Master's degree in reconstructive microsurgery (MRM)

Research and clinical part-time programme (105 ECTS)
We welcome your interest in the Reconstructive Microsurgery European School. We have designed this International Master’s Degree in Reconstructive Microsurgery to provide advanced quality training in microsurgery.

Delivered in a modular format (12 modules), this degree in reconstructive microsurgery allows you to study reconstructive microsurgery with highly qualified faculty who have the expertise to provide you with the training needed to be competitive in the field you have chosen.

Face-to-face modules take place at highly recognized European hospitals. With training locations around the world, you will have the opportunity to learn through clinical immersion and interaction with some of the best microsurgery departments with whom have collaboration agreements.

As you read this brochure we trust you will share our enthusiasm and we invite you to consider joining us on this exciting journey.

Prof. Jaume Masià
Academic co-director

Prof. Sinikka Suominen
Academic co-director
I improved the performance of the microsurgical cases in my hospital since I finish the clinical immersion program...

Now I belong to the group of the European Reconstructive Microsurgery School and that is an honor for me, and I hope the update symposium will be an opportunity to update our knowledge, contribute with new inputs, and see all the world-wide friends I’ve had the pleasure to meet during this course

Microsurgery has become a standard part of all tissue transfer techniques and is an essential component in the most advanced reconstructive procedures, such as vascular anastomosis, lymphatic microsuture and neurorrhaphies. The exponential growth in the use of microsurgical techniques, over the last ten years, especially in plastic surgery, clearly indicates that a skilled microsurgical team is indispensable in all major hospitals.

This International Master’s Degree in Reconstructive Microsurgery offers comprehensive, specific training in fields such as breast surgery, brachial plexus, hand surgery, head and neck reconstruction, limb salvage, genitourinary and supermicrosurgery. widen their range of competences and learn new skills. It is officially recognized by the Universitat Autònoma de Catalunya and it is organized in association with a faculty of international renowned experts.

It is addressed to plastic surgeons, surgical specialists without experience in microsurgery, and experienced microsurgeons who want to widen their range of competences and learn new skills.

The program includes specific training modules that cover both theoretical and practical aspects. If trainees complete the program and pass final exams, the acquisition of high level skills is guaranteed. The training program will be individually tailored to the needs of each student. A high level of performance is expected, and quality instruction is guaranteed.

The training centers are state-of-the-art learning facilities, designed and commissioned to meet the need of the modern healthcare professional and to provide excellence as a facility for advanced surgical training.

The clinical immersion program (modules 10 and 11) are designed for surgeons who wish to increase their knowledge of a particular procedure in a specialized area such as head and neck, breast, limb and genitourinary microsurgical reconstruction in a more warm and supportive environment. The majority of time is spent in the operating theatre observing and working with an expert in the chosen specialist area. New techniques and procedures are demonstrated and students are coached through complex dissections on a one-to-one basis.

An on-line campus has been established, and articles, videos, formative evaluation tests, study cases and cross-fire debates are presented. This campus is designed to promote debate among the faculty of world renowned experts and the students, and to provide a platform to discuss key subjects within each surgical specialty.

An update master meeting will be held every 5 years to discuss complex and challenging clinical cases and new developments. It will support and encourage close. The aim of this update meeting is to develop a wide clinical and scientific network that constantly promotes excellence in education and training in institutions throughout Europe.
OBJECTIVES AND COMPETENCES

The course provides learning tools designed to address the key aspects of the reconstructive microsurgery.

- Provide an environment where a qualified, motivated student can gain advanced training in reconstructive microsurgery.
- To promote scientific and critical thinking.
- Perform microsurgical techniques in all major fields: breast reconstruction, head and neck surgery, limb salvage, lymphedema surgery, genitourinary reconstruction and supermicrosurgery.
- Learn and implement supermicrosurgery techniques.
- Analyze and determine the most suitable microsurgical technique for a particular case.
- Analyze needs and indications for transplantation.
- Preoperatively plan all types of microsurgical flaps: myocutaneous flaps, muscular flaps, bone flaps, axial-cutaneous flaps and perforator flaps.
- Master and apply suture techniques in microvascular surgery, lymphatic and anastomosis neurorrhaphy.
- Plan and perform limb replantation procedures.
- Avoid complications and sequelae of reconstructive procedures.
- Approach and perform microsurgical flap salvage techniques.
- Carry out postoperative follow up of microsurgical flaps: monitoring techniques.

THE MRM PROGRAM IS MORE THAN AN ACADEMIC CHALLENGE; IT IS A ONCE-IN-A-LIFETIME EXPERIENCE OF PERSONAL AND PROFESSIONAL DEVELOPMENT

“Because Microsurgery techniques are essential in the most advanced reconstructive procedures”
Essential concepts in clinical and research microsurgery: cadaver workshop on flap dissection.

Workshop. Microvascular surgery training using a small animal model (rats).

Workshop. Dissection techniques of perforator flaps and supermicrosurgery using a live animal model (pig).

Clinical training in head and neck microsurgical reconstruction

Clinical training in breast microsurgical reconstruction

Clinical training in microsurgical reconstruction of the lower limb

Clinical training in microsurgical reconstruction of the upper limb

Clinical training in genitourinary reconstruction

Clinical training in supermicrosurgery

Clinical immersion programme I

Clinical immersion programme II

Introductory course on the methodology of clinical research. Master Final Thesis / Research Work

The program comprises 50 percent of face-to-face sessions held in 6 cities - Barcelona, Cáceres, Florence, Ghent, Helsinki and Paris - and 50 percent of clinical immersion at one of 18 out-standing hospitals from around the world.

“Each module of the MRM program provides theoretical and practical knowledge and skills by offering participants a rich set of opportunities to apply their learning in their clinical practice”

Highly specialized surgical training promotes professional practice

Prof. Sinikka Suominen
Vice-Director and Adjunct Professor Department of Plastic and Reconstructive Surgery
Helsinki University Hospital, Helsinki
This Master’s degree is the perfect fit for the global world we are living today.
This master’s degree caters for diverse group of individuals from a variety of nationalities and backgrounds. It is especially designed for plastic surgeons and other surgical specialists for whom microsurgery has become an essential component of their practice.

Countries of origin, residence, or nationality of participants to date

- Argentina
- Australia
- Austria
- Brazil
- Canada
- Chile
- Colombia
- Cyprus
- Egypt
- Finland
- France
- Germany
- India
- Indonesia
- Iraq
- Italy
- Libya
- Mexico
- Netherlands
- Norway
- Kuwait
- Peru
- Portugal
- Russia
- Saudi Arabia
- South Korea
- Spain
- Sweden
- UK
- USA
- Venezuela

General class profile

<table>
<thead>
<tr>
<th>Class size approx</th>
<th>Average age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>35</td>
<td>70%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Number of students accepted

A maximum of 35 and a minimum of 9 students will be accepted to the Master’s Degree program. The number of students admitted to the parallel Postgraduate Diplomas program will depend on the number of students enrolled in the Master’s Degree.

THE NETWORK

When you begin the MRM program, you will immediately join a unique group of accomplished professionals. You and your fellow students will learn creatively and critically together. You will develop a community of support and lasting professional relationships with your colleagues and professors, and you will find that the MRM program is more than an academic challenge; it is a once-in-a-lifetime experience of personal and professional development.

A master update meeting will be held every 5 years to discuss new techniques and to present new developments. Close interaction between qualified master's degree students and faculty will be encouraged. The aim of this update meeting to create a wider clinical and scientific network that continues to engage in excellence in education and training in institutions throughout Europe.

The philosophy of these sessions is to establish a specialized working group with effective communication between former students and faculty.

“The MRM program includes prominent international faculty and experts in all aspects of microsurgery”
ACADEMIC CO-DIRECTORS

Jaume Masià MD, PhD
Hospital de Sant Pau

Sinikka Suominen MD, PhD
Helsinki University Hospital

“Students will have the opportunity to study the modules and the issues which they are interested in, depending on their wills and objectives in the future.”

Vice-Director and Adjunct Professor Department of Plastic and Reconstructive Surgery Helsinki University Hospital, Helsinki

“The MRM is a unique program tailored on the specifics of learning: the acquisition of knowledge, and the reframing of a practice. It is an unforgettable life experience. Students agree that there is a before and after MRM.”

Chief and Professor of Plastic Surgery Department Hospital de la Santa Creu i Sant Pau (Universitat Autonoma de Barcelona).

EDUCATIONAL COORDINATORS

Jian Farhadi MD, FMH (Plast)

Current Appointment
Professor and Director Department of Plastic Surgery, St Thomas’ Hospital, London (UK). Partner Clinic Pyramide at the Lake, Zuerich (Switzerland).

Medical Education
• University of Basel, Switzerland
• Hôpital de la Pitié-Salpêtrière, Paris, France

Training in Plastic Surgery
• University Hospital Basel, Switzerland
• Yale University, New Haven, USA
• St Thomas’ Hospital London, UK

Field of expertise
• Breast Reconstruction
• Lower Limb Reconstruction
• Perineal Reconstruction

Cristina Garusi MD

Current Appointment
Professor in Plastic Surgery and Director of Plastic and Reconstructive Microsurgery at Florence University/Careggi University Hospital, Florence, Italy

Medical Education
• University of Florence

Training in Plastic Surgery
• University of Brescia Microsurgery Center
• Louisville Hand and Microsurgery Centre (USA)
• Chinese University Prince of Wales Hospital (Hong Kong)

Field of expertise
• Reconstruction of extremities
• Microsurgical bone and soft tissue reconstruction
• Hand surgery
• Congenital
• Pediatric microsurgery
• Head and neck reconstruction

Marco Innocenti MD

Current Appointment
Senior Vice Director Chirurgia Plastica, Instituto Europeo di Oncologia, Milano

Medical Education
• Università degli Studi di Verona

Training in Plastic Surgery
• Università di Padova
• Università di Milano
• Canniesburn Hospital Glasgow
• Instituto Europeo di Oncologia

Field of expertise
• Breast reconstructive surgery
• Supermicrosurgery (lymphedema)
Frederic Kolb
MD, PhD

Current Appointment
Chief of the Plastic Department of the Institut Gustave Roussy, Villejuif, France

Medical Education
• Medical School Bichat. Paris VII

Training in Plastic Surgery
• Institut Gustave Roussy

Field of expertise
• Head and neck reconstruction
• Skull base surgery
• Breast oncology and reconstruction
• Limb reconstruction
• Oncologic dermatology
• Bioengineering

Nicolas
Leymarie,
MD, MSc

Current Appointment
Consultant of Plastic Surgery, Gustave Roussy, Cancer Campus Grand Paris

Medical Education
• University Denis Diderot, Paris 7

Training in Plastic Surgery
• Gustave Roussy, Cancer Campus Grand Paris

Field of expertise
• Head and neck reconstruction
• Breast oncologic surgery
• Breast reconstruction
• Limb reconstruction
• Dermatologic surgery
• Soft tissue sarcoma

Jaume Masià
MD, PhD

Current Appointment
Professor and Chief, Department of Plastic Surgery, Hospital de la Santa Creu i Sant Pau (Universitat Autònoma de Barcelona), Barcelona, Spain. Chief of the Breast Reconstructive and Lymphedema Unit. Clinica Planas, Barcelona

Medical Education
• Universitat de Barcelona

Training in Plastic Surgery
• University Medical Centre Groningen, Groningen, The Netherlands
• Erasmus University Medical Centre, Rotterdam, The Netherlands
• Bernard O’Brien Institute of Microsurgery at St. Vincent’s Hospital, University of Melbourne, Melbourne, Victoria, Australia

Field of expertise
• Breast Reconstruction
• Soft Tissue and Bone Sarcoma (Extremities, Trunk, Pelvic) Reconstruction
• Facial and Head & Neck Reconstruction
• Gynaecology and Urology Cancer Reconstruction

Stefan O.P.
Hofer

Current Appointment
Professor in Reconstructive Microsurgery, Universidad Nacional Autónoma de México Plastic and Reconstructive Surgery Department Hospital General Dr. Manuel Gea Gonzalez and Instituto Nacional de Cancerologia

Medical Education
• Medical School. Anahuac University (Incorporated to the National University of Mexico, Mexico City)

Training in Plastic Surgery
• Dr. Manuel Gea Gonzalez General Hospital Mexico City
• Memorial Sloan-Kettering Cancer Center. New York, N.Y
• Microsurgery and Upper Extremity Clinical Fellowship. Chang Gung Memorial Hospital Taipei, Taiwan

Field of expertise
• Breast reconstruction
• Head and Neck surgery
• Limb reconstruction
• Facial palsy

Eric Santamaria
MD

Current Appointment
Head of Microsurgery Unit. Department of Plastic and Reconstructive Surgery, Hospital de la Santa Creu i Sant Pau (Universitat Autònoma de Barcelona), Barcelona, Spain

Medical Education
• Universitat de Barcelona

Training in Plastic Surgery
• Hospital de la Santa Creu i Sant Pau, Barcelona, Spain
• Hospital de la Vall d’Hebrón, Barcelona, Spain
• Hospital Central de Asturias, Oviedo, Spain
• Universitat Ziekenhuis, Ghent, Belgium
• Charleston Memorial Hospital, Charleston, US

Field of expertise
• Breast reconstruction
• Supermicrosurgery (lymphedema)

Gemma Pons
MD, PhD

Current Appointment
Head of Microsurgery Unit. Department of Plastic and Reconstructive Surgery, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain

Medical Education
• Universitat de Barcelona

Training in Plastic Surgery
• Hospital de la Santa Creu i Sant Pau, Barcelona, Spain
• Hospital de la Vall d’Hebrón, Barcelona, Spain
• Hospital Central de Asturias, Oviedo, Spain
• Universitat Ziekenhuis, Ghent, Belgium
• Charleston Memorial Hospital, Charleston, US

Field of expertise
• Breast reconstruction
• Supermicrosurgery (lymphedema)
Sinikka Suominen MD, PhD

Current Appointment
Vice-Director and Adjunct Professor Department of Plastic and Reconstructive Surgery

Medical Education
- Helsinki University

Training in Plastic Surgery
- Helsinki University Central Hospital
- Chang-Gung Memorial Hospital, Taipei, Taiwan

Field of expertise
- Breast reconstruction
- Head and neck reconstruction
- Genital reconstruction
- Supermicrosurgery (lymphedema)
- Facial Palsy

Koenraad Van Landuyt MD, PhD

Current Appointment
Associate Professor at the Department of Plastic and Reconstructive Surgery. Ghent University Hospital, Ghent, Belgium

Medical Education
- Ghent University Hospital

Training in Plastic Surgery
- Villain XIV Hospital, Maasmechelen&Sint-Jacobus
- Hospital, Tongerem. Belgium
- Ghent University Hospital
- H.Hart Hospital, Oostende, Belgium
- Dijkzigt Hospital, Rotterdam, The Netherlands
- Med. Höchschu-le Hannover, Germany

Field of expertise
- Breast reconstruction
- Pediatric surgery
- Lower limb reconstruction
- Supermicrosurgery (lymphedema)

Carmen Vega MD, PhD

Current Appointment
Consultant and associate professor Plastic Surgery Department Hospital de la Santa Creu i Sant Pau.

Medical Education
- Medical School – Oviedo University (Spain)

Training in Plastic Surgery
- University Hospital of Asturias (Spain)

Field of expertise
- Head & Neck reconstruction
- Limb reconstruction
- Soft tissue sarcoma reconstruction
- Oncologic dermatology

Zaher Jandali

Educational Student Ambassador

Current Appointment
Chief of the Department of Plastic, Aesthetic, Reconstructive and Hand Surgery at Evangelisches Krankenhaus Oldenburg Oldenburg, Germany.

Medical Education
- University Medical Center Hamburg-Eppendorf – UKE

Training in Plastic Surgery
- MRM (Master in reconstructive microsurgery UAB)
- Asklepios Klinik Wandsbek – Hamburg

Field of expertise
- Reconstruction of extremities
- Breast reconstruction
- Supermicrosurgery (lymphedema)
- Microsurgical bone and soft tissue reconstruction
- Hand surgery

Alex Muset MD, PhD

Member of European Federation of Societies for Microsurgeries

Current Appointment
Chief of Neuroortopedics, Brachial Plexus and Microsurgery. Director of Muset Institute. Barcelona, Spain

Medical Education
- Università degli Studi di Brescia

Training in Plastic Surgery
- Legnano Hospital, Italy
- Hôpital Pelegrin, Bordeaux. France
- French Institute of the Hand. Paris, France
- Weber Neurosurgery Service Hospital, Heerlen, Netherlands.

Field of expertise
- Surgery of the hand
- Upper extremity shoulder
- Peripheral nerve surgery
- Plexus and microsurgery

OTHER MEMBERS OF THE COORDINATION TEAM

Danielle Cervelli
Consultant Plastic Surgery Policlínico Universitario “Agostino Gemelli”, Rome (MRM 2010-2012)

"The more I have the chance to exchange ideas and knowledge with my colleagues, the more interested I become. The ideas I have held about some nationalities have been totally changed after getting to know them."
FACE TO FACE MODULES

Residency modules take place at Hospital de Sant Pau and Fundació Puigvert in Barcelona, Institut Gustave Roussy in Paris, Universidad Miguel Hernández in Alicante, Jesús Usón Minimally Invasive Surgery Centre in Caceres, Ospedale Careggi in Florence and Töölö Hospital in Helsinki. Participants will undertake nine face-to-face modules stretching from September through June.
Theoretical introduction to the basic concepts of microsurgery
- History of microsurgery
- Microscope and microsurgical instruments
- Selection of suture material for microsurgical procedures
- Basic skills in microsurgery
- Advanced skills in microsurgery
- Preoperative microsurgical planning
- Microsurgical flap monitoring
- Selection of right flap
- Microsurgical flap salvage
- Refinements in microsurgical reconstruction
- Fundamentals in research methodology for microsurgery

Flap dissection training using a fresh cadaver model

Head and neck:
- Submental flap
- Temporo-parietal flap
- Supraclavicular flap
- Free Helix Flap

Upper limb and shoulder:
- Lateral arm flap
- Radial forearm flap

Lower limb and pelvis:
- PAP
- Lumbar perforator flap (LPF)
- Inferior gluteal artery perforator flap (IGAP)
- Superior gluteal artery perforator flap (SGAP)
- Thigh: anterolateral thigh flap (ALT), medial thigh flap
- Gracilis (ATMG)
- Osteocutaneous peroneal artery perforator flap
- Propeller flaps based on peroneal and tibial perforators
- Medial plantar flap

Trunk:
- Internal mammary fascio-cutaneous flaps
- Intercostal flaps
- Scapulo-dorsal flaps: latissimus dorsi, thoracodorsal artery perforator flap (TDAP), scapular flap, parascapular flap and chimeric flaps
- Internal iliac crest: Groin flap, superficial circumflex inguinal perforator flap (SCIP), iliac crest flap
- Abdominal wall flaps: musculo-cutaneous rectus abdominis flap (TRAM), deep inferior epigastric perforator flap (DIEP) and Taylor, superficial inferior epigastric artery flap (SIEA)
- Free lymphonode transfer
Intensive training course on basic microsurgical skills using a small animal model (rat)

- Basic management of experimental animal, microscope and instrumentation
- Microsurgical suture practice on surgical gloves
- Epineural and perineural suture of the sciatic nerve
- End-to-end suture of the carotid artery and femoral artery
- End-to-end suture of the jugular vein and femoral vein
- Aorto-iliac end-to-end suture
- End-to-side suture between femoral artery and vein
- Jugular vein graft to carotid artery
- "In situ" groin flap
- Distant groin flap to the neck

Intensive course on dissection of perforator flaps in live animals (pig) and basic supermicrosurgical skills training

- Perforator flap anatomy
- Preoperative planning of perforator flaps
- Dissection technique of perforator flaps
- Fundamentals of microsurgical techniques
- Head and Neck Reconstruction with Microsurgical Flaps
- Perforator Flaps in Breast Reconstruction
- Perforator Flaps in Limb reconstruction
- Perforator Flaps in Trunk Reconstruction
- "Hands on" Dissection Session:
  - Gluteal and dorsal perforator flaps
  - Free style perforator flaps
  - Transferring the flaps to the recipient vessels
  - Super microsurgical flaps
  - Lymphatic channel dissection
  - Lymph node transfer

Head and neck microsurgical reconstruction procedures will be performed. The program will include live webcast surgery and students interactive participation will be encouraged

- Oncological criteria in head and neck tumors
- Reconstructive alternatives in head and neck surgery: form, function and aesthetics
- Evaluation and indications for pedicled flap versus free flap
- Selection of the right flap and recipient vessels
- Anterolateral thigh perforator flap (ALTF)
- Thoracodorsal artery perforator flap (TAP) with scapula
- Deep inferior epigastric perforator flap (DIEP) with Taylor extension
- Free fibula flap and free osteocutaneous peroneal flap for bone reconstruction
- Deep circumflex iliac artery perforator flap with iliac crest for bone reconstruction
- Radial forearm flap
- Facial reanimation
Live webcast surgery will also be shown and students’ interactive participation will be encouraged

• Oncological management in breast tumors
• Reconstructive planning in breast tumors
• Breast reconstruction with implant vs autologous tissue reconstruction
• Immediate and delayed reconstruction
• Oncoplastic breast surgery: glandular and perforator flap techniques
• Breast reconstruction:
  - DIEP flap
  - SIEA flap
  - TAP flap
  - SGAP flap
  - IGAP flap
  - fat grafting
  - transverse myocutaneous gracilis flap (TMG)
  - extended TAP
  - PAP
  - lumbar perforator flap
  - latissimus Dorsi
• Partial breast reconstruction: oncoplastic and perforator flap techniques
• Autologus flap reconstruction with fat grafting
• Thoracic wall reconstruction

Small groups of students will have the opportunity to observe live microsurgical reconstruction of the lower limb. Live webcast surgery will be shown and interactive participation will be facilitated

• Oncological management of limb tumors
• Reconstructive alternatives in lower limb surgery: form, function and aesthetics
• Reconstruction following high energy lower limb trauma
• Reconstructive approaches in chronic osteomyelitis of the lower limb
• Reconstruction of lower limb defects:
  - Latissimus dorsi flap
  - ALT flap
  - TAP flap
  - Radial forearm flap
  - Osteocutaneous fibular flap
  - SCIP flap
• Lower limb nonunion. Microsurgical bone reconstruction
• Avoiding complications in lower limb reconstruction
• Reconstruction with epiphyseal flaps and joint transfer

Small groups of students will have the opportunity to observe live microsurgical reconstruction of the upper limb. Live webcast surgery will be shown and interactive participation will be facilitated

• Brachial plexus. Introduction and surgical anatomy
• Obstetric plexus
• Surgical approach of the peripheral nerves injuries
• Reconstructive options in upper limb surgery: form, function and aesthetics
• Upper limb nonunion. Microsurgical bone reconstruction. Special locations: humerus, scaphoid
• Oncological management of upper limb tumors
• Reconstruction of upper limb defects:
  - Latissimus dorsi flap
  - ALT flap
  - TAP flap
  - Radial forearm flap
  - Osteocutaneous fibular flap
  - SCIP flap
• Replantation and revascularization in upper limb
• Toe-to-hand transfer
• Congenital hand
• Allotransplantation
The students will attend live microsurgical reconstruction of external genitalia and functional bladder reconstruction.

- Anatomy and physiology of genitourinary system
- Gender reassignment approach
- Microsurgical techniques in penile reconstruction
- Reconstruction of penile defects:
  - radial forearm flap
  - groin flap
  - sensate osteocutaneous fibula flap
  - ALT flap
  - functional phalloplasty
  - combined flaps: phalloplasty
- Refinements and resolution of complications after total phalloplasty
- Penile prosthesis implantation after total phalloplasty
- Bladder functional reconstruction
  - Abdominoperineal
  - Gynecological
  - Urological resections
- Functional pelvic floor reconstruction:
  - Reverse vasectomy (vaso-vasostomy) anastomosis
- Microsurgery of the seminal tract
- Perineum disease repair
- Abdominal wall and gluteal reconstruction

Small groups of students will have the opportunity to observe live microsurgical techniques in lymphedema treatment. Live webcast surgery will be shown and interactive participation will be facilitated.

- A critical evaluation of results conservative treatment of Lymphedema
- Anatomy and physiology of the lymphatic system
- Assessment and surgical treatment of lymphedema
- Vascularised lymphatic node transfer
- Lympho-venous anastomosis
- Combined surgical treatment for lymphedema
- Lymphangiogenesis and the role of growth factors in lymphedema
- Free vascularised nerve flaps
- Microsurgical nanoflaps
- Patient selection to different methods
- Perforator to perforator flap surgery

The program includes a practical training module with feedback from facilitators. During this period, students will be involved in clinical cases focused on reconstructive microsurgery and assist in surgery, following preoperative and postoperative clinics. They will present cases to the other students and faculty to clarify doubts and evaluate the surgery.

- Joint review of the microsurgical technique
- Presentation and discussion of complex clinical cases
- Resolution of immediate and delayed post-surgical complications involving the flaps
- Optimization of technique tailored to each student

Introductory course on the methodology of clinical research

We need to investigate to produce knowledge that allows us to reduce the impact of health problems, which involves diagnosing and treating diseases better. The clinical research is this inescapable filter where the hypotheses that come from basic research, technological innovation or clinical practices must be tested. But for this applied research activity to be sufficiently valid and useful, we must adequately master the essential conceptual and methodological aspects related to the methodology of clinical research. Making it possible is the objective of this module.

At the end of the module, students will be able to:

- Understand and know how to apply the most important concepts related to clinical research.
- Know how to ask clinical questions of different types and in a structured way.

Master Thesis

Preparation of a comprehensive written research report is an essential part of a valid research experience, and the student should be aware of this requirement at the outset of the project. Interim reports may also be required. Sufficient time should be allowed for satisfactory completion of reports, taking into account that initial drafts should be supervised and corrected by your tutor.
ACADEMIC CALENDAR

MASTER’S DEGREE (2 YEARS)

First academic year: September to June (Modules 1 to 9)
Second academic year: September to June of the following year (Modules 10 to 12 + Final exam)

<table>
<thead>
<tr>
<th>Module</th>
<th>Location</th>
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<tbody>
<tr>
<td>M1</td>
<td>Essential concepts in clinical microsurgery: cadaver workshop on flap dissection. Faculté de Médecine Paris Descartes - Paris (France)</td>
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<tr>
<td>M2</td>
<td>Workshop: Microvascular surgery training using a small animal model (rats). Centro de Cirugía de Mínima Invasión Jesús Usón (CCMIJU) - Cáceres (Spain)</td>
</tr>
<tr>
<td>M3</td>
<td>Workshop: Dissection techniques of perforator flaps and supermicrosurgery using a live animal model (pig). CCMIJU - Cáceres (Spain)</td>
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<tr>
<td>M4</td>
<td>Clinical training in head and neck microsurgical reconstruction. Institut Gustave Roussy Paris (France)</td>
</tr>
<tr>
<td>M5</td>
<td>Clinical training in breast microsurgical reconstruction. Hospital de la Santa Creu i Sant Pau - Barcelona (Spain)</td>
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<tr>
<td>M6</td>
<td>Clinical training in microsurgical reconstruction of the lower limb. Tööö Hospital Helsinki (Finland)</td>
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<tr>
<td>M7</td>
<td>Clinical training in microsurgical reconstruction of the upper limb. Ospedale Careggi Florence (Italy)</td>
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<tr>
<td>M8</td>
<td>Clinical training in genitourinary reconstruction. Fundació Puigvert Barcelona (Spain)</td>
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<tr>
<td>M9</td>
<td>Clinical training in supermicrosurgery. Hospital de la Santa Creu i Sant Pau - Barcelona (Spain)</td>
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<td>M10/11</td>
<td>Clinical immersion programme. Amsterdam - The Netherlands / Barcelona - Spain / Basel - Switzerland / Brussels - Belgium / Cimbalino - Italy / Florence - Italy / Ghent - Belgium / Helsinki - Finland / Hiroshima - Japan / London - UK / Mexico DF - Mexico / Milan - Italy / München - Germany / Seoul - Korea / Taipei - Taiwan / Toronto - Canada / Villejuif cedex - France</td>
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<tr>
<td>M12</td>
<td>Introductory course on the methodology of clinical research. Master thesis / Final work. Online</td>
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OPTIONAL DOCTORAL THESIS DEGREE (PHD)

Promoting research in microsurgery is also a major priority for the European School of Reconstructive Microsurgery. This objective has been translated into action through a focus on doctoral programs.

Masters’ students participants can become researchers and work in a framework on the development of doctoral programs for European higher education and research. They can join in different research projects and get the International Doctorate or ‘Doctor International’ mention.

To qualify for an International Doctorate, the candidate must fulfill certain criteria upon presentation of their thesis:

1. The PhD thesis defence will be accorded if at least two professors from two higher education institutions of two European countries, other than the one where the thesis is defended, have given their review of the manuscript;
2. At least one member of the jury should come from a higher education institution in another European country, other than the one, where the thesis is defended;
3. A part of the defence must take place in one of the official languages, other than the one(s) of the country, where the thesis is defended;
4. The thesis must partly have been prepared as a result of a research period of at least one trimester (or three months) spent in another European Country.
EDUCATIONAL PROGRAM
MASTER’S DEGREE

Candidates who successfully complete the full course will be awarded a Master’s Degree recognised by the Universitat Autònoma de Barcelona. This degree is a 105 ECTS Master (ECTS: European Credits Transfer System) (1ECTS = 25 hours in student’s work). To be awarded this Master’s Degree, trainees must complete all the modules, pass the practical assessment, do the minimal period of clinical immersion and present a research project.

ON LINE CAMPUS

This e-learning area provides quality peer-reviewed information in a dynamic and interactive format
• Case review
• Forum discussion to receive feedback from the faculty
• Video surgery
• Evaluation tests
• Second opinion from experts
• Journal club
• Log book of clinical immersion

Trainees who complete a single module will receive a Certificate.

<table>
<thead>
<tr>
<th>Master’s Degree in Reconstructive Microsurgery</th>
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<tr>
<td>96 ECTS</td>
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<td><strong>ECTS/MODULE:</strong> 9 + 6 + 6 + 9 + 9 + 9 + 9 + 6 + 6 + 12 + 15</td>
</tr>
</tbody>
</table>

METHODOLOGY

The face-to-face doctor part of this Master’s Degree is given in nine modules, held throughout the first year. The specific clinical immersion program is held in set hospitals. However, it can be undertaken at the participant’s own centre, and assessed by the faculty member directing the student educational itinerary. It is mandatory to carry out a clinical or experimental research project. This will facilitate participation in research projects at several hospitals even can do a doctoral thesis.

Our educational program delivers comprehensive professional development opportunities for every level of surgical experience. It puts world class training directly into the hands of those who strive for excellence.

Emphasis will be given to practical skills in microsurgical techniques, but will include diagnosis, therapeutic options, decision-making concerning techniques, and recognition and management of risks and complications.

ON LINE CAMPUS

Clinical and practical assessments will be carried out

EVALUATION

Minimal requirements to be awarded the Master’s Degree are:
• Attendance of 100% in scheduled classes
• A grade of at least 50% in multiple choice exam for each module
• Achieve a minimum abilities in microvascular surgery training in a small animal model evaluated at the end of Module 2.
• Surgical efficiency and efficacy of at least 80 % through log book and portfolio review during clinical immersion
• A grade of at least 50% in the final exam involving a presentation of clinical cases

• Research skills: clinical or experimental research projects and literature reviews will be encouraged to be published in a peer reviewed journal
• The final mark (overall mark) for each Master Course is determined by a combination of the MCQS (40%), final assessment (40%) and research work and Master’s Final Thesis (20%)

Clinical immersion program will be assessed during the face-to-face clinical immersion in module M10 + M11. Faculty will assess the therapeutic approach, the suitability of the chosen procedure and the quality of the oral presentation of clinical cases.
FACULTY

Joan Albanell
Hospital del Mar, Barcelona - Spain

Juan Pablo Aracil MD, PhD
Consorcio Hospitalario provincial de castellon Castellón, Spain

Sühan Ayhan
Gazi University Faculty of Medicine, Ankara - Turkey

Agustí Barnadas
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Helena Basçuñana
Hospital de Sant Pau, Barcelona - Spain

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Plastic and Reconstructive Microsurgery - “Recovery Hospital”, Cluj-Napoca - Romania

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Moustapha Hamdi
Brussels University Hospital, Brussels – Belgium
TRAINING IMMERSION TUTORS

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Fundació Puigvert, Barcelona - Spain

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Jin Sup Eom
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Ganga Hospital, Coimbatore - India

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Frederic Kolb
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Carmen Vega
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CLINICAL IMMERSION CENTERS

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Training coordinator: Carmen Vega

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388-1, Pungnap-Dong, Songpa-Gu, Seoul, Korea
+82-2-3020-3602 · www.amc.seoul.kr
Training coordinator: Jin Sup Eom

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Training coordinator: Cristina Garusi

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+34 934 169 700 · www.fundaciopuigvert.es
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114, rue Édouard-Vaillant, 94805 Villejuif Cedex
+33 1 45 21 61 19 · www.igr.fr
Training coordinator: Nicolas Leymarie

UHN Toronto General Hospital
200 Elizabeth Street, 8N-865 · Toronto, Ontario, Canada MSG 2C4
Phone: 416-340-3449 · www.uoftplasticsurgery.ca
Training coordinator: Stefan O.P. Hofer

VU Medical Center
De Boelelaan 1117, Amsterdam, The Netherlands
Training coordinator: ME Buncamper

Hospital Bogenhausen
Englschalkinger Straße 77, 81925 München
+49 (089) 9270-0 · info.kb(at)klinikum-muenchen.de
Training coordinator: Milomir Ninkovic

Universitair Ziekenhuis Brussel
Laarbeeklaan 101 · 1090 Brussels
Tel: +32 2 477 41 11 · Fax: +32 2 477 77 80 · www.plasticsurgery.brussels.com
Training coordinator: Moustapha Hamdi

Ganga Hospital
313, Muttupalayam Road, Coimbatore - 641 043
Tamil Nadu, India · Tel: +91 422 2485009 (Extn 5414)
www.gangahospital.com
Training coordinator: S. Raja Sabaphaty
ADMISSION REQUIREMENTS

PARTICIPANT PROFILE

• For the Master Degree: Specialists in plastic surgery and final-year plastic surgery residents
• Microvascular technique course is highly recommended (minimum 25 learning hours)

SELECTION CRITERIA WILL BE BASED ON:

• Curriculum vitae
• Two letters of recommendation (Reference from the chief of the applicant training program)
• Interview (if the educational coordinators deemed necessary)

APPLICATION CHECKLIST & DEADLINES

• Applicants should submit their application forms to Elena.Mohedano@rmes.es
• Application deadline: 30th July of the current year

Once the application period has closed, Education Coordinators start processing the applications. Only eligible candidates who have submitted all the required documents within the set application period are taken into consideration in the student selection process.

FULL PROGRAM FEE:

Master’s Degree 15.187 euros*
* Issuing fee for University Certificate not included

<table>
<thead>
<tr>
<th>PAYMENT CALENDAR</th>
<th>(£)</th>
<th>DEADLINE</th>
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<tbody>
<tr>
<td>Reservation fee</td>
<td>1.800 €</td>
<td>2 weeks after admission</td>
</tr>
<tr>
<td>1st Instalment</td>
<td>8.190 €</td>
<td>By 1st September</td>
</tr>
<tr>
<td>2nd Instalment</td>
<td>5.197 €</td>
<td>By 1st January</td>
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</table>

Non refundable reservation fee

Interested applicants should contact the RMES coordinator for full details:
Contact: Elena Mohedano
Email: elena.mohedano@rmes.es
Direct phone: +34 935 565 505
GET IN TOUCH

For further information or assistance, please contact:

Elena Mohedano
Elena.Mohedano@rmes.es
Telephone: 00 34 935565505
Website: www.rmes.es