

# Annual Report 2022



Prepared for:

Eidgenössische Stiftungsaufsicht May 2023

# At a Glance



Alongside the renowned face-to-face courses and events in conjunction with the top neuro congresses worldwide, 2022 showcased the Global Neuro Foundation's ability to excel at the forefront of medical transformation. Celebrating its 5-year anniversary, the Foundation, at the cusp of innovation, advanced educational opportunities on multiple fronts. It commenced the year with the second part of a webinar series dedicated to educating nurses confronted with neuro patients and ended the year with two unique and revolutionary courses. The first compiled the latest research and development in Neurosonography in order to impart new techniques in intracranial assessments and monitoring of the brain. The second, and final course of the year, was online. Yet with a lab-in-a-box and virtual- and augmented reality, it allowed participants to experience practical exercises. It contained all the aspects of a face-to-face course, like theory, case discussions, Q&A sessions as well as physical surgical training, yet all from the comfort of the participant's own home.

# Table of Contents

- **04** Who is Global Neuro?
- Medical Innovation
  Part I
- 08 In-person Courses
- Medical Innovation
  Part II
- 12 Pre-congress Courses
- **14** Educational Innovation
- 16 Special Collaborations
- 17 Online Courses
- 18 Global Reach
- 22 Financial Overview
- 23 Current Board
- 24 Partners and Sponsors



# Who is global neuro?

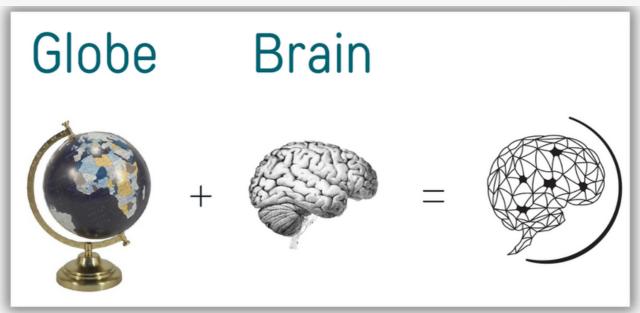
PAUL MANSON FOUNDER GLOBAL NEURO JOHNS HOPKINS UNIVERSITY, USA

In 2017 AO Neuro became the Global Neuro Foundation (Global Neuro) in order to pursue the advantages of being a global independent medically guided non-profit Foundation based in Davos, Switzerland. Meanwhile, Global Neuro is a successful continuing medical education provider – accredited in countries where applicable – a knowledge leader in Neurotrauma education and provider of Complex Cranial Access and Neurovascular education, as well as education for nurses, prehospital care, and emergency care.

Global Neuro is committed to provide education throughout the world and to interfacing with other societies, organizations, institutions, industry, whatever group of people that has the same vested interest in improving

patient outcomes. Because collaboration is required to make the greatest impact. The nurturing of a growing network, sourced from experts in the field, enhancing awareness of Global Neuro's offering and adding other funding streams, will further allow Global Neuro to keep serving neurosurgeons worldwide.

On behalf of the entire Foundation
Board and the Administrative Office in
Davos, I trust that this Annual Report
will provide you with valuable
information and a reason to connect
with us. To those who already work with
us: in warm appreciation of all your work,
thank you for your dedication to the
mission of Global Neuro in 2022 and we
look forward to continuing our
collaboration in 2023 and beyond.















# Medical Innovation

#### Part I

1st Annual Summit on Neurosonography New York, USA, 3. December 2022

Global Neuro strives to be at the forefront of innovation in neuro care as demonstrated by this first summit on Neurosonography. The leaders in this field congregated to teach ultrasonography fundamentals from different disciplines using multiple methods, which included practical exercises on real patients.

Both theoretical basis and practical principles allowed for interactive learning of innovative intracranial sonography in assessments and follow-ups of brain pathologies, such as neurosurgical oncology, hydrocephalus, and cerebrovascular pathologies. This opportunity was so attractive that the in-person course was oversold and after multiple requests from around the world, we offered an online participation opportunity as well.













# In-person Courses

Offering specialized equipment, immediate feedback and guidance, and networking within the Global Neuro community

NAME	LOCATION	DATE
Taiwan Neurosurgery Society's R2 Basic Education Training Course	TAIPEI, TAIWAN	15 JANUARY

Bringing together specialists in general neurosurgery and Neurotrauma, Global Neuro was invited to teach a basic education training course at the Taiwan Neurosurgery Society's R2 Meeting. It was a hybrid course with lectures on the first day given by international faculty and workshop sessions on the second day. More than 90% of the participants thought the event was very effective and 100% of the participants would recommend this event to their colleagues.

### Global Neuro Course—Complex Cranial Access

ERLANGEN, GERMANY

27 APRIL

This Global Neuro Complex Cranial Access course brought together both Neuro and ENT specialists to be taught by a very enthusiastic international faculty. Not only did participants get to practice their techniques on a specimen in a wet lab, but they were also treated to innovative lectures by Steve Lewis from Australia, utilizing 3D presentations to teach anatomy. He has discovered that students learn a lot more when seeing anatomy in three dimensions, which in turn compels the participants to think more about anatomy when planning their surgeries in the future.



#### Global Neuro Course— Neurotrauma

BRESCIA, ITALY

02 JULY

A Neurotrauma course with an interdisciplinary nature. Along with the already comprehensive format of the course, here there was a specific focus on Polytrauma. The course was packed with valuable practical exercises on bone models in decompressive craniectomy and cranial closure/reconstruction, hinge craniotomy, ultrasound of optic nerve sheath and transcranial doppler, EVD and ICP bolt placement, as well as neuromonitoring. The group discussions were well received, informative, and constructive. Most importantly, the participants stated this course had a high impact on them creating a lot of desired changes in their practice.

#### Global Neuro Course— Neurotrauma

SEOUL, KOREA

11 NOVEMBER

The highly anticipated first in-person event in Asia since the COVID pandemic resulted in an oversold course. Not only did this course have superior International Faculty, but also excellent National Faculty, who spanned across regions/provinces, gender, and generations, all strengthening and diversifying the neurosurgery community in South Korea. The faculty as well as the participants all thoroughly enjoyed the face-to-face interaction and in-depth discussions. In fact, 100% of the participants later stated that they would recommend this course to a colleague.

# Medical Innovation

#### Part II

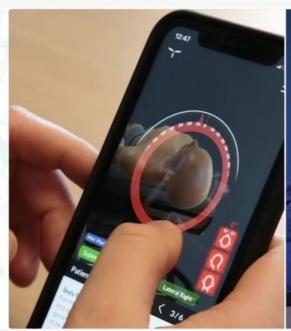
## Online Diploma in Basic Cranial Approaches

Over the last two years, Global Neuro has been developing a high-tech educational cadaver-free Online Diploma in Basic Cranial Approaches. It combined excellent faculty lectures and cutting-edge technology, uniquely bringing practical exercises into participants' homes.

The course was a natural extension of the standard Global Neuro cranial approaches curriculum, focusing on improving anatomical knowledge, surgical skills, and procedural ability. We partnered with UpSurgeOn, a third-party firm specializing in medical simulation-based technologies. The result was a sequence of theoretical lectures, virtual videos, and physical tools to train participants in mental and manual skills.

The course developed anatomical knowledge and tool skills to showcase and evaluate five different cranial approaches. Participants learned from lectures, app-based 3D videos, and physical models to combine theory and practice.

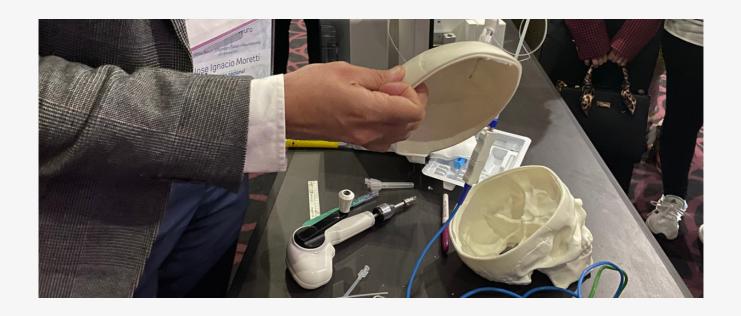
Participants spanned three continents and achieved very positive outcomes; 85% of participants completed the course and passed the exams earning CME accreditation. Participant performance was significantly higher than average online education performance statistics. The Evaluations also proved positive, with 88% of participants stating that they learned something new and planned to use it in their practice.











# Pre-congress Courses

#### Imparting a hands-on training experience

NAME	LOCATION	DATE
Global Neuro Course—Neurotrauma at the XVII World Congress of Neurosurgery WFNS 2022	BOGOTA, COLOMBIA	13 MARCH

At the World Federation of Neurosurgical Societies (WFNS), Global Neuro led a very successful event on Neurotrauma that strengthened and solidified its presence around the world. The event also afforded the opportunity for Global Neuro to improve patient care on a large scale by distributing its multi-lingual SIBICC posters about recommendations for modern and comprehensive severe TBI management, promoting best practices in the management of ICP monitoring with and without brain oxygen. The course received great evaluation results, with a 92% impact in daily practice and a 97% satisfaction rate.

Global Neuro Course-Neurotrauma

BERLIN, GERMANY

17 JULY

The International Neurotrauma Symposium (INTS) welcomed Global Neuro to host a pre-event course. Top-notch faculty from around the world gave lectures, showcased interesting cases, and taught practical exercises in both cranial and spine trauma (Neurotrauma). The thought-provoking discussions were enriched by a very experienced mixed audience of specialized professionals, from Neurosurgeons, Spine Surgeons, Neurologists, and Neurocritical Care doctors, to Researchers and more. This multi-sponsored course significantly heightened the symposium with its Global Neuro practical touch.



#### GLOBAL NEURO SIMPOSIO Y TALLER— NEUROTRAUMA EN EL NCS SANTIAGO 2022

SANTIAGO, CHILE

08 SEPTEMBER

This year, Global Neuro made its first appearance with an event at the Neurocritical Care Society, LABIC, and the Chilean Society of Intensive Medicine (SOCHIMI) congress. The event brought together many Neurointensivists, mostly from Chile, Argentina, and Brazil, and recorded the highest participation rate of any session at the congress. Not only did the participants leave raving reviews, showing interest in future Global Neuro educational events, but also the Board of the Neurocritical Society immediately requested further collaboration with Global Neuro in 2024.

#### GLOBAL NEURO COURSE— NEUROTRAUMA

CAPE TOWN, SOUTH AFRICA 13-14 NOVEMEBR

In November 2022, Global Neuro completed its first Neurotrauma course with wet lab in Cape Town, South Africa as part of the International Symposium on Intracranial Pressure and Brain Monitoring (ICP Conference). The renowned International and National Faculty guided participants through lectures and practical exercises in an introduction to drills, skull anatomy, and landmarks, as well as Cranioplasty techniques on cadaver specimens. To increase the breadth of Global Neuros teachings, the South Africa Association of Neurosurgery awarded scholarships to Neurosurgery Residents of Cape Town University. For most of these students, it was their first time attending a course with cadaver-lab exercises. One stated, "I have improved my interpretation of neuromonitoring in guiding the management of patients who have suffered TBI due to disturbed autoregulation."

13

# Educational Innovation

#### GLOBAL NEURO - NEUROTRAUMA EMERGENCY COURSE

Founded: Philips Foundation

Traumatic Brain Injury (TBI) occurs when a sudden trauma-related injury causes damage to the brain. It is a major health and economic problem and the principal cause of disability worldwide. Low - and middle-income countries (LMICs) experience nearly three times more cases and up to 6 times more mortality from TBI than high-income countries (HICs), yet, in LMICs there is a lack of proper neurotrauma emergency care training & education. Global Neuro Foundation and the Philips Foundation combined forces to create educational programs to deliver the appropriate knowledge and practical skills to prehospital teams and medical professionals commencing in Colombia.

Aspiring medical professionals from around the world travel to Colombia to gain experience in neurotrauma due to the significantly higher proportion of cases, mostly from motorbike accidents and violence. The more than 40 participants of these courses were incredibly grateful for the knowledge.

and practical skills that they learned. Before this course, they could not effectively and efficiently treat patients with neurotrauma. Now they are able to make the correct decisions at a rapid pace, utilize new technology, and save lives.

Moreover, there are 10 new medical professionals from around Colombia that are able to teach the basic and advanced courses. These teachers and the courses are especially important in LMICs where proper education is lacking and where in rural areas, ERs are non-existent, TBIs are a daily occurrence, and lives depend on prehospital care workers.

Global Neuro Foundation can now offer a comprehensive neurotrauma prehospital and emergency care curriculum and training model for emergency physicians, paramedics, intensivists, and trauma surgeons, including neurosurgeons. Participants are trained in a standardized fashion to perform initial prehospital and Emergency Care



# Educational Innovation

continued...



for neurotrauma patients in scenarios of different resources, like on-site, during prehospital transfers, and in an emergency room. The course combines medical skills with portable diagnosis and monitoring technology to improve decision-making skills relative to urgent neurotrauma care with different levels of resource availability. The educational handbooks for the basic and advanced courses will be available in Spanish, English, and Portuguese.

There is a vast learning gap in what medical professionals need to do to save lives from TBIs and what they are able to competently and confidently do to save lives. This is more evident in LMICs and first responders. Additionally, due to the lack of availability for advanced neuromonitoring systems in prehospital and emergency settings in LMIC's, portable imaging, treatment, and monitoring devices like ultrasound, portable and telemedicine monitors, and

transport ventilators can be more impactful than in developed countries, especially in emergency rooms and prehospital settings.

All the participants of the Global Neuro courses, regardless of their level and ability, were extremely thankful for the knowledge and skills gained. They concluded feeling more confident in their abilities and more prepared to help neurotrauma patients.

Following the positive feedback and success of the course in Colombia, Global Neuro Foundation plans to offer this opportunity to other cities in Latin America throughout the year and end with courses in other LMIC's regions, such as South Africa. The ultimate goal is to create a sustainable model that allows Global Neuro to impart this knowledge and skill set across the globe, concentrating on all LMICs and war-inflicted areas.



# Special Collaborations

Working together to achieve a common goal by pooling talent

AO Foundation

AO CMF / Global Neuro Event

— "Craniofacial on the Couch"

Tips and Tricks from the

Masters

When Global Neuro and the AO Foundation join for a course, the result is a multidisciplinary event. In collaboration with AOCMF, a unique format was created for a pre-course to enrich the British Association of Oral and Maxillofacial Surgeons (BAOMS) conference. Learning tips and tricks from the Masters resulted in high appraisal from the participants, who said the content was between "very" and "extremely" useful.

Johns Hopkins University

Seventh Annual Selected Topics in Neuroplastic & Reconstructive Surgery

Johns Hopkins University School of Medicine and Global Neuro jointly provided this accredited course on Head/Spine Trauma. Cranioplasty, and Implantable Neurotechnologies with a Cadaver Lab. Additionally, the course was also in collaboration with the University of Miami, the Society of Neuroplastic Surgery, and the Society for Laser Interstitial Thermal Therapy which resulted in a unique compilation of cutting-edge topics. The extremely renowned faculty, as the principal experts in their particular fields, were able to impart a plethora of knowledge in the small group, team-based, and multidisciplinary program. With a 1:2 Student: Faculty ratio and a Nobel Prize winner presentation, it is not surprising the participants stated that all the learning objectives were 100% met.



# Online Courses

# Bridging the gap between global location and the level of education accessible

NAME	START DATE	END DATE
Global Neuro Webinar—Nursing care of External Ventricular Drains (EVD):	15 FEBRUARY	15 FEBRUARY
Controversies and best practices		

In order to truly improve the quality of neuro care worldwide, Global Neuro expanded its education to include nurses. However, though originally conceived for nurses, who joined from 5 continents, the course attracted physicians, neurosurgeons, intensivists, & physician assistants as well and logged the second-largest attendance rate in the history of Global Neuro online activities. This highly interactive webinar produced more than fulfilled learning objectives, the results of the polls will also be taken into consideration for a published article on best practices in EVD management. The course ended with very positive evaluations displaying an impact of 98% in daily practice and an equally high satisfaction rate.

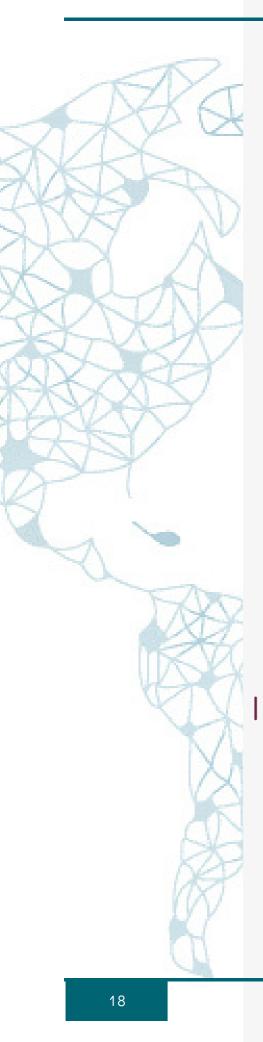
The Chinese Neurosurgical Society, WFNS Neurotrauma Committee and Global Neuro

23 DECEMBER

**01 MAY** 

Lecture Series-Neurotrauma

The online course in TBI management was a comprehensive and structured learning program with a combination of more than 200 minutes of lectures, expert-recommended readings, and module exams. The 27 renowned faculty members came from the United States, United Kingdom, Germany, Belgium, Greece, Italy, Sweden, Netherlands, Nigeria, China, Pakistan, South Africa, and Colombia. More than 60% of registered participants completed the entire program, which is an outstanding participation rate for an online program, and over 80% of the participants found this program useful to their clinical practice.



# Global Reach since

Educating surgeons around the



# 

world





# 2022 Board Members

The renowned leaders of this organization



PAUL MANSON PRESIDENT



ANDRÉS RUBIANO
VICE PRESIDENT



MICHAEL BUCHFELDER



SHELLY TIMMONS



ANDREAS DEMETRIADES



PRATTIPATI LAXMINARAIN



GREGORY HAWRYLUK



TOBIAS HÜTTL

# Principal Partners

Without your help, global neuro could not increase access to neurotrauma care across the globe.

