

Appendix A: Terms of References (ToR)

The board of the Faculty of Health Sciences, UiT the Arctic University of Norway, mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess the Department of Clinical Medicine based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by the Department of Clinical Medicine as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following 4 aspects in your assessment:

According to Eallju, UiTs strategy towards 2030, "*UiT will contribute to developing innovative, democratic and sustainable solutions for major societal changes*". Excellent research at top international level as well as strengthening of collaboration with clinical hospital units in the region are among the Faculty of Health Sciences' strategic plan for 2023-2030. As a clinical department with close collaboration with the University Hospital of North Norway (UNN), the strategic research priorities of the Northern Norway Regional Health Authority (Helse Nord RHF) focused on research that meets the needs of the patients and the health services, are also of relevance to us. Our research aims to contribute to sustainable development and stabilization of the health system for the whole population in the region with a shift in the demographic distribution towards an elderly population.

Our scientific staff is performing research within a wide variety of clinical medicine disciplines, as well as basic medical biology, and epidemiology with a focus on translational research. The department has in total 28 research groups. Some groups were established less than three years ago, many are quite small. The scientific staff consists of 100 full-time professors, 10 in combined 50% UiT and 50% clinical position and 266 in part-time position. Nearly all of these are employed both at IKM and one of the hospitals in the region, mainly at the UNN, but also at the Nordland Hospital Trust and Finnmark Hospital Trust.

At IKM, we have focus on the following areas of research:

1. Clinical research

Clinical research is a natural priority of IKM as well as UNN. The clinical research topics at the department cover a wide range of clinical medicine disciplines. Close collaboration with clinical departments at UNN offers good opportunities for both randomized clinical trials and observational clinical studies. However, Northern Norway is a scarcely populated area (less than 10% of the Norwegian population, but 35% of its land area) which is a limitation when it comes to including enough patients in clinical trials, especially for less frequent diseases. This can only be overcome by regional, national, or international collaboration. Linkage to national clinical quality registries can also facilitate research on clinical outcomes. Research groups at the department participate in national and international clinical networks in several areas and have conducted international clinical multicenter trials. We kindly ask the committee to evaluate how well the research carried out at the department meets the goals for increased participation in clinical trials, utilization of clinical registries and regional, national, and international collaboration.

2. Clinical epidemiology and registry-based research

Prevention and treatment of prevalent diseases has been major objectives of the strategy at the Faculty of Health Sciences and the Helse Nord RHF during the last decades. At IKM, population-based cohorts and registry-based studies have been utilized to study the epidemiology of genetic and environmental risk factors and their relationship to disease and other health outcomes. Currently, the wider availability of cutting-edge omics-techniques (genomics, proteomics, metabolomics etc.) yields new unique opportunities for revealing disease biomarkers and mechanistic targets for prevention and treatment of disease. The Tromsø Study is a central source for population-based research on people living in the high North with well-defined geographical definition of the catchment area of the only hospital in the region which allows follow-up on diseases with a high degree of precision. Furthermore, linkage to the other national registries (e.g., national patient registry, prescription registry, cancer registry and national quality registries for cardiovascular outcomes), provides unique opportunities for studying exposure-disease associations, and facilitate hypothesis generating research on causal relationships between risk factors and disease for further mechanistic studies. We kindly ask the committee to evaluate how well the research carried out at the department utilizes the available sources for population-based research, and to what extent current state-of-the-art and cutting-edge technologies are applied for advancement of our research.

3. Translational and basic research

The shift towards an increasing proportion of elderly in the population is a challenge to health care and health care systems, and strategies to improve prevention and treatment of major diseases (such as cardiovascular diseases, cancer, infections, and autoimmune disorders) are important to meet these challenges to improve health care and quality of life in the population. In-dept knowledge on disease mechanisms is a prerequisite to develop new treatment- and preventive strategies to improve health care. Translational and interdisciplinary research which integrates clinical, epidemiological, and basic research, are key approaches to advance research methodology beyond state-of-the-art and obtain a deeper understanding of the interplay between basic cellular and molecular mechanisms

involved in the pathogenesis of disease. IKM has focus on translational and basic research within several disease areas (e.g., cancer and venous thrombosis) and has hosted one K.G. Jebsen Center of Translational Medical Research in the period 2014-2020. Centers of this kind are important as they facilitate establishment of high-quality translational research, with the potential for ground-breaking innovations. We kindly ask the committee to evaluate how successful IKM has been to promote and maintain translational- and interdisciplinary research, and to what extent our research is prepared to meet the challenges and requirements of a changing society. We would like to welcome suggestions on how our research could be (re)organized to maximize advantages with regards to infrastructure (access to population-based studies, clinical studies, and core facilities for basic research), and how these can be better implemented in a translational and interdisciplinary research framework to accelerate development towards personalized medicine. We also welcome suggestions for how to increase sustainability of the research groups, and strengthen our positions for external funding (e.g., Center of Excellence), particularly within the field of translational medicine.

4. Institutional collaboration between IKM and UNN

Increased integration and collaboration between clinical research at UNN are a priority for IKM. The department leadership team has together with relevant leaders at the hospital had a special focus on employing younger/middle aged physicians with a strong research and teaching portfolio in combined positions, usually 50%-50%, to strengthen the collaboration for both academic and clinical work. Increasing numbers of talented employees in these positions will gain the research output for the research groups with researchers from both the university and the university hospital. The department has also had a special focus on supporting talented researchers by strategically giving them 4-year PhD positions for strengthening selected research groups.

We kindly ask the committee to evaluate how well our current research strategy addresses future societal challenges in view of the conditions described above. We also welcome suggestions for research directions and modifications to keep continuing to maintain and develop relevance for the high north and position the department for clinical medicine for the future and increase the ability to secure research funding.

In addition, we would like your report to provide a qualitative assessment of the Department of Clinical Medicine as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the life sciences secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat

Interviews with representatives from the evaluated units

Interviews with the the Department of Clinical Medicine will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from the Department of Clinical Medicine are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the Department of Clinical Medicine and RCN. The Department of Clinical Medicine should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat within the deadline given by the secretariat. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of the Faculty of Health Sciences, UiT the Arctic University of Norway and the RCN after all feedback on inaccuracies has been received from the Department of Clinical Medicine.