

## Interview with Prof. Dr. Mariano Sanz – Growth Summit June 2020

### Presenting the biology of tooth movement and the importance of periodontal health



What details are you going to be presenting about the Invisalign system in relation to periodontal health?

I shall try to convey to the audience that orthodontic movements generated by the Invisalign system occur within the periodontal ligament space. A physical force applied to the crowns of teeth is transformed in chemical signals through an orchestrated array of cellular and molecular mechanisms, resulting in bone resorption that allows for the tooth displacement and new bone and new attachment formation, which will

stabilise the tooth in its new position. All these biological events in the periodontal ligament will not affect the periodontal clinical attachment and radiographic bone levels around the affected tooth, provided the gingival tissues are healthy, and therefore, any tooth movement under these conditions will never result in bone loss or periodontal attachment loss.

What are you hoping that dentists will learn from your lecture?

With this lecture I hope dentists will understand why teeth move in a particular direction when they apply orthodontic forces using the Invisalign system, and by learning the biological mechanisms that occur within the periodontal ligament, they will appreciate the importance of periodontal health to achieve predictable outcomes.

During this lecture I shall stress the importance of patient's oral hygiene and professional plaque control during the orthodontic treatment to prevent any attachment loss and I hope dentist will understand that they cannot start any orthodontic treatment until periodontal health has been achieved, and if the patient is affected by severe periodontitis, they should undertake complex periodontal therapy before starting the orthodontic treatment, or refer to a specialist for carrying out this therapy.

### What is your take home message at the Growth Summit?

Orthodontic tooth movements with the Invisalign system are predictable and based on sound biological principles. These orthodontic tooth movements can only be predictable and safe when they are carried out on a healthy periodontium. Patients with periodontal diseases should be treated before orthodontic therapy in order to assure periodontal health and thus achieve predictable and safe orthodontic outcomes.

### **About Prof. Dr. Mariano Sanz**

Prof. Dr. Mariano Sanz completed his Medical Degree at the University Complutense of Madrid (UCM)(1981) and additional qualifications in the Specialty of Stomatology (1983) and Doctorate in Medicine (PhD) at the same university (1985). He moved to UCLA (USA) to specialise in Periodontology (1988) and returned to UCM to become Professor of Periodontology (1989).

Since then he has held the position of Chairman of Periodontology, Director of the ETEP (etiology and therapy of periodontal and peri-implant diseases) Research Group and chairman of Postgraduate Periodontology. He is also Professor type II at the University of Oslo.

He has four honorary doctorate degrees from the Universities of Goteborg (Sweden), Coimbra (Portugal), San Sebastian (Santiago de Chile) and University of Buenos Aires (Argentina) and is the past Dean of UCM, past President of the Spanish Society of Periodontology, The European Federation of Periodontology and the European Federation of the IADR.

He has published more than 300 scientific publications and is an international lecturer in topics related to Periodontology, Implant Dentistry and Dental Education.