

## Science and Research Committee

### 2021 Annual Report

#### 1. Current Committee Members

Hans-Christoph Diener (Co-Chair)  
Shuu-Jiun Wang (Co-Chair)  
Werner Becker  
Rami Burstein  
Andrew Charles  
Jan Hoffmann  
Tobias Kurth  
Arne May  
Frank Porreca  
Patricia Pozo Rosich  
Anan Srikiatkhachorn  
Gisela M Terwindt  
Arn van den Maagdenberg

#### 2. Two fellowship were awarded in 2020 – their fellowships will start in 2021 due to COVID-19

- Christina Deligianni, Greece. Research title: Opening of ATP-sensitive potassium channels induce cluster headache attacks: a randomized clinical trial. Institution: Danish Headache Center – mentor: Messoud Ashina
- Alejandro Labastida Ramirez, Mexico: Research title: Crosstalk between sex hormones and amylin signalling in the trigeminovascular system. Institution: King's College London, UK – mentor: Jan Hoffmann

#### 3. Three fellowships were awarded in 2021

- Erika Ivanna Araya, Argentina. Research title: Functional validation of microRNAs in migraine-related behaviour in rodent models of chronic migraine. Institution: Vall d'Hebron Institute of Research, Spain - mentor: Patricia Pozo Rosich
- Vimala Bharadwaj, India-USA. Research title: Translational studies toward understanding the involvement of hypothalamic kappa opioid receptors (KOR) in stress-induced migraine. Institution: Stanford University, USA - mentor: David Yeomans
- Cédric Gollion, France. Research title: REFORM (Registry for migraine-structural and functional magnetic resonance imaging before and after erenumab treatment. Institution: Danish Headache Center, Denmark - mentor: Faisal Amin

#### 4. One of the 2019 fellows completed her research, the other continues for a second year

- Inge Loonen, Netherlands. Research title: The link between migraine aura and cerebrovascular endothelial dysfunction. Institution: Harvard Medical School-Massachusetts General Hospital – mentor: Cenk Ayata  
Completed fellowship April 2021
- Connor Westgate, UK. Research title: The search for disease mechanisms and new drug targets in idiopathic intracranial hypertension. Institution: Danish Headache Center – mentor: Sajedah Eftekhari  
Continuing for 2<sup>nd</sup> year of fellowship

#### 4. Fellowship presentations 2021

Three fellowship recipients will present their research at the IHC 2021 in September 2021

- Anisa Dehghani, Iran. Research title: Parenchymal neuroinflammation and pain behaviour upon optogenetically-induced cortical spreading depolarisation in mice. Institution: Leiden University Medical Center – mentor: Arn van den Maagdenberg
- Inge Loonen, Netherlands. Research title: The link between migraine aura and cerebrovascular endothelial dysfunction. Institution: Harvard Medical School-Massachusetts General Hospital – mentor: Cenk Ayata
- Connor Westgate, UK. Research title: The search for disease mechanisms and new drug targets in idiopathic intracranial hypertension. Institution: Danish Headache Center – mentor: Sajedah Eftekhari

#### 5. IHS GRADE tables

IHS is reviewing the scientific evidence for acute and preventive treatments. The results will be compiled into GRADE tables with a grade for each drug, and will be published on the IHS website from where IHS Affiliate societies can use the information to create their own guidelines. The tables will be updated annually. The first tables will be for the monoclonal antibodies, and then work will begin on triptans, devices, and older therapies. The work is time-consuming – all databases need to be screened to identify all published papers and a formal process is required for each of the working group members to follow. It is hoped the migraine prevention tables will be completed in 6 months. The acute treatments will be less time-consuming as the group can use a meta-analysis recently published in JAMA (JAMA 2021;325(23):2357–2369).

#### 6. Future activities

- Continuation of GRADE table development
- Input into IHC 2023 scientific programme
- 2022 Fellowship application evaluations

Hans-Christoph Diener and Shuu-Jiun Wang  
Committee Co-Chairs  
July 2021