)

All articles will be fully peer-reviewed, published rapidly online within days of acceptance and made available on an Open Access basis.



14 - 17  
September  
2023  
Seoul



# RISING SUN OVER HEADACHES

- First in-person International Headache Congress since 2019
- First International Headache Congress in Asia since 2005
- Outstanding scientific programme
- A wide range of opportunities to present your work
- Registration available for in-person or online attendance

## KEY DATES

Abstract submission  
deadline  
**10 May 2023**

Late breaking abstract  
submission opens  
**31 May 2023**

Late breaking abstract  
submissions closes  
**15 June 2023**

Early bird registration  
deadline  
**28 June 2023**

Towards a global access  
to headache science,  
technology & healing



[www.ihc2023.org](http://www.ihc2023.org)



International  
Headache Society

To advance headache science, education and management and promote headache awareness worldwide

## Join the IHS

Members receive discounted registration fees to IHC 2023

**Discounted APC fees for Cephalalgia accepted manuscripts**

Access the IHS website online learning centre, including the IHS Learning Institute – online CME-accredited course

**Membership fee: £85  
(US \$140; €105)**

To learn more about our different membership categories and related benefits please visit us at

**[www.ihs-headache.org](http://www.ihs-headache.org)**