

Declared of Scientific Interest by:





THE COURSE

There is a growing interest in intraoperative images in the neurosurgery field. In Neuro-Oncology this interest becomes a necessity to evaluate the grade of resection and the possibility of residual tumor.

In this aspect, neuronavigated ultrasound is an excellent tool because having a very high-quality image, quick acquisition (you do not need to stop the surgery to use it), cost-effectiveness, portability, and reproducibility (as many times as you need).

However, sometimes neurosurgeons do not use ultrasound because there is a learning curve to the spatial orientation and interpretation of images. The reason for this course, eminently practical, is teaching the necessary skills to use intraoperative ultrasound in Neuro-Oncology.

The main difference between this course and other ones related to ultrasound is that not only it provides the participants with the theoretical knowledge, but specially highlights the practical side of it.

This is achieved thanks to the expert faculty invited for a maximum number of 20 participants. Moreover, the attendants will have at their disposal a few ultrasound equipments and practical phantoms which will allow them to train image orientation and interpretation.

OBJECTIVES

- Enhance the understanding of the basic principles of ultrasound.
- Apply these principles to the reduction of common artifacts and the improvement of high-quality diagnostic ultrasound images.
- Orientation in neuronavigated ultrasound.
- Differentiation between the most common subtypes of brain tumors.
- Coregistration of images (MRI-US...), tractography and segmentation in neuronavigated ultrasound.
- Evaluation of residual tumor in the operating room.
- Application of ultrasound contrast and elastography in brain tumors.
- Guided puncture with neuronavigated ultrasound (biopsies, ventricular punctures (slid ventricles),...).

GUEST SPEAKERS



Geirmund Unsgård Neurosurgeon Norwegian University of Science and Technology (NTNU) Trondheim, Norway



Francesco DiMeco Neurosurgeon Fondazione I.R.C.C.S. Istituto Neurologico Carlo Besta Milan, Italy



Aliasgar Moiyadi Neurosurgeon Tata Memorial Centre Bombai, India



Llewellyn Padayachy
Neurosurgeon
University of Pretoria Steve Biko
Academic Hospital
Pretoria, South Africa



Francesco Prada Neurosurgeon Fondazione I.R.C.C.S. Istituto Neurologico Carlo Besta Milan, Italy



Alessandro Perin Neurosurgeon Fondazione I.R.C.C.S. Istituto Neurologico Carlo Besta Milan, Italy



Juan Ángel Aibar Durán Neurosurgeon H.U. Santa Creu i Sant Pau Barcelona, Spain



Brian Nahed Neurosurgeon Massachusetts General Hospital Harvard Medical School Boston, USA



Berta Freixer Neurosurgeon H.U. Santa Creu i Sant Pau Barcelona, Spain

COURSE DIRECTOR



Cristian de Quintana Neurosurgeon H.U. Santa Creu i Sant Pau Barcelona, Spain

VENUE

Sala Polivalente H. U. Santa Creu i Sant Pau Carrer de Sant Quintí 89 08041 Barcelona, Spain

PROGRAM

	18 th April, 2024
16:00 - 16:30	Introduction of the course Dr. De Quintana
16:30 - 17:00	Mastering IOUS - Skill required - practical guidelines Dr. Moiyadi
17:00 - 17:30	Dultrasound in resection of brain tumors (image interpretations and anatomical landmarks) Dr. DiMeco
17:30 - 18:00	Neuronavigated ultrasound in Neuro-Oncology Dr. De Quintana
18:00 - 18:30	Coffee break
18:30 - 19:00	Experiences from everyday use of navigated 3D ultrasound in brain tumor surgeries (tricks and tips, use in LGG) Dr. Unsgård
19:00 - 19:30	Contrast-enhanced ultrasound, elastography Dr. Prada
19:30 - 20:00	Ultrasound guidance in hydrochepalus, endoscopy and Chiari I decompression Dr. Padayachy
20:00 - 20:30	Advantages for intraoperative ultrasound vs other imaging, other technology? (online) Dr. Nahed
21:00	Dinner (included)
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	19 th April, 2024
10:00 - 10:15	Presentation of the case (live surgery) Dr. Aibar / Dr. Freixer
10:15 - 10:45	Prediction of histologic tumor in the operating room using iUS and Gliolan (5-ALA) Dr. Aibar
10:45 - 11:15	Simulation training in IOUS Dr. Perin
11:15 - 11:30	Resection of the tumor (live surgery) Dr. Aibar / Dr. De Quintana

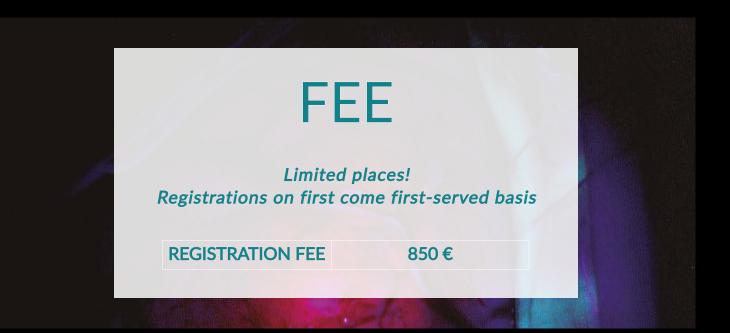
12:15 - 14:15 Hands-on

Coffee break

11:45 - 12:15

- a) Module 1: Setup ultrasound machine
 b) Module 2: Special ultrasound skills
 c) Module 3: Resection control and artifact avoidance
 d) Module 4: Neuronavigated ultrasound / practical cases

14:15 - 14:30 Q&A



Please note that it is necessary to register in advance on the online simulation platform **NeuroStream Academy** in order to participate and fully enjoy the simulation session on IOUS. This is the link https://neurostream.academy/auth/register

It is also necessary to bring your own laptop and smartphone in order to simulate IOUS during the course.

NOTE ON COVID-19

Formedika is continuously monitoring the situation related to COVID-19 in order to avoid the interruption of planned events. However, taking into account the current situation, Formedika cannot exclude the possibility that the scheduled courses or congresses are postponed, canceled or interrupted due to external causes. Formedika strives to duly notify the news that may be in this regard, but recommends that you ensure that the trips and accommodation you reserve are refundable, since it will not be responsible for the expenses incurred by the assistant in case of change, modification or cancellation.

INFORMATION AND REGISTRATION



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