

# HANDS-ON WORKSHOP IN VASCULAR ULTRASOUND

Bellvitge University Hospital, BARCELONA (Spain)  
4- 6 May 2022

 **esvs**  
Academy



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## KEY BENEFITS

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The course provides a thorough grounding in the clinical skills to work in vascular ultrasound.

During the course, participants are presented an intensive series of short lectures focussed on technical aspects of the different US examinations. Lecturers explain the examinations while performing one in the same room on selected patients.

Classroom teaching is supplemented by sessions at the Vascular Laboratory, where participants have the opportunity to practice their skills under supervision on patients with relevant disease and on silicone models for US guided puncture. Hands-on sessions last 5 hours each day. (4 participants /1 tutor/ 1 station)

The workshop is addressed mainly to novice trainees and to those willing to prepare for the CCVUS examination.

## E-LEARNING MODULE

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Before attending the course, participants will have access to an on-line blended learning module that will introduce them to the basic knowledge of ultrasound and the standards of the different examinations.

The e-learning module includes:

- all presentations of previous editions.
- a quiz that helps to review basic concepts of US physics, the anatomy of commonly examined areas and most important diagnostic criteria.
- a forum open to questions from all participants.
- a survey about previous US experience that will help us to prepare the groups for the workshop.

This preparatory module is intended as a tool to save time in lectures, allowing more time for hands-on practice. It will open 15 days before the course and close one month after it. Registered participants will receive access instructions before April 20<sup>th</sup>.

## REGISTRATION

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The registration fee is €750 for ESVS members and €800 for non-members. It includes course materials, coffees, lunches and a course dinner on 4<sup>th</sup> May. Transport, accommodation and additional meals are not included.

## VENUE

The course will be held at the University Building and Vascular Laboratory of Hospital Universitari de Bellvitge, Barcelona (Spain). It will be in English.

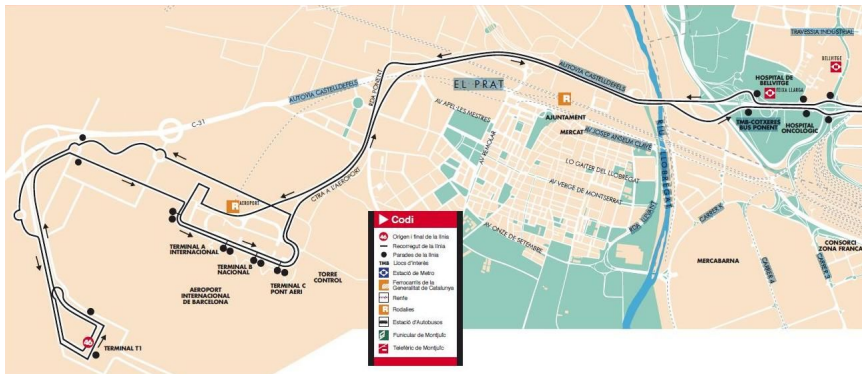
Bellvitge University Hospital is located between Barcelona city centre and the airport.


<https://bellvitgehospital.cat/ca/on-som/accessos>

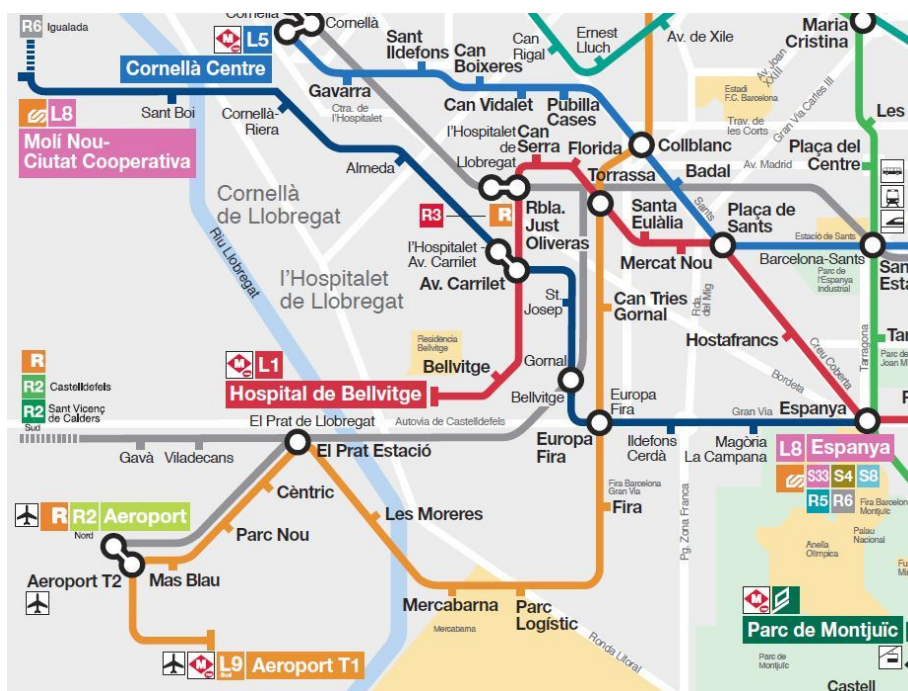
### From the airport :

With public transport you should take bus N° 46 from terminal 1 and get off at “Gran Via-Hospital Princesps d’Espanya” stop and cross the highway using the subway pedestrian crossing. There is a bus every 20 minutes from 5:30AM till 12:00PM, bus journey takes approximately 10min. On arrival to the airport follow the signs to public bus stops below the arrival Hall of Terminal 1 or outside Terminal 2. Tickets can be bought directly on the bus. For more information you can check TMB web site :

<http://www.tmb.cat/en/linia-de-bus/-/bus/46>



From Terminal 1 or Terminal 2 you can also take the Metro (subway), just follow the signs to Line 9 station  from the arrival Hall of both terminals and take any train to Zona Universitaria. You will have to switch to Line 1 at Torrassa Station and take a train towards Hospital de Bellvitge.



A taxi from terminal 1 to the Hospital will take 5 minutes and cost less than 25€.

### From Barcelona city centre:

Take the Metro (subway). The last stop of Line 1 (red) is Hospital de Bellvitge. There is only one exit located inside the hospital premises. More info:

<http://www.tmb.cat/en/detall-linia-metro/-/linia/L1>

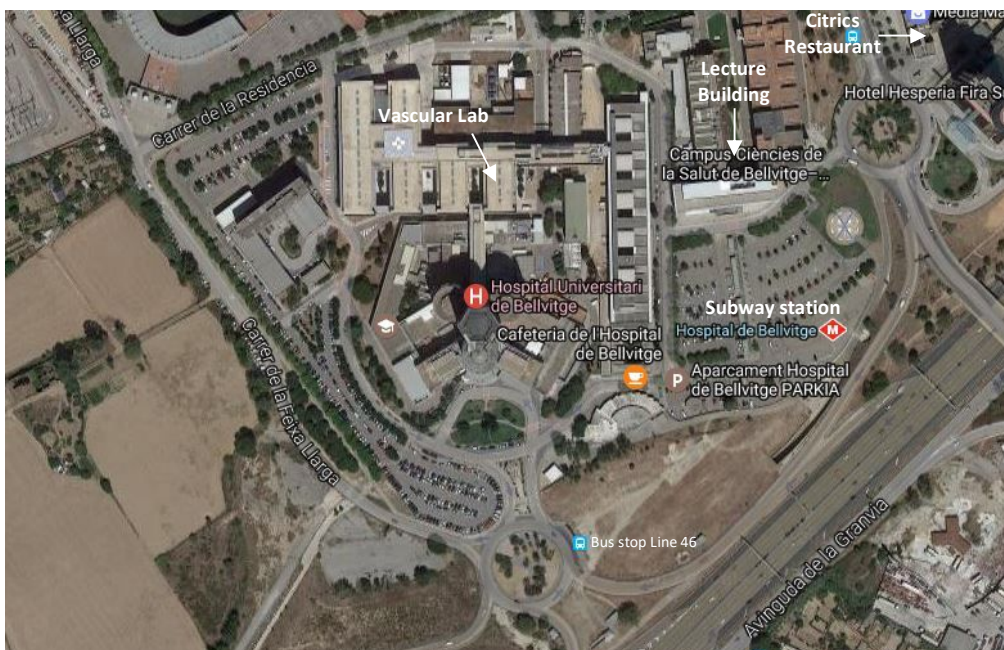
Bus Nº 46 on its way from España Sq. to the airport stops at the Hospital and in front of the University Building.

### Location of the course:

Registration and morning sessions of the course will be situated in **classroom 210** of the Lecture building at the UB University Campus - Bellvitge. There will be signs at the entry of the building announcing the course and classroom.

Hands-on sessions will be held in the Vascular Lab (Module D, 1<sup>st</sup> floor) located at less than 200 m. from the university building.

<http://maps.google.es/maps?hl=es&ll=41.344719,2.106736&spn=0.005477,0.012392&t=m&z=17>



Lunches will be served at “Restaurant Citrics”, in the ground level of Hesperia Barcelona Fira Suites.

## HOTEL ACCOMODATION

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Barcelona has a big offer of hotels, although they are rather busy in May . We recommend to book as early as possible to get better rates. The most convenient and closest hotel to the Hospital is Hesperia Barcelona Fira Suites.

<https://www.hesperia.com/en/hoteles/spain/barcelona/hotel-hesperia-barcelona-fira-suites>

## COURSE DINNER

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Depending on COVID-19 allowance, an informal dinner is planned on the first evening (Wednesday 4<sup>th</sup> ) at a restaurant in the city center near Las Ramblas. No transportation will be provided. Participants will have to reach the restaurant on their own.

## COVID-19 REGULATIONS

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The course will be subject to the Covid regulations in force in Catalonia, regarding vaccination and infection screening by PCR. This regulation is reflected in the following web page

<https://web.gencat.cat/en/activem/restriccions-territorials/catalunya/index.html>

## FACULTY

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|             |  |
|-------------|--|
| Convenors:  | Ramon Vila MD. Head Vascular Surgery Dept. Hospital Universitari de Bellvitge          |
|             | Jonas Eiberg MD. PhD, Ass. Prof., Dept. Vasc Surg, Rigshospitalet, Copenhagen, Denmark |
|             | F. Xavier Marti MD. PhD. Vascular Surgeon Hospital Universitari Bellvitge              |
| Tutors:     | Kim Bredahl MD, PhD. Vascular Surgeon Rigshospitalet, Copenhagen, Denmark              |
|             | Antoni Romera MD. PhD. Vascular Surgeon Hospital Universitari Bellvitge                |
|             | José Escribano MD. PhD. Vascular Surgeon Hospital Vall d'Hebron (Barcelona)            |
|             | M. Ángeles Menéndez MD. Vascular Surgeon Hospital Central de Asturias (Oviedo)         |
|             | Elena Iborra MD. PhD. Vascular Surgeon Hospital Universitari Bellvitge                 |
|             | Carles Martinez Rico MD. Vascular Surgeon Hospital Universitari Bellvitge              |
|             | Begoña Gonzalo MD. Vascular Surgeon Hospital Universitari de Bellvitge                 |
|             | Emma Espinar MD. Vascular Surgeon Hospital Universitari de Bellvitge                   |
|             | José Ignacio Leal MD. PhD. Vascular Surgeon Clínica Universitaria Navarra (Madrid)     |
| BLM Tutor : | Gaspar Mestres MD. PhD. Vascular Surgeon Hospital Clínic (Barcelona)                   |

## PROGRAMME

### ON-LINE BLENDED LEARNING MODULE

|        |                 |      |                   |
|--------|-----------------|------|-------------------|
| Starts | Monday 18 April | Ends | Friday 10 th June |
|--------|-----------------|------|-------------------|

### CLASSROOM & HANDS-ON COURSE

| Time  | Wednesday 4 May  | Time  | Thursday 5 May  | Friday 6 May   |                                  |
|-------|--|-------|---|--|----------------------------------|
| 8:00  | <b>Registration &amp; Welcome</b>  |       |   |  |                                  |
|       |  |       |   |  |                                  |
| 8:20  | <b>Introduction to the course</b><br>R. Vila   | 8:10  | <b>US physics</b><br>J.I. Leal  | <b>AV fistula planning &amp; follow-up</b><br><i>Theory &amp; demo</i><br>B. Gonzalo   |                                  |
|       |  |       |   |  |                                  |
| 8:40  | <b>Principles &amp; instruments of doppler ultrasound</b><br>J. Eiberg                       | 8:40  | <b>Arterial physiology &amp; hemodynamics</b><br>J. Escribano                       | <b>EVAR follow-up</b><br>E. Iborra   |                                  |
|       |  |       |   |  |                                  |
|       |  |       | 9:00  | <b>Carotids &amp; carotid stent</b><br>E. Espinar  | <b>US artifacts</b><br>J.I. Leal |
|       |  |       |   |  |                                  |
| 9:40  | <b>Venous physiology &amp; hemodynamics</b><br>R. Vila                                       |       | <b>AAA &amp; Aortoiliac mapping</b><br>K. Bredahl                                   | <b>Miscellaneous</b><br><i>Diagnostic &amp; follow-up algorithms</i><br><i>Minimum training requirements</i><br><i>Choice of equipment</i> |                                  |
|       |  |       |   |  |                                  |
| 10:00 | <b>Varicose veins</b><br>M.A. Menendez   | 10:00 | <b>Infrainguinal mapping</b><br><i>Lower limb revasc. without angio</i><br>X. Marti | <b>Evaluation</b><br><i>Multiple choice test</i><br><i>Results of test</i>   |                                  |
|       |  |       |   |  |                                  |
| 10:30 | <b>Deep Venous Thrombosis</b><br><i>Theory &amp; demo</i><br>A. Romera                       | 10:30 | <b>US guided puncture</b><br><b>Lower limbs follow-up</b><br>C. Martinez            |  |                                  |
|       |  |       |   |  |                                  |
| 11:00 | <i>Walk to Outpatient clinic &amp; coffee break</i>  | 11:00 | <i>Walk to Outpatient clinic &amp; coffee break</i>                                 | <b>Course Ends</b>   |                                  |
| 11:30 | <b>Hands-on 1</b><br><i>on course participants</i><br>Buttons, knobs, transducers & settings | 11:30 | <b>Hands-on 4</b><br><b>Arterial</b><br><i>on patients</i>                          |  |                                  |
| 13:00 | <b>Lunch</b>   | 13:00 | <b>Lunch</b>  |  |                                  |
| 14:30 | <i>Walk to Outpatient clinic</i>   | 14:30 | <i>Walk to Outpatient clinic</i>  |  |                                  |
| 15:00 | <b>Hands-on 2</b><br><b>Venous</b><br><i>on patients</i>                                     | 15:00 | <b>Hands-on 5</b><br><b>Arterial</b><br><i>on patients</i>                          |  |                                  |
| 16:30 | <b>Pause</b>   | 16:30 | <b>Pause</b>  |  |                                  |
| 16:45 | <b>Hands-on 3</b><br><b>Venous</b><br><i>on patients</i>                                     | 16:45 | <b>Hands-on 6</b><br><b>Arterial</b><br><i>on patients</i>                          |  |                                  |
| 18:30 |  | 18:30 |   |  |                                  |

20:00

**Networking Dinner**