Department of Anatomy

The Department of Anatomy is the department with the largest teaching load among the theoretical departments. The fact that we form a "buffer zone" between incoming students and upperclassmen naturally implies a role in faculty recruitment and PR activities. Nevertheless, we have recently been successful in engaging early career assistants in the research process.

The research activities are based on collaboration with more theoretical scientific disciplines (sophisticated mathematical computations) as well as with clinical disciplines - in particular various fields of surgery. The research is mainly based on detailed work, on small assets and on software, therefore we do not list many expensive instruments. Outputs include oral or poster presentations at scientific congresses in addition to written scientific communications.

Main research topics

- Shape analysis and biomechanical properties of the human skeleton
- Evaluation of the functional state of mitochondria after exposure to hepatotoxic and hepatoprotective agents
- Sex and age differences on the skeleton from the perspective of forensic anthropology

Equipment

- optical scanner "SCAN in a BOX" - production of 3D models, input data for shape analysis
- Leica TP 1020 freezing microtome - production of cryosections for histochemical and other applications

Other possibilities of the Institute

Apart from the explicitly named topics, our researchers are proficient in photogrammetry, working with volumetric data, basic anthropological analysis of remains, all work with virtual 3D models including internal structure and their application for biomechanical tests or searching for population trends. Of course, histological and histochemical staining, work with tissue cultures, etc.