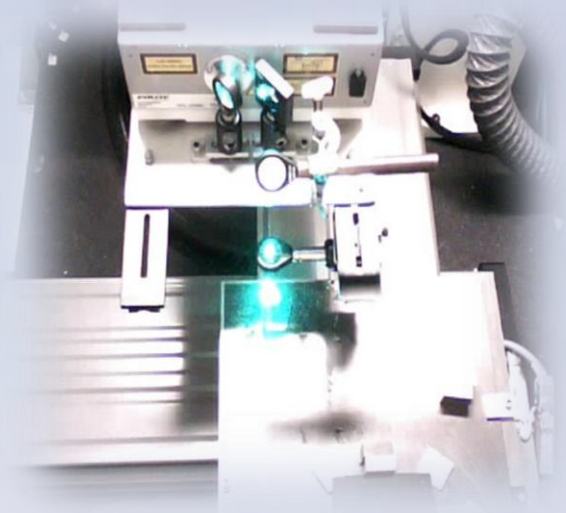


biological tissues

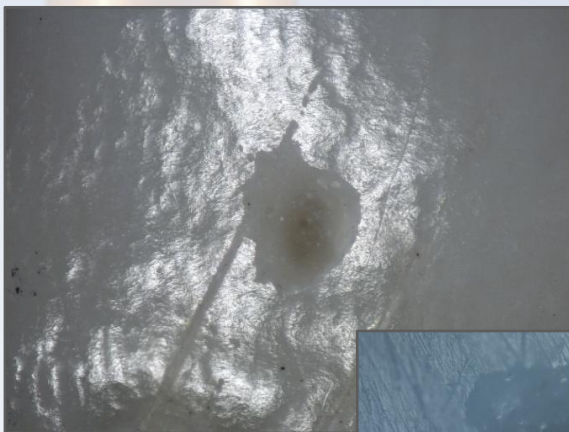
laser surgery

Laser assisted surgery is a valid substitute to conventional surgical tools. By choosing the right wavelength it is possible to operate on **soft tissues** with immediate blood coagulation.

The use of laser in **dentistry**, for the treatment of **dental surfaces**, provides huge benefits to patients and fuelled the diffusion of lasers in dental clinics.



High quality holes can be drilled in human teeth samples. Proper cooling is possible to control the internal temperature, a fundamental requirement to preserve tooth vitality.



Laser cutting lab

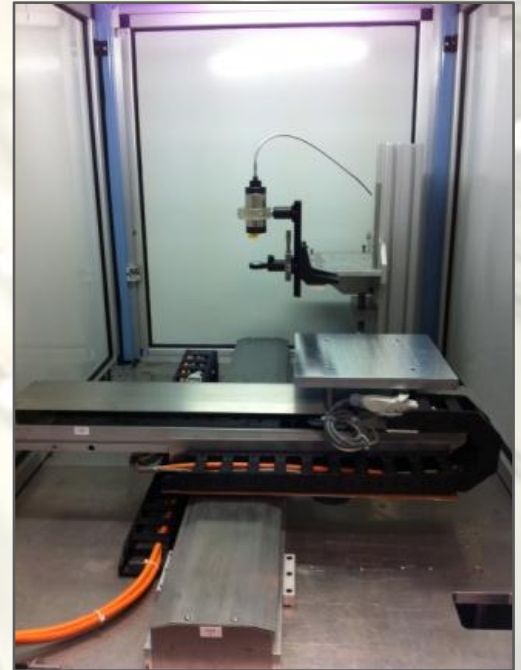
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laser processing lab

Our lab is equipped with **solid-state** and **fiber lasers**, mounted on machines with 2D-translation stages, for the processing of biological samples.

The lab hosts lasers with emission wavelength in the **infrared** and **green**. Pulses duration between 600 ps and 100 ns, with repetition rate from 50 kHz to 250 kHz and average **output power up to 30 W** are available.



The **very high beam quality** of our lasers, with an M^2 factor close to 1, allows **extremely precise cuts** and for a reduction of the heat affected area. Our lasers can operate with very different output power levels without causing the beam to change its position and focus, allowing to obtain very smooth processing.

