**Course** 2018 2019

Continuing education Faculty of Dentistry

Department of Oral and Maxillofacial Surgery and Department of Orthodontics



International University Course in Orthognathic Surgery and Surgical Orthodontics

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Jniversitat Internaciona de Catalunya F**aculty of Dentistry** 



The orthodontic and surgical communities of the last decades have witnessed a prodigious revolution in the treatment of dento-maxillofacial deformity. In the surgical field, improved rigid fixation systems and substantial technical refinements have given way to the development of minimally invasive surgical protocols and alternative therapeutic schemes to shorten total treatment time and optimize results.

In the orthodontic field, an improved understanding of bone biology together with the introduction of new anchorage devices and orthodontic systems have increased orthodontic efficiency, broadened the scope of deformities susceptible to orthodontic and combined therapy, and reduced treatment times.

The Departments of Maxillofacial Surgery and Orthodontics have a broad clinical experience in this field and are active developers of new protocols and techniques which have been popularized internationally. This course will provide a comprehensive state-of-the-art view of the treatment of dento-maxillofacial deformity from the orthodontist's and maxillofacial surgeon's perspective.

### Direction and coordination

- Dr Federico Hernández-Alfaro
- Dr Andreu Puigdollers
- Dr Núria Clusellas
- Dr Adaia Valls

#### Academic Board

- Dr Samir Aboul-Hosn
- Dr Marcos Costa
- Dr Núria Clusellas
- Dr Fernando de la Iglesia
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- Dr Federico Hernández-Alfaro
- Dr Jorge Masià
- Dr Andreu Puigdollers
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- Dr Joan Rosell
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- Dr Albino Triaca (Switzerland)
- Dr Daniel Brusco (Switzerland)
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- Dr Orion Haas (Brasil)
- Dr Rodrigo Fariña (Chile)
- Dr Lydia Lim (Australia)
- Dr Florencio Monje (Spain)
- Dr Marie Cornelis (Belgium)
- Dr Juan CarlosPérez-Varela (Spain)
- Dr Carlos Flores-Mir (Canada)
- Dr Flavio Uribe (USA),
- Dr Javier Prieto Serrano (Spain)
- Dr Christodoulos P. Laspos (Cyprus)
- Dr Carlos Villegas Bateman (Colombia)
- Dr Ana Molina (Spain)
- Dr Montse Diez-Cascón (Spain)
- Dr Juan Fernando Aristizabal (Colombia)
- Dr Manuel Lagravere Vich (Canadá)
- Dr Eduardo Messen (Chile)

#### **Objectives**

- To provide an update on traditional and modern tools for clinical. evaluation and 3D treatment planning.
- To transmit the essential concepts for the orthodontic management of surgical cases.
- To teach the basic surgical osteotomies and additional soft tissue techniques in the correction of dentomaxillofacial deformity.
- To inform of the different timing approaches that can be currently used in orthognathic surgery.
- To emphasize and illustrate the collaborative process between the orthodontist and the surgeon.

#### Calendar

January 14th to June 3rd 2019

#### Schedule

On-site Modules: From February 11th to February 16th 2019. From Monday February 11th to Friday February 15th, from 8 am to 7 pm Saturday February 16th from 8 am to 2 pm Webinars: From January 14th to June

3rd 2019 – Mondays from 9 pm to 11 pm (Spanish time)

From Monday January 14th to Monday June 3rd both inclusive (except April 22nd)

The Sessions will not be recorded.

#### Acreditation

10 ECTS

#### Price

Oral and Maxillofacial Surgeons and Orthodontists: €4550 Residents in CM and postgraduate students: €3550

\* The places will be granted by a strict order of registration.

#### Place

Campus Sant Cugat.

#### Contact

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### Program of the course

#### On-site Modules

#### Introduction and diagnostics

- The first appointment.
- The surgical patient, limitations of dentistry.
- A change in the paradigm of surgical treatments.
- Treatment objectives: functional and aesthetic.
- The orthognathic patient from a surgical perspective.
- Indications for orthognathic surgery.
- Facial analysis. Analysis of the lower third: Labial analysis (passive and active). Nasolabial angle, maxillary and mandibular grooves, mentocervical contour, chin. Differential diagnosis of the problems of the lower third. Therapeutic decisions.

#### Cast analysis.

- Evaluation of the underlying occlusion. Class I canine occlusion analysis. Therapeutic decisions.
- -Analysis of the maxillary and mandibular arches. Therapeutic decisions.
- Potential risk of orthodontic and surgical recurrence.

# Psychology and motivation of the surgical patient.

- Psychological Tests. Detection of psychologically unstable patients.
- Radiographic analysis.
- Tc99 scintigraphy. Directions . Up Protocol
- 3D CBCT imaging.
- 3D Software Practical. Training with Dolphin®.

# Incorporation of information from facial analyses, models and x-ray, and making treatment decisions.

# Creating a list of problems and treatment objectives.

Treatment plan and first prediction of the movements and effects of surgical treatment.

- The repercussions of skeletal movements on soft tissue.
- The limits of surgical movements.
- Planning, treatment decisions, objectives, treatment plan.
- Treatment planning STO, dental and skeletal movements.

#### Presurgical orthodontic mechanics

- Decompensations. Who does what?
  Intra-arcade objectives, discrepancies,
- Intra-arcade objectives, discrepancies position of incisors.
- Sagittal objectives, sagittal decompensation.

- --- Overall objectives, Overall decompensation.
- Vertical objectives, upper versus lower arches, short vs long faces.
- Discrepancy Transversal: corticotomy, SARPE, segmental LeFort I.
- Practical Case.
- Surgery first.
- Rotation of the occlusal plane.
- Orthognathic surgery and the respiratory tract.

Find out about the various treatment possibilities in terms of surgical techniques and the skeletal effects and effects on soft tissue due to orthognathic surgery.

- Treatment decisions, objectives, treatment plan.
- Evaluation of the pre-surgical case 15 days beforehand, can I do the surgery? Have the dental objectives been achieved? Surgery on models. Intermediary orthopaedic brace:
- Monomaxilliary: non-semiadjustable articulator- mandibular brace.
- Bimaxilliary: semiadjustable articulator and centric relation maxillary brace.
- Maxilla-first vs. mandible-first
- Confirmation of objectives, quantification of bone movements.
- Rectification/checking lines of reference, confirmation of the assembly.
- Splint for maxillary segmentation.
- Final brace.
- Immediate pre-surgery management: pre-operatory hygiene, testing braces, positioning hooks, and positioning braces in cases of surgery first. Going over the surgery and objectives with the patient.
- Managing cross-cutting problems.
- Inter-operational complications.
  Surgical technique for different
- osteotomies. o Maxillary surgery
- Post-surgical stage- Post-surgery management
- Orthodontic treatment in the immediate post-surgical stage, complications.
   Post-surgical orthodontics and closing the case.
- Care for the post-surgical patient.
  Rehabilitation of the sensorial and psychological occlusional and articulary functions of the post-surgical patient.
- Immediate surgical complications.
- Stability and relapses.
- Retaining methods and techniques.

#### Webinars

20 webinars on a weekly basis during the second semester of 2019. (The order of the conferences will be announced at the beginning of the academic year.)

#### Conference speakers on surgery:

- Dr. Rafael Alcalde (USA.): "Management of Transverse Problems".
- Dr. Andrew Heggie (Australia): "The Role of Orthognathic Surgery in Pediatric Patients".
- Dr. Gabriele Millesi (Austria): "Treatment of Open Bite Deformities".
- Dr. Daniel Brusco (Switzerland): Distraction osteogenesis of the maxillofacial skeleton.
- Dr. Orion Haas (Brasil): Advanced 3D planning in orthognathic surgery.
- Dr. Massimo Robiony (Italy): Use of piezoelectric devices in orthognathic surgery.
- Dr. Albino Triaca (Switzerland): Technical refinements in orthognathic surgery.
- Dr. Rodrigo Fariña (Chile): Management of condylar hyperplasia.
- Dr. Lydia Lim (Australia): Orthognathic surgery in Asian patients.
- Dr. Florencio Monje (Spain): Orthognathic surgery and the temporomandibular joint.

#### Conference speakers on orthodontics:

- Dr. Marie Cornelis (Switzerland): "Class III patients treated with mini-plaques and class III elastic".
- Dr. Flavio Uribe (USA.): "Surgery First".
- Dr. Carlos Flores-Mir (Canada): "Stability".
- Dr. Juan Carlos Pérez-Varela (Spain):
  "Surgical treatment of the overall dimension".
- Dr. Javier Prieto (Spain): "Treatment plan for orthognathic surgery".
- Dr. Christodoulos P. Laspos (Cyprus):
  "Orthognatic surgery and cleft patients"
- Dr. Carlos Villegas Bateman (Colombia): Communication between the surgeon and orthodontist for Surgery First.
- Dr. Juan Fernando Aristizabal (Colombia): "Surgery First".
- Dr. Manuel Lagravere Vich (Canadá): analysis to determine three-dimensional skeletal and dental changes in orthodontic and surgical treatments.
- Dr. Eduardo Messen (Chile): "Orthodontic Preparation for Orthognathic Surgery"

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### UIC Barcelona, Campus Sant Cugat

UIC Barcelona is considered as one of the most prestigious universities internationally and more specifically Dentistry College is ranked at Spanish Top 4 by "El Mundo" daily newspaper.

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