



## DENTAL SCIENCE MASTER

### NEUROMUSCULAR AND AESTHETIC DENTISTRY



Master course conducted by:

- Full professor Julio Suay Anton
- Professor Cristina Martinez

#### Organization of ECTS credits:

<b>BASIC COURSES:</b>	<b>39 credits</b>
<b>ARTICLES AND SEMINARS:</b>	<b>12 credits</b>
<b>SPECIALTY COURSES:</b>	<b>25 credits</b>
<b>SPECIALTY PRACTICES:</b>	<b>30 credits</b>
<b>MASTER THESIS:</b>	<b>14 credits.</b>
 Total	 <b>120 ECTS Credits</b>

## General outline:

- **Classes are online from October-July. Examinations are carried out online.**
- **Practice locations are: ITALY-USA-ISRAEL-ARMENIA. Location for practice is based on availability and location of attendee. Further locations will be announced.**

## Basic courses, year 1

Embryonic development and anatomy of the face and oral cavity (5 ECTS credits)

- Oral Histology (5.5 ECTS credits)
- Applied Physiology & Nutrition (5 ECTS credits)
- Applied Oral Pathology (3 ECTS credits)
- Osseointegration & New Therapies (6 ECTS credits)
- Biochemistry & Microbiology (3.5 ECTS credits)
- Biomaterials (5.5 ECTS credits)
- Biostatistics & Research Methodology (4.5 ECTS credits)
- Genetic Growth and Development (3 ECTS credits)
- Dental Science Seminars I (6 ECTS credits)
- Biomechanics (5 ECTS credits)
- Neuromuscular Dentistry I Theory (4.5 ECTS credits)
- Internship I (7 ECTS credits)

Basic courses have been organized to respect subsequent specialty courses in contents and form. If you would like further detailed curriculum information on basic courses, please contact Dr. F. Savastano [savastan@uji.es](mailto:savastan@uji.es)



Articles and seminars: each doctor attending the master's course on Neuromuscular and Aesthetic Dentistry must obtain credits from minimum one scientific publication and a congress presentation (poster, lecture etc).

Practices are carried out during the second year. Your Tutor will guide and follow you to the end of the master's courses.

## Specialty Courses, year 1

### NEUROMUSCULAR DENTISTRY I: Theory

#### PROFESSORS

Fabio Savastano (ITALY)

Prabu Raman (USA)

#### UNIT 1. INTRODUCTION TO NEUROMUSCULAR DENTISTRY (Fabio Savastano)

- Biotensegrity and fascia
- A new neurobiological model of the human body

#### UNIT 2. THE NEUROMUSCULAR THEORY (Fabio Savastano)

- History
- The Neuromuscular Paradigm

#### UNIT 3. THE APPLICATION OF THE PRINCIPALS OF NEUROMUSCULAR THEORY TO CLINICAL PRACTICE (Prabu Raman)

#### UNIT 2. BIOELECTRICAL INSTRUMENTATION: TENS (Prabu Raman)

#### UNIT 3. BIOELECTRICAL INSTRUMENTATION: SURFACE EMG (Prabu Raman)

#### UNIT 4. BIOELECTRICAL INSTRUMENTATION: COMPUTERIZED MANDIBULAR SCANNING (CMS) (Prabu Raman)

#### UNIT 5. INTERPRETATION OF MANDIBULAR SCANNING FOR DENTISTRY (Prabu Raman)



## Specialty Courses, year 2

### NEUROMUSCULAR II: Clinical Application (4,5 ECTS)

#### PROFESSORS

Prof. Curtis Westersund (Canada)  
Prof. Prabu Raman (USA)  
Prof. Konstantin Ronkin (USA)  
Prof. Florin Constantinescu (Romania)

#### UNIT 1. NEUROMUSCULAR DENTISTRY AND FULL MOUTH REHABILITATION (Prabu Raman)

##### Step by step procedures and case study

#### UNIT 2. FULL DENTURE IN NEUROMUSCULAR DENTISTRY (Curtis Westersund)

- Applying ULF-TENS for impressions and mandibular position
- Prosthodontic in-lab planification of full dentures
- Checking full mouth prosthetics: chewing, phonetic, aesthetics

#### UNIT 3. PARTIAL FIXED DENTURE IN NEUROMUSCULAR DENTISTRY (Konstantin Ronkin)

- Correcting occlusion with neuromuscular procedures
- Finishing prosthetics to functional requests

#### UNIT 4. FULL MOUTH REHABILITATION WITH IMPLANTOLOGY AND NEW 3D SOFTWARES (Florin Constantinescu)

- Update on new hardware/software for dentistry
- CBCT and software integration for planification of implant dentistry procedures

#### UNIT 5. AESTHETICS AND FINISHING (Stanislav Blum)

- Material selection for front teeth aesthetics
- Front teeth anatomy software planification
- Evaluation of smile aesthetics and facial soft tissues

## SCIENCE IN CRANIOFACIAL PAIN / OROFACIAL PAIN / TMD

(4,5 ECTS)

PROFESSORS

Prof. Prabu Raman (USA)

Prof. Konstantin Ronkin (USA)

### UNIT 1. ANATOMY AND PHYSIOLOGY OF THE MASTICATORY SYSTEM (Prof. Prabu Raman):

1. Stomatognathic System
2. Muscle Function and occlusion
3. Dynamics of mandibular movements
4. Neuroanatomy of the stomatognathic system including cervical tract
5. Reflexes of the stomatognathic system

### UNIT 2. TMD. (Prof. Prabu Raman):

1. Physiology of Pain
2. TMD: Orofacial Pain
3. Literature Review

### UNIT 3. TREATMENT OF TMD: (Prof. Prabu Raman):

1. The orthotic
2. Pharmacology
3. Psychology
4. Multidisciplinary approach

### UNIT 4. NEUROBIOLOGY OF PAIN AND ANALGESIA. (Prof. Prabu Raman):

1. SPG blocks
2. Alternative methods of pain treatment

### UNIT 5. SLEEP DISORDERS AND TREATMENT (OSAS) (Dr. Konstantin Ronkin)

1. Upper airway evaluation: diagnostic measurements
2. Pathophysiology and comorbidities (all ages)
3. Sleep apnea, TMD, bruxism: literature review
4. Role of Neuromuscular Dentistry in OSAS (Obstructive Sleep Apnea Syndrome)
5. Treatment procedures: CPAP-SURGERY-REMOVABLE APPLIANCES

**BODY POSTURE AND FACIAL BEAUTY  
(4,5 ECTS)**

PROFESSORS

Dr Curtis Westersund (USA)  
Dr Roberto Rinaldi (ITALY)  
Dr Stanislav Blum (Israel)  
Dr Piero Silvestrini (ITALY)

UNIT 1. OSTEOPATHY AND CHIROPRACTIC (Curtis Westersund)

- a) Atlas Subluxation Complex
- b) Correcting C1-C3

UNIT 2. RADIOLOGY (Curtis Westersund)

- a) Importance of Radiology for the diagnosis of cervical impairment
- b) Diagnostic radiologic procedures
- c) Follow-up procedures

UNIT 3. OPHTHALMOLOGIST (Curtis Westersund)

- a) Ocular Torticollis
- b) Vision and head posture

UNIT 4. NOSE-MOUTH-THROAT SPECIALIST (Curtis Westersund)

- a) Lymphatic tissue obstruction
- b) Nasal resistance
- c) Inner ear and head posture

UNIT 5. DEPRESSION TESTS FOR IN-OFFICE USE: PSYCHOLOGICAL SUPPORT (Curtis Westersund)

- a) Montgomery and Asberg Depression Rating Scale (MADRS and MADRS-S)
- b) Hamilton Depression Rating Scale (HDRS)

UNIT 6. ASSESSMENT AND CORRECTION OF MANDIBULAR POSTURE TO IMPROVE FACIAL AESTHETICS  
(Stanislav Blum)

- Mandibular recording procedure
- Assessment of spinal correction
- Assessment of gait
- Evaluation of facial aesthetic improvements

UNIT 7. CASE DOCUMENTATION, PHOTOGRAPHY-PRESENTATIONS. (Dr. Roberto Rinaldi-ITALY)

1. Equipment
2. Intra and extraoral photography
3. Creating a quality presentation

#### UNIT 8. HEAD AND BODY POSTURE IN RELATION TO OCCLUSION (Piero Silvestrini)

1. Literature review on link between body posture and mandibular posture.
2. Methods of postural analysis
3. Treatment modalities

#### Internship subjects:

- Internship II (13 ECTS credits)
- Internship III (10 ECTS credits)

#### Master's thesis (MT)

- Master's Thesis (14 ECTS credits)
- Dental Science Seminars II (6 ECTS credits)