

## 2nd IONM Advanced Summer School of the DGKN/FBA

This event has been accredited with 19.5 EACCME® credit points.



### Contents

The topics cover the entire spectrum of the Basics courses and serve to deepen knowledge, particularly with regard to practical application techniques and interpretation. In addition to the hands-on content of the Basics courses, there will also be a focus on intraoperative neurography and neurosonography.

### Dates

11 May to 14 May 2025

### Registration

If you have not participated in the DGKN Basics courses, please send a short letter of interest along with a list/prove of previous courses/experience in the context of perioperative and intraoperative mapping and neuromonitoring and the registration form to the head office of the German Society of Clinical Neurophysiology and Functional Neuroimaging (DGKN): [sekretariat@dgkn.de](mailto:sekretariat@dgkn.de)

The acceptance of your registration will depend on the total number of applicants and your personal level of expertise. For those who have completed both DGKN Basics courses, the [registration form](#) is sufficient for registration (direct link or cf. QR-code above!).

## Notes

The summer school is **limited to 30 participants** (excluding faculty and industry staff). Priority access will be granted to members of the DGKN and those enrolled in the IONM curriculum.

Each participant should bring a clinical case report (3 slides, 3-4 minutes speaking time) related to at least one of the discussion topics on Wednesday. The cases will stimulate the discussions in the workshops and help introduce the participant's clinical focus.

In addition, presenting a case is a key requirement for confirming participation successfully, along with the active hands-on participation, and the final written examination (see end of the programme).

## Networking Events

The participation in the networking events on Monday and Tuesday is voluntary. The additional fee of 20€ needs to be paid on-site directly to the course administration team.

**- The times are Portuguese local time, i.e. CET (Berlin) +1h -**

## Programme

### DAY 1 | Sunday, 11.05.2025

Time	Programme item	Lecturer(s)	Moderation if necessary
From 10:30	Delivery and installation of devices possible (Pavillon)		
17:00	Departure bus transfer Lisbon Airport	Meeting point: Heineken Grand Café Departures Area, next to exit/entry	
approx. 19:40	Arrival of shuttle bus and reception at the Herdade da Urgueira		
19:50	Welcome with drinks and starters		
19:55	Welcome and introduction to the event	Szelényi, Weiss Lucas	
20:05	Introductory Music piece	Castra Leuca Trio castra-leuca-trio.webador.com	
20:15	History of neuromonitoring	Moll	
from 20:30	Dinner with discussion, interspersed with music pieces		
approx. 23:00	Shuttle bus to the Rupestre Hotel in Vila Velha de Ródão		

**DAY 2 | Monday, 12.05.2025**

Time Station	Programme item	Lecturer(s)	Moderation if necessary
Until 08:00	Delivery and installation of devices possible (Pavillon)		
07:15	Shuttle Bus to Summer School venue leaving at Rupestre Hotel		
07:25	Breakfast at the Herdade		
08:00	<b>Talks Block 1</b> Spine		Szelényi, Pedro
08:10	Mapping and monitoring conus functions	Szelényi	
08:35	Recent advances in spinal cord and nerve root mapping (Double train)	Seidel	
09:00	Preoperative neurophysiology and neurosonography in the indication for nerve surgery	Nagi	
<b>Hands-on Block 1</b> (6 rotations, change every 30 min)			
09:30	Orthopedic interventions and anaesthesiological aspects	Szelényi, Fiandeiro	
10:00	Spinal cord mapping: traditional and advanced techniques	Seidel, Vergani	
10:30	Coffee break		
10:50	Spinal cord monitoring	Rosahl	
11:20	Mapping lumbar and sacral roots for selective dorsal rhizotomy (SDR)	Weiss Lucas, Campos	
11:50	Nerve 1: Focus on neurography (15')	Nagi, Leote	
	Nerve 2: Focus on neurosonography (15')	Pedro	
12:30	Lunch		
	<b>Talks Block 2</b> Skull Base, Brain stem, CPA & Neuromodulation		Rosahl, Rampp
13:30	Anaesthesiological challenges	Fiandeiro	
13:55	Neurophysiology on ICU	Leote	
14:15	Clinical neuroanatomy of skull base approaches	Seidel	
14:30	Applied neuroanatomy of CPA and brain stem surgery	Seidel	

<b>Hands-on Block 2</b> (5 rotations, every 30 min)			
15:00	Monitoring of the optical system (VEP)	Szelényi	
15:30	Coffee break		
16:00	Vestibular Schwannoma/CPA, Focus: BAEP	Rosahl	
16:30	Brainstem/CPA, Focus: Facial Nerve	Rampp, Leote	
17:00	Brainstem/CPA, Focus: Reflexology, cMEP	Seidel	
17:30	nTMS: Face mapping & corticospinal excitability to evaluate myelopathy	Lavrador, Weiss Lucas	
18:15 - 20:00	<b>Networking event</b>   Visit of the Bishop's Garden of Castelo Branco and Castle Walk		
20:15	Communication in the OR	Rosahl	Szelényi, Lavrador
20:45	Dinner with discussion		
~ 23:00	Shuttle bus to the Rupestre Hotel in Vila Velha de Ródão		

**DAY 3 | Tuesday, 13.05.2025**

Time Station	Programme item	Lecturer(s)	Moderation if necessary
07:10	Shuttle Bus to Summer School venue leaving at Rupestre Hotel		
07:20	Breakfast at the Herdade		
	<b>Talks Block I</b> Cortical mapping/monitoring and epilepsy basics		Noachtar, Campos
08:00	Functional and structural anatomy and reorganisation of the sensorimotor network	Vergani	
08:25	Localisation and lateralisation of seizures – functional-anatomical insights from seizure semiology	Noachtar	
08:50	Anatomical challenges in epilepsy surgery	Campos	
09:20	Haptic models in times of virtual reality: Agar agar meets the cow brain	Sabel	
	<b>Hands-on Block 1</b> (5 rotations, every 30 min)		
09:30	Tumor sensorimotor I – cortical	Sabel, Leote	
10:00	Coffee break		
10:20	Tumor sensorimotor II – subcortical	Seidel, Vergani, Forkel	
10:50	Epilepsy sensorimotor	Noachter, Rampp, Campos	
11:20	Vascular sensorimotor	Szelényi, Rosahl	
11:50	Noninvasive sensorimotor mapping and neuromodulation	Lavrador, Loução, Weiss Lucas	
12:20	Lunch		
	<b>Talks Block 2</b>		Vergani, Forkel
13:20	Language network anatomy and structural connectivity analysis	Forkel	
13:40	Cortico-cortical potentials for asleep mapping/monitoring of the cognitive network	Seidel	
14:05	nTMS language mapping	Lavrador	
14:30	Awake monitoring in epilepsy surgery	Campos	
14:50	Case: fMRI-based tractography to guide awake	Weiss Lucas	Panel: Seidel, Vergani, Sabel,

	neuromonitoring → panel discussion	Speakers
<b>Hands-on Block 2</b> (5 rotations, every 30 min.)		
15:20	Cortical cognitive mapping and monitoring brain tumour (awake)	Sabel, Szelényi
15:50	Epilepsy surgery (awake/asleep)	Noachtar, Rampp, Campos
16:20	Coffee break	
16:40	Subcortical mapping and monitoring (awake vs asleep)	Seidel, Vergani, Forkel
17:10	DBS special techniques	Moll
17:40	Noninvasive language/cognitive mapping	Lavrador, Loução, Weiss Lucas
18:45 -	Disassembly of devices (if early departure is necessary)	
18:15 - 20:30	<b>Networking event</b>   Visit of local ham production, river walk and visit of the Castle of King Vamba with view over the tejo river and the Portas de Ródão (Unesco Heritage)	
20:30	Neurosurgery / Neurophysiology is Cooking – Volume II	Moll, Sabel Weiß Lucas, Rosahl
20:45	Dinner with discussion and music	Lavrador
~ 23:45	Shuttle bus to the Rupestre Hotel in Vila Velha de Ródão	

#### DAY 4 | Wednesday, 14.05.2025

Time	Programme item	Lecturer(s)	Moderation if necessary
From 09:15	Disassembly of devices		
07:20	Shuttle Bus to Summer School venue leaving at Rupestre Hotel		
07:30	Breakfast at the Herdade		
08:00	Vision		
08:10	<b>Working Groups 1st time block</b> Topics to be adjusted	all	
	Degenerative spine and scoliosis	Szelényi, Nagi	
	Awake tumour surgery - focus: perioperative mapping and batteries	Sabel, Seidel, Forkel	

	Epilepsy surgery	Rampp, Campos, Noachtar	
09:20	Coffee Break		
09:40	<b>Working Groups 2nd time block</b> Topics to be adjusted	all	
	Awake surgery - focus: connectivity and CCEP	Seidel, Forkel, Loução, Weiss Lucas, Campos	
	DBS	Moll	
	Brain stem, intramedullary & conus/cauda tumours	Szelényi, Nagi	
	Skull base and CPA	Rampp, Rosahl	
11:00	Closing remarks and feedback	all	Szelényi, Weiss Lucas
11:15	Grab lunch box and check-out		
11:30	Departure bus transfer to Lisbon Airport (arrival approx. 14:30)		

### Remote Exam | Friday, 16.05.2025

Time	Programme item
30 min.	The course will be followed by a <b>mandatory electronic multiple-choice test</b> on Friday, 16.05.25, via the eLearning Platform ILIAS. The test has to be completed within approximately 30 minutes during a flexible time frame along the day (9 am - 5 pm). All further information regarding the examination is provided at the Summer School.

### Lecturers and \*Committee

Alexandre Campos | Lisbon  
Carlos Fiandero | London  
Stephanie Forkel | Nijmegen  
José Lavrador | London  
João Leote | Lisbon  
Ricardo Loução | Cologne  
Christian Moll | Hamburg  
Michael Nagi | Munich  
Soheyl Noachtar | Munich

Maria Pedro\* | Günzburg  
Stefan Rampp\* | Erlangen  
Steffen Rosahl | Erfurt  
Michael Sabel | Düsseldorf  
Kathleen Seidel\* | Bern  
Andrea Szelényi\* | Munich  
Francesco Vergani | London  
Carolin Weiss Lucas\* | Cologne

The ratio of lecturers to participants is expected to be 1:2.

Lecturers do not receive a fee but receive up to EUR 350 towards travel expenses and free board and lodging during the course or are exempt from the participation fee.

The group of presenters primarily consists of lecturers from the Basics courses, complemented by specially invited overview lectures.

## Transparency

The event costs are not co-financed by industry funds. The industry's contribution to the event consists solely of the provision of equipment free of charge.

### With the kind non-financial support of the following companies:

Affidea (radiology supply)  
Dr Langer (2 loan device)  
GE (1-2 loan devices)  
Inomed (3 loan devices)  
Nexstim (1 loan device)  
Nihon Kohden (1 loan device)  
Oviger (demo material)  
Stryker (2 loan devices)

## Participation fees

The participation fees below **include** the bus transfer from/to Lisbon Airport as well as the costs for **accommodation** (in double occupancy of twin-bedded rooms! Single rooms at extra costs upon request) **and full catering** (incl. drinks flat rate; excl. high-proof spirits and cocktails). In case of external accommodation (self-organised), a discount of 100€ will be applied. The travel (from home) to and from Lisbon airport must be organised independently and is not included in the price.

<b>Non-medical staff*</b>	<b>EUR 520</b>
<b>Medical assistants</b>	<b>EUR 570</b>
<b>Specialist medical staff</b>	<b>EUR 620</b>

\* e.g. TA, students, scientists or medical staff with part-time employment and comparable income category (approx. TVL-9, 100%), e.g. on parental leave

The passive participation fee (e.g. for industry staff) is EUR 300 and includes full catering (but not accommodation). External dinner participation (e.g. of family members) is generally possible upon request at the cost of 40€ / dinner, including drinks (hot and cold non-alcoholic drinks, beer, wine).

## Location ([www.herdadedaurgueira.com](http://www.herdadedaurgueira.com))

**Accommodation: Hotel "Herdade da Urgueira" and Hotel „Rupestre“ in Vila Velha de Ródão**  
At the conference venue, flats and rooms of various sizes are available. The flats are spacious and feature a terrace and kitchenette. **Due to limited on-site capacity, it is necessary for participants to share twin rooms.** Please note that the venue is rented exclusively for the course.

Additional rooms have been pre-booked at <https://www.rodaohotel.com>, offering limited accommodation possibilities for family members and in single rooms (upon request).

### **Catering: Hotel restaurant "Meio do Nada"**

The participation fee includes three dinners, two lunches, one lunch box and all coffee breaks as well as drinks (hot and cold non-alcoholic drinks, beer, wine included).