



University  
of Basel

Department of  
Biomedical Engineering



Selected research topics in Biomedical Engineering:

### **The Future of Personalized Medicine: 3D Printing and Patient-Specific Technologies**

Location: Biozentrum, Spitalstrasse 41, Basel, Seminar Room U1.191

Date & Time: Tuesday 14.05.2024 11:15 – 13:00

# **Modernized workflows for cranio-maxillo-facial surgery empowered by in-house virtual planning and 3D printing**

***Dr. Alessandro Tel***

*University Hospital of Udine, Italy*

## **Abstract**

The presentation will focus on the methodology of advanced virtual surgical planning performed by Dr. Tel to modernize clinical workflows in orthognathic surgery, temporomandibular joint surgery, trauma, oncology and reconstruction, for a more predictable outcome and a more automatic surgical sequencing. Strategies for advanced segmentation, model processing, and surgical guide design will be discussed from the perspective of a surgeon that is also the self-planner of his own cases.

## **Biosketch**

Dr. Tel is consultant in CMF surgery at the University Hospital of Udine. He completed his surgical training and graduated specialist in CMF surgery in 2023. Dr. Tel's career mainly focused on the application of high technology in CMF surgery, with special attention to innovative technologies, including AR and AI. Currently, Dr. Tel's scientific work includes 70 publications registered in ORCID. Moreover, Dr. Tel's editorial project of the first Atlas for VSP in CMF surgery, in collaboration with several international partners including Basel, was accepted by Springer and will be released in 2025.