

**World Federation of  
Interventional and  
Therapeutic Neuroradiology**



# **COURSE IN FUNCTIONAL NEUROVASCULAR ANATOMY**

**LISBON, OCTOBER 5-9th 2015**

## **FACULTY:**

**G. RODESCH, PARIS, FRANCE**

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**S. BRACARD, NANCY, FRANCE**

**S. HOLMIN, STOCKHOLM, SWEDEN**

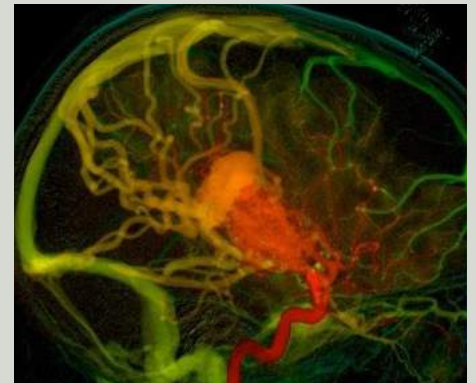
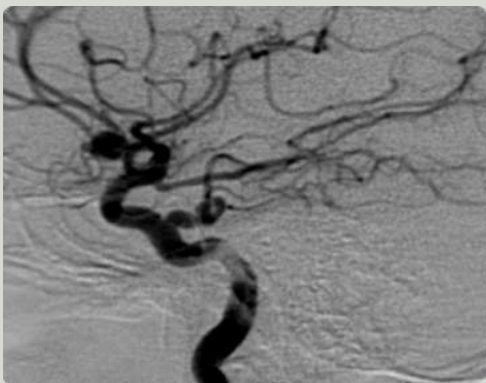
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# **COURSE IN FUNCTIONAL NEUROVASCULAR ANATOMY**

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The Functional Neurovascular Anatomy course is comprehensive and didactic review of the embryology and vascular anatomy of the brain, head and neck and spine.

The course will have lectures, and interactive workshops, including 3D images from cadaveric dissections and angiographic images.

The course has been created for neuroradiologists, radiologists, neurologists and neurosurgeons with particular interest in vascular diseases. The course may be interesting to physicians in training to become INR specialists as well as senior physicians who wish to refresh their knowledge in functional neurovascular anatomy.

The maximum number of participants is 50.

This course is UEMS-AECCME accredited with 27 CME credits.

## **PROVISIONAL PROGRAM**

### **Monday 5/10/2015**

- 9.00-9.15 Welcome and Introduction: Why Anatomy? Presentation of students and speakers.
- 9.15-10.15 Anatomy of arteries and veins of the spine and spinal cord (G.Rodesch)
- 10.15-10.45 Surgical 3D anatomy of arteries and veins of the spine and spinal cord (Ph. Mercier)
- 10.45-11.00 Coffee Break
- 11.00-11.45 Embryology and Anatomy of the Internal Carotid Artery (G.Rodesch)
- 11.45-12.30 Cavernous sinus: internal carotid artery and its branches. Arterial variations (M. Soderman)
- 12.30-13.00 Surgical 3D anatomy of the cavernous sinus (Ph Mercier)
- 13.00-14.00 Lunch
- 14.00-14.45 Ophthalmic artery: embryology, anatomy , arterial variations (S. Bracard)
- 14.45-15.15 Surgical 3D anatomy of the ophthalmic artery (Ph Mercier)
- 15.15-16.00 Functional vascular anatomy of the maxillo facial region (D.Orbach)
- 16.00-16.45 Vascularization of the nasal fossa (V.Pereira)

**Tuesday 6/10/2015**

- 9.00-9.45 Cranio cervical junction: pharyngo-occipital arterial system :  
embryology (proatlantal 1 and 2, hypoglossal), anatomy, arterial  
variations (S. Holmin)
- 9.45-10.15 Transcranial anastomoses and cranial nerve supply (M. Soderman)
- 10.15-10.30 Coffee Break
- 10.30-11.15 Surgical 3D vascular anatomy of the cranio cervical junction (Ph Mercier)
- 11.15-12.00 Vascularization of the middle ear (S.Holmin)
- 12.00-12.45 Functional vascular anatomy of the musculocutaneous arteries of the head and mouth  
(V.Pereira)
- 13.00-14.00 Lunch
- 14.00-17.30 Workshops  
Spine and spinal cord (GR MS)  
ICA-cavernous sinus-ophthalmic artery (VP SH DO)  
Workstation about all topics (SB PV)
- Coffee Break(s) between working sessions

**Wednesday 7/10/2015**

- 8.30-9.15 Vertebro-Basilar system . PICA, AICA, SCA (P.Vilela)
- 9.15-9.45 Surgical 3D anatomy of the perforators of the vertebro- PICA region (Ph. Mercier)
- 9.45-10.00 Coffee Break
- 10.00-10.45 Intra axial vascularisation of the brain stem (S. Bracard)
- 10.45-11.15 Basilar Tip variations and perforating arteries (G.Rodesch)
- 11.15-11.45 Surgical 3D anatomy of the basilar tip and perforators (Ph. Mercier)
- 11.45-12.30 Angioanatomy of the Circle of Willis. Variations and Perforating  
arteries (D. Orbach)
- 12.30-13.30 Lunch
- 14.30-17.30 Workshops  
Maxillofacial region and nasal fossa vascularization (DO MS GR)  
Circle of Willis (VP SH)  
Workstation covering all topics incl. perforators (PV SB)
- Coffee Break(s) between workshop sessions

**Thursday 8/10/2015**

- 8.30-9.30 Anterior Choroidal Artery and Posterior Cerebral Artery: Embryology, anatomy, arterial variations (G.Rodesch)
- 9.30-10.15 Anterior Cerebral Artery and Middle Cerebral Artery (S.Bracard)
- 10.15-10.30 Coffee Break
- 10.30-11.30 Angioarchitectonic organization of cortical and white matter arteries (A. Valavanis)
- 11.30-12.30 Collateral circulation of the brain (A. Valavanis)
- 12.30-13.30 Lunch
- 14.00-17.30 Workshops  
ICA-ECA anastomoses and cranial nerve supply (GR MS)  
Cerebral arteries variations and territories (DO SH VP)  
Workstation about all topics (SB PV)
- Coffee Break(s) between workshop sessions

**Friday 9/10/2015**

- 8.30-9.30 Intracranial Venous system: Cortical veins and dural sinuses: supra and infratentorial dispositions. Normal vascular anatomy and variations (P. Vilela)
- 9.30-10.30 Intracranial Venous system: deep cerebral veins and transmedullary system (S. Bracard)
- 10.30-10.45 Coffee Break
- 10.45-11.15 Surgical 3D venous anatomy (Ph. Mercier)
- 11.15-12.30 Workshops (veins and sinuses)
- 12.45-13.45 Course evaluation
- 14.00 End of the course

# COURSE VENUE: HOSPITAL DA LUZ - LISBON

**Hospital da Luz is located at Avenida Lusíada n.º 100**, alongside Colombo Shopping Center and near Estádio da Luz in Lisbon, with the following coordinates: latitude 38° 45' 22.64" N and longitude 9° 11' 34.99" W.

## Accommodation:

Lisbon has a extensive hotel offer that you may book yourself. We recommend that you choose a hotel near a underground station (specially from blue line - see next page) since this is the best transportation for the course venue.



## How to get there?

### Underground

The underground is the best and fastest way to reach the hospital and congress venue.

The underground: **Linha Azul** (Blue Line), **Colégio Militar / Luz** station is located around 150 meters from the Hospital. (see the underground map in the next page)

### Car

For those coming from the Center of Lisbon or from the North via the A1, use accesses via the Segunda Circular, North-South Expressway, IC 19, CRIL, Av. Pontinha, take Av. Lusíada and go in the direction of the Colombo Shopping Center. The Hospital da Luz will appear on your right after the shopping center.

For those coming from the South via the A2, follow the North-South Expressway in the direction of the Segunda Circular and take the direction of Monsanto. Exit at the

Colombo Shopping Center. Hospital da Luz will appear on your right after the shopping center.

A **paid car park** is available with approximately 500 places and is open 24 hours. It is located on Levels -2 and -3 of the Hospital building.

### Taxi

There is a taxi rank alongside the entrance to the Hospital and another near Colombo Shopping Center, located approximately 150 meters from the Hospital.

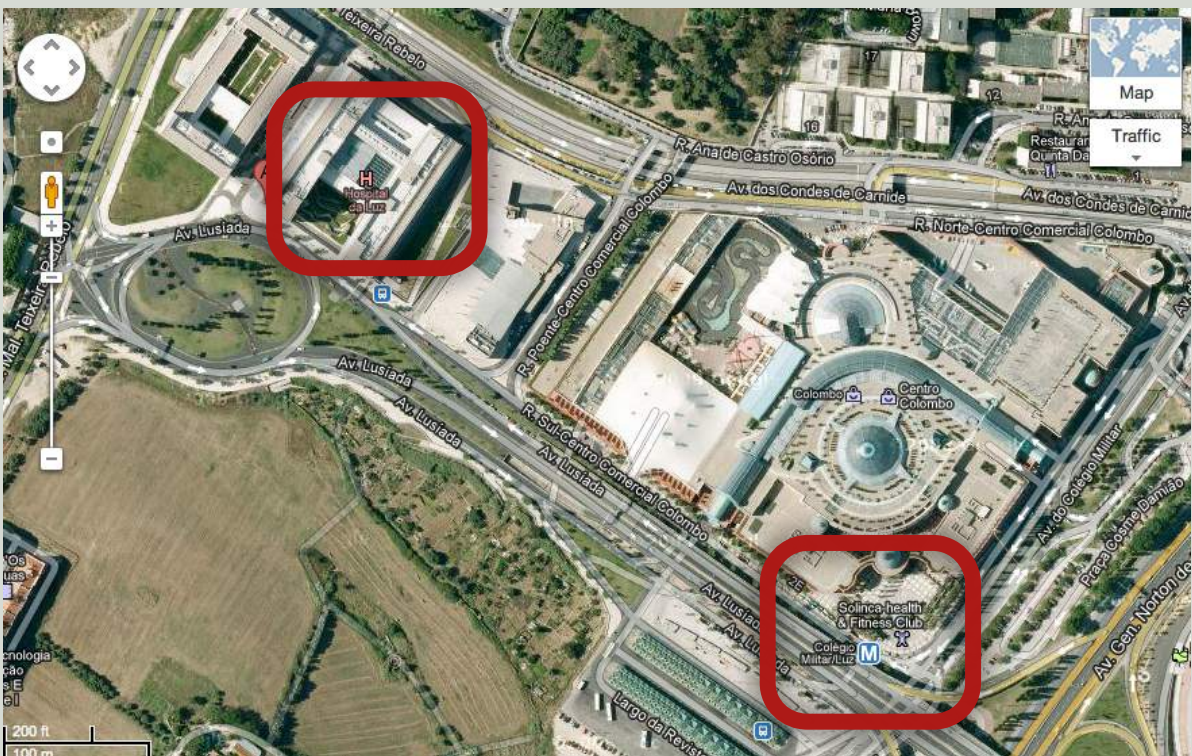
### Buses

For those coming by bus, the nearest stop serving the Hospital is 150 meters away, south of the main entrance. The Carris company buses that stop at Hospital da Luz are:

- **Number 729** (Algés / Bairro Pe. Cruz)
- **Number 765** (Av. Colégio Militar - Metro/ R. Ortigão Ramos)
- **Number 799** (Av. Colégio Militar – Metro / Alfragide Norte)



# COURSE VENUE: HOSPITAL DA LUZ LISBON



# LISBON

Lisbon is the capital city and largest city of Portugal with a population of 547,631 within its administrative limits on a land area of 84.8 km<sup>2</sup>. The urban area of Lisbon extends beyond the administrative city limits with a population of over 3 million on an area of 958 km<sup>2</sup>, making it the 11th most populous urban area in the European Union. Lisbon is the westernmost large city located in Europe, as well as its westernmost capital city and the only one along the Atlantic coast. It lies in the western Iberian Peninsula on the Atlantic Ocean and the Tagus River.

Lisbon is recognised as a global city because of its importance in finance, commerce, media, entertainment, arts, international trade, education, and tourism. It is one of the major economic centres on the continent, with a growing financial sector and the largest/second largest container port on Europe's Atlantic coast.

Lisbon is one of the oldest cities in the world, and the oldest city in Western Europe, predating other modern European capitals such as London, Paris and Rome by hundreds of years. Julius Caesar made it a municipium called Felicitas Julia, adding to the name Olissipo. Ruled by a series of Germanic tribes from the fifth century, it was captured by the Moors in the eighth century. In 1147, the Crusaders under Afonso Henriques reconquered the city and since then it has been a major political, economic, and cultural centre of Portugal. Unlike most capital cities, Lisbon's status as the capital of Portugal has never been granted or confirmed officially – by statute or in written form. Its position as the capital has formed through constitutional convention, making its position as de facto capital a part of the Constitution of Portugal. Called the "Capital of the Lusophone world", the Community of Portuguese Language Countries has its headquarters in the city, in the Palace of the Counts of Penafiel.

Lisbon has two sites listed by UNESCO as a World Heritage Site: Belém Tower and Jerónimos Monastery. Furthermore, in 1994, Lisbon was the European Capital of Culture and in 1998 organised an Expo '98 (1998 Lisbon World Exposition).

Lisbon enjoys a Mediterranean climate. Among all the metropolises in Europe, it has the warmest winters, with average temperatures 15 °C (59 °F) during the day and 8 °C (46 °F) at night from December to February. The typical summer season lasts about six months, from May to October, although also in November, March and April temperatures sometimes reach around 20 °C (68.0 °F).

**Find out more useful information at:**

**<http://www.visitlisboa.com>**

**<http://www.visitportugal.com>**

**<http://www.lisbonlux.com>**

