



## IHS Short-stay Scholarship reports 2023

Anastasiia Honchar, Ukraine



Institution: Leiden University Medical Center, Netherlands

Mentor: Gisela Terwindt

November 2023

My name is Anastasiia Honchar, and I am a neurologist from Kyiv, Ukraine, working at the Universal Clinic “Oberig.” Due to the ongoing conflict in Ukraine, many doctors have left the country, either serving on the frontline directly as soldiers or supporting the Army. This has led to a significant challenge in providing medical assistance and a growing problem in medical education.

I have encountered numerous patients with persistent headaches, where migraines worsen, and cases become increasingly challenging to resolve. Recognizing the need for additional knowledge to better manage my patients, I actively sought opportunities to enhance my expertise abroad.

Fortunately, I secured an IHS Short-Stay Scholarship grant, allowing me to visit one of Europe's premier Headache Centers – the Headache Clinic at Leiden University Medical Center in Leiden, Netherlands. Under the guidance of Professor Gisela Terwindt, the Head of the Headache Clinic, I spent an unforgettable month immersed in learning from the best in the field.

My initial day at the clinic commenced with an introduction to the team of Ph.D. researchers. Thanks to Drs. Irene de Boer, I received an overview of my schedule and a hospital tour. Leiden University Medical Center, a vast academic hospital offering tertiary-level care, treats patients with complex medical conditions. Despite the predominantly Dutch-speaking patients, many graciously conversed in English to facilitate my understanding and participation in discussions. For those who struggled with English, supervising doctors later translated, enabling fruitful discussions.

Throughout my stay, I engaged in a multitude of activities, including discussions on challenging clinical cases, educational sessions for students, learning data collection for clinical research, formulating research plans, and participating in the supervisory process. Working from 9 AM to 4:30 PM daily, time flew by without me realizing it.

Mondays, alongside Drs. Annelise E. Wilms, exposed me to patients with a rare vascular pathology – RVCL-S. I gleaned invaluable insights into this disease, which I had previously only encountered in literature due to its rarity, with only 30 families described, and three being treated at the LUMC.

Tuesdays, with Drs. Nadine Pelzer, involved observing patients with chronic migraines undergoing treatment with Botox or anti-CGRP monoclonal antibodies. I was pleasantly surprised by the

promising results of this treatment, even for severe chronic migraines. The accessibility and variety of medications in the Netherlands, spanning four years, contrasted sharply with Ukraine, where only one, fremanezumab, is available. Learning from local specialists about the long-term perspectives, side effects, and safety profiles was immensely beneficial.

Wednesdays comprised diverse activities, including observing Prof. Gisela Terwindt administer Botox injections for chronic migraines and extensive discussions with Mw. Jennifer Trouerbach-Kraan, a Headache nurse. Her insights into treating patients with medication overuse headaches and her work with anti-CGRP antibodies were invaluable, and I hope to implement these practices in my Ukrainian practice.

Thursdays involved attending a Journal club, discussing research topics, and participating in meetings with neurologists from the Emergency Room. Fridays, with Dr. Rolf Fronczek and Drs. Willemijn C. Naber, allowed me to witness the treatment of patients with chronic cluster headaches, a rarity in Ukraine. I gained comprehensive knowledge about preventive treatment, participated in a clinical trial on the efficacy of GON block in chronic cluster headache patients, and learned the procedure from Drs. Naber. The revelation that GON stimulation is used for cluster headaches in the Netherlands, unlike Ukraine, was unexpected.

An exhilarating experience included visiting the lab to observe cell experiments and witness the scientists at work. Attending Drs. Aster V.E. Harder's thesis defense and the subsequent social meeting were intriguing. I extend my gratitude to Drs. Britt van der Arend for her discussions on hormones and migraines and her WHAT! Study. Drs. Pauline J. van Tilborg introduced me to her Ciesta study on cluster headaches and hormones, and I eagerly anticipate the results. Drs. Nancy van Veelen provided insights into the functioning of the e-diary at the LUMC, enhancing my understanding of this useful instrument. A delightful team dinner at a charming restaurant added a wonderful social dimension to my stay.

As the culmination of my visit, we organized a webinar for Ukrainian colleagues on chronic migraine and cluster headaches, with over 600 participants having the opportunity to ask questions and receive answers on pertinent topics. Professor Terwindt and I hosted the event, providing me with an amazing experience. Collaboration and knowledge-sharing between the Ukrainian Neurological Society and European Colleagues are vital, and this webinar marked a significant step in that direction.

Beyond the academic experience, I explored the Netherlands, following Professor Terwindt's recommendation to visit the Rijksmuseum in Amsterdam. The artworks of the great Dutch artist Rembrandt left a lasting impression, particularly as he was born in Leiden. My cultural exploration extended to visiting Rembrandt's House, Micropia Museum in Amsterdam, and Naturalis Museum and Rijksmuseum in Leiden, enriching my trip with diverse experiences.

It's noteworthy that I traveled with my small son, adding a special dimension to my journey. We enjoyed a wonderful time in the marvelous city of Leiden.

I express my deep gratitude to everyone who contributed to making my stay comfortable and beneficial. Special thanks to Carol Taylor, who maintained constant communication, and Drs. Irene de Boer, who efficiently organized my stay. Many thanks to Professor Terwindt and the entire team for guiding me through their work and offering a warm welcome. You are warmly invited to Kyiv when the war is over to continue our friendship and partnership.

# NEUROLOGICA

NIEUWSBRIEF NEUROLOGIE 10-11-2023

## EVEN VOORSTELLEN

Hello, everyone! I'm Anastasiia Honchar, a neurologist from Kyiv, Ukraine. My primary area of interest is headache disorders, with a focus on Chronic Migraine. I've always dreamed of working at the LUMC Headache Clinic alongside Prof. Gisela Terwindt and her team. This year, my dream came true, thanks to the International Headache Society Short-Stay Fellowship Grant that I was fortunate to receive. I'm excited to be part of this community for the entire month of November, and I'm truly grateful for the warm welcome from the entire team. I look forward to exploring the world of headache disorders with all of you and working together to make meaningful progress in understanding and managing these conditions.



Hoi! Ik ben Marjolein N. Op 1 november ben ik gescrewd met mijn promotieonderzoek bij jullie op de afdeling. Tijdens mijn promotietijd zal ik onderzoek doen naar nieuwe technologieën en physiomarkers ter verbetering van de behandeling van de ziekte. Mijn bekendste onderwerp was van mij binnen het HagaZiekenhuis in augustus de master Thesis in Delft heb afgereed. Ik kom mijzelf de komende jaar als onderzoeker en meer naar Brain Stimulation en de

## HIX TIP

Heb je correspondentie van elders ontvangen of zelf foto's gemaakt die je wil hijsen in Multimedia in







 **IHS**  
Під егідою  
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## "Headache Disorders in Clinical Practice and Research"



**Moderators:**



**Prof. Gisela Terwindt**      **Dr. Anastasiia Honchar**

**Dr.Nadin Pelzner**  
Neurologist, PhD      **Dr.Willemijn WC Naber**  
PhD student neurology      **Dr.Irene de Boer**  
PhD student neurology      **Dr.Britt W.H. van der Arend**  
PhD student neurology

**28.11.2023**  
**19.00**





Igor Petrušić, Serbia



Host institution: Sapienza University of Rome Polo Pontino - ICOT, Italy

Mentor: Gianluca Coppola

October to November 2023

I would like to take this opportunity to sincerely thank the IHS for being awarded with the IHS short-stay scholarship programme 2023 and for being given the opportunity to spend 6 weeks at the Neuroradiology Unit of Sapienza University of Rome and the Neurophysiology Laboratory of Sapienza Polo Pontino in Latina (department of Medico-Surgical Sciences and Biotechnologies). This opportunity helped me to deepen my knowledge regarding the diagnosis and treatment, as well as state-of-the-art research methodologies, of migraine and other types of headache disorders.

I extend special appreciation to my mentor, Prof. Gianluca Coppola, who invited me to visit his laboratory and with whom I had a great exchange of ideas and professional plans which I hope will result in numerous research papers and fruitful research collaboration. Also, I must highlight that Prof. Coppola was always available for my scientific and professional questions allowing me to learn new techniques even outside his laboratory and he tried to make me feel at home and to share his vast knowledge and experience, which will significantly influence and inspire my future professional career. For sure, this was one of the best academic and social experiences during my career development.

I would like to mention two parts of my short fellowship program at Sapienza University of Rome, clinical and scientific. After meeting the clinical staff and daily work organization, I started with the daily service at the Neuroradiology Unit working with Prof. Francesca Caramia. Furthermore, during my stay, I attended the daily neuroimaging staff and the weekly case presentations, which were very informative. Prof. Francesca Caramia shared her experiences in neuroimaging protocols about different types of headaches and possible mimics in patients who suffer from migraine or secondary headaches. We also discussed the newest approach to studying migraine patients and those who suffer from trigeminal neuralgia, which resulted with neuroimaging database preparation and preliminary analysis of data. We are continuing our collaboration and we have started prospective studies, which will result in new findings of trigeminal neuralgia pathophysiology using functional MRI. Outside of the Neuroradiology Unit, thanks to Prof. Coppola, I had the opportunity to fulfill the theoretical knowledge and gain practical experience in headache treatment procedures, such as Botulinum toxin injections; and to see the clinical approach and performance of specialized consultation in headaches regarding the newest treatments such as the anti-CGRP monoclonal antibodies. The most important part of my scientific collaboration during my stay at the Sapienza University of Rome was comprehensive courses on analyzing both structural and functional neuroimaging data using several softwares for pre- and post-processing MRI data. Thanks to engineer Antonio Di Renzo, who was kind to visit Rome once per week and organize those courses, I was able to analyze structural and functional MRI data from my neuroimaging database, and we are currently

engaged in manuscript preparation pertaining to the pathophysiology of migraine with aura using diverse neuroimaging techniques.

Finally, I have to emphasize once again how deeply I am grateful to IHS for the awarded grant and the privilege to do a short fellowship abroad; I would like to specially thank to Carol Taylor for her kindness and support at every step of my stay in Rome. I would strongly recommend future IHS applicants who are interested in headache research to take the opportunity and visit well-recognized headache centers which will certainly advance their future careers. I would end with the phrase: "All roads lead to Rome", but I would add "and there you can find friends and colleagues who will help in tackling a better understanding of migraine subtypes and their neuroradiological and electrophysiological biomarkers".

Thanks to this short fellowship, I received a high level of expertise in analyzing neuroimaging data, and therefore, when I return to my home country, I will be able to advance my laboratory and contribute to state-of-the-art of headache research. This unique experience will, for sure, positively impact my future research projects and credibility for applying for international scientific grants. Moreover, thanks to Prof. Coppola, I will establish a new network of international collaboration between various laboratories and institutions. Also, given that next year I will finish subspecialization in Pain medicine, this short fellowship will enhance my knowledge and allow me to promote and implement new practices into my work with patients who suffer from headaches. In addition, I will try to further develop the headache research and professional field in my country and share my entire experience in all practical ways.





Aisha Zhantleuova, Kazakhstan



Institution: King's College London, UK

Mentor: Anna Andreou

October to November 2023

I had the privilege of participating in the King's College London Short-stay IHS Scholarship Programme at The Headache Research Lab, under the guidance of Dr. Anna Andreou, PhD. This experience took place from October 1, 2023, to November 11, 2023, and provided me with valuable insights into headache research methodologies and laboratory practices.

#### Key Accomplishments

- Animal Research Observation - while lacking the necessary license, I had the opportunity to observe the lab's animal research activities, gaining insights into ethical practices and methodologies
- Laboratory Techniques Mastery - I acquired hands-on experience in various laboratory techniques, including spinal cord freezing, working with a cryostat, conducting c-Fos immunohistochemistry, and using fluorescence staining
- Software Acquisition - during the internship, I acquired licensed software, Prism GraphPad 10.0.3, and SPSS Statistics 29.0, enhancing my capacity for dissertation data analysis on my personal computer
- Statistical Data Processing - I received expert recommendations on the statistical processing of dissertation data and their visual presentation during a comprehensive meeting with lab members
- Literature Review Guidance - Dr. Andreou and the lab team provided invaluable guidance on navigating scientific literature related to challenging topics within my research focus
- Educational Engagements - I attended lectures by representatives from diverse institutions every Wednesday, broadening my understanding of current trends and advancements in headache research.

I express my sincere gratitude to Dr. Anna Andreou, the Director of Headache Research at The Headache Centre, Guy's and St. Thomas' NHS Foundation Trust, and Senior Lecturer, PI of Headache Research Lab at Wolfson Centre for Age-Related Diseases, King's College London. I also extend my thanks to lab members Joseph Lloyd and Ana David Pereira for their support and mentorship throughout the internship.

This internship has been an invaluable experience, allowing me to develop essential skills, gain exposure to cutting-edge research, and form connections with leaders in the field. I am thankful for the support of the International Headache Society, whose scholarship made this opportunity possible.

