EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Confocal Microscopy: Integration in Clinical Practice

Residents and Specialists Course | 3-5 April 2025 | Madrid, Spain

Course description

Reflectance Confocal Microscopy is a non-invasive imaging technique that enables obtaining precise information at subcellular level in real-time. In this course, we will describe the fundamental principles for confocal imaging of human skin in vivo, the major live microscopic features that characterize benign and malignant skin conditions, and its potential to monitor dynamic processes. In addition to, how to integrate this tool in clinical practice with real examples will be also discussed.

After the course, attendees will understand the basics principles of in vivo and ex vivo confocal microscopy, identify features of common inflammatory conditions and tumors of benign and malignant nature and integrate this technology in routine clinical workflow.

Learning Objectives

1. Understand the fundamentals of in-vivo and ex-vivo confocal microscopy;
2. Identify confocal features of benign and malignant skin tumors;
3. Identify confocal features of inflammatory conditions and infections;
4. Integrate in-vivo confocal microscopy in common clinical situations;
5. Understand ex-vivo confocal microscopy in dermatology surgery including Mohs Surgery.

Faculty

Chairs:	Salvador González
Speakers:	Marco Ardigo; Reyes Gamo; Melissa Gill; Francesco Lacarrubba; Javiera Pérez-Anker
Tutors:	Virginia Velasco; Giulia Greta Dradi

Programme

Thursday, 3 April 2025

14:30-14:45	Introduction & Welcome *S. González*
14:45-15:00	Pre-Course Kahoot Quiz (Evaluation) *V. Velasco, G. Dradi,*
15:00-15:30	Fundamentals: Equipment, Basic Optical Parameters of In-Vivo and Ex-Vivo Confocal Microscopy *S. González, J. Pérez-Anker*

SECTION A. Ex-Vivo Confocal Features in Non-Melanocytic Tumors

15:30-16:00	Ex-Vivo Confocal in Dermatology Surgery: Protocols *J. Pérez-Anker*
16:00-16:30	Coffee Break
16:30-17:30	Basal Cell Carcinomas *J. Pérez-Anker*
17:30-18:00	Squamous Cell Carcinoma and Other Lesions *J. Pérez-Anker*

Friday, 4 April 2025

SECTION B1. Glossary and Confocal Patterns

09:00-9:30 Inflammatory Lesions Patterns
F. Lacarrubba

09:30-10:00 Non-Melanocytic Tumors
M. Gill

10:00-10:30 Melanocytic Tumors
R. Gamo

10:30-11:00 Coffee Break

SECTION B2. Confocal Features and Algorithms. Inflammatory Conditions

11:00-11:20 Inflammatory Cutaneous Disorders
F. Lacarrubba

11:20-11:40 Scalp and Hair Diseases
M. Ardigo

11:40-12:00 Infections
F. Lacarrubba

12:00-13:00 Practical Session with Real-Time Image Acquisition on Patients in Clinic
V. Velasco, G. Dradi
Interactive Clinical Cases
M. Ardigo, F. Lacarrubba

13:00-14:00 Lunch Break

SECTION B3. Confocal Features and Algorithms. Non-Melanocytic Tumors

14:00-14:30 Benign Non-Melanocytic Tumors
M. Ardigo

14:30-15:15 Basal Cell Carcinomas
S. González

15:15-16:00 Squamous Cancers
M. Ardigo

16:00-16:30 Coffee Break

SECTION B4. Confocal Features and Algorithms in Melanocytic Tumors

16:30-17:00 Common Acquired and Congenital Nevi
R. Gamo

17:00-18:00 Dysplastic Nevi and Melanoma
M. Gill

18:00-18:30 Lentigo Maligna and Lentigo Maligna Melanoma
R. Gamo

20:30-22:30 Networking Dinner with Faculty and Participants

Saturday, 5 April 2025

09:30-11:00 Practical Session with Real-Time Image Acquisition on Patients in Clinic
Interactive Clinical Cases
- Non-melanocitic skin Tumors
- Melanocytic Tumors

S. González, M. Ardigo, R. Gamo, M. Gill
V. Velasco, G. Dradi

11:00-11:30 Coffee Break

SECTION C. Integrating Confocal Microscopy in Clinical Workflow

11:30-13:30 Integrating Confocal Microscopy in Clinical Workflow (I)
M. Gill, M. Ardigo, F. Lacarrubba, R. Gamo, G. Segurado, J. Pérez-Anker, S. González
Practical Session with Real-Time Image Acquisition on Patients in Clinic
V. Velasco, G. Dradi

1330-13:45 Post-Course Kahoot Quiz (Evaluation)
V. Velasco, G. Dradi

13:45-14:00 End of the Course and Farewell
S. González

The programme might be subject to changes

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