



## Thesis Project Form

**Title (tentative):** Critical and commented evaluation of state of the art of temporary anchorage devices (TAD's) applied to palatal expanders

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### Description

#### Motivation and application domain

The Thesis will be focused to create a failure analysis of palatal expanders as devices able to fix specific dental and maxilo-facial issues

#### General objectives and main activities

The Thesis will be compilative and focused to create a state of the art analysis of the main failures and unsuccess of TAD's that are adopted to place and stabilize palatal expanders. These TADs are non permanent and not osteointegrated devices that have to be firmly anchored to upper palatal plane in order to let the expander to slowly expand the biological tissue.

These TADS have to bear either axial either tangential stresses and their duties are different from implants as well from miniscrews applied to teeth structures. A huge amount of applications will be affected only by partial success.

The candidate will perform a deep analysis of the main insuccess causes suggesting possible new strategies to improve the surgery success rate.

#### Training Objectives (technical/analytical tools, experimental methodologies)

The candidate will be trained to analyse in the lab the most effective technical parameters of palatal expanders in order to create a successful anaysis of their influence on the project.

**Place(s) where the thesis work will be carried out:** Genova

### Additional information

**Pre-requisite abilities/skills:** No

**Maximum number of students:** 1

**Financial support/scholarship:** No