

HELLE TAPFER: HER INFLUENCE ON ANATOMY, MEDICAL SCIENCES AND PROF. RAUBER'S MUSEUM COLLECTION

LIINA PÄRNSALU, AADE LIIGANT

Department of Anatomy, University of Tartu, Tartu, Estonia

Helle Tapfer is one of the most renowned Estonian anatomists. Her devotion to anatomy is remarkable – during the 50 years as a lecturer in anatomy and researcher, she has done extraordinarily much. She is a tireless initiator and generator of new ideas. Her characteristics are positivity, cheerfulness and the ability to care about people around her – to understand, encourage and praise them.

H. Tapfer was born in a family of employees in Tallinn on 26 November 1937. In 1956 she completed Pärnu Secondary School No. 1 and became a student of dentistry at the Faculty of Medicine at Tartu State University. After graduation, she had to choose between anatomy or histology, as there were no vacancies in dentistry. She was fascinated by anatomy, as this discipline connects all the areas of medicine; therefore, she became an assistant at the Chair of Anatomy. From 1966–1969, she was a postgraduate student of the same speciality. She successfully defended her candidate's dissertation *On intraorgan blood vessels and their relations with the renal pelvicalyceal system*. Her later research was also related to the renal *pelvicalyceal* system and the relations of its architectonics to branching of blood vessels in adults and embryos and on the basis of comparative anatomical material, which renewed the views on determination of renal segments (in contrast to generally accepted theory of arterial segments). The results in the areas of renal segments and resection have found practical application in urology.

From 1969, H. Tapfer worked as an associate professor at the Chair of Anatomy at the University of Tartu until 2017. During this time, H. Tapfer held different positions. In 1995, she was holder of the Chair of Anatomy; from 1998–2002, she headed the Institute of Anatomy. This period also included several essential events for Estonian medicine.

With the completion of the new building of Biomedicum in 1999, a new stage started in the development of the Institute and the Chair of Anatomy. New opportunities opened for teaching of anatomy and research in this field. Changes also concerned the development of anatomy as a subject. H. Tapfer integrated the programmatic decisions made at the congresses of the International Federation of Associations of Anatomists (IFAA) into the research trends in anatomy and curricula of the Chair. The technological equipment of the Institute reached the internationally recognised level, which resulted in several cooperation projects with other institutes and clinics of the Faculty of Medicine and also international partners. Along with modern and promising methods, she preserved and revived anatomy as the historically established basis for all biomedical sciences. In teaching, she has therefore consistently supported the viewpoint *nulla medicina sine anatomia*. The courses of anatomy and preparation have a particularly significant role for students entering professional life. Through preparation, medical students receive invaluable anatomical information and practical knowledge. This can happen only if people are ready to donate their bodies to medicine. Introduction of voluntary donation was one of the most essential goals that Dr Tapfer achieved. This was also caused by major changes in curricula in 1999–2001. Teaching of anatomy was reduced from three semesters to two. In 2000, teaching of topographic anatomy and human anatomy was integrated, the main reason being the shortage of corpse material. The success of the course, however, depends on the availability of corpse material. After the restoration of independence of Estonia, the question needed legal regulation. The Institute of Anatomy did substantial work to draft a regulation that would cover the donation of dead bodies to the Institute for educational purposes. A set of documents was prepared – excerpts and translations from body donation contracts of institutes of anatomy at European universities, drafts of the regulation based on them, proposals for amendments, inquiries, articles published in the press. Owing to H. Tapfer's determination and persistence, with the help of Dean of the Faculty of Medicine and Vice Rector for Academic Affairs and in cooperation with the Ministry of Social Affairs, legal foundations were laid to anatomical activities – the regulation on procuring, storage and disposal of anatomical teaching material was adopted in 1999. A confidential database of voluntary donors has been created.

Helle Tapfer also continued enthusiastically the tradition of perpetuating Prof. August Rauber's memory, which was initiated by Assoc. Prof. E. Lepp. In the 1990s, international contacts began to develop. One of the anatomists' first cooperation partners was the Christian Albrecht University of Kiel. It was also

significant that Prof. Bernhard Tillmann, head of the Institute of Anatomy in Kiel, was greatly interested in Prof. August Rauber and the museum of anatomy, as he was one of the chief editors of the new Rauber-Kopsch atlas and textbook.

Dr Tapfer was convinced that August Rauber's unique collection of human anatomy should be preserved as a whole after the Institute had moved out of the Old Anatomical Theatre. She was also concerned about the building of the Old Anatomical Theatre and the collection of specimens that should not be dispersed but definitely kept together. She knew from her experience that European universities that had abandoned anatomical specimens regretted it. The narrow and irregular rooms of the 200-year-old building and its rotunda inspired her to study the development of anatomical theatres in detail and the history of anatomy in general. She would have liked to make the *theatrum anatomicum* a place where the university arranges festive medical events – defences of doctoral theses, promotion of doctors and inaugurations of first-year students of medicine. The Old Anatomical Theatre would also be an ideal place for exhibiting the dignified history of medicine at the University of Tartu. In cooperation between anatomists, pathologists and forensic medical examiners, an exhibition of different medical collections was opened in the Old Anatomical Theatre. Dr Tapfer participated actively in its compilation.

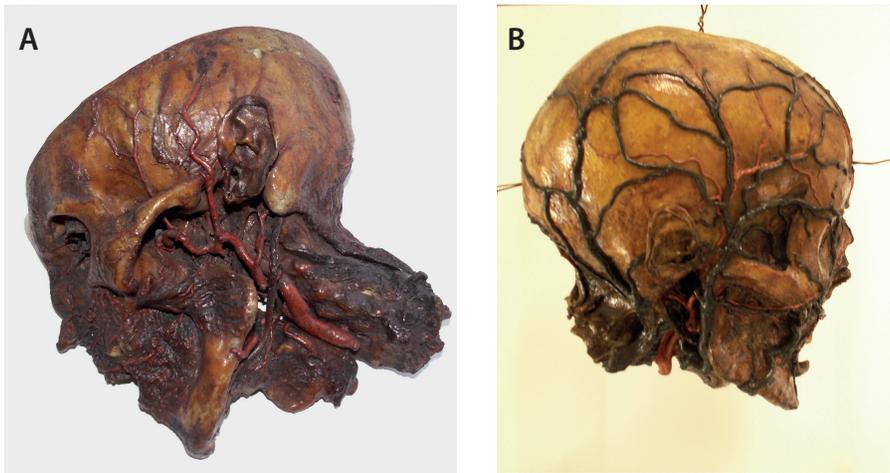


Photo 1. Specimens from Prof. A. Rauber's collection. Head arteries, dry specimen (A); head veins, dry specimen (B).



Photo 2. Development stages of the foetus, malformations. Four-month-old foetus (A); skeleton of a nine-month-old foetus (B); Encephalocele, the defect in the closure of the neural tube, hernia of the brain (C).

At her initiative, lectures were arranged for secondary school students who were interested in medicine and saw their future connected to it. Namely popularisation of anatomy, medicine and science was an activity that H. Tapfer cherished. She is an acknowledged lecturer who is known for her interesting and informative lectures. Throughout time, Helle Tapfer's particular interest in anatomy has been human development, embryology and finding the causes of malformations. It is essential to her that students would understand both phylogenetic and ontogenetic development. The collection of anatomy and embryology has provided excellent opportunities for illustrating her lectures; in addition to students, it can be visited by everyone interested. August Rauber's collection has become part of the very popular medical collection which is now located at the AHHA Science Centre.

H. Tapfer is a board member of the Estonian Morphology Association and a member of the International Federation of Associations of Anatomists (IFAA). She has 88 research publications which deal with the relations between blood vessels and structural units in parenchymatous organs (lung, kidney), variant anatomy of blood vessels, morphological changes in organs in the case of multiorgan deficiency syndrome, sepsis, formalin and alcohol intoxication. Her anatomical specimens of the kidney have won gold medals at international exhibitions in Tallinn, Moscow (1982) and Leipzig (1983). She has published study aids in English and Estonian which are illustrated with her own drawings. For teaching and research, she has been awarded the A. Rauber memorial medal, the medal of the Faculty of Medicine and the large medal of the University of Tartu.

Address for correspondence:

Liina Pärnsalu

Department of Anatomy

Institute of Biomedicine and Translational Medicine

Ravila Street 19, 51014 Tartu, Estonia

E-mail: Liina.parnsalu@ut.ee