



## PhD Assignment/Graduation project(s) Test Development & Method Validation

**Do you want to contribute to the future of ophthalmic implants using advanced simulation models? To support the development of our intraocular lenses (IOLs), we are looking for a PhD candidate or graduation student(s) to develop a numerical simulation model capable of predicting and analyzing the mechanical stability of IOLs in the eye.**

The mechanical interaction between the IOL and the eye is critical for proper positioning, long-term stability, and optimal visual performance. In this project, you will develop a physically and mechanically sound simulation model that realistically represents this interaction. The model will be used to evaluate existing designs and to optimize future IOL concepts.

Depending on the scope and academic level, this project can be conducted as a PhD trajectory or divided into multiple graduation projects, for example focusing on modeling, validation, or parametric studies.

### **What will you do?**

- Develop a mechanical simulation model (e.g. FEM) for IOL stability in the eye
- Model material behavior, geometry, and boundary conditions
- Analyze stability, deformation, and positioning of IOL designs
- (Optional) Validate the model using experimental or literature data
- Translate simulation insights into concrete design recommendations

### **Why choose this project?**

- Work on cutting-edge medical implants
- Combine advanced mechanics, modeling, and biomedical engineering
- Direct impact on product innovation and design decisions
- Flexible setup: suitable as a PhD project or multiple graduation projects

Do you want to know more about this interesting assignment, please contact Adien Dam, R&D Director at Teleon Surgical – [adien.dam@teleon-surgical.com](mailto:adien.dam@teleon-surgical.com)