

# Confocal Microscopy: Integration in Clinical Practice

Combined Course (Residents & Specialists) | 18-20 March 2027 | Madrid, Spain

## 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, 18 March 2027

|               |                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------|
| 14:30-14:45   | Introduction & Welcome<br>Salvador González                                                                |
| 14:45-15:00   | Pre-Course Kahoot Quiz (Evaluation)<br>Virginia Velasco; Giulia Greta Dradi                                |
| 15:00 – 15.30 | Fundamentals: Equipment, Basic Optical Parameters of In-Vivo Confocal<br>Salvador González                 |
| 15.30 – 15.45 | Fundamentals: Equipment, Basic Optical Parameters of Ex-Vivo Confocal<br>Microscopy<br>Javiera Pérez-Anker |
|               | <b>SECTION A. Ex-Vivo Confocal Features in Non-Melanocytic Tumors</b>                                      |
| 15.45 – 16.00 | Ex-Vivo Confocal in Dermatology Surgery: Protocols<br>Javiera Pérez-Anker                                  |
| 16:00-16:45   | Coffee Break and Hands On Training                                                                         |

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|               | <b>Virginia Velasco; Giulia Greta Dradi</b>                      |
| 16.45 – 17.30 | Basal Cell Carcinomas<br>Javiera Pérez-Anker                     |
| 17.30 – 18.00 | Squamous Cell Carcinoma and Other Lesions<br>Javiera Pérez-Anker |

### Friday, 19 March 2027

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|               | <b>SECTION B1. Glossary and Confocal Patterns</b>                                                                                                                                                        |
| 09.00 – 09.30 | Inflammatory Lesions Patterns<br>Francesco Lacarrubba                                                                                                                                                    |
| 09.30 – 10.00 | Non-Melanocytic Tumors<br>Melissa Gill                                                                                                                                                                   |
| 10.00 – 10.30 | Melanocytic Tumors<br>Reyes Gamo                                                                                                                                                                         |
| 10.30 – 11.00 | Coffee Break                                                                                                                                                                                             |
|               | <b>SECTION B2. Confocal Features and Algorithms. Inflammatory Conditions</b>                                                                                                                             |
| 11.00-11:20   | Inflammatory Cutaneous Disorders<br>Francesco Lacarrubba                                                                                                                                                 |
| 11:20-11:40   | Scalp and Hair Diseases<br>Marco Ardigo                                                                                                                                                                  |
| 11:40-12:00   | Infections<br>Francesco Lacarrubba                                                                                                                                                                       |
| 12.00 –13.00  | Practical Session with Real-Time Image Acquisition on Patients in Clinic<br>Virginia Velasco; Giulia Greta Dradi; Marco Ardigo, Francesco Lacarrubba<br>Interactive Clinical Cases and Hands On Training |
| 13.00 – 14.00 | Lunch Break                                                                                                                                                                                              |
|               | <b>SECTION B3. Confocal Features and Algorithms. Non-Melanocytic Tumors</b>                                                                                                                              |
| 14.00 – 14.30 | Benign Non-Melanocytic Tumors<br>Marco Ardigo                                                                                                                                                            |
| 14.30 – 15.15 | Basal Cell Carcinomas<br>Salvador González                                                                                                                                                               |
| 15.15 – 16.00 | Squamous Cancers<br>Marco Ardigo                                                                                                                                                                         |
| 16.00 – 16.45 | Coffee Break and Hands On Training<br>Virginia Velasco; Giulia Greta Dradi                                                                                                                               |
|               | <b>SECTION B4. Confocal Features and Algorithms in Melanocytic Tumors</b>                                                                                                                                |
| 16:45-17:15   | Common Acquired and Congenital Nevi<br>Reyes Gamo                                                                                                                                                        |
| 17:15-18:00   | Dysplastic Nevi and Melanoma<br>Melissa Gill                                                                                                                                                             |
| 18:00-18:30   | Lentigo Maligna and Lentigo Maligna Melanoma<br>Reyes Gamo                                                                                                                                               |
| 20:30-22:30   | Networking Dinner with Faculty and Participants                                                                                                                                                          |

### Saturday, 20 March 2027

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| 09.00 – 11.00 | Practical Session with Real-Time Image Acquisition on Patients in Clinic<br>- Interactive Clinical Cases and Hands On Training<br>- Non-melanocytic skin Tumors<br>- Melanocytic Tumors<br>Virginia Velasco; Giulia Greta Dradi; Salvador González, Marco Ardigo, Reyes |
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|               | Gamo, Melissa Gill                                                                                                                                                                                                                                                                  |
| 11:00 – 11.30 | Coffee Break                                                                                                                                                                                                                                                                        |
|               | <b>SECTION C. Integrating Confocal Microscopy in Clinical Workflow</b>                                                                                                                                                                                                              |
| 11:30-13:30   | Integrating Confocal Microscopy in Clinical Workflow (I)<br>Melissa Gill, Marco Ardigo, Francesco Lacarrubba, Reyes Gamo, Javier Pérez-Anker, Salvador González<br>Practical Session with Real-Time Image Acquisition on Patients in Clinic<br>Virginia Velasco; Giulia Greta Dradi |
| 13:30-13:45   | Post-Course Kahoot Quiz (Evaluation)<br>Virginia Velasco; Giulia Greta Dradi                                                                                                                                                                                                        |
| 13:45-14:00   | End of the Course and Farewell<br>Salvador González                                                                                                                                                                                                                                 |

*The programme might be subject to changes.*