

Research Review

Theme Daniel den Hoed 2013-2018



Report on the research review according to the Standard Evaluation Protocol 2015-2021



February 2021

Meg van Bogaert

meg@megvanbogaert.nl



Contents

Preface	-
I. Introduction	7
Assignment to the com	mittee 7
Assessment criteria	
Committee compositior	n 8
Documentation	
Working method	
Structure of the report.	
II. Theme Daniel den Hoed	111
Introduction	
Cancer Institute	
Strategy 23	
Dedicated research time development	e and career 12
PhD training and super	vision 12
Research Integrity polic	y 13
Diversity policy	
III. Radiation Oncology	15
Strategy and targets	
Research quality	
Relevance to society	

Viability	17
Recommendations	17
IV. Medical Oncology	19
Strategy and targets	19
Research quality	19
Relevance to society	20
Viability	20
Recommendations	20
V. Hematology	21
Strategy and targets	21
Research quality	21
Relevance to society	22
Viability	22
Recommendations	22
Appendices	23
Appendix 1: Curricula Vitae of committee members	25
Appendix 2: Quantitative data on the departmental composition and financing	27
Appendix 3: Schedule of the site visit	28
Appendix 4: SEP Assessment Scale	30



Preface

On behalf of the committee, we here present our SEP-review of the Theme Daniel den Hoed of Erasmus MC. The committee is impressed by the provided detailed information and the enthusiasm and willingness to share relevant additional information of the researchers during our 2-day virtual interaction. Of course, the way of reviewing your site is not ideal due to the circumstances of COVID-19, but we feel strongly that we have been able to come to a sound report based on the provided information and the feedback from the interviews.

We have summarized our conclusion in this report and are confident that this feedback can be used to further optimize the translational and multidisciplinary research activities, the societal impact, valorisation and the PhD-training programme. We are impressed by the high quality of the research and are convinced that the Theme Daniel Den Hoed has a bright future. We hope that you will use our feedback for further improvement.

Henk Verheul

Committee chair, Theme Daniel den Hoed Nijmegen, 3 December 2020



I. Introduction

Assignment to the committee

The Executive Board of Erasmus University Medical Centre Rotterdam (Erasmus MC) initiated an assessment of the scientific research done at the institute during the period 2013-2018. This quality assessment was part of the regular six-year evaluation cycle of the research of Dutch universities and University Medical Centres (UMCs).

The primary units of research at Erasmus MC are its 48 departments, which are (financially) responsible for carrying out the institute-wide research strategy. Each department is led by a department Head appointed by the Executive Board of Erasmus MC. The Department Head is fully responsible for the core functions (research, education, and if applicable patient care) as well as for the atmosphere and working environment (diversity & research integrity) of the department.

Historically, departments are distributed over nine overarching themes:

- 1. Biomedical Sciences (6 departments)
- 2. Brain & Senses (6 departments)
- 3. Daniel den Hoed (3 departments)
- 4. Diagnostic & Advice (7 departments)
- 5. Dijkzigt (8 departments)
- 6. Health Sciences (4 departments)
- 7. Sophia (7 departments)
- 8. SPIN (3 departments)
- 9. Thorax (3 departments)

For the purposes of this assessment, the Executive Board of Erasmus MC appointed a separate committee of international experts for each of its nine Themes, consisting of international experts in the fields of the underlying departments. Each committee conducted its own assessment, amounting to a total of nine assessments. The respective digital site visits to Erasmus MC took place in the period September 2020 to April 2021.

Originally, the members of each committee were intended to meet with one another and with institute and department representatives during onsite meetings. These were scheduled to take place in the spring of 2020. However, due to the global Covid-19 pandemic, the site visits to Rotterdam were first postponed and later replaced by remote meetings via a digital platform. In order to partially compensate for the loss of interpersonal interaction during physical meetings, it was decided to schedule additional online meetings between committee members and use interactive working methods.

This report describes the findings, conclusions and recommendations of the committee that assessed the three departments that are part of Theme Daniel den Hoed. Each department is assessed in relation to research programmes and institutes worldwide in similar disciplines and on similar topics. The committee did not attempt to compare Erasmus MC Departments working on different research topics to each other. This might lead to differences in argumentation of a certain score, for example when it comes to critical mass and size of department, or amount of external funding obtained.

The committee did not attempt to draw a direct comparison between departments within Erasmus MC. Nonetheless, it has taken note of the results and strategies of the departments in Theme Daniel den Hoed and discussed them in relation to each other. The committee emphasizes that the assessments made by the nine committees are not comparable; each committee assessed the theme in question on its own merits.

Assessment criteria

The assessment of the Theme Daniel den Hoed was guided by the Standard Evaluation Protocol 2015-2021 (SEP) of the Royal Academy of Sciences and Arts of the Netherlands (KNAW), the Netherlands Organisation for Scientific Research (NWO) and the Dutch Association of Universities (VSNU). The three assessment criteria specified in SEP - (1) research quality, (2) relevance to society and (3) viability - formed the starting point for the assessment. In its report, the committee both qualitatively and quantitatively assesses these criteria, scoring them on a four-point scale, ranging from world leading/excellent (1) to unsatisfactory (4). The meaning of the scores is explained in appendix 2. In accordance with SEP, the assessment also includes a qualitative appraisal of Erasmus MC's PhD programme, and its research integrity and diversity policies and practices.

In addition to the SEP criteria, the committee took three specific research-related targets into consideration. These are part of Erasmus MC's current strategy (<u>Strategy23</u>), which designates 'Technology & Dedication' as its guiding principles.



In the Terms of Reference (ToR) for the research assessment the Executive Board of Erasmus MC describes the three research-related targets as follows:

- 1. Positioning ourselves as a partner;
- 2. Using technology to lead the way in innovation;
- 3. Focusing on our staff and internal organization.

For each target, the ToR list a number of indicators, which the committee used as reference points.

Committee composition

Members of the committee that assessed the departments of Theme Health Sciences are:

- Professor Henk Verheul, Radboud UMC (chair)
- Professor Michael Brada, University of Liverpool, UK
- Professor Jan Cools, KU Leuven, Belgium
- Professor Hanneke van Laarhoven, Amsterdam University Medical Centers
- Professor Ingrid Pabinger, Medical University of Vienna, Austria
- Professor Marcel Verheij, Radboud UMC

Dr Meg van Bogaert was appointed as independent secretary to the committee. A short curriculum vitae of each of the committee members is included in appendix 1.

All members of the committee signed a statement of impartiality and confidentiality to ensure a transparent and independent assessment process. Any existing professional relationships between committee members and departments under assessment were reported. The committee concluded that there was no risk in terms of bias or undue influence.

Documentation

Prior to the site visit, the committee received the self-evaluation report of the Theme and its underlying departments, including the information and appendices required by SEP. The following additional documents were provided:

- Standard Evaluation Protocol 2015-2021
- Terms of reference for conducting the site visit

- A Beginner's Guide to Dutch Academia (The Young Academy, 2018)
- Addendum to the self-evaluation report
- Strategy23

Working method

Prior to the site visit, the committee members were asked to read the documentation and formulate preliminary assessments and questions for the interviews. In an online kick-off meeting, approximately six weeks prior to the site visit, the committee was introduced to the Standard Evaluation Protocol and agreed upon procedural matters. In a second online meeting, approximately three weeks prior to the site visit, the committee discussed preliminary assessments and formulated questions on relevant topics. These questions were afterwards sent to the Department Heads in order to further assist in their preparations for the site visit. On the evening/day before the start of the digital site visit, the committee held a closed online meeting to prepare for the interviews.

For the assessment of one specific department two members of the committee were primarily responsible for the assessment. As 'first assessors', they took the lead in preparing for the assessment of this department. Furthermore, these committee members drafted an assessment based on the SEP criteria. For reasons of continuity, 'second assessors' were appointed to each department. Contrary to the first assessors, the second assessors were not necessarily an expert in the field of the department. For the interviews with each department a committee member was appointed as moderator, this committee member was not first or second assessor.

The site visit of Theme Daniel den Hoed took place on 23-25 September 2020. During the site visit, the committee met with the Executive Board of Erasmus MC, as well as with representatives of the three participating department. Each department was given a time slot, which it filled with presentations and interviews. The committee also spoke with PhD candidates of the departments. Prior to the site visit the secretary of the committee had a digital meeting with the selected PhD candidates. Prior to this meeting the PhD candidates were requested to fill out a questionnaire, by way of follow-up questions the secretary was able to provide the committee with information on the selection, training and supervision of the PhD candidates. The committee



members used this information in two consecutive speed-dates with PhD candidates. During its final meeting, the committee jointly discussed the scoring all of the departments. To conclude the visit, the committee presented the main preliminary conclusions to the Executive Board of Erasmus MC and the heads of the departments of Daniel den Hoed. The schedule for the site visit is included in appendix 2.

After the site visit, chair and secretary drafted a first version of the committee report, based on the assessments drawn up by the first assessors. This draft report was circulated to the committee for all members to comment on. Subsequently, the draft report was presented to Erasmus MC for factual corrections and comments. In close consultation with the chair and other committee members, the secretary used these comments to finalize the report. The final report was presented to the Executive Board of Erasmus MC.

Structure of the report

This report contains the committee's findings and conclusions on the three departments of Theme Daniel den Hoed. In accordance with SEP, the committee details its assessments on strategy and targets, research quality, societal relevance and viability in separate chapters for all seven departments. These chapters also discuss particularities with respect to PhD training. Overarching and institutional dimensions of such aspects (e.g. policies that are developed at Erasmus MC rather than at the departmental level, general practices at Theme Daniel den Hoed with respect to PhD training, diversity and research integrity) are assessed in a general chapter that precedes the chapters on the departments. Details on the composition of the committee, the assessment scale and the setup of the digital site visit can be found in the appendices.



II. Theme Daniel den Hoed

Introduction

The committee appreciated the written documentation that has been received in advance as well as the information that was provided during the presentations by the Heads of Department and research teams.

The nine Themes at Erasmus MC are organizational units. As such they are not formally responsible for developing research strategies or distributing funds. Together, the Heads of the underlying departments and the Theme Director, form the Team Board, which bears collective responsibility for drawing up and realizing the Theme's annual and multi-year plans. The Theme Board is accountable to the Executive Board of Erasmus MC. One of the Heads of department acts as chairperson of the Theme Board.

The Theme Daniel den Hoed includes three departments that were assessed on Strategy and targets, Research Quality, Societal Relevance and Viability. The assessment of each department is provided in chapter III – V. In addition, the committee assessed several criteria at the level of the theme and Erasmus MC. Although differences are observed between the departments, the committee is of the opinion that the assessment of these criteria, PhD training, diversity and integrity, has a common denominator.

Cancer Institute

The organizational structure at Erasmus MC is complex. From the documentation and the interviews, it became clear that departments hold a prominent position within the organization and are relatively autonomous in making strategic choices. The Daniel den Hoed Theme is important in research as the clinical trial centre is organized at this level. This clinical trial centre is available for researchers of all three departments that collectively fund this centre. Not only are there themes and departments and Academic Centres of Excellence (ACEs), during the site visit the committee also learned about the Cancer Institute. This virtual institute recently started and includes best practices between departments and ACEs, including but not limited to departments from the Daniel den Hoed Theme. It provides a platform and infrastructure. The importance of multidisciplinary interaction is essential for conducting optimal cancer care and research. Therefore, the initiative

of this institute in which ACEs that group around an oncology topic collaborate, is supported by the committee. However, the terminology and existence of too many structures is complex. According to the committee, there are currently too many structures in place. The committee strongly advises to the Executive Board of Erasmus MC to consider structural funding for the Cancer Institute and reconsider the historical structure of the Daniel den Hoed Theme, in order to increase its visibility and distinctiveness at the national and international level.

Strategy 23

Every five years Erasmus MC sets in place an overarching strategy for research of all departments in all themes. The current strategy (Strategy23) builds on the previous one, with different emphases and taking account of new developments. The subtitle of Strategy 23 is Technology and Dedication. These are general terms which seem to be well embedded in the departments of the Daniel den Hoed Theme. For each department, the committee has looked at the way in which this Strategy 23 is being adhered to. Across the departments in the Daniel den Hoed Theme, the committee established that the Technology aspect was not so much focusing on technology driven research, but rather on using techniques as important tools for new innovations and patient care. The committee was pleased to learn in most interviews that patient care is driving the research and development of technology. As long as the Dedication and patient care are leading, which they are, the committee understands the focus of the Erasmus MC wide strategy. Technology is indeed very important and will remain important. Artificial intelligence is becoming more and more important in medical research, diagnosis and treatment. A focus on innovative technologies is thus very good.

In the self-evaluation reports by the departments the focus is on the achievements of the last years until 2018. Future strategy and future aspects are captured in a SWOT analysis only, and a delineation of the strategic plan and the research topics is not clearly presented. In general, Strategy 23 does not seem to be a primary focus of the departments. That is, they are following their own research lines and when convenient they refer to the technology aspects in the research lines. As such, the practical relevance of Strategy 23 may be questioned and accurate evaluation of the impact of Strategy 23 needs to be developed.



Dedicated research time and career development

As the assessment of the three departments shows, the quality of research is high and there is a clear and vivid research culture within the departments. The committee did notice that dedicated research time for clinicians is an issue, in particular for translational and clinical research. The committee is of the opinion that involving clinicians in basic research has added value and the issue therefore extends to this type of research as well. Doing high-quality scientific research simply takes time. The absence of consistent and transparent agreements on dedicated research time for clinicians is therefore a point for attention.

Another topic the committee wants to point out, are the opportunities for career development. The committee understands that the absence of a formal tenure track limits the possibilities for heads of department. Therefore, the current initiative for setting up an Erasmus MC-wide tenure-track programme is strongly supported by the committee. Still, at the level of department attention is required and action can be taken. It is important for junior and mid-career researchers to know what the criteria and expectations are for their career development. The committee considers it very important that these criteria and conditions are clear and that there is a transparent system so that researchers know how talents are identified, where they stand themselves and what their future holds. The committee is positive about a number of Erasmus MC programmes that offer guidance and support to talented mid-career researchers. Not only those participating in such an Erasmus MC programme, but many young staff members would benefit from establishing a formal mentoring programme. The committee is of the opinion that having an outside mentor is not only helpful to PhD candidates but also for early-career (clinician) scientists. Additionally, EMC could consider providing seeding grants to young talent, as these would help them in gaining independence. These opportunities should be included in the aforementioned career development system.

PhD training and supervision

Erasmus MC offers three- to four-year (fulltime equivalent) PhD positions in which PhD candidates conduct research, follow a training programme, teach undergraduate students and attend conferences and meetings. These activities, as well as agreements on supervision, are detailed in a Training & Supervision Plan (TSP) that is drawn up at the start of a project and signed by the PhD candidate and the supervisors. The TSP is expected to be updated annually and serves as a guide for the yearly evaluation of the progress of the PhD student.

Since 2019, Erasmus MC has a central database system ('Hora Finita') in which the status of all PhD projects is registered. Before the introduction of Hora Finita, Erasmus MC did not centrally keep track of completion times, success rates and next destinations of PhDs, which is why this type of data was not available to the committee. The availability of this system is said to greatly aid generating management data regarding PhD graduations and aid in quality management. Unfortunately, this system is still in its early stages and PhD candidates informed the committee that they not (yet) use to update their progress for their annual appraisal meetings.

PhD training at Erasmus MC is currently organized in five PhD programmes (Health Sciences, Cardiovascular Research, Neuroscience, Biomedical Genetics, Molecular Medicine), each with its own research school where candidates follow courses and lectures (Nihes, Coeur, Onwar, MGC, MolMed). From the interviews, the committee concludes that it largely depends on the affiliation of the supervisor which school a PhD candidate joins. When the supervisor is not affiliated, the PhD candidate can shop around for courses without joining a particular school. This does however pose problems in Hora Finita, which requires registration at a research school.

Participation in courses, lectures and conferences outside of the research school count towards the 30 EC that PhD candidates are expected to obtain over the course of their project. Completed courses and teaching activities are listed in a portfolio at the back of the doctoral thesis. A oneday course on research integrity is mandatory for all EMC PhD candidates. PhD candidates who conduct animal experiments are required to follow a course on laboratory animal science, while those involved in patient-related research take part in a course on good clinical practice. PhD candidates that are involved in academic or skills-based teaching are required to obtain a basic teaching qualification.

According to the committee, the development of an Erasmus MC-wide graduate school, the TSPs and Hora Finita are good developments that will



support PhD candidates in their research and training. The committee did note that these aspects are still in development and are not yet an integrated part of the PhD supervision and training in the departments. It became clear from the meeting with the PhD candidates that it is currently unclear to many of them what is expected and what is available, specifically at the start of their project. The committee understands that the introduction takes time but encourages Erasmus MC to ensure proper introduction and implementation in the short term. An important aspect in this regard are the supervisors of the PhD candidates.

Research Integrity policy

Erasmus MC has a Research Code in place as required by the Association of Universities in the Netherlands (VSNU). As of early 2018, Erasmus MC has its own guidelines in case of scientific misconduct. Furthermore, EMC policies on academic/scientific integrity are outlined in the Erasmus MC Research Code that covers the following aspects:

- Research with patient data and biomaterial;
- Data management;
- Guidelines for publishing and authorships;
- Guidelines inducements by companies;
- Intellectual property.

This code was not reviewed separately by the committee. All starting (clinical) researchers are

required to follow the integrity course and take it into daily practice. However, according to the interviewed PhD candidates, the authorship policy is not always transparent and 'politics' do play a role.

Diversity policy

The diversity policy at the level of Erasmus MC is clearly described. The committee is of the opinion that the gender issue is a society-wide issue and the management of the departments should be more aware of how to deal with this topic. At present, there is no gender diversity in the leading structure of the Daniel de Hoed Theme, all directors and the vast majority of management/ leading staff are male. In order to establish a gender balance, the departments could have described a better strategy for promoting diversity and inclusiveness. Clear numbers and results are missing, specifically with respect to the gender balance at the more senior level. The perception at departmental level seems to be that things are going well by themselves. This may be true at the junior level, but at the level of full professorships there clearly is a disbalance. The fact that many juniors are female does not imply that they will succeed in acquiring full professorships. Erasmus MC is well aware that current female talent development programmes, whilst helping to make a difference, have (so far) not been able to close the gender gap. To this end, further actions are required.



III. Radiation Oncology

Research quality	Very Good (2)
Relevance to society	Very Good (2)
Viability	Very Good (2)

Strategy and targets

The Radiation Oncology Department's mission is "to provide excellent care by combining clinical trials with translational and applied fundamental research". This is accomplished by combining clinical trials and translational studies and applied fundamental research. Three main areas of research have been defined:

- Medical Physics and Technology (protons/hyperthermia);
- Molecular Radiobiology (DNA damage and repair/protons);
- 3. Clinical Research (prospective trials/new treatment approaches).

The strategic targets of the department are (1) to expand current strategy to achieve a leading position in clinical trials, (2) to intensify collaboration with TU Delft and HollandPTC, (3) to focus on precision/adaptive RT and (4) to better understand mechanisms of radiation-induced DNA damage/repair. As for the whole Erasmus MC, the department should examine the strategy and vision from the previous period (2013-18) and determine to what extent the research results presented fulfilled that vision.

According to the committee, current targets for the department are too wide and lack clear focus. With the limited clinical research staff the objectives and targets should be more specific, and support concentrated on what is achievable. There is a risk in a novel commercial equipment-driven research strategy (e.g. the wish to have an MR linac) which tends to justify the equipment use rather than asking fundamental questions. The department has been an early adopter and user of CyberKnife although it is difficult to see how the research output contributed to national or international standing of the department.

The committee acknowledges the fact that the department is (still) going through an important phase of transition with recent changes in leadership, structural reorganization and redefinition of its vision and strategy. This creates momentum for changes but may also carry

potential risks. The new head of department should be congratulated on the ongoing process of restructuring the research activities and strengthening collaborations with partners in and outside Erasmus MC. Whereas before the focus was unclear and involvement of clinicians in research very limited, the current leadership aims to bring together the three main areas of research (Medical Physics & Technology, Molecular Radiobiology and Clinical Research) to create synergy. A new initiative is the introduction of clinical and research profiles for clinicians and formalizing the distribution of protected research time. The department's Research Council has a key role in making this work by developing and maintaining a short and long-term research strategy. The committee supports the transparent and interactive manner with the staff as done previously (GFMS) to create support and engagement.

There are several collaborations with other departments, in particular Radiology & Nuclear Medicine, Molecular Genetics, Clinical Oncology and Pathology. BIGR seems an important strategic partner. It is unclear to the committee how well the DNA damage/repair research line is integrated in the clinic. This seems a very interesting and promising collaboration with high impact potential. HollandPTC is obviously a crucial partner for the department, and part of the staff has a joint appointment. Whether the current model of "open werkplaats" provides sufficient interaction, cohesion and synergy, remains a matter of concern. The international collaborations are focused on topics like machine learning and automated TP, hyperthermia and FLASH proton therapy.

The department's strategy and its derived targets cover a wide range of research areas. The department needs a clear and narrower focus and could benefit from a prioritization of research topics and strengthening of interactions between fundamental researchers (lab, physics) and clinicians.

Research quality

The committee was impressed by the quality of the research. In particular physics and molecular radiobiology stand out.

The department is well-equipped and offers stateof-the-art clinical care. The research topics of the Medical Physics and Technology area (automated



TP, proton therapy, precision/adaptive RT, BIGRT and interventional RT), Molecular Radiobiology (fundamental principles of DNA damage and repair, intravital microscopy, new tools for diagnosis and treatment) and Clinical Research (QOL, palliation, clinical trials) cover a very wide range of clinically relevant topics. There seems little attempt at an overarching strategy that would link the apparently disparate topics. The question arises whether more focus would further increase the research quality and the visibility of the department (integrate molecular biology into the clinic; limit focus of clinical research to specific tumour sites/indications).

To be able to fully and in-depth evaluate, the committee needs an overview of all the publications in the six-year period and assess their relevance. From the information available, the committee concludes that there are high impact publications relating to the prostate fractionation trial and radiotherapy physics (e.g. autoplan). An important contribution from the biology group is present (DNA repair with HR, BRCA and HRD assays) though little seen in relation to radiotherapy. Hyperthermia is a fringe radiotherapy research activity, currently with limited clinical and academic impact.

Significant contributions which are internationally recognized, and which reached clinical application, include:

- The development and commercialization of an automated TPS (iCycle);
- Online ART strategies for cervical cancer;
- The real-time platform for visualization/ adaptation of pelvic hyperthermia;
- The discovery of molecular basis of hyperthermia-mediated DNA repair inhibition;
- The test for patient selection for PARPi;
- The hypofractionated RT for prostate cancer (though not clinically adopted);
- The leading role in SBRT for HCC and CC.

The output is radiotherapy focused, and not so much (also) serving the oncological community at large. This aspect deserves attention.

The department shows a favorable MNCS benchmark of around 2.0, the collaboration with HollandPTC has boosted the department's funding rate. The (inter)national recognition of the department members seems limited to a selection of the group; given the size of the staff and the research opportunities available there is some room for improvement. The Medical Physics group has a high academic standing and reputation within radiotherapy. The Clinical group has a recognized contribution as one of a number of hypofractionated prostate trials. It is difficult to assess the DNA repair group, though some high profile publications are observed that are not directly related to radiotherapy. Also concerning hyperthermia, the recognition is difficult to judge and is likely to be largely within the field.

The department has access to a wide range of core facilities, both at Erasmus MC and at HollandPTC. In addition, the Radiobiology group maintains a single molecule imaging facility. The Outcome Unit (OU) supports the department in clinical trial management.

In conclusion, this is a large and well-equipped department offering state-of-the-art care, access to high-end technology and collaborations with strong groups within and outside Erasmus MC. More focus would allow improved interaction between clinicians and basic scientists.

Relevance to society

The department clearly focuses on increasing the level of automated workflow allowing adaptive and personalized treatment strategies. It has developed (commercialized) software for treatment planning and adaptive strategies that is made available for the radiotherapy community. The RECAP test would allow the identification of (breast cancer) patients who would benefit from PARPi. The role of radiotherapy and involvement of staff clinicians is unclear.

The department has significantly contributed to the increased use of hypofractionated RT (prostate, liver). Erasmus MC is one of the few centers in the Netherlands that offer hyperthermia in combination with RT. It has greatly contributed to more precise delivery and insight into the underlying mechanism of hyperthermia.

Erasmus MC collaborates with HollandPTC and contributes to the availability of proton therapy for specific patient groups. Its role in palliative programs has regional impact but lacks a solid research programme. The interaction with other disciplines could be further expanded and is a focus for future strategic investment.



Viability

The department has defined several areas of focus for the coming years, including its vision on MRguided RT, integration of hyperthermia in RT workflows, strengthening of molecular radiobiology within the staff, structural implementation of dedicated research time, intensify the collaboration with HollandPTC/TU Delft. This implies making choices and applying focus. Although the clustering of research activities into the three areas suggests focus, they still cover a very broad range of different themes which makes an optimal interaction between researchers/ projects a challenge. In addition, the department has defined new areas of research for the upcoming years, including molecular biological image guidance, MR-guided hyperthermia, MRguided RT, AI. These mostly technology-driven additional themes carry the risk to further dilute the department's resources and reduce its visibility and viability.

The presentation by the H&N multidisciplinary research team was much appreciated as it exemplified a clinical need-driven, multidisciplinary, innovative and translational research program led by a motivated group of clinicians/physicists/researchers. This approach could serve as a template for other tumour site specific programmes/ACE.

Self-identified weaknesses include the suboptimal clinical research programme and some disconnection between lab and clinic. A threat is insufficient protected research time for clinicians and a backlog in MRgRT. A clear strategic plan to solve/circumvent the identified weaknesses and threats is lacking. The department has critical mass, sufficient patient numbers and plenty of research opportunities. More focus on less spearheads might increase its visibility, funding rate and impact. The committee sees great opportunities for integrating the research of the group on DNA damage/repair into clinical studies, provided that clinicians are more actively involved than currently, and a clear focused translational programme is developed.

In line with Erasmus MC's strategic choice, collaboration with TU Delft has been very important (proton therapy related research). In fact, the department emphasizes that its research should be driven mainly by technology (precision radiotherapy). The question arises, however, as to where Erasmus MC will make the difference in an already heavily competitive proton and high precision research arena. Although funding seems secured, recruitment of the right people and importantly, their supervisors is even more important. So far, the research lacks structure and is not part of an international consortium. There is a risk that putting too much energy into a broad proton research programme, it will take them away from core activities/resources in the department.

Recommendations

The committee recommends:

- to critically revise the research portfolio and focus on strong research areas that will lead to successful clinical implementation; focus should be on clinically driven research as technology driven research implies looking for applications of technology and having difficulties executing studies.
- 2. to prioritize the implementation of clinical/research profiles allowing to allocate protected research time and to involve more clinicians in research programs, in particular preclinical research.
- to initiate a programme to attract young talented clinician researchers and experienced senior researchers.



IV. Medical Oncology

Research quality	Excellent (1)
Relevance to society	Excellent (1)
Viability	Very Good (2)

Strategy and targets

The Department of Medical Oncology aims to improve the survival and/or quality of life of cancer patients through pharmaceutical and cellular treatment. The mission of the research programme is therefore to establish individualized treatments for patients with solid tumours – treatments that are highly effective and show the least side effects.

To realize the personalized medicine ambition, understanding of many characteristics determining the outcome of patients after treatment needs to be improved. These characteristics are divided into four areas:

- 1. Factors related to tumour cells;
- 2. Properties of the tumour micro-environment;
- Factors determining the pharmacology of the applied drug;
- 4. Factors determining symptoms.

These factors are reflected in the department's research lines:

- 1. Translational Cancer Genomics and Proteomics;
- 2. Translational Pharmacology;
- 3. Translational Onco-Immunology;
- 4. Palliative and Supportive Care;
- 5. Clinical Trials.

The departments at Erasmus MC are very autonomous in deciding on their strategy, via ACEs they are stimulated to collaborate and focus. The strategy of the Medical Oncology Department is clearly described and the research in the department seems well structured.

The leadership within the department has the view to provide researchers with freedom to operate. The department is supportive to research groups, clinical trial organization and talent scout. To the committee it is unclear how individuals are supported to become part of the next generation of leading researchers. The other perspective that the committee observes is a bottom-up approach that leads to a certain degree of scattering of the research topics. The research is structured in such a way that the work is not primarily connected to tumour types. This may hamper a clear focus, although this does not seem to be a real issue so far. However, the committee is of the opinion that it should be something to be considered.

The Medical Oncology Department is large and the research staff has significantly increased over the evaluation period, from almost 30 FTE in 2013 to over 40 FTE in 2018. Total funding also increased in this period, with fairly stable direct funding that covers approximately 50% of total funding. Contract research provides a significant part of the total income (approximately 40%). Income via research grants is rather low compared to the total budget, but stable.

Research quality

The committee is impressed by the high quality of the output in the Medical Oncology Department. Specifically concerning urological cancers, the department is doing outstanding research, leading to changes in standard of care. A similar impression applies to the Pharmacology work, which is outstanding and very well recognized in the Netherlands. The palliative research is very good as well but could be working towards involving more fundamental/translational research. Research could also be further developed by initiating more multidisciplinary studies (e.g. with surgery or gastroenterology) through ACEs. Last but not least, the collaboration within the Centre for Personalized Cancer Treatment (CPCT) initiative is outstanding and has led to a nationwide collaboration and an impressive research output.

The quality of the publications throughout the evaluation period is very high. With the results on CPCT the department being internationally leading, but also for breast cancer the results are impressive. A minor point for improvement are the numbers of patients that are included in the trials (i.e. a large number of trials is open for inclusion, leading to many inclusions in trials, but the inclusion per trial is limited) and because the information was not provided, the committee cannot assess the inclusion rate in true intervention trials rather than biobanking-type and other non-interventional trials.

Erasmus MC Universited Kediteck Centrum Retirerdam

Relevance to society

The relevance of the research of the Medical Oncology Department to the clinic is very clear. The expertise in this department on certain techniques is excellent and is being used to deal with clinically relevant problems. An impressive example of societal impact is the palliative programme and the crucial role the department has in improving care for palliative patients in the Netherlands. Also, the pain relief work that is being done is impressive. The committee would in particular like to mention the video that is being used in phase 1 trials, which clearly helps patients. The work on green tea of the Pharmacology group is also a nice example of relevance to society.

The committee appreciates the increasing and strong involvement of patient groups in the research, for example breast cancer patient groups and in palliative care and symptom management. Overall, the committee is excited about the societal relevance of this department. There is a clear focus for societal impact and the results are impressive.

Viability

Based on the past performance, the committee can only conclude that the Medical Oncology Department is clearly very viable. This implies that there are no major worries, although some points of attention were identified. By pointing these out the committee would like to push this department towards excelling.

Although the quality and impact of the research and output over the past period are excellent, the committee wonders if the department really achieves its full potential. This relates to the vision and focus for the upcoming years. The committee recommends to redefine the focus and vision for the future more strongly towards the expertise that is already present. In the interviews, the representatives of the department mentioned that they want to focus, but the way they this will be achieved was not made clear. It seems that the approach is to let excellent research develop itself and the committee wonders if this is the best strategy. The committee is of the opinion that a clear strategy includes stimulating talented researchers to advance towards the international level. The committee commends the *Scout-en-Behoud* initiative. Although the details deserve some attention, for example the phase after the post-doc. The committee is positive about this initiative to provide young and talented researchers with an academic career perspective.

The number of clinical trials that are ongoing is excellent. However, when the committee looks at the number of patients in these trials, they seem to be limited (see above). There is also some concern about the inclusion of patients in true intervention trials. The committee wonders if the chosen approach is the most effective way for high quality research and relevant outcomes.

Future plans regarding the Centre for Personalized Cancer Therapy (CPCT) seem to be in development, while the department has a unique position as it is co-leading a unique nationwide multicentre genome-sequencing initiative important for the future of personalized therapy for patients with cancer. The department should take responsibility to further extend this successful collaboration to contribute to its mission to improve the survival and/or quality of life of cancer patients.

Finally, a clear opportunity for the future is to focus on multidisciplinary collaboration within specific tumour types. This requires a clear vision and the facilitation of researchers within the department and their interaction with other departments.

Recommendations

The committee recommends:

- to redefine the focus and vision for the future more strongly towards the expertise that is already present.
- to give priority for research in multidisciplinary collaborations within specific tumour types.
- 3. to develop a clear strategy to stimulate talented researchers to advance to the International level.



V. Hematology

Research quality	Excellent (1)
Relevance to society	Very Good (2)
Viability	Excellent (1)

Strategy and targets

The mission of the Hematology Department is to perform fundamental and translational research, and initiate landmark (inter)national clinical studies with the goal to improve the diagnosis, treatment and outcome of patients with haematological disorders. This is achieved in close collaboration between fundamental and clinical researchers within the department and with (inter)national partners and patient advocacy groups.

The research is organized along two research lines:

- 1) Haemato-oncology, with five focus areas
- 2) Haemostasis and thrombosis, with two focus areas

The haemato-oncology line has five focus areas. In addition, many clinical trials are initiated and/or coordinated by haematologists of this department. Furthermore, the department contains five National Expertise Centres that are actively Involved In the European Reference Networks.

The committee is of the opinion that the department is overall very innovative and ambitious, with strong links between the clinical work and research. Important clinical aspects include advanced therapy, medical products and GMP license for the production of cell- and genetherapy medicinal products. The molecular diagnosis unit is embedded in clinical work (diagnosis) and in the research, thereby providing a strong supporting role within the department at various levels.

Research quality

The committee is impressed by the very high quality of research at the Hematology Department in the period of evaluation. The results indicate that this department is one of the top hematology departments world-wide. This is reflected in many strong publications, including highly cited publications in top journals. Also, the leading role in the implementation of new technologies and the impressive Implementation of new therapies are worth mentioning. The Hematology Department is well organized. It includes strong basic research as well as translational and clinical research. Considering the strong basis and high quality, the committee is confident that this outstanding research will be continued. In recent years, an increase in publication numbers is observed, with a stable high (even slightly increasing) MNCS score of 2. This reflects the international leading position of the research in this department.

The Hematology Department does not cover the entire field of Hematology. The committee appreciates the fact that clear choices were made and it believes that the focus on specific areas and In which to excel was a wise strategy. This resulted in very strong research groups in the department that work on various topics such as transplantation, myeloma, benign haematology, leukaemia & leukaemia predisposition and molecular diagnostics. To the committee it was a pleasure to read and discuss the research that is done and it is clear that significant contributions to the field were made.

Having the Hovon (the Haemato Oncology Foundation for Adults in the Netherlands) centre in Erasmus MC is a major and strong asset. Hovon has allowed departmental groups to lead new clinical trials for adult patients with leukaemia, lymphoma and myeloma and to link this clinical research to the more basic research. Another example of international collaboration is the Harmony project (European funded big data project), with a strong involvement in the multiple myeloma part. These two impressive programmes allowed the Hematology Department to build up and maintain international collaborations and interactions. This collaboration and network subsequently resulted in strong publications and the exchange of data.

The academic reputation is excellent. Many members of the department have an outstanding international academic reputation. The department is internationally well represented, in international boards, guideline committees and as Editors (e.g. Blood). Several prestigious prizes and grants have been awarded, although the number of successful research grant applications has been relatively low.

In conclusion, the committee is of the opinion that the Hematology Department is one of the internationally leading departments in its field.



Relevance to society

Clear effort is being put into the societal relevance by the department. Diagnostics, treatment of patients and working with patients all clearly focus on this aspect. Patient participation is clearly part of the strategy; several ongoing activities with patient organizations are visible. The Hematology Department is established as a national expertise centre on BMF and leukaemia predisposition, and members of the department are involved in guideline development and national and international scientific societies.

The Hematology Department mainly deals with rare diseases, such as AML or bleeding disorders. For the individual patient the impact is extremely high. Nowadays it is possible to treat those diseases very effectively, and outcomes in haemato-oncology are still improving with an increasing number of more personalized treatment strategies. Though mostly addressing rare diseases, the research is relevant to society as a whole, as patients that previously had a short life span can receive very effective treatment. This department plays an important part in this development. Furthermore, some treatments (e.g. haemophilia gene therapy) not only lead to vast improvement of the clinical status of patients, but also reduced costs over the years although the initial treatment may be very expensive. In this respect the department is a leading organization in haemophilia gene therapy.

If there would be anything to improve with respect to the relevance to society this is, according to the committee, to give more attention to outreach and communication towards the general public.

Viability

Based on past performance and a clear strategy and focus the committee expects an excellent future for the Hematology Department. The department is focusing on important research topics in basic research as well as in translational and clinical research. There is a very good connection between the basic and clinical research, which is important. Infrastructure is already very good and is likely to be up-to-date for the upcoming period with a new grant of 7.5 million Euro to obtain new state-of-the-art equipment. There are sufficient patients for the studies and outstanding international collaborations are in place.

The challenges the committee foresees for this department are related to securing more international funding (EU, ERC), maintaining expertise (e.g. the replacement of PI's when they retire). The upcoming retirement of some senior staff poses a potential challenge, but an opportunity at the same time. The current management as well as the committee considers that there are a number of talents in the department who, with good mentoring, can grow further. The retirement of PI's also allows the department to focus on hiring more international researchers. A very important aspect to pay attention to when going forward, is the gender balance at the senior level. Based on the interview, the committee concludes that although the management is aware that the current imbalance requires action, more proactive action is required according to the committee, as this issue will not solve itself.

Recommendations

The committee recommends:

- to identify and carefully plan successors of top-researchers that are going to retire and/or step down with a smooth transition and strong commitment to the new generation of leaders.
- 2. to even further intensify the efforts for raising funds from international bodies or organisations, such as the EU.
- to, as the department deals with rare diseases, give more attention to outreach and communication towards the general public.

Erasmus MC ch Centrum Rotteraan.

Appendices



Appendix 1: Curricula Vitae of committee members

Professor Henk M.W. Verheul is professor of Translational Cancer Research and medical oncologist at the Department of Medical Oncology of the Radboud University Medical Center in Nijmegen, The Netherlands. His research is focused to improve and develop novel (combination) treatment strategies for cancer (mainly colorectal cancer) with targeted agents. He is leading multiple early phase I-II clinical trials that are accompanied by side-studies in order to learn more about the activity and targets of new anticancer therapies and to develop predictive methods for treatment outcome. In addition, his research is also directed to improve the quality of life for patients with cancer. Verheul received his medical degree from the Erasmus University Medical Center in Rotterdam and his PhD (cum laude) at the VU University Medical Center, Amsterdam. He completed a preclinical research fellowship at the Dept. of Surgery and Vascular Biology, Children's Hospital, Harvard University Boston, USA and a Clinical Drug Development Fellowship at the Johns Hopkins University, Baltimore, USA. Verheul was a recipient of the ASCO Foundation Young Investigator's Award in 2006.

Professor Michael Brada is a Professor of Radiation Oncology at the University of Liverpool; previously Professor of Clinical Oncology at ICR and the Royal Marsden Hospital, London. He is a leading international expert in neuro-oncology and thoracic oncology. He published benchmark studies of technical aspects and clinical outcome of stereotactic radiotherapy and key studies of late toxicity of cranial irradiation. Has been involved in the evaluation of chemotherapy and radiotherapy in glial tumours including initial studies of Temozolomide. In the last decade the principal focus has been on lung cancer, developing and testing novel technologies including motion management techniques and high precision irradiation. Throughout his career he had a deep interest in improving methods of care and followup of cancer patients with studies resulting in changes to clinical practice. He is also involved in evaluation of technologies through systematic reviews and meta-analyses, which have not infrequently generated heated debates. Authored and co-authored more than 250 peer-reviewed articles, editorials, and book chapters and countless abstracts and invited lectures at national

and international conferences and meetings. He served as the President of ESTRO (2003-2005), the President of the European Association of Neurooncology (EANO) and General Secretary of FECS (ECCO). He was the Chairman of the NCRI Brain Tumour CSG. Has been elected an honorary member of a number of national radiation oncology societies and a founding Fellow of European Academy of Cancer Sciences.

Professor Jan Cools obtained his PhD degree in 2001 from the KU Leuven with a study on chromosomal defects in leukaemia. From 2001 to 2003 he continued his research on the genetic causes of leukaemia at Harvard Medical School (Boston, USA). After his return to Belgium, he was promoted to assistant professor in 2005 and to full professor in 2009 at KU Leuven. Jan is a group leader of VIB since 2008. His research team studies the genetic complexity of acute lymphoblastic leukaemia (ALL) and uses that information to develop novel models of leukaemia and novel treatment strategies. The group uses nextgeneration sequencing and single-cell sequencing to obtain a detailed view on the heterogeneity of ALL at diagnosis and its evolution during therapy. Based on these genetic insights, cell and mouse models are being generated to study the mechanisms contribution to leukaemia development. Jan has served as a board member of the European Hematology Association and has been the editor-in-chief of the open access journal Haematologica from 2012 to 2017. He is currently editor-in-chief of HemaSphere, a new open access haematology journal of the European Hematology Association.

Professor Hanneke W.M. van Laarhoven is professor of translational medical oncology at the University of Amsterdam and head of the Department of Medical Oncology of the Amsterdam University Medical Centers. With a PhD in both medicine (cum laude) and religious studies from the Radboud University, van Laarhoven is a staunch advocate of interdisciplinarity. In her quest for new, better treatment options for cancer patients, she seeks collaboration with both the sciences and the humanities. She focusses on translational research in gastrointestinal cancer, specifically esophagogastric and pancreatic cancer. She is leading several multi-center investigator initiated clinical trials including substantial correlative biomarker work, as well as a prospective database for the collection of real world clinical data and



patient reported outcomes of patients with esophagogastric cancer and pancreatic cancer. Additional research initiatives include studies in psychosocial and supportive care. She published more than 390 peer-reviewed articles and numerous abstracts for national and international meetings. She has been a member of The Young Academy of the Royal Academy of Sciences (2014-2019). As of 2021 she is faculty coordinator of the ESMO Gastrointestinal Tumours, non-Colorectal group.

Professor Ingrid Pabinger-Fasching is Professor of Haemostaseology and Vice-Head of the Clinical Division of Haematology and Haemostaseology, Department of Medicine I, Medical University of Vienna, Austria. Since 1997 she has been director of the haemostaseology outpatient department for adults at the Vienna General Hospital. Ingrid Pabinger has been Principal Investigator in many dozens of clinical trials and Coordinating Investigator in several international studies. She has published more than 430 papers (as of March 2020) in peer-reviewed journals, mainly in the fields of thrombosis, haemostasis, haematology and internal medicine. She has worked as Sectionor Associate-Editor for several scientific journals, e.g. Haematologica, the Journal of Thrombosis and Haemostasis, Thrombosis and Haemostasis, Annals of Haematology and Thrombosis Research. Pabinger acted as President of the Annual Meeting of the German, Austrian and Swiss Society of Thrombosis and Haemostasis (GTH) in 2009 and as Vice-President of the International Society on Thrombosis and Haemostasis (ISTH) Congress in Berlin in 2017. She has been involved in several international and national scientific societies throughout her career, including the Board of the GTH (Chairperson 2007–2011), the Board of the

European Hematology Association (EHA), where she also chaired the Nomination Committee for Board Members and international and scientific committees of the American Society of Hematology (ASH). For the period 2016-2018 she was President of the ISTH.

Professor Marcel Verheij is chair of the Department of Radiation Oncology at Radboud University Medical Center in Nijmegen, The Netherlands since 2018, and was appointed professor of Radiotherapy at the Radboud University in 2020. Between 1990 and 2018 he worked at the Netherlands Cancer Institute (NKI) in Amsterdam where he completed his residency in Radiation Oncology. In 1996 he received his PhD (cum laude) from the VU University in Amsterdam. In 2004 he was appointed professor in Translational Radiotherapy at the VU University in Amsterdam and in 2007 he became chair of the Department of Radiation Oncology at NKI. He has been president of the Dutch Society for Radiotherapy and Oncology and is the current president of the Dutch Multidisciplinary Oncology Foundation SONCOS.

His clinical activities focus on upper gastrointestinal tumours, chemo-/bioradiotherapy and normal tissue toxicity. As principle investigator he coordinates a phase I program combining radiotherapy with targeted agents, and several phase II/III trials in gastro-oesophageal cancer, including the CRITICS I and II trials (www.criticstrials.nl). His department hosts the Laboratory for Radiotherapy & Onco-immunology (www.roi-laboratory.nl) which runs an active experimental and clinical research program on radio-immunotherapy.



Appendix 2: Quantitative data on the departmental composition and financing

Hematology Department

Composition of the department

	2013		2014		2015		2016		2017		2018	
	#	FTE										
Scientific staff	57,0	38,04	51,00	34,88	52,00	30,31	44,00	30,81	48,00	29,77	64,0	38,38
Support staff	43,0	26,73	40,00	23,68	38,00	19,65	41,00	22,12	50,00	25,99	112,0	66,74
Total staff	100,0	64,77	91,00	58,57	90,00	49,96	85,00	52,93	98,00	55,76	176,0	105,12

Financing of the department

	2013		2014		2015		2016		2017		2018	
	FTE	%	FTE	%								
Direct funding	35,84	55%	32,59	56%	28,29	57%	24,20	46%	22,73	43%	67,15	65%
Research grants	10,42	16%	7,01	12%	4,58	9%	4,50	9%	2,57	4%	1,53	1%
Contract research	18,51	29%	18,97	32%	17,08	34%	24,23	46%	30,46	52%	36,44	33%
Other	-	0%	-	0%	-	0%	-	0%	-	0%	-	0
Total funding	64,77		58,57		49,96		52,93		55,76		105,12	

Medical Oncology Department

Composition of the department

	2013		2014		2015		2016		2017		2018	
	#	FTE	#	FTE	#	FTE	#	FTE	#	FTE	#	FTE
Staff	53,00	29,45	47,00	24,66	54,00	27,74	61,00	32,68	63,00	36,27	73,00	40,37
Support staff	52,00	25,76	40,00	21,09	52,00	19,72	39,00	20,51	41,00	21,73	48,00	22,15
Total staff	105,00	55,21	87,00	45,75	106,00	47,46	100,00	53,18	104,00	58,00	121,00	62,52

Financing of the department

	20	2013		2014		2015		2016		2017		L8
	FTE	%	FTE	%								
Direct funding	27,44	50%	26,16	57%	21,21	45%	27,31	51%	31,62	55%	33,67	54%
Research grants	2,51	5%	2,13	5%	2,83	6%	2,61	5%	1,30	2%	2,16	3%
Contract research	25,26	46%	17,46	38%	23,43	49%	23,27	44%	24,86	42%	25 <i>,</i> 58	41%
Other	-	0%	-	0%	-	0%	-	0%	0,22	0%	1,11	2%
Total funding	64,77		58,57		49,96		52,93		55,76		105,12	

Radiation Oncology Department

Composition of the department

	2013		2014		2015		2016		2017		2018	
	#	FTE										
Staff	33,00	20,48	27,0	15.60	26,0	15,66	29,0	16,36	35,0	20,42	31,0	22,64
Support staff	15,00	10,46	17,0	8.02	14,0	7,23	7,0	4,57	11,0	3,04	16,0	4.82
Total staff	48,0	31,30	44,00	23.63	40,00	22,89	36,00	20,92	46,00	23,46	47,00	27,46

Financing of the department

	20	2013		2014		2015		2016		17	2018	
	FTE	%	FTE	%	FTE	%	FTE	%	FTE	%	FTE	%
Direct funding	6,03	19%	6,09	26%	4,56	20%	3,74	18%	7,49	33%	9,63	36%
Research grants	8,31	27%	4,06	17%	2,48	11%	-	0%	2,01	8%	3,06	11%
Contract research	16,96	54%	13,47	57%	15,09	66%	16,02	77%	12,95	54%	13,77	50%
Other	-	0%	-	0%	0,75	3%	1,17	6%	1,00	4%	1,00	4%
Total funding	31,30		26,63		22,89		20,92		23,46		27,46	



Appendix 3: Schedule of the site visit

Thursday 24 September 2020

Time	Торіс
08.30-09.00	Welcome & general introduction by the Dean (Dean, Theme Board members and Committee)
09.00-09.15	Introduction and preparation Radiotherapy
	Attendees: Secretary and committee members
09.15-09.30	Committee members: break
09.30-10.30	Department of Radiotherapy session 1
	Management/Leading staff
	Presentation by Head of Department (max. 10 min)
10.30-10.45	Debriefing first session Radiotherapy
10 45 11 00	Attendees: Secretary and committee members
10.45-11.00	Committee members: break
11.00-12.00	Department of Radiotherapy session 2
	Academic staff
	Presentation: The head & neck multidisciplinary research line (max. 10 min)
12.00-12.15	Debriefing second session Radiotherapy
	Attendees: Secretary and committee members
12.15-12.45	Feedback with committee members and discuss concept report Radiotherapy
	Attendees: Secretary and committee members
12.45-13.45	Lunch break committee members
13.45-14.00	Introduction and preparation Hematology
	Attendees: Secretary and committee members
14.00-15.00	Department of Hematology session 1
	Management/Leading staff
	Presentation by Head of Department including research highlights Hemostasis (max. 10 min)
15.00-15.15	Debriefing first session Hematology
45 45 45 20	Attendees: Secretary and committee members
15.15-15.30	Committee members: break
15.30-16.30	Department of Hematology session 2
	Academic staff
	Presentation: research highlights (AML/BMF & Myeloma)
16.30-16.45	Debriefing second session Hematology
	Attendees: Secretary and committee members
16.45-17.00	Break committee members
17.00-17.30	Feedback with committee members and discuss concept report Hematology
	Attendees: Secretary and committee members
17.30-18.00	Debriefing/discussion day 1
	Attendees: Secretary and committee members



Friday 25 September 2020

Time	Торіс			
09.00-09.15	Committee members enter Channel "Committee" (audio + video check)			
09.15-09.30	Introduction and preparation Medical Oncology			
09.30-09.50	Questions by committee to dean about initial findings			
09.50-10.50	Department of Medical Oncology session 1 Management/Leading staff Presentation by Head of Department (max. 10 min)			
10.50-11.05	Debriefing first session Medical Oncology Attendees: Secretary and committee members			
11.05-11.20	Committee members: break			
11.20-12.20	Department of Medical Oncology session 2 Academic staff Presentation: main focal area's clinical research (max. 10 min)			
12.20-12.35				
12.35-13.05	Feedback with committee members and discuss concept report Medical Oncology Attendees: Secretary and committee members			
13.05-14.05	Lunch break committee members			
14.05-14.10	General introduction of online speed date session by Secretary			
14.10-14.25	Speed date round 1			
14.25-14.40	Speed date round 2			
14.40-15.15	General session PhD-students and committee members			
15.15-15.30	30 Debriefing session PhD-students by committee members Attendees: Secretary and committee members			
15.30-15.45	Committee members: break			
15.45-16.30	Preparation for giving general feedback Attendees: Secretary and committee members			
16.30.17.00	Feedback session Heads of department, Dean and committee			
17.00-17.15	Time for questions by Heads of department and Dean			
17.15-17.45	Final appointments/conclusion of site-visits Attendees: Secretary and committee members			



Appendix 4: SEP Assessment Scale

	Meaning	Research quality	Relevance to society	Viability
1	World leading/ excellent	The relevant research unit has been shown to be one of the few most influential research groups in the world in its particular field.	The relevant research unit is recognised for making an outstanding contribution to society.	The relevant research unit is excellently equipped for the future.
2	Very good	The relevant research unit conducts very good, internationally recognised research.	The relevant research unit is recognised for making a very good contribution to society.	The relevant research unit is very well equipped for the future.
3	Good	The relevant research unit conducts good research.	The relevant research unit is recognised for making a good contribution to society.	The relevant research unit makes responsible strategic decisions and is therefore well equipped for the future.
4	Unsatisfa ctory	The relevant research unit does not achieve satisfactory results in its field.	The relevant research unit does not make a satisfactory contribution to society.	The relevant research unit is not adequately equipped for the future.