









7th **MAPPING COURSE** BELLVITGE 2024 **Neurosurgery COURSE:** November 26th-29th 2024

NEUROPSYCHOLOGICAL ASSISTANCE WORKSHOP: November 27th-29th 2024

> MORE INFO: www.mappingbellvitge.com

> MAPPING FACULTY

COURSE DIRECTOR:

DR. ANDREU GABARRÓS

Chairman

Neurosurgery Department Brain Mapping Program Director Hospital Universitari de Bellvitge Associate Professor of Neurosurgery Universitat de Barcelona

COURSE CO-DIRECTORS:

DR. ALEJANDRO FERNÁNDEZ-COELLO

Brain Mapping Program Neurosurgery Department Hospital Universitari de Bellvitge Professor of Anatomy Universitat de Barcelona

DR. ISABEL FERNÁNDEZ-CONEJERO

Head of Intraoperative Neurophysiology Unit Neurology Department Hospital Universitari de Bellvitge

DR. GERARD PLANS

Brain Mapping Program Neurosurgery Department Hospital Universitari de Bellvitge

INVITED SPEAKERS:

DR. HUGUES DUFFAU

Professor and Chairman Neurosurgery Department Centre Hospitalier Universitaire de Montpellier, France

DR. EMMANUEL MANDONNET

Neurosurgery Department Hospital Lariboisière, Paris, France

DR. JUAN MARTINO

Professor Neurosurgery Department Hospital Universitario Marqués de Valdecilla, Santander, Spain

DR. FRANCESCO SALA

Professor and Chair Section of Neurosurgery, Department of Neurosciences Biomedicine and Movement Sciences University Hospital Verona, Italy

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Neurosurgery Department Hospital Mútua de Tarrasa

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DR. LAURA PARIENTE

Anesthesia Department Hospital Universitari de Bellvitge

> NEUROPSYCHOLOGY FACULTY

ORGANIZING COMMITTEE:

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Neuropsychology Unit Neurology Department Brain Mapping Program Hospital Universitari de Bellvitge

DR. JOANNA SIERPOWSKA

Cognition and Brain Plasticity Unit & Institute of Neurosciences (UBneuro) Dept. of Cognition, Development and Educational Psychology Universitat de Barcelona

INVITED SPEAKERS:

DR. VÍCTOR CEPERO

Neuropsychology Unit Neurology Department Brain Mapping Program Hospital Universitari de Bellvitge

DR. XIM CERDÁ-COMPANY

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Intraoperative Neurophysiology Neurology Department Hospital Universitari de Bellvitge

DR. LAURA MALDONADO-MURCIANO

Postdoctoral Researcher at the Basic Science Department Universitat Internacional de Catalunya

DR. INMA RICO PONS

Neuropsychology Unit Neurology Department Brain Mapping Program Hospital Universitari de Bellvitge



TUESDAY | November 26th

Location: Dissection room

14:30 - 15:00	Delivery of documentation
15:00 - 15:30	Introduction: How to perform fiber dissection in cadaveric specimens Dr. Juan Martino / Dr. Emmanuel Mandonnet / Dr. Alejandro Fernández-Coello
15:30 - 16:00	Introduction: How to perform fiber tractography in the lab Dr. Àngels Camins / Dr. Pere Cifre / Dr. Pablo Naval-Baudin / Dr. Aleix Rosselló
16:00 - 17:30	Group 1 HANDS ON WHITE MATTER FIBER DISSECTION Each participant will have one hemisphere to dissect Group 2 HANDS ON WHITE MATTER DTI TRACTOGRAPHY Motor pathway tractography
17:30 - 18:00	COFFEE
18:00 - 19:30	Group 1 HANDS ON WHITE MATTER DTI TRACTOGRAPHY Motor pathway tractography Group 2 HANDS ON WHITE MATTER FIBER DISSECTION Each participant will have one hemisphere to dissect

WEDNESDAY | November 27th

Location: Dissection room

09:00 - 09:30 How to simulate a surgical approach to the main language pathways Dr. Juan Martino/ Dr. Emmanuel Mandonnet / Dr. Alejandro Fernández-Coello

09:30 - 11:00 Group 1 HANDS ON SESSION SPECIMEN Each participant will have one CUSA and one hemisphere to dissect

Group 2 HANDS ON SESSION DTI Language pathways tractography

11:00 - 11:30 COFFEE

11:30 - 13:00 Group 1 HANDS ON SESSION DTI Language pathways tractography

> **Group 2** HANDS ON SESSION SPECIMEN Each participant will have one CUSA and one hemisphere to dissect

- 13:00 14:00 LUNCH
- **14:00 14:30** How to simulate a surgical approach to insular gliomas in the laboratory **Dr. Emmanuel Mandonnet**
- 14:30 16:00 Group 1 HANDS ON SESSION SPECIMEN Each participant will have one CUSA and one hemisphere to dissect

Group 2 HANDS ON SESSION DTI

Language pathways tractography

- 16:00 16:30 COFFEE
- 16:30 18:00 Group 1 HANDS ON SESSION DTI Language pathways tractography

Group 2

HANDS ON SESSION SPECIMEN Each participant will have one CUSA and one hemisphere to dissect

WEDNESDAY | November 27th

NEUROPSYCHOLOGICAL ASSISTANCE WORKSHOP

Location: Universitat de Barcelona

08:30 - 08:45	Delivery of documentation
08:45 - 09:00	Course presentation
09:00 - 09:15	Introduction: Intraoperative mapping and monitoring of language and cognition during awake surgery from a neuropsychological standpoint. Dr. Anna Gasa-Roqué
09:15 - 09:30	How to define a candidate for an awake brain surgery? Round table discussion with Dr. Andreu Gabarrós , about the dialogue between neurosurgeons and neuropsychoogists in presurgery preparation. Moderators: Dr. Anna Gasa-Roqué and Dr. Inma Rico Pons
09:30 - 10:00	Neuropsychological assessment of glioma patients undergoing awake brain surgery in the left-dominant hemisphere: before and after surgery. Dr. Inma Rico Pons
10:00 - 10:15	Design and validation of intraoperative tasks. Dr. Anna Gasa-Roqué
10:15 - 10:30	Precision medicine: personalized electrical stimulation mapping tasks for tumor resection. Dr. Xim Cerdà-Company and Dr. Víctor Cepero
10:30 - 10:45	Crash course in psychometrics: understanding what the results mean for each person given their profile. Dr. Anna Gasa-Roqué and Dr. Laura Maldonado-Murciano
10:45 - 11:00	Discussion panel: Design, assessment, and interpretation of neuropsychological domains before, during, and after the surgery.
11:00 - 11:30	COFFEE
	COFFEE Workshop 1 Cognitive and language assessment before and after surgery. Neuropsychological battery of tests, scoring and interpretation for patients with tumors located in the left-dominant hemisphere. Instructors: Dr. Anna Gasa Roqué and Dr. Inma Rico Pons
11:30 - 12:40	<i>Workshop 1</i> Cognitive and language assessment before and after surgery. Neuropsychological battery of tests, scoring and interpretation for patients with tumors located in the left-dominant hemisphere.
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THURSDAY | November 28th

Location: Bellvitge auditorium

- 08:45 09:00 Welcome speech
- 09:00 09:20 Introduction: Evolution of Neurosurgery in eloquent brain areas. Dr. Andreu Gabarrós
- **09:20 09:40** Neuroanatomy of the functional cortical brain areas. **Dr. Alejandro Fernández-Coello**
- 09:40 10:00 Neuroanatomy of the functional subcortical brain areas. Dr. Juan Martino
- **10:00 10:20** Functional magnetic resonance and tractography: Preoperative evaluation of brain function through neuroimaging. Dr. Àngels Camins
- 10:20 10:30 Discussion

10:30 - 11:00 COFFEE

11:00 - 11:20	Intraoperative.	Neuromonitoring. D)r. Isabel	Fernández-Coneje	ero
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- 11:20 11:40 Neuroanaesthesia management during eloquent brain surgery. Dr. Laura Pariente
- 11:40 12:00 Mapping of cortical and subcortical functions in the awake patient Dr. Andreu Gabarrós / Dr. Alejandro Fernández-Coello
- 12:00 12:20 Mapping and neuromonitoring of motor function in the asleep patient Dr. Gerard Plans
- 12:20 12:40 Intraoperative identification of the SMA in the awake patient Dr. Andreu Gabarrós / Dr. Juan Martino
- 12:40 13:00 Discussion

13:00 – 14:30 LUNCH

14:30 - 15:00	How I do it: Tips & tricks session with the experts
	Awake brain mapping. Dr. Hugues Duffau
15:00 - 15:30	Asleep motor mapping and neuromonitoring. Dr. Francesco Sala
15:30 - 16:00	Discussion
16:00 - 16:20	Neuropsychological intraoperative evaluation of language:
	Tradition, Research. Dr. Anna Gasa-Roqué
16:20 - 16:30	How do language and cognition change after brain tumor surgery? - From
	whole sample to individualized approach. Case presentation. Dr. Inma Rico Pons
16:30 - 16:45	Mapping and neuromonitoring for extrinsic brain lesions
	Dr. Pablo López-Ojeda / Dr. Andreu Gabarrós / Dr. José Luis Sanmillán
16:45 – 17:00	Mapping and neuromonitoring for insular tumors
	Dr. Andreu Gabarrós / Dr. Alejandro Fernández-Coello
17:00 – 17:30	Discussion and closing remarks

DINNER (Only for the full course participants)

FRIDAY | November 29th

Location: Bellvitge auditorium

2 LIVE SURGERIES

08:30 - 15:00 Operating Room 1 - AWAKE PATIENT

Perisylvian tumor resection assisted by neuronavigation and cortical/subcortical language brain mapping in the awake patient

08:30 – 15:00 Operating Room 2 – ASLEEP PATIENT

Perirolandic tumor resection assisted by neuronavigation, intraoperative neuro monitoring and cortical/subcortical evoked motor brain mapping in the asleep patient

11:00 – 11:30 COFFEE / LUNCH DURING SESSION

15:00 Closing remarks and delivery of certificates



> INFO

VENUE

The training program will be developed in:

UNIVERSITY HOSPITAL BELLVITGE

Feixa Llarga, s/n L'Hospitalet de Llobregat BARCELONA (Spain)

REGISTRATION

TECHNICAL SECRETARIAT

FORMEDIKA

Tel.: +34 943 468 441 E-mail: info@formedika.com

formedika

dental & medical education formación médica y dental

The registration will be made through the website of the Technical Secretariat of **FORMEDIKA:** www.formedika.com

Limited places! Registratios on first come first-served basis.

REGISTRATION OPTIONS AND FEES

Neurosurgery course

Full course Neurosurgery: Dissection, theory and live surgeries (From Tuesday 26 th to Friday 29 th)	2.350€
Theory and live surgeries (Thursday 28 th and Friday 29 th)	590€
Video streaming for theory and live surgeries	90€

Neuropsychological assistance workshop

Full course Neuropsychological on-site workshop (Wednesday 27 th) and on-site theory and live surgeries (Thursday 28 th and Friday 29 th)	990€	*792€	** 594€
Full course Neuropsychological on-site workshop (Wednesday 27 th) and online theory and live surgeries (Thursday 28 th and Friday 29 th)	550€	*440€	** 330€

* Members of: **FANSPE** (Federación de Asociaciones de Neuropsicología Estatales), **COPC** (Col·legi Oficial de Psicologia de Catalunya) and **COPAO** (Ilustre Colegio Oficial de Psicología de Andalucía Oriental) will get a 20% discount.

** Students (from undergraduate to PhD included) will get a 40% discount.

COURSE ACCREDITATION:

The 7th Mapping Course - Disecction and Theory and Live Surgeries will be accredited by the European Accreditation Council for Continuing Medical Education (EACCME®). In case the participant attended the full on-site course, he/she would have two diplomas.

The course will be divided in three sections: Mapping Course Disection/Mapping Course - Neuropsychology/ Mapping Course - Theory and live surgeries.

The Neuropsychological Assistance Workshop will be accredited by the European Accreditation Council for Continuing Medical Education (EACCME[®]). In case the participant attended the full on-site course, he/she would have two diplomas.



This year, the *Organizing Committee* of the **7th Mapping Course "Neuropsychological Assistance Workshop"**, has the pleasure to offer **3 students awards for the full 3-days long participation in the course**.

The candidates should register their documentation before June 30th, 2024

There are three modalities of the award:

1. For one national student (Spain) - free enrolment, courtesy of the Organizing Committee (*no travel or accommodation covered*).

2. For one international student from any country in the world - free enrolment, courtesy of the Organizing Committee (*no travel or accommodation covered*).

3. For one European Student from widening* countries - full travel award (enrolment, travel and accommodation covered, Grant CEX2021-001159-M founded by MCIN/AEI/10.13039/501100011033/, courtesy of the Institute of Neurosciences of the University of Barcelona and the Organizing Committee)

For all of them, we will require:

- Student's certificate
- CV
- Motivation letter (max 500 words) explaining why we should choose you as an awardee.

The candidates should state the modality of the award they wish to present for and register their documentation before *June 30th, 2024* on the following link: <u>https://forms.gle/pczupcxhFn45V9Ms8</u>

*The list of widening countries is comprised of 15 member states (Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia) and all outermost regions, as well as all associated countries with equivalent characteristics in terms of R&I performance (Albania, Armenia, Bosnia & Herzegovina, the Faroe Islands, Georgia, Kosovo, Moldova, Montenegro, North Macedonia, Serbia, Tunisia, Turkey, Ukraine, and Morocco).

GRANT CEX2021-001159-M FUNDED BY



MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES





Collaborators





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UNIVERSITAT DE BARCELONA Facultat de Psicologia



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