



ISIN CONGRESS & EDUCATIONAL COURSE

Barcelona - Spain • November 4th - 9th, 2024

Congress President: Isabel Fernández-Conejero (Spain)
ISIN President: Sedat Ulkatan (USA)

Website
www.neurophysiology.org

SCIENTIFIC PROGRAM



INDEX

Welcome address	3
General Information	5
Congress venue	7
Committees	9
Registration fees	10
Educational Course	11
Congress program	15





ISIN CONGRESS & EDUCATIONAL COURSE

Barcelona - Spain • November 4th - 9th, 2024

WELCOME ADDRESS

Dear Colleagues,

We are excited to announce the upcoming 2024 Barcelona Congress and Educational Course. This event follows the very successful meeting held in Athens in the fall of 2023. We appreciate your interest and great support, and our aim is to provide you with cutting-edge topics presented by excellent speakers in Barcelona.

The congress scientific program will feature extremely interesting magisterial lectures from leading scientists. The program is focused on current topics that are essential to the contemporary IOM profession. Our state-of-the-art educational course will offer gold-standard training materials for Spinal cord, Spine, and Peripheral nerve IOM.

Our host, Dr. Fernandez Conejero, who also organized the 2011 3rd ISIN Congress in Barcelona with scientific and educational committee members, have put together an outstanding congress program and a great social program. We believe that you will leave Barcelona with unforgettable memories and remarkable new scientific experiences.

Please follow us on our social media channels for updates and information.



Sedat Ulkatan, MD
ISIN President

WELCOME ADDRESS

Dear colleagues, dear friends,

It is a great honor to announce the next Educational Course and Congress of the International Society of Intraoperative Neurophysiology (ISIN) that will take place in Barcelona from the 4th to the 9th of November this year. This is the second occasion I have had the privilege to organize the ISIN's most meaningful events, including the Annual Educational Course and the Biannual Congress. That date was back in 2011 when I began my journey with the society. Since then, I have witnessed how the ISIN has evolved in prestige and respect and is now consolidated as "the state-of-the-art science" in intraoperative neuromonitoring.

This year, the Educational Committee tailored an outstanding program titled "Spine, Spinal Cord and peripheral nerve surgeries and intraoperative neuromonitoring (IONM)." The course belongs to the ISIN three-year cycle of educational classes and intends to be theoretical and practical. For that reason, discussion groups with limited places are the key tool to enrich the communication between professors and participants.

On the other hand, the new ISIN Scientific Committee made an exceptional effort to design an attractive scientific program for our Biannual Congress. The program includes innovative topics concerning brain connectivity, stimulation protocols, cranial nerves, new roads on motor responses, evidence in IONM, brain modulation, and functional neurosurgery, and discussions about team communication in the operation room.

Sadly, our founder, mentor, and friend, Professor Vedran Deletis, will not be among us for the first time since the ISIN was created. He will be immensely missed, but all his fellows and colleagues are committed to continuing his legacy. I think I can say on behalf of all of us: "Dear Vedran, wherever you are, you'll be proud of your team." As a novelty, I am pleased to announce that ISIN will deliver the following three prizes: The K. Kothbauer Young Investigator Award, the R. Mattmüller Travel Grant, and the Vedran Deletis Honorific Award.

The 2024 ISIN Educational Course and Congress will offer knowledge and new insights from a scientific point of view. Still, it is also a great opportunity to meet the companies that unconditionally support our society and create connections with colleagues worldwide.

Furthermore, as the meeting host, I will be delighted to receive you in the welcoming city of Barcelona, a cultural and cosmopolitan city with a warm climate and people who stand out for its hospitality. It is one of Europe's most essential metropolises and a leading meeting destination in terms of hosting international conferences.

In conclusion, I encourage you all to join us in Barcelona, where the community of ISIN will meet to advance the future of IONM in an exciting and friendly atmosphere and is committed to achieving an unforgettable experience.

Truly yours,



Dr. Isabel Fernández-Conejero
ISIN Congress President



ISIN CONGRESS & EDUCATIONAL COURSE

Barcelona - Spain • November 4th - 9th, 2024

GENERAL INFORMATION

ISIN 2024 DATES

EDUCATIONAL COURSE

November, 4th, 5th and 6th, 2024

ISIN CONGRESS

November, 7th, 8th and 9th, 2024

VENUE

Axa Auditorium Barcelona
Av. Diagonal, 547, Les Corts
08029 Barcelona - Spain



WEBSITE

www.isin2024.com
www.neurophysiology.org

IMPORTANT DATES

Abstract Submission:

Opens: Coming Soon

Registration:

Opens: April, 2024 / Deadline for early bird registration: September 15th, 2024

Places for the Educational Course are limited to 180. Registration will be on a first come first served basis.

CONTACT DETAILS

Organizer

ISIN
(International Society of Intraoperative
Neurophysiology)

www.neurophysiology.org



Registration-Abstract Submission

Sponsorship

Torres Pardo S.L.

Napols 187 2nd floor • Barcelona 08013 Spain

T. +34 93 246 35 66

www.torrespardo.com

TORRESPARDO
Congress Management

Registration:

Contact: Carolina Rovira
c.rovira@torrespardo.com

Sponsorship:

Contact: Desirée Muñoz
d.munoz@torrespardo.com

GENERAL INFORMATION

Language

The official language of the congress is English.
No simultaneous translation will be provided.

Registration & Abstract Submission

Only through the Association website:
www.isin2024.com
www.neurophysiology.org

Wireless Internet Access

WiFi Internet access area will be available at the venue.

Accommodation Details

Accommodation details are available at the website and further announcements.

Smoking

ISIN 2024 is a non-smoking event.

Attendance

The Educational Course is limited to 180 participants. The Congress usually attracts between 300 and 500 delegates from all over Europe and from all over the World.

Name Badges

Participants are obliged to wear the official name badges.

Exhibition

Access to the exhibition is free for registered participants. The exhibition will be open during the Educational Course and the Congress hours.

Lunch and Refreshments

Lunches are not included in the participants' registration fee. Coffee, tea will be available in the exhibition area during the breaks.

Certificate of Attendance

Participants will receive a certificate of attendance, for the Educational Course and the ISIN Congress.

Liability

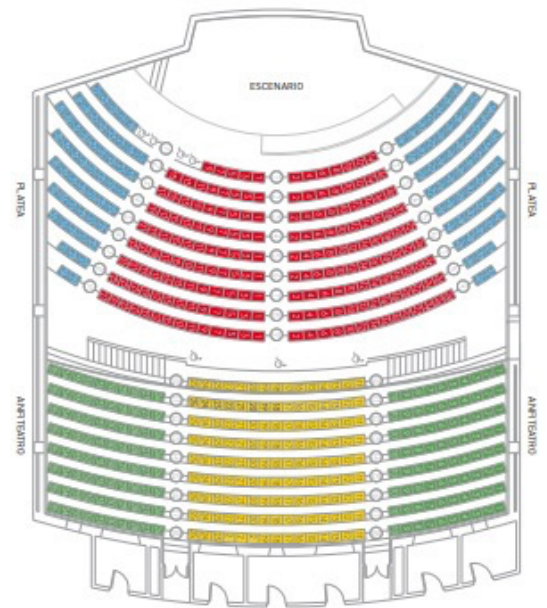
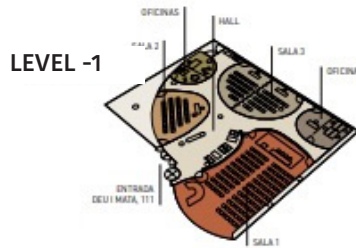
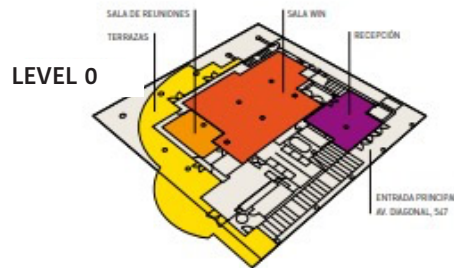
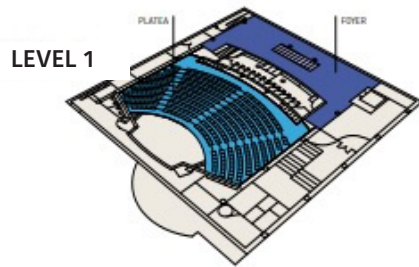
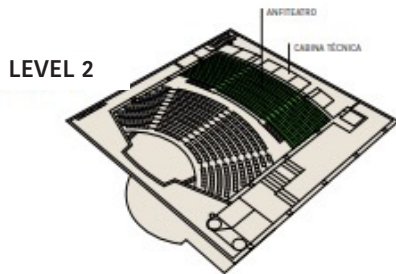
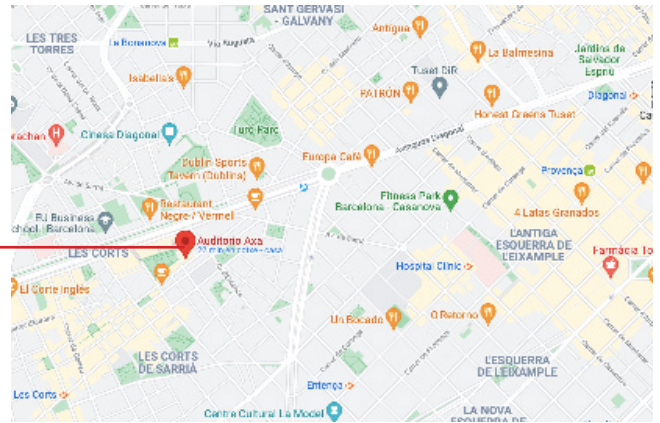
By registering for the Educational Course or the Congress by participating in the exhibition joined, participants and exhibitors agree that ISIN, the Organizing Committee or the Secretariat do not assume any responsibility for damage or injuries to persons or property during the event. Participants and exhibitors are advised to organize their own health, travel and personal insurances.

Letter of Invitation

Upon request, the Chairman of the Local Organizing Committee will be pleased to send a personal letter of invitation so as to enable participants to obtain supporting funds or visas for attending the event. These invitation letters cannot be considered as an offer of financial support by the organizers.

CONGRESS VENUE

Axa Convention Centre
 Avinguda Diagonal, 547,
 08029 Barcelona, Spain
www.axa.es/acerca-axa/auditorio-y-centro-de-convenciones



MAIN AUDITORIUM: 597 seats

ROOM 1: 150 seats

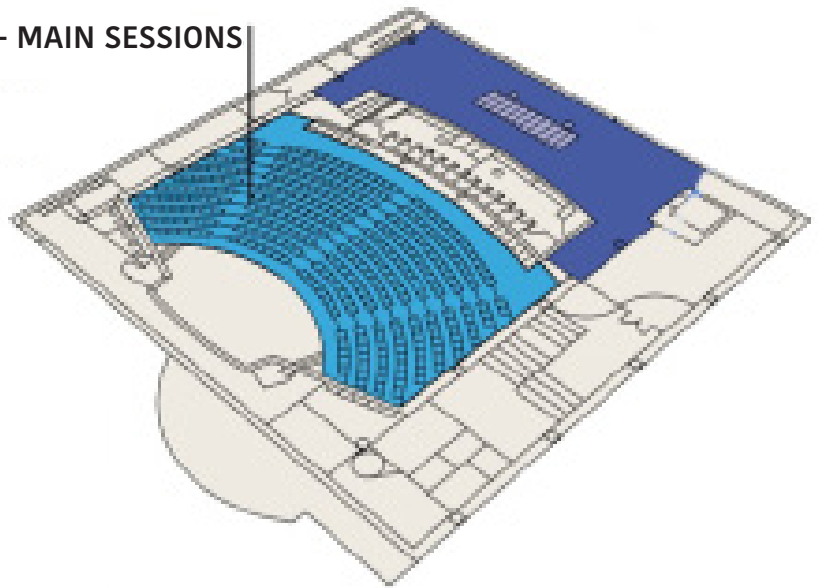
ROOM 2: 40 seats

ROOM 3: 70 seats

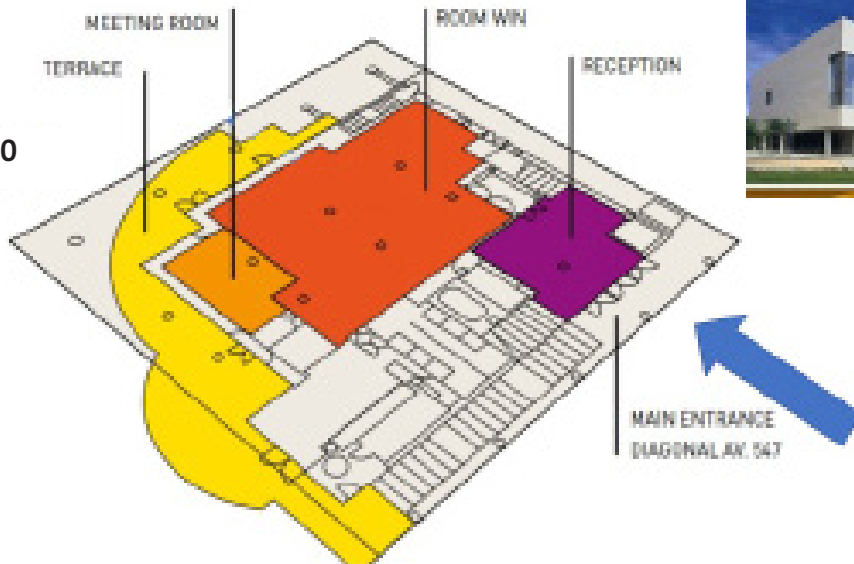
CONGRESS VENUE

AUDITORIUM - MAIN SESSIONS

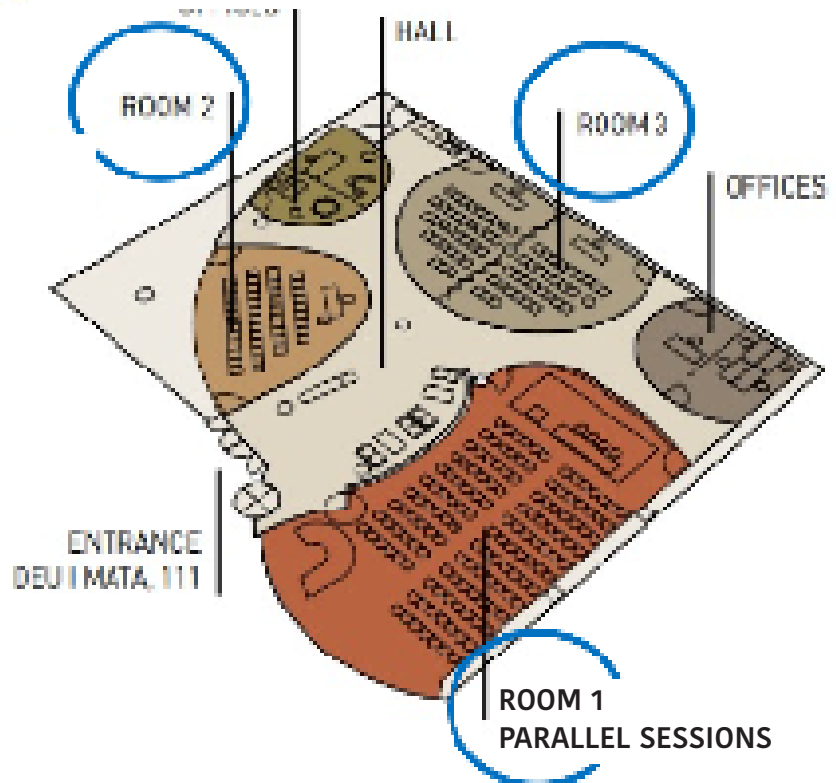
LEVEL 1



LEVEL 0



LEVEL -1



COMMITTEES

ISIN PRESIDENT



Sedat Ulkatan

CONGRESS PRESIDENT



Isabel Fernández-Conejero

COMMITTEES/SECTIONS

SCIENTIFIC COMMITTEE

Stanley Skinner (Chair) (USA)

Maria Tellez (co-Chair)(USA)

Davide Giampiccolo (Italy)

SENIOR CONSULTANT

David MacDonald (Italy)

EDUCATIONAL COMMITTEE

Gea Drost (Chair) (The Netherlands)

Akiva Korn (co-Chair) (Israel)

Gemma. P. Fajardo (Spain)

SENIOR CONSULTANT:

Javier Urriza (Spain)

BOARD MEMBERS

PRESIDENT

Sedat Ulkatan (USA)

President Elect

Kathleen Seidel (Switzerland)

Past President

Isabel Fernandez-Conejero (Spain)

Secretary

Mirela V. Simon (USA)

Treasurer

Andrea Szelenyi (Germany)

Education Committee Chair

Gea Drost (The Netherlands)

REGISTRATION FEES

	Early bird registration Until September 15th, 2024	Regular registration From September 16th 2024
	2024 EDUCATIONAL COURSE*	
ISIN members	500€	650€
Non ISIN members	675€	800€
Tech, Trainees and Students	350€	500€
	ISIN2024 CONGRESS	
ISIN members	700€	850€
Non ISIN members	900€	1.050€
Tech, Trainees and Students	450€	600€
	COMBO (COURSE + CONGRESS)	
ISIN members	1.000€	1.150€
Non ISIN members	1.200€	1.350€
Tech, Trainees and Students	700€	850€

21% SPANISH VAT INCLUDED

* PLACES FOR THE EDUCATIONAL COURSE ARE LIMITED TO 180. REGISTRATION WILL BE ON A FIRST COME FIRST SERVED BASIS.

CANCELLATION POLICY

- Cancelling 60 days prior to the Congress will involve a 20% penalty.
- Cancelling between 60 days and 30 days prior to the Congress will involve a 50%
- The name change can be managed by paying €25 + VAT for management fees.

All cancellation notices must be addressed in writing to the Technical Secretariat:
 A. Ms. Carolina Rovira
 Email: c.rovira@torresparado.com

SCIENTIFIC PROGRAM - EDUCATIONAL COURSE

NOVEMBER 4th, 2024

BASICS IN SPINE & SPINAL CORD NEUROMONITORING

- 10:00-10:45h **Registration**
- 10:45-11:00h **Welcome and introduction**
 Welcome (Host)
 Welcome (ISIN President)
 Course Overview
- Introductory Course (Part I)**
- 11:00-11:30h **Basics:**
 An overview of intraoperative electrophysiology
- 11:30-12:00h **The operating room environment:**
 safety and troubleshooting
- 12:00-12:30h **Communication in the OR**
- 12:30-13:00h **How to optimize our signals**
- 13:00-14:00h **Lunch break**
- Introductory Course (Part II)**
- 14:00-14:30h **Anesthesia**
- 14:30-15:00h **Motor evoked potentials**
- 15:00-15:30h **D wave monitoring**
- 15:30-16:00h **Somatosensory evoked potentials**
- 16:00-16:30h **Coffee Break**
- Introductory Course (Part III)**
- 16:30-17:00h **BCR and H reflex**
- 17:00-17:30h **Spinal cord stimulation and mapping**
- 17:30-18:00h **Warnings in IOM**
- 18:00-19:00h **Keynote Lecture**

NOVEMBER 5th, 2024

NEUROSURGERY

- Anatomy and Physiology**
- 08:30-09:00h **Anatomy of the spinal cord and Spinal cord pathways**
- Surgery and Neuromonitoring (Part I)**
- 09:00-09:30h **Surgery of extramedullary tumors**
- 09:30-10:00h **Surgery of intramedullary tumors**
- 10:00-10:30h **IONM of spinal cord tumors**
- 10:30-11:00h **Coffee Break**
- Surgery and Neuromonitoring (Part II)**
- 11:00-11:30h **Surgery of tethered cord**
- 11:30-12:00h **IONM of cauda equina**
- 12:00-12:30h **Surgery of peripheral nerve**
- 12:30-13:00h **IONM of peripheral nerve surgeries**
- Sponsored session**
- 13:00-13:30h **Session I**
- 13:30-14:30h **Lunch break**
- Sponsored sessions**
- 14:30-15:15h **Session II**
- 15:20-15:50h **Session III**
- 15:55-16:25h **Session IV**
- 16:30-17:00h **AI in spine. Surgeon driven technology**
- Hands-On Training sessions**
- 17:05-17:35 h **Session I**
- 17:35-18:05 h **Session II**
- 18:05-18:35 h **Session III**

SCIENTIFIC PROGRAM - EDUCATIONAL COURSE

NOVEMBER 6th, 2024

SPINE SURGERIES AND OTHER SURGICAL PROCEDURES

Orthopedics (Part I)

- 08:30-09:00h Anatomy of the spine and its deformities
09:00-09:30h Surgery of scoliosis
09:30-10:00h IONM in scoliosis surgery
10:00-10:30h Surgery of other spine procedures
10:30-11:00h IONM in other spine procedures

11:00-11:30h Coffee Break

Other procedures (Part II)

- 11:30-12:00h IONM Dorsal Rhizotomy
12:00-12:30h IONM in endovascular procedures
12:30-13:00h Descending aorta surgeries
13:00-13:30h IONM in aorta procedures
13:30-14:30h Lunch Break

Sponsored sessions

- 14:30-15:15h Session V
15:20-15:50h Session VI

Hands-On Training sessions

- 16:10-16:40h Session IV
16:45-17:15h Session V
17:20-17:50h Session VI

Adjourn

- 18:00-18:15h Presentation of Kyoto 2025
18:15-18:30h Course evaluation/ Quiz
18:30-18:45h Adjourn

NOVEMBER 5th-6th, 2024

HANDS-ON TRAINING SESSIONS

- How to monitor spinal cord tumors?
- How to monitor tethered cord syndromes?
 - How to monitor Scoliosis?
- How to optimize MEPs and D-waves?
- How to monitor other spine surgeries?
- How to optimize anesthesia in spinal monitoring?

SCIENTIFIC PROGRAM - CONGRESS PROGRAM

NOVEMBER 7th, 2024

07:00-07:45h **Registration**

07:45-08:00h **Opening**

Brain connectivity:

Cortico-cortical evoked potentials (CCEP)

08:00-08:25h A canonical waveform for cortico-cortical evoked potentials

08:30-08:55h CCEPs of the human arcuate fasciculus

09:00-09:25h CCEP estimated conduction times compared to the other tracts and fibers. Are the slow fibers found?

09:30-09:55h Discussion

09:55-10:10h Coffee break

Surgery and mapping of Brain Motor areas

10:15-10:40h Anatomy of the precentral gyrus: Old and new M1

10:45-11:10h Motor projections and their functional role

11:15-11:40h Motor mapping and mapping techniques for lesions within the precentral gyrus

11:45-12:00h Discussion

12:00-13:30h Lunch break

13:30-14:25h **Keynote Lecture**

14:30-15:25h **Tribute Awards**

15:30-15:55h Coffee break

16:00-16:55h **Poster presentations**

Effective Bidirectional Communication - Team Communication in the OR

17:00-17:25h Why surgeons get frustrated with IONM.

How to establish clear expectations

17:30-17:55 Developing a new IOM-

Surgeon language: correct phrasing

18:00-18:25 Discussion.



SCIENTIFIC PROGRAM - CONGRESS PROGRAM

NOVEMBER 8th, 2024

Paired stimulation protocols

- 08:00-08:25h Physiology and pathways behind Modulation, Conditioning, and PrePulse Inhibition
- 08:30-08:55h Pair stimulation protocols for Motor cortex modulation
- 09:00-09:25h Cerebello-cortical (and beyond) conditioning-test stimulus under general anesthesia: proof of concept
- 09:30-09:55h Discussion
- 09:55-10:10h Coffee break

Cranial Nerves

- 10:15-10:40h Clinical features and surgical correlation of the lateral spread and the blink reflex in the hemifacial spasm and trigeminal neuralgia
- 10:40-11:05h Expected and unexpected motor responses of the V and XI cranial rootlets
- 11:05-11:30h Larynx in vocalization and speech
- 11:30-11:55h Extraocular cranial nerve neuromonitoring
- 11:55-12:25h Discussion
- 12:30-13:55h Lunch break

14:00-15:00h Best Abstracts Oral Presentations

Navigating the Roads of Motor Responses

- 15:05-15:30h MEPs are not all the same in the dark: MEP nuances and D-wave role in Brain and Spinal cord surgeries.
- 15:35-16:00h Can we apply knowledge about traumatic spinal cord injuries and neuroprotective interventions in surgery and IONM?
- 16:05-16:30h Goals and methods for mapping subcortical and spinal cord areas
- 16:35-17:00h Impact of Intraoperative monitoring for lumbosacral nerve root function... unrealistic expectations?
- 17:00-17:30h Discussion
- 17:30-17:45h Coffee break
- 17:45-18:45h **ISIN Large Board Meeting**

SCIENTIFIC PROGRAM - CONGRESS PROGRAM

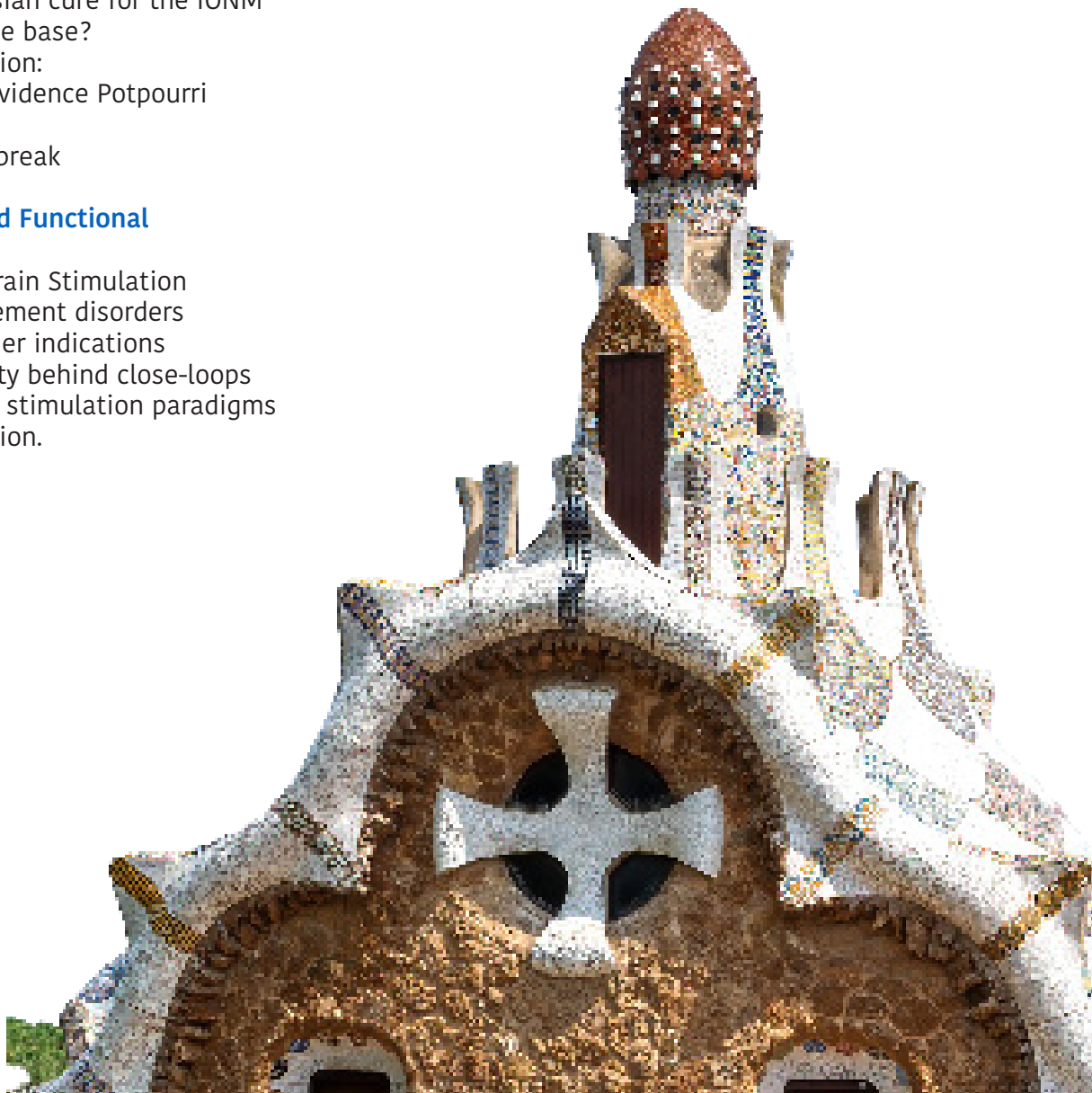
NOVEMBER 9th, 2024

IONM Evidence module

08:00-08:25h	IONM evidence “ups” and “downs”: Reversibility, mediation, and Big Datasets	12:40-14:00h	The Vedran Deletis Legacy and IONM’s Future Expert Panel + Open microphones for the Audience
08:25-08:50h	IONM as a complex intervention.		
08:50-09:15h	Big Dataset cohort studies: Are Diagnostic or Procedural Codes Accurate?	14:05h	CLOSURE
09:15-09:40h	Best of Show: IONM comparative trials by Park and Simon		
09:40-10:05h	A Bayesian cure for the IONM evidence base?		
10:05-10:30h	Discussion: IONM evidence Potpourri		
10:30-11:15h	Coffee break		

Brain Modulation and Functional Neurosurgery

11:20-11:45h	Deep Brain Stimulation in movement disorders and other indications
11:50-12:15h	Plasticity behind close-loops cortical stimulation paradigms
12:20-12:40h	Discussion.





www.isin2024.com



**ISIN CONGRESS
& EDUCATIONAL COURSE**
Barcelona - Spain • November 4th - 9th, 2024