Dermatologic Ultrasound Teaching Center
Hospital Universitario Puerta de Hierro (Majadahonda)
Faculty of Medicine.
Universidad Autónoma de Madrid (SPAIN)

Codirectors Prof. Dr. Fernando Alfageme and Prof Dr. Gastón Roustan

The Dermatologic Ultrasound Teaching Center (DUTC) is a monographic Dermatologic Ultrasound teaching Centre organized in the Service of Dermatology of Hospital Puerta de Hierro Majadahonda) within the Faculty of Medicine of Universidad Autónoma de Madrid.
Goals of our center: the promotion of ultrasonography at high levels of practice in clinical and academic Dermatology; creation of evidence and methods in the ultrasonographie application of Dermatologic Ultrasound and creation of new instruments for easy and quick Learning and implementation of Ultrasonography in clinical daily dermatologic practice.

Faculty

All members of our Service (6 Dermatologists) are well trained sonographers in the field of Dermatologic Ultrasound with Long clinical activity are involved in our teaching.

The following members of the center Faculty, all experienced sonographers and teachers give the courses.

Prof. Dr Fernando Alfageme, Prof Dr Gaston Roustan, Dra Irene Salgüero, Dr Mercedes Sigüenza, Dr. Mercedes Hospital, Dra Elena Lopez-Negrete

This center also has a collaboration in teaching and program supervision by Dr Eugenio Cerezo, internist, sonographer and president of SEECO (Spanish Society of Ultrasound, National ultrasound Society in EFSUMB Head of general Ultrasound in Ecografías America (Madrid).
Main activities of the faculty.

The educational activity of the DUTC is focused on:

Training Doctors (general practitioners or specialists -Dermatologists, rheumatologists, internal medicine, surgery and pediatrics) in the use of ultrasonography as a power tool for diagnosis and following of the disease in dermatologic diseases (inflammatory, oncologic and aesthetics).

Research funded by several laboratories such as ABBVIE, ISDIN, and Leo Pharma is focused on different directions: Ultrasonography in hidradenitis suppurativa and psoriasis, elastography in oncological and inflammatory skin diseases, noninvasive assessment of cancerization skin fields, and assessment of ultrasound guided laser treatment of vascular tumors and malformations.
The center organizes 4 kind of courses.

- 3-week clinical courses.
- 1 week monographic courses
- 2 days intensive courses (sponsored).
- 6 months mentoring program

These courses are organized as follows:

1st Level of Teaching

**Prework study period** in which the student receives basic principles in general ultrasound, Doppler in skin diseases, dermatologic ultrasound in skin oncology, dermatologic ultrasound in inflammatory diseases, dermatologic ultrasound in aesthetics, ultrasonography in dermatologic surgery

**DULC supervised training period** in which firstly US scanning by teachers and after supervised student US exploration is focused in clinical daily dermatologic practice and selected patients. The setting of these scans are both the outpatient’s area and operation room for preoperative and intraoperative US guided procedures.

This training period is completed with
• Presentations made by experts concerning special applications of Dermatologic ultrasound

• Interpretation of normal and pathologic images and videos from the Dermatologic Ultrasound Digital library of our center.

• Direct exploration in normal subjects and patients under expert’s supervision.

These courses are ended by an ultrasound test (both theory and practical) and a satisfaction questionnaire.

Both three Weeks and 2 days intensive courses are preparatory for 1st level of The Spanish Society of Ultrasonography (SEECO) accreditation in Ultrasound in Dermatology and Aesthetic medicine

2nd level of teaching

The 6 months mentoring program is offered to student that already have a 1st Level of teaching.

A prework with advanced topics in Dermatologic Ultrasound are dealt

Dermatologic Ultrasound in complex oncological cases

Dermatologic Ultrasound in complex inflammatory diseases

Special Dermatologic Ultrasound techniques (elastography, x flow, surgical marking.
Dermatologic Ultrasound in Aesthetics

In this program, there is a 2-day clerkship in the DUTC to assess clinical practice of the student in selected cases under teacher's supervision.

On a monthly base, the student is offered an online supervision session in which the student presents at least 50 cases performed along that month. A total of 300 supervised images are required to obtain a 2nd level of learning in Dermatologic Ultrasound.

After that, the student may take 2nd level SEECO Ultrasound in Dermatology and Aesthetics Accreditation exam.

Experience up to date in our DUTC.

Since its opening in 2012, our DUTC has been a pivotal center for the training of more than 50 Dermatologist, most of them being responsible dermatologist for Dermatologic Ultrasound units all over Spain.

The first national Dermatologic Ultrasound Scientific Meeting was held in November 2014 in our hospital with more than 100 participants and 20 scientific communications in the field of Dermatological Ultrasound.

References
The center benefits s of its own educational materials.

- Handbook of Skin Ultrasound (English) ISBN-10: 1480262846

**Spaces and hardware**

The center has a My Lab class C Equipment with variable frequency probes of 16-22 MHz and 13-18 MHz. Ultrasound laser guided procedures and surgical guided procedures are performed on a weekly basis.

X Flow and Strain, elastography is also available in our equipment.

A library of more than 1000 volumes with subscriptions to main scientific publications are available. A dedicated space for visitors and residents with 2 PCs and printers are available also.

**Cooperation**

We cooperate with main Ultrasound Equipment brands (ESAOTE and GE) in the development of new applications and fields in Dermatologic Ultrasound.

Pharmaceutical companies such as ABBVIE and ISDIN, Leo Pharmaceutical, collaborate with us in the investigative field of application of ultrasonography in medical dermatologic conditions such as psoriasis, hidradenitis suppurativa and skin cancer.
National Recognition

The Dermatologic Ultrasound Learning center is a teaching center recognized by the Commission of Dermatologic residency for teaching Dermatologists during their residency or after specialization.

International Recognition

Dr Eugenio Cerezo is member of the Educational and Professional Standards Committee of EFSUMB.

Our Centre has been presented as pivotal Dermatologic Ultrasound learning center for Global ABBVIE for the teaching of this discipline to dermatologists of America, Europe and Asia.

Prof Dr. Fernando Almageme Roldán

Prof Dr. Gastón Roustán Gullón

Dr Eugenio Cerezo López