

Decision Regarding Assessment of the Medicine Study Programme Group at the Level of Doctoral Studies University of Tartu

02/02/2018

The Quality Assessment Council for Higher Education at the Estonian Quality Agency for Higher and Vocational Education decided to approve the report by the Assessment Committee and to conduct the next quality assessment of doctoral studies in the Medicine study programme group at University of Tartu in seven years

On the basis of subsection 10 (4) of the Universities Act and point 40.1 of the 'Quality Assessment of Study Programme Groups at the Level of Doctoral Studies', authorised in points 3.7.3 and 3.7.1 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education (hereinafter referred to as 'EKKA'), the EKKA Quality Assessment Council for Higher Education (hereinafter referred to as 'the Council') affirms the following:

1. On 7.11.2016 University of Tartu and EKKA agreed upon a time frame to conduct the quality assessment of the study programme group.
2. The Director of EKKA, by her order of 10.11.2017, approved the following membership of the quality assessment committee for the quality assessment of the third cycle of higher education in the Medicine and Sports study programme groups at University of Tartu (hereinafter referred to as 'the Committee')

André Nieoullon	Chair, Emeritus Professor of Neuroscience, Institute of Developmental Biology, Aix-Marseille University; Scientific Advisor in charge of Life and Health Sciences at the French Ministry for Higher Education, Research and Innovation (France)
Heikki Kainulainen	Professor of exercise physiology, Department of Biology of Physical Activity, University of Jyväskylä (Finland)
Sigmund Loland	Professor of sport philosophy, The Norwegian School of Sport Sciences (Norway)
Jarkko Ketolainen	Professor of Pharmaceutical Technology, School of Pharmacy, Faculty of Health Sciences, University of Eastern Finland; member of Research Council for Health, Academy of Finland (Finland)

Joke Denekens	Emeritus Professor in General Practice and head of the department of General Practice at the University of Antwerp (Belgium)
Michael John Mulvany	Professor Emeritus, Department of Biomedicine, University of Aarhus (Denmark)
Riho Tapfer	Association of Pharmaceutical Manufacturers in Estonia, Head of Executive Board (Estonia)

- University of Tartu submitted the following third cycle study programme for assessment in the Medicine study programme group:

Medicine (doctoral studies)

Neurosciences (doctoral studies)

Pharmacy (doctoral studies)

- University of Tartu submitted the self-analysis report to EKKA on 23.08.2017, which the assessment coordinator forwarded to the committee on 20.09.2017.
- Assessment visit to University of Tartu took place 21-23.11.2017.
- The committee submitted the draft assessment report to EKKA on 21.12.2017, which was sent to the university for comments by EKKA on 21.12.2017 and to which University of Tartu delivered its response on 9.01.2018.
- The Committee submitted its final assessment report to EKKA on 10.01.2018. The assessment report is an integral part of the decision. The report is available on the EKKA website.
- The Secretary of the Council forwarded the Committee's final assessment report along with the University's self-evaluation report to the Council members on 18.01.2018.
- The Council with 8 members present discussed these received documents in its session on 2.02.2018 and, based on the assessment report, decided to point out the following strengths, areas of improvement, and recommendations regarding the Medicine study programme group at the level of doctoral studies at University of Tartu

Strengths at the level of the study programme group

- Numerous strong research groups with competitive scientific international production.
- Excellent research facilities. Laboratories are equipped with top-level technology, including preclinical analytic equipment.
- Highly qualified, dedicated and active teaching and research staff.
- Doctoral students are highly motivated, enthusiastic and dedicated to their research areas.
- Doctoral students actively participate in international and national conferences.
- The use of visiting international academics in all stages of PhD studies: teacher, co-supervisor and opponent.
- Doctoral students are happy with the flexibility of the courses and the availability of e-learning.
- Access is ensured to a wide selection of scientific journals.
- Doctoral students actively participate in teaching.

- 10) Teaching and learning is well integrated with research.
- 11) International mobility level of doctoral students is excellent.
- 12) It is positive that some research groups try to raise the doctoral allowance to the level of the median national income.
- 13) Newly established junior research fellow position enables better efficiency of doctoral studies.

Areas for improvement and recommendations at the level of the study programme group

- 1) The level of research is uneven between research groups. Some study programmes face bigger problems with drop-out rates and the financing of research, which need extra attention. The Faculty of Medicine should work to promote international visibility and contribution to international networks of the research groups.
- 2) Present scholarships are inadequate and contribute to too high drop-out and to PhD studies extending over the formal duration (four years). Efforts should be made by the university to improve scholarships, for example by way of seeking financing opportunities by stakeholders. Doctoral students' allowances should be raised to the level of the national average income in all research groups.
- 3) The teaching of "specialty courses" (assigned 36 ECTS) is not in accordance with international practice, since these are normally included in the master programmes. Some of the "specialty courses" are in fact general courses concerned with research methodology and suggests that the title of these courses could be renamed. On the other hand, courses related to the acquisition of transferable skills could be increased to include courses like entrepreneurship, for example. In general the number of credits could be decreased in order to ensure better alignment with the actual duration of studies. For example, the amount of credits from courses that are in essence master level courses could be reduced from 60 to 30-40 credits without detrimental consequences to the quality of doctoral studies. Moreover, this would leave more time for the doctoral students to concentrate on their thesis.
- 4) The requirement of three published articles in international journal with at least two as a first author is too much. In part, submitted articles could be accepted as meeting the precondition for defence through an adequate vetting procedure involving external evaluation.
- 5) Generalize implementation of e-learning.
- 6) Career development opportunities should be explained better to doctoral students.
- 7) It is recommended to enhance the overall visibility of the study programmes via social media, a more informative website and the like. For example by highlighting the main research direction, profiles of the research staff, recent publications and training opportunities.
- 8) Procedures for regular review and updating of the structure, function and quality of the PhD programme should be developed. It is essential to take into account in the review of the content of the programme feedback from supervisors, doctoral students and stakeholders on a regular basis.
- 9) Efforts should be made to make employers and other stakeholders more aware of the acquired outcomes and competencies of the PhD graduates.
- 10) Some courses are too general. A better structure should be implemented to evaluate the number and quality as well as ECTS points be harmonized. Low ECTS courses could be consolidated into larger courses to form a coherent whole in order to ensure that the relevant learning outcomes are met by the time of graduation. Moreover, since the title of the courses does not always adequately reflect the content, better identification of course content has to be made in some cases.

- 11) It is strongly recommended that research ethics courses be made mandatory for all PhD candidates.
- 12) The number of joint-programmes should be increased to further develop international research networks and attract international students from western European universities. Possibilities of funding at the level of EU should be investigated.
- 13) The sports and medicine doctoral study programmes should engage in closer cooperation in order to promote interdisciplinarity in doctoral studies. One way for achieving that is to aggregate all four study programmes under one framework study programme. This would allow for better administration of teaching and learning as well as supporting processes while clearly defining distinctive research pathways.
- 14) Funds should be earmarked for the maintenance of research equipment.
- 15) In some research areas there is a shortage of competent supervisors. Teaching staff should be more evenly distributed among research groups.
- 16) The university should improve the objective indicators on the efficiency of PhD studies, including the follow-up of PhD graduates' success after graduation.
- 17) Research funding does not ensure adequacy of resources for all study programmes, especially in the case of smaller research groups.
- 18) Supervision in general should be improved by reducing the number of PhD students supervised by the same supervisor. A limit should be set for the maximum number of supervised students per supervisor at any given time. International practice sets the limit at no more than three or four doctoral students per supervisor.
- 19) Supervising skills of academic staff involved in the process could be further developed by mandatory supervision training and organizing supervision seminars. Feedback should likewise be collected from supervisors on a regular basis.
- 20) Feedback from doctoral students is not collected in a systematic manner and it is not clear how the feedback of the doctoral students has changed current practices. The system for collecting supervision related feedback should be improved.
- 21) Effort should be made to involve employers in the organization of the curriculum to increase the visibility of the programmes locally and improve the employability of graduates.
- 22) There are insufficient backup supervisors to take over if problems with the primary supervisor arise. It is recommended that a long term personnel strategy be put in place in order to ensure adequate succession rates for teaching staff.
- 23) It is recommended that the supervisor-doctoral student relationship be formalized by defining rights and obligations of both supervisor and doctoral student in a doctoral contract. Moreover, formal procedures should be put in place for the resolution of disputes arising in the course of supervision (i.e. by way of appointing a confidential counsellor).
- 24) A structured part-time PhD programme should be created, with a maximal duration of six years.
- 25) Efforts should be made to re-integrate doctoral students into teaching and learning after their parental leave.
- 26) The transparency of the admissions process should be increased by wide advertising of positions. All applicants should be evaluated on equal footing for meeting the previously published criteria by an independent panel, which might also include experts from outside the university.

MEDICINE

Strengths

- 1) Doctoral students appreciate the quality, range of choices and flexibility provided by the study programme.

- 2) Strong clinical supervision ensuring clinical relevance of PhDs in Medicine. In all specialties the qualifications of the academic staff allow for conducting high-quality research. Many teaching staff members are recognized professionals in their field.

Areas for improvement and recommendations

- 1) Many of the MDs do not complete, but instead go back to their clinical training after three years and do not write up the results of any research they have done. For MDs a clear programme should be drawn up at the start indicating how their PhD training is to be performed in parallel with their clinical training.
- 2) Doctoral students should discuss individual study plans in more detail with their supervisors in order to ensure that the chosen courses contribute to the achievement of the objectives of the study programme.
- 3) The motivation of doctoral students to choose the career path of a researcher and teaching staff member should be supported.
- 4) Make sure that good researchers are available for teaching.
- 5) High workload on top of studies lengthens the duration of studies undertaken by doctoral students.

PHARMACY

Strengths

- 1) Curriculum development is strongly research driven.
- 2) PhD students are well integrated into the Institute of Pharmacy.
- 3) Participation in international research networks.
- 4) Drop-out rate is negligible.
- 5) Outward mobility of PhD students at high level.

Areas for improvement and recommendations

- 1) Industry and other stakeholders need to be better integrated into curriculum development, i.e. by way of being represented in the study programme council.
- 2) Joint projects and funding opportunities with industry and other stakeholders should have higher priority.
- 3) Given the insufficient numbers of doctoral students the university needs to ensure long term sustainability of doctoral studies in Pharmacy.
- 4) The implementation of e-learning should be included to a greater extent.
- 5) According to doctoral students the use of modern teaching methods on the study programme is below par.
- 6) The use of visiting senior scientists as teachers to fill the existing expertise gap should be more frequent.
- 7) A recruitment plan is needed in order to ensure adequate succession of younger faculty members.

NEUROSCIENCES

Strengths

- 1) Research on the study programme is at high international level. Some fields of neuroscience are particularly well developed in Tartu such as biological psychiatry, neuroendocrinology, behavioural studies but also cell and molecular neurobiology.
- 2) Excellent experimental facilities including genetic engineering in animals.
- 3) Doctoral students are well integrated into research groups.
- 4) The supervision of doctoral students is generally of high quality, use of international co-supervisor is frequent.
- 5) There is excellent outward student mobility to developed countries.

Areas for improvement and recommendations

- 1) A brain-research umbrella could be formed that connects the PhD in Neurosciences and PhD in Medicine doctoral students working on the brain.
 - 2) The study programme group could consider setting up an Estonian Society of Neuroscience, which could join the Federation of European Neuroscience Societies to further increase international visibility of research and PhD training
 - 3) It is recommended to develop a course focussing on additional basic aspects of neuroscience like excitability and intercellular communication, for example.
 - 4) Increasing the number of funded positions for the PhD in Neuroscience should be considered, perhaps in collaboration between the Neurosciences and Medicine programmes under a brain research umbrella.
 - 5) Possible funding of doctoral students through the pharmaceutical industry has to be explored.
 - 6) Attention should be paid to organizing PhD scientific activity and social activities together with the other study programme groups to promote interdisciplinarity and social interactions to better integrate doctoral students into the larger community at the University of Tartu.
- 10.** Point 40 of the 'Quality Assessment of Study Programme Groups at the Level of Doctoral Studies' establishes that the Quality Assessment Council shall approve an assessment report within three months after receipt of the report. The Council shall weigh the strengths, areas of improvement, and recommendations outlined in the assessment report, and decide whether to conduct the next quality assessment of that study programme group in seven, five or three years.
- 11.** The Council weighed the strengths, areas of improvement, and recommendations presented in point 9 of this document and found that the study programme, the teaching conducted under these programmes, and development activities regarding teaching and learning conform to the requirements, and

DECIDED

to approve the assessment report and conduct the next quality assessment of the third cycle of studies in the Medicine study programme group at University of Tartu in 7 years.

The decision was adopted with 8 votes in favour. Against 0.

12. The Council proposes that University of Tartu submit an action plan to EKKA concerning the areas for improvement and recommendations pointed out in the report no later than 02.02.2019.
13. A person who finds that his or her rights have been violated or his or her freedoms restricted by this decision may file a challenge with the EKKA Quality Assessment Council within 30 days after the person filing the challenge became or should have become aware of the contested finding

The Council shall forward the challenge to its Appeals Committee who shall provide an unbiased opinion in writing regarding the validity of the challenge to the Council, within five days after receipt of the challenge. The Council shall resolve the challenge within ten days of its receipt, taking into account the reasoned opinion of the Appeals Committee. If the challenge needs to be investigated further, the deadline for its review by the Council may be extended by a maximum of thirty days.

A legal challenge to this decision is possible within 30 days after its delivery, by filing an action with the Tallinn courthouse of the Tallinn Administrative Court under the procedure provided for in the Code of Administrative Court Procedure.

Tõnu Meidla
Chair of the Council

Hillar Bauman
Secretary of the Council