

Recommendation by the
21st General Assembly
of the HRK
on 8 November 2016
in Mainz

**On quality assurance for
doctoral degrees
in medicine**

HRK German Rectors' Conference

The Voice of the Universities

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I. The problem area

The route to a doctoral degree in medicine has been subject to criticism for some time, both in the world of higher education and in the broader public. The quality spectrum of medical doctorates in Germany is broad, i.e. medical dissertations often do not meet the standards required of an academic research thesis presented in other disciplines as part of a doctoral degree.

This has led to the European Research Council, which now sets globally recognised standards in European research funding, only admitting applicants with the German title of Dr. med. if the holder proves that he or she occupies a position requiring an academic title equivalent to a PhD.¹ European standards for the doctoral level have also been defined by the European University Association (EUA), and are now widely recognised in the academic community.²

A key problem for medical dissertations is that they are conducted before students have finished their compulsory course work. While doctoral dissertations in other disciplines are usually written after the completion of an undergraduate degree, which normally also includes an initial academic thesis, in most cases doctoral projects in medicine are started and largely executed during undergraduate studies. The background to this is the long standard course duration of more than six years and the specialist medical training, generally lasting five to six years, immediately following the degree course.

The HRK made its last statement on quality assurance in doctoral programmes in 2012.³ It was expressly indicated therein that statements concerning medical doctoral degrees should have a stronger focus on the specific discipline and therefore be made in a separate resolution. Due to the overall responsibility of the higher education institution leadership for quality assurance at universities, the HRK now presents the following key parameters for reforming training towards a doctoral degree in medicine.⁴

¹ See information from the National Contact Point of the German Federal Ministry of Education and Research (BMBF), Applying to the European Research Council (ERC), 2015, p. 6 f.: "A medical doctorate is not accepted as equivalent to a PhD when applying for Starting Grants and Consolidator Grants. In this regard, the ERC does not distinguish between the German Dr. med. and the Anglo-Saxon MD. Doctors of medicine must therefore furthermore be able to demonstrate a position that requires an academic title equivalent to a PhD (e.g. postdoc fellowship, appointment to a professorship)."

² Cf. the so-called Salzburg II Recommendations of the European University Association (EUA): http://www.eua.be/Libraries/publications-homepage-list/Salzburg_II_Recommendations.

³ On quality assurance in doctoral examination procedures, recommendation of the HRK Executive Board to higher education institutions entitled to confer doctorates, 23/04/2012. Cf. also the Joint Declaration on Doctoral Training in Europe initiated by the HRK: <https://www.hrk.de/positionen/gesamtliste-beschluesse/position/convention/joint-declaration-on-doctoral-training-in-europe/>.

⁴ The key parameters address human medical and dental doctoral training in equal measure.

II. Key parameters for quality-controlled doctoral degrees in medicine

The current routes to a doctoral degree in medicine are varied and the option of completing a structured, quality-controlled doctorate in medicine already exists in many faculties.

These partial reform endeavours are taken up in this recommendation. The aim of the recommendation is to present key parameters for a high-quality, academically driven and quality-controlled medical doctoral degree in medicine that is also internationally recognised as equivalent to a PhD. The recommendation takes the position that doctoral degrees in medicine must be based on a high-quality independent academic achievement that brings about a substantial contribution to scientific knowledge. The key parameters in this process should allow scope for local and discipline-specific focuses and idiosyncrasies, while formulating standards that a doctoral degree in medicine must satisfy.

1. Structure of doctoral degrees in medicine

Generally speaking, the doctoral project in medicine is currently predominantly executed during undergraduate studies. It is prerequisite for a high-quality medical doctorate and also its international recognition as equivalent to a PhD, however, that the execution of the doctoral project is essentially done at the postgraduate stage, that is after completion of a degree course. This guarantees that a sophisticated research project is executed, leading to a substantial expansion of scientific knowledge, which – as in other disciplines – builds on the knowledge acquired during undergraduate studies, and moreover does not conflict with the extensive time commitment required by a medical degree.

Completion as a postgraduate presupposes preparation for doctoral training during the degree course, with scientific methods and work techniques being introduced in addition to regular studies. The introduction of an undergraduate thesis, which can also form the basis of a doctoral thesis, can serve as additional preparation and reinforce academic training during the undergraduate degree in general. The completion of the doctoral project, which is characteristically defined by the preparation and finalisation of the dissertation, is then undertaken in a further doctoral training phase after completion of the undergraduate degree.

Both the phase during the undergraduate degree preparing for the doctorate and also the doctoral phase after completion of the undergraduate degree should largely take the form of doctoral programmes or doctoral research programmes – taking account of local specifics and idiosyncrasies.⁵ Naturally, the preparatory phase for

⁵ See also HRK: On quality assurance in doctoral examination procedures, 23/04/2012, p. 3.

doctoral training during the undergraduate degree can also be completed later at the postgraduate stage.

2. Selection procedure

Providing a structure for the medical doctoral phase involves strengthening supervision as well as teaching cross-disciplinary skills, and therefore makes greater demands on the capacities of the faculty. Access to structured doctoral programmes will therefore only be available to students with corresponding above-average skills, who have taken part in an introduction to scientific methods and work techniques in addition to the standard undergraduate studies. It is important to ensure that the topics and projects to be tackled are in line with standards for independent academic work.

3. Time release during undergraduate studies and financing

If the introduction to scientific methods and work techniques is already provided during undergraduate studies, students should be released from their regular studies for this period. The release should comprise at least one semester, with the result that the students can fully dedicate themselves to an induction into scientific methods and work techniques. The time spent preparing for the doctorate must not be credited to the standard course duration for the medical degree. The break in studies should, where possible, be financed by a scholarship, which should also serve as the prerequisite for acceptance into a structured post-graduate doctoral training programme.

4. Supervision

Supervision of doctoral candidates should be performed on a collegial basis by at least two persons who have adequate academic qualifications. The nature of the supervision arrangements will be specified in a supervision agreement.⁶ This will also cover the structure of regular feedback meetings and also verbal interim reports on the part of the doctoral candidate. The quality of supervision as well as the specific approach to supervision will be evaluated on a regular basis by the faculty.

5. Training

As part of structured preparation for a doctoral degree, undergraduates or, following graduation, doctoral candidates must be given general methods training along with the teaching of key competences and good scientific practices. Obligatory and documented participation in a given number of different cross-disciplinary events should be part of the supervision agreement. Such training must be on offer not only during the doctoral preparation phase during undergraduate studies but also during the postgraduate doctoral phase. It must be possible for these skills to be completely acquired after undergraduate studies have been completed.

⁶ HRK: On quality assurance in doctoral examination procedures, 23/04/2012, p. 5.

6. Credit towards specialist medical training

The attractiveness of research work after undergraduate studies – and this includes doctoral theses – depends to a great extent on the options for earning credits with research work that count towards the specialist medical training following undergraduate studies. The state medical associations are therefore called on to integrate periods of academic work into specialist medical training to a reasonable extent.^{7 8}

III. Implications

The implementation of the key parameters presented here will involve a number of implications that should also be taken into account by the responsible political stakeholders in the structuring of framework conditions and agreements on targets and performance.

1. Inclusion in research projects

For a quality-controlled medical dissertation, it is desirable that doctoral candidates are involved in current research projects at the medical faculty or in cross-discipline inter-faculty projects at the higher education institution. This promotes candidates' transdisciplinary research skills and concurrently offers the faculties and universities the chance to permanently retain these candidates beyond the end of the doctoral project for research and for an academic career in medicine.

2. Development of new career concepts

In order to recruit and secure early career researchers in medicine, the aim should be to integrate quality-controlled doctoral training into general career and staff development strategies for an academic career in medicine. Given the high standard required of a medical doctorate and its postgraduate completion, the value placed on traditional postdoctoral qualifications for an academic career path in medicine should be reviewed.

3. Implementation of scientific content in undergraduate studies

The reduction in the number of doctorates in medicine must not result in those medical practitioners who do not wish to complete a doctorate having no contact with scientific content or independent research activities during their training. Regardless of whether a doctor intends to work in research or in a practical role as a medical practitioner, fundamental academic training is indispensable with a view to subsequent science-based practices that follow the guiding principle of the academically trained doctor. It is therefore necessary to provide elements of scientific training in medical courses for all students.

⁷ See also the German Research Foundation (DFG): Recommendations of the Senate Commission on Clinical Research, "Structuring scientific training for medical doctors," April 2010.

⁸ DFG: Recommendations of the Permanent Senate Commission on Key Questions in Clinical Research on "Establishing an Integrated Research and Training Programme for Clinician Scientists in Parallel to Residency Training," April 2015.

IV. Evaluation

On the basis of their institutional responsibility for quality assurance, higher education institution leadership will re-examine models for quality assurance in medical doctoral degrees after a reasonable period of time.