



Global Neuro—Comprehensive Online Diploma in Neurotrauma Care

9 September 2026-17 February 2027

Course overview

The diploma program is a combination of lectures, tutorials and case studies, to increase participants' basic understanding of evidence-based practice in neurotrauma. The video lectures will be delivered weekly and will be available in a repository for remote access during the 20 - 23 weeks duration of the program. A small series of Web-based discussions will be set up in specific time slots in order to allow students from different time zones to participate in live sessions. Discussions will be available in the repository to be accessed after the real time sessions.

The program is organized in 10 modules (each one with typically 6 lectures, totaling 61 lectures). These will be evaluated with a multiple-choice test with a target score of 70%. At the end of the 10 modules a final exam evaluating the content of the whole program will be performed online.

The final grade will be a sum of the module's exams (50%) and the final exam (50%). The minimum required score to obtain the certification will be 7.0 / 10 (70%)

Agenda

Module 1 Neurotrauma Epidemiology and Trauma Care Systems

Date(s): 9 Sep to 22 Sep, 2026

Faculty: Irfanullah Shah (Dow University of Health Sciences / Pakistan), Ernest Barthelemy (Downstate Health Science University / USA), Andres Rubiano (University of El Bosque / Colombia), Jeffrey Rosenfeld (Monash University / Australia), Kee B Park (Harvard Medical School / USA), Gail Rousseau (George Washington University / USA)

- C1: Epidemiology of TBI in High Income Settings
- C2: Epidemiology of TBI in Low- and Middle-Income Settings
- C3: Trauma Systems and Organized Neurotrauma Care
- C4: Neurotrauma Care Systems in Disasters and in Rural Settings

- C5: Cranial Neurotrauma in the Context of Global Neurosurgery
- C6: Global Neurotrauma and Prevention
- Recommended Readings
- Module 1 Examination (On-Line Quiz)

Module 2 Insights of Neurotrauma Pathophysiology

Date(s): 23 Sep to 6 Oct, 2026

Faculty: Niklas Marklund (University of Lund / Sweden), Mathew Joseph (CMC Vellore / India), Anthony Figaji (Cape Town University / South Africa), Andres Rubiano (University of El Bosque / Colombia), Gregory Hawryluk (Cleveland Clinic / USA), Michael Fehlings (University of Toronto / Canada)

- C1: Neuroproteomics and Biomarkers in Neurotrauma
- C2: Patterns of Primary Injury in Neurotrauma
- C3: Spectrum of Secondary Injuries in Cranial Neurotrauma
- C4: Brain Edema Concepts in Traumatic Brain Injury
- C5: Intracranial Pressure and Cranial Compartment Syndrome
- C6: Spinal Neurotrauma: Current Concepts in Pathophysiology
- Recommended Readings
- Module 2 Examination (On-Line Quiz)

Module 3 Initial Assessment and Management of the Neurotrauma Patients

Date(s): 7 Oct to 20 Oct, 2026

Faculty: Deepak Gupta (AIIMS New Delhi/ India), Mark Wilson (Imperial College / UK), Claudius Thomé (Innsbruck Medical University / Austria), Shaheem De Vries (University of Capetown / South Africa), Shelly Timmons (Indiana University / USA), Ryan Kitagawa (University of Texas Health Sciences Center / USA)

- C1: Glasgow Coma Scale, Pupillary Index and Outcome
- C2: Prehospital Care of TBI Patients in Advanced Trauma Systems
- C3: Prehospital Care of SCI Patients in Advanced Trauma Systems
- C4: Prehospital Care of Neurotrauma in Low Resources Areas
- C5: Emergency Care of TBI in Polytrauma Patients
- C6: Initial Fluid Resuscitation in Neurotrauma Patients
- Recommended Readings
- Module 3 Examination (On-Line Quiz)

Module 4: Neurotrauma Diagnostic Systems and Brain Monitoring Devices I

Date(s): 21 Oct to 3 Nov, 2026

Faculty: Geoffrey Manley (University of San Francisco / USA), Lubdha M Shah (University of Utah/ USA), Robson Amorim (Federal University of Amazonas / Brazil), Jamie Ullman (North shore University Hospital /USA), Chiara Robba (Policlinico San Martini / Switzerland), Jordan Komisarow (University of Durham / USA)

- C1: Basic and Advanced Imaging in Cranial Neurotrauma
- C2: Basic and Advanced Imaging in Spinal Trauma
- C3: Invasive and Non-Invasive ICP Monitoring Systems
- C4: PTIO2 Monitoring Systems
- C5: Transcranial Doppler in Traumatic Brain Injury
- C6: Near Infrared Spectroscopy Systems in TBI
- Recommended Readings
- Module 4 Examination (On-Line Quiz)

Module 5: Neurotrauma Diagnostic Systems and Brain Monitoring Devices II

Date(s): 4 Oct to 17 Nov, 2026

Faculty: Eve Tsai (The Ottawa Hospital / Canada), Uzma Samadani (University of Minnesota / USA), Marek Czosnyka (Cambridge University / UK), Lori Shutter (University of Pittsburgh/ USA), Luzius Steiner (University of Basel / Switzerland), Elham Rostami (University of Uppsala / Sweden)

- C1: Ventricular Catheters and External Drainage Systems in TBI
- C2: Pupillometry for Traumatic Brain Injury
- C3: Multiparametric Monitoring Systems in TBI
- C4: Brain Temperature Monitoring in TBI
- C5: Jugular Venous Saturation in TBI
- C6: Microdialysis in Traumatic Brain Injury
- Recommended Readings
- Module 5 Examination (On-Line Quiz)

Module 6 Surgical Management of Neurotrauma Patients I

Date(s): 18 Nov to 1 Dec, 2026

Faculty: Wellingson Paiva (University of Sao Paulo/ Brazil), Se-Hyuk Kim (Ajou University / South Korea), Eiichi Suehiro (International University of Health and Welfare / Japan)
Luigi Berra (University Hospital Policlinico Umberto I -Sapienza University of Rome / Italy)
Alfonso Lagares (Hospital 12 de Octubre / Spain), Jose Fernandez Alén (Hospital Universitario de la Princesa / Spain)

- C1: Surgical Management of Acute Subdural Hematomas
- C2: Surgical Management of Epidural Hematomas
- C3: Surgical Management of Intracerebral Hemorrhage
- C4: Surgical Management of Brain Edema
- C5: Surgical Management of Chronic Subdural Hematomas
- C6: Surgical Management of Skull Depressed Fractures and Frontal Sinus Fractures
- Recommended Readings
- Module 6 Examination (On-Line Quiz)

Module 7 Surgical Management of Neurotrauma Patients II

Date(s): 2 Dec to 15 Dec, 2026

Faculty: Michael Fehlings (University of Toronto / Canada), Andreas Demetriades (Edinburgh University / United Kingdom) / Himansu Shekhar (Ninewells Hospital & Medical School / United Kingdom), Nader Hejrati (Kantonsspital St. Gallen / Switzerland), Ann Parr (University of Minnesota / USA)
David Le Feuvre (University of Cape Town / South Africa), Oscar Alves (Hospital Lusiadas / Portugal), Randy Bell (Avera McKennan Hospital and University Health Center / USA)

- C1: Timing of Surgical Intervention for Spinal Cord Injury
- C2: Surgical Management of Cervical Spine Injuries
- C3: Surgical Management of Thoracolumbar Injuries
- C4: Surgical Management of Complex Spinal Trauma
- C5: Surgical Management of Traumatic Cranio-Facial Arterial Injuries
- C6: Surgical Management of Craniovertebral Junction Trauma
- C7: Surgical Management of Penetrating Brain Trauma
- Recommended Readings
- Module 7 Examination (On-Line Quiz)

Module 8 Critical Care Management of Neurotrauma Patients

Date(s): 16 Dec to 29 Dec, 2026

Faculty: Alex Valadka (Virginia Commonwealth University / USA), Jean-Claude Hemphill (University of California / USA), Niklas Marklund (University of Lund / Sweden), Francis Bernard (Université de Montréal / Canada), Celeste Dias (Centro Hospitalar São João / Portugal), John Hurlbert (University of Arizona / USA)

- C1: Critical Care Management of High ICP in TBI
- C2: Critical Care Management of Brain Hypoxia in TBI
- C3: The Lund Therapy in TBI
- C4: Critical Care Management of Cerebral Perfusion Pressure
- C5: Critical Care Management of TBI Patients with Lung Injuries
- C6: Critical Care Management of Spinal Cord Injuries
- Recommended Readings
- Module 8 Examination (On-Line Quiz)

Module 9 Integral Management of Special Neurotrauma Populations

Date(s): 30 Dec, 2026 to 12 Jan, 2027

Faculty: Lori Shutter (University of Pittsburgh / USA), András Büki (University of Pecs / Hungary), David Adelson (Rockefeller Neuroscience Institute at WVU Medicine / USA), Aurelia Peraud (University of Ulm / Germany), Jong Hyun Kim (Korea University Hospital of Guro / South Korea), Michael Buchfelder (University of Erlangen / Germany)

- C1: Management of Neurotrauma Patients with Coagulopathy
- C2: Management of Elderly Patients with TBI
- C3: Surgical Management of Pediatric Patients with TBI
- C4: Critical Care Management of Pediatric Patients with TBI
- C5: Management of Patients with Posttraumatic Hydrocephalus
- C6: Management of Patients with Sodium Disorders after TBI
- Recommended Readings
- Module 9 Examination (On-Line Quiz)

Module 10 Updates, Complex Cases and Complications in Neurotrauma Patients

Date(s): 13 Jan to 26 Jan, 2027

Faculty: Angelo Pompucci (Santa Maria Goretti Hospital / Italy), Guoyi Gao (Beijing Tiantan Hospital / China), Wellingson Paiva (University of Sao Paulo/ Brazil), Brad Dengler (Walter Reed Military Medical Center/ USA), Antony Belli (University of Birmingham / United Kingdom), Andrii Sirko (Mechnikov Dnipropetrovsk Regional Clinical Hospital / Ukraine)

- C1: Management of Complex Skull Base Trauma with CSF Leaks.
- C2: Management of Complex Cases after Decompressive Craniectomy
- C3: Management of Complex Post Traumatic Epilepsy
- C4: Updates in TBI Classification
- C5: Management of Patients with Sport Related Concussions
- C6: Management of Complicated Scalp Injuries after TBI
- Recommended Readings
- Module 10 Examination (On-Line Quiz)

Final Exams: Two times 25 Questions (Coordinators: A. Rubiano – G. Hawryluk)

Date(s): 27 Jan to 17 Feb, 2027

To support the content provided, each module will include a forum for participants to ask module relevant questions from faculty

A further small series of Q&A sessions will be offered to participants: The topics for the small series of Q&A sessions are flexible and may change, dependent on the progress of the course participants during the program.