Saturday, March 4, 2023, 13h25
Session title: **Accelerated orthodontics**

Moderator: **Peter Garmyn** (his CV can be found under his profile in the app)

Abstract
Navigated Piezocision™ is a dynamic surgical procedure that combines the concept of navigated surgery with Piezocision™. Following digital planning the surgeon is able to perform this minimally invasive procedure with utmost precision while controlling "in real time" the location, position, angulation and depth of the corticotomies. Avoiding roots and critical anatomical structures while looking at the CBCT displayed on the computer screen. Soft and hard tissue grafting can be done at the same time to enhance the patient's periodontal phenotype and prevent future mucogingival problems.
Skeletal anchorage devices are commonly used in orthodontic treatment, on skeletal anchored mini plates sufficient orthodontic forces can be applied which allow to make a difference in the treatment outcome. Both surgical techniques have ability to decrease the forces applied to teeth with reduced periodontium with a history of periodontitis and to diminish the treatment time of an orthodontic treatment.

Dr. Gustavo Giordani (his CV can be found under his profile in the app): *Surgical techniques to install mini plates as skeletal anchorage for orthodontic treatment*
With the evolution of contemporary orthodontics, skeletal anchorage devices for better control and movement are commonly applied in treatments.
One of the devices that provides the orthodontist with excellent skeletal anchorage is the miniplate.
In order for this plate to be surgically installed correctly, generating patient comfort and safety, several surgical requirements must be met.
The objective of this presentation is to relate step by step how the miniplates must be surgically installed with the details that make the difference in the evolution of the treatment.


Pr. Carole Charavet and **Dr. Serge Dibart** (CVs to be found in their profiles in the app): *Digitaly planned piezosurgery to accelerate orthodontic treatment*
Navigated Piezocision™ is a dynamic surgical procedure introduced in 2019 that combines the concept of navigated surgery with Piezocision™. Following digital planning by the Ortho-Perio Team, and the establishment of an individualized Piezocision-assisted-orthodontics treatment plan by the orthodontist, the surgeon is able to perform this minimally invasive procedure with utmost precision while controlling "in real time" the location, position, angulation and depth of the corticotomies. Avoiding roots and critical anatomical structures while looking at the CBCT displayed on the computer screen. Soft and hard tissue grafting can be done at the same time to enhance the patient's periodontal phenotype and prevent future mucogingival problems. Because of the absence of surgical splint the irrigation is increased and there is a possibility for intra-operative changes which gives additional flexibility. This is quite a change from static guide surgery and treatment planning and adds new levels of sophistication for the Ortho-Perio Team.

Dr. Pál Nagy PhD (his CV can be found under his profile in the app): clinical case
A novel type of periodontally accelerated osteogenic orthodontics (PAOO) is presented through a case report. The approach combines surgical interventions (which mainly utilize bone augmentations together with selective decorticalization) with orthodontic tooth movement. The aim of these interventions is to increase the post-therapeutic stability through the thickening of the buccal cortical plate (with a corresponding gingival recession prevention), to extend the limits of orthodontics, to decrease the need for extractions and to shorten the duration of the treatment.
The presented PAOO approaches tend to reduce postsurgical morbidity by using minimally invasive flap designs and by minimizing the amount of removed bone. Therefore a modification of the VISTA technique (with a double layer tunnel flap design) is introduced with a corresponding soft- and hard tissue augmentation. Furthermore the utilization of piezosurgical devices can reduce surgical trauma and help to avoid the potential damage of anatomical structures. In order to achieve a better clinical handling and a more homogenous dispersion of the bone substitute material under the subperiosteal

tunnel, the autologous concentrated growth factor-enriched bone graft matrix, the so called “sticky bone” was used.

The **aim** of this session is to demonstrate the surgical techniques and their benefits in all their aspects and to give understanding in the surgical requirements to generate patient comfort and safety.

Key points:
- Accelerate orthodontic tooth movement by using novel periodontal surgical techniques
- Enhance patient comfort and safety by Minimal invasive surgical procedures o
-Decrease the forces applied to teeth with reduced periodontium with a history of periodontiti