

Editorial**CLINICAL AND MACROSCOPICAL ANATOMY - QUO VADIS?****Georg Feigl***Chair of Macroscopic and Clinical Anatomy, Medical University of Graz, Austria*

Anatomy is one of the basic sciences for every human and dental medical student. Without sound knowledge, young and inexperienced doctors risk causing severe side effects or complications on patients, most dramatically in the death of a patient. So, anyone will accept that medical curriculum should provide enough time for a proper education of this knowledge. Decades ago, this was reality. The macroscopic Anatomy, mainly systematic and partially topographic anatomy, was taught; Anatomy was one of the main fields to be passed in the so called pre-clinical period of the curriculum. Working as an anatomist at the University at that time, one had a respected position in teaching the medical students to become responsible and good medical doctors.

Of course, Anatomy is one of the cornerstones of the medical curriculum, Physiology and Histology are other important ones in the pre-clinical area and where connected to each other ever since. However, new fields were introduced in the curricula such as biochemistry, biology and physics. As these new fields logically demanded some teaching hours, it was obvious, which fields

had to be cut in their teaching hours. So, first decrease in teaching hours took place. In reducing the teaching hours, dissections courses were replaced by “practical activities” using prosections only. More and more, the most important basis for clinical anatomical science was taken away: the body donated to science. This had severe consequences on many anatomies who could not investigate clinical questions on cadavers. Only countries which kept their dissections courses together with a well-developed body donation program could survive. “Anatomists” regularly were and still might be Medical Doctors (Dr. med. univ.) themselves, most of them finished a six-year specialisation becoming an examined “board certified” anatomist and finalizing with the “*Venia docendi*” also known as the “license to teach” or “habilitation”. Anyway, a more dramatic change could be recognized in the 70’s, especially in Germany. Over there, the “*Fachanatom*” was introduced, which mainly has not studied human medicine but other studies such as biology, molecular biology, biochemistry or other fields (Dr. rer. nat.) but they finalize their specialisation in the field of Anatomy. These specialists, who certainly had to pass a very profound specialization, never had an adequate medical education, never dissected and studied the human body with the same intensity, but then were responsible for the education of medical students. Parallel to it, new criteria were installed to reach the habilitation. The focal points were increasing numbers of publications and especially with the introduction of the “impact factor” of a journal, a consecutive request to publish in high ranked journals. Anatomical societies became very molecular biologically weighted. Regarding the Anatomical society (AG), the annual meetings of this society more and more changed from macroscopic weighted topics to mainly molecular biological scientific meetings. It has to be stated now, that molecular

biology, immune-histo-chemistry and genetics are not unimportant, but concerning the basic education of a human or dental medical student, these fields remain not being the most important keystones. However, in many countries of the world, the same development took place. Other countries, such as France or the United States, opened the anatomical field for clinicians. As a consequence, surgeons, orthopaedics, anaesthetists, radiologists become Professors of Anatomy and were responsible for teaching anatomy at their universities. Anatomists New Societies were founded too: the Clinical Anatomical Societies; first in North America, then in Europe followed by many others. And there are a lot in the world on each continent. This milestone can be seen as a protest against other societies, where anatomists were regarded as eremits because of presenting clinical anatomical science.

So, at the beginning of the new millennium, and important trend was running. One can make a university career only by publishing a lot in high ranked journal. The habilitation, originally "venia docendi" changed into "venia investigationis". More and more the "Fachanatom" took over and the number of "Anatomists" was reduced dramatically. Additionally, the impact factors of journals, were "Fachanatomen" could publish, increased and increased whereas the impact factor of "Clinically Anatomy" weighted such as Surgical Radiological Anatomy, Clinical Anatomy remained low ranked. Even more, the category of "Anatomical journals" in the Scientific Citation Index included interesting journals which do not deal with "Clinical Anatomy" at all. This trend continued up today. Teaching mainly is performed by so-called "senior Lecturer" who are responsible for the main medical education of the students. These Senior Lecturers often are not well respected, because most of the University and University careers only focus on science, publications and money collected by national funds. The more money one earns for a University, the more highly regarded he or she is. The quality of teaching medical students is not of interest. Besides, another huge problem arose: contracts at universities were not very attractive to become an "Anatomist". Only a few motivated or more idealistic crazy persons, who fell in love with anatomy, decided to specialize in the field of Anatomy after finishing their studying of Medicine. In Austria and especially in Graz, the universities still try to prefer "Anatomists" before employing "Fachanatomen" but it becomes more and more impossible to recruit young colleagues. So today the field of "Clinical Anatomy", its societies and we as "Anatomists" or all persons,

scientist and colleagues and "Fachanatomen" who love this field are facing all the developed problems together at the same time with all its power: no attractive contracts, journals with a low impact factor, no basis for a university career and being not well respected by most of the "Fachanatomen" in the world or by their own universities.

Everybody wait to read the solution for these problems. Unfortunately, I cannot provide them. But there should be started several strategies simultaneously:

First, there is a need that the "Clinical Anatomical" journals become attractive for "Anatomists" and Clinicians again. One strategy might be an internal ranking or the creation of a new Category "Clinical Anatomy". This could help, that also Clinicians and we as Anatomists ourselves can publish in mainly called "Q1-journals". After a period of time, realistically at least a decade, the impact factor will start to increase.

Second: university contracts have to be changed as soon as possible. Not only for those, who already are specialized "Anatomists" but importantly at the very beginning to motivate young colleagues to become an "Anatomist". The instalation of career models, which are weighted on teaching and have attractive salary are the basis. This is a massive and long lasting, difficult, frustrating and demoralizing way, but I can tell from my own experience that it is worth. The Medical University realized this problem after long discussion now and promised a change within this calendar year. Hopefully, this might be a sign for other universities to create an attractive basis for the young generation.

Third: we have to find together much more. There are still departments of Anatomy with good infrastructures concerning bodies donated to science. National and international collaborations will create keynote papers, which will be cited more often and will be respected by others. Certainly, we always have to take care of the scientific quality of our manuscripts and not to follow the enticement: as many as possible, as fast as possible and as high as possible. It cannot be acceptable, that we do not care about the quality of our science.

I am sure, that the readers, colleagues and friends of "Clinical Anatomy" do have other important contributions, ideas or strategies. I only can encourage everybody to enforce and to share it; to fight for this wonderful and important field, because if we lose our basis, it will take generations to rebuild it.