



## DENTAL SCIENCE MASTER

### NEUROMUSCULAR ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS SPECIALTY



C tedra GMI Dental Science

Master course conducted by:

**Full professor Julio Suay Anton**  
**Professor Cristina Martinez**

#### **Organization of ECTS credits:**

**BASIC COURSES:** 39 credits  
**ARTICLES AND SEMINARS:** 12 credits  
**SPECIFIC COURSES:** 25 credits  
**SPECIFIC PRACTICES:** 30 credits  
**MASTER THESIS:** 14 credits.

Total 120 ECTS Credits



**Classes are online from October-July.**

**Practice locations are: ITALY-USA-RUSSIA. Location for practice is based on availability and location of attendee.**

### **First Semester: Basic courses**

Anatomy of the orofacial structures: a comprehensive approach

Embryonic development of the face and oral cavity

Oral Histology

Applied physiology & nutrition

Applied oral pathology

Osseointegration

Microbiology

Biochemistry

Growth and genetic development

Biomaterials

Biostatistics

Research methodologies

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 [icnog.int@gmail.com](mailto:icnog.int@gmail.com)

Articles and seminars: each doctor attending the master's course on Neuromuscular Orthodontics and Dentofacial Orthopedics must obtain credits from publication or 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

### NEUROMUSCULAR I

#### PROFESSORS

Fabio Savastano (ITALY)

Stanislav Blum (RUSSIA)

Mauricio Gonzalez Balut (Mexico)

#### UNIT 1. Basic Orthodontic procedures (Balut)

- a) Rapid Palatal expansion
- b) Lip Bumper
- c) Fixed appliances
- d) Face Mask

#### UNIT 2. Diagnostic fundamentals in Orthodontics (Balut)

- a) Panoramic X-ray
- b) Lateral Ceph.
- c) PA Head X-ray
- d) Sassouni Cephalometric Analysis

#### UNIT 3. Bracket selection (Savastano)

#### UNIT 4. Growth and Development. (S.Blum)

#### UNIT 5. Etiology of malocclusion. (S.Blum)

#### UNIT 6. Muscles of the stomatognathic system. (S.Blum)

#### UNIT 7 Functional Treatments (Savastano)

#### UNIT 8 Introduction to N.O.: freeway space (Savastano)

#### UNIT 9. Functional Appliances and dento-facial Orthopedics (Savastano)

#### UNIT 10 Tolerance and the stomatognathic system (Savastano)



## NEUROMUSCULAR II

### PROFESSORS

Fabio Savastano (ITALY)

Piero Silvestrini (ITALY)

Prabu Raman (USA)

UNIT 1. Neuromuscular theory- Fascia and Biotensegrity (Savastano)

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 Orthodontics (Savastano)

UNIT 6. Neuromuscular orthodontic treatment (Savastano)

UNIT 7. Interceptive therapy with a Neuromuscular perspective (Savastano)

UNIT 8. NEUROMUSCULAR ASPECTS OF ORTHOPEDIC SURGERY OF THE JAWS (Savastano)

1. Understanding Surgical-Neuromuscular setup
2. Case explanation

UNIT 9. HEAD AND BODY POSTURE IN RELATION TO OCCLUSION (Silvestrini)

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



## SCIENCE IN CRANIOFACIAL PAIN / OROFACIAL PAIN / TMD

### PROFESSORS

Dr. Ira L. Shapira (USA)

Dr. Konstantin Ronkin (Russia-USA)

#### UNIT 1. Anatomy and Physiology of the Masticatory System (Ira I. Shapira):

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

#### UNIT 2. TMD. (Ira I. Shapira):

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

#### UNIT 3. Treatment of TMD: (Ira I. Shapira):

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

#### UNIT 4. Neurobiology of Pain and Analgesia. (Ira I. Shapira):

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. Role of Dentistry in OSAS (Obstructive Sleep Apnea Syndrome)
4. Treatment procedures: CPAP-SURGERY-REMOVABLE APPLIANCES



## MULTIDISCIPLINARY APPROACH IN NEUROMUSCULAR ORTHODONTICS

### PROFESSORS

Dr. Curtis Westersund (USA)

Dr. Thierry Gouzland (FRANCE)

Dr. Roberto Rinaldi (ITALY)

#### UNIT 1. Osteopathy and Chiropractic

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

#### UNIT 2. Radiology

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

#### UNIT 3. Ophthalmologist

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

#### UNIT 4. Nose-mouth-throat specialist

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

#### UNIT 5. Depression tests for In-Office use: Psychological support

- a) Montgomery and Asberg Depression Rating Scale (MADRS and MADRS-S)
- b) Children's Depression Inventory (CDI 2)

#### UNIT 6. MYOFUNCTIONAL ORAL THERAPY AND REHABILITATION (Dr. Thierry Gouzland-FRANCE)

- a) Clinical evaluation of tongue dysfunction
- b) Oral Myotherapy in conjunction with orthodontic treatment
- c) Appliances for Oral Rehabilitation and limitations

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

1. Equipment
2. Intra and extra-oral photography
3. Creating a quality presentation

