

The questionnaire

Institution	<u>Faculty of Medicine, Lund University</u>
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Note:

The title of Docent (Readership) is approximately equivalent to Senior Research Fellow at British universities or Associate Professor at American universities.

The title of Docent in a specified biomedical subject/clinical speciality signifies that its holder is

- a) a productive and independent scientist, as certified by the academic head(s) of the biomedical speciality and by an external examiner;
- b) a recognized professional/specialist in his/her field, as certified by the academic head(s) of the biomedical subject/clinical speciality and by the National Swedish Board of Health and Welfare if applicable;
- c) a professional academic teacher as certified by the academic head(s) of the biomedical subject/clinical speciality and by the Readership Appointments Committee.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? ? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
<i>1. Research environment</i>			
#1: BR 1.1	There should be a strong research environment around every PhD project, either within	Yes	<i>Describe research areas covered by the institution. Give examples of e.g. 5 key papers. Provide information about</i>
			The Faculty of Medicine at Lund University has six Departments, covering a broad area of research activities including, cancer, diabetes, neuronal diseases, stem cell research, heart and lung diseases, nursing, public health and infectious diseases. In order to promote collaborating efforts the Faculty of Medicine has launched a number of <i>Specialised Centres</i> and <i>Research Environments</i> (for more information see below). These facilities not only offer inter-institutional collaborations (seminars, retreats, etc.), but also joint research schools, allowing PhD candidates to interact with groups from other departments. In addition to inter-institutional interactions, the Faculty of Medicine has strong

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the institution or within collaborating institutions.		<i>institution ranking if relevant.</i>	<p>collaborations with the Faculty of Science and the Faculty of Engineering. This enables PhD candidates to attend joint research schools.</p> <p>The MAX IV facility is one of the most powerful next-generation synchrotron radiation source worldwide attracting researchers from all over the world and promoting international collaborations. The European Spallation Source (ESS) is a multi-disciplinary research facility based on the world’s most powerful neutron source that is currently built and will start initial operations in 2019 and be fully operational in 2022. Both facilities, MAX IV and ESS, have and will boost international collaboration and give PhD candidates the possibility to establish international networks.</p> <p>Faculty spanning projects will be coordinated at the Pufendorf Institute for Advanced Studies. For instance, in 2019 a graduate research school focusing on interdisciplinary societal challenges will be launched.</p> <p>The Faculty of Medicine at Lund University provides working space for more than 160 professors and 450 researchers with the permission to supervise PhD candidates. Special focus areas are for instance cancer, cardiovascular diseases, care sciences, diabetes, disorders of the motor system, epidemiology microbiology, neuroscience, and stem cell biology. Notably, all PhD candidates have the right to office- and lab space. In order to facilitate the research activities of all scientists working at the Faculty of Medicine, a number of core facilities offer their services covering areas such as bioinformatics support, genomic analysis, FACS, imaging, mass spectroscopy, protein analysis, and much more. It should be further noted that new facilities are planned such as the MoRe lab that will allow the study of motor skills and cognition affects. These facilities are working on a non-profit basis and are open to all researchers, including PhD candidates.</p>

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			<p>Key papers</p> <p><u>Department of Experimental Medical Sciences</u> Example of a recent key paper: Li et al, (2016) <i>PNAS</i> (impact factor 9,504 and 84 citations) <u>www.ncbi.nlm.nih.gov/pubmed/27140603</u></p> <p><u>Department of Health Sciences</u> Example of a recent key paper: Luoto et al. (2016) <i>Eur Respir J.</i> (impact factor 12,244 and 22 citations) <u>www.ncbi.nlm.nih.gov/pubmed/26677939</u></p> <p><u>Department of Clinical Sciences, Lund</u> Example of a recent key paper: Ahlqvist et al. (2018) <i>Lancet Diabetes Endocrinol</i> (impact factor 19,313 and 46 citations) <u>www.ncbi.nlm.nih.gov/pubmed/29503172</u></p> <p><u>Department of Clinical Sciences, Malmö</u> Example of a recent key paper: Palmkvist et al. (2016) <i>Brain</i> (impact factor 10,848 and 54 citations) <u>https://www.ncbi.nlm.nih.gov/pubmed/26936941</u></p> <p><u>Department of Laboratory Medicine</u></p>

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			<p>Example of a recent key paper: Kristiansen et al. (2016) <i>Immunity</i> (impact factor 19,734 and 56 citations) www.ncbi.nlm.nih.gov/pubmed/27533015</p> <p>Department of Translational Medicine</p> <p>Example of a recent key paper: Möller et al. (2018) <i>Blood</i> (impact factor 15,132 and 5 citations) www.ncbi.nlm.nih.gov/pubmed/29748255</p> <p>Lund University rankings: QS World Ranking 2019: 92 Times Higher Education 2019: 98 Shanghai discipline rankings: Nursing: 48 Public Health: 49 Clinical Medicine: 76-100</p> <p>Links Specialised Centres and Research Environments</p> <p>MAX IV facilities</p>

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			ESS Pufendorf Institute Graduate research school in accordance to the 2030 Agenda MoRe lab (Swedish)
#2: BR 1.2	Facilities should be compatible with the requirements of completing the PhD project.	Yes	<i>Describe facilities available at the institution and from other institutions. Give examples.</i> The Faculty of Medicine at Lund University provides workspaces for more than 160 professors and 450 researchers with the permission to supervise PhD candidates. Special focus areas are for instance cancer, cardiovascular diseases, care sciences, diabetes, disorders of the motor system, epidemiology microbiology, neuroscience, and stem cell biology. In order to facilitate the research activities of all scientists working at the Faculty of Medicine, a number of core facilities offer their services covering areas such as bioinformatics support, genomic analysis, FACS, imaging, mass spectroscopy, protein analysis, and much more. These facilities are working on a non-profit basis and are open to all researchers. Links List of all core facilities at the Faculty of Medicine Bioinformatics Genomic analysis

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			FACS Imaging Mass spectrometry Protein analysis
#3: BR 1.3	Research should be consistent with international ethical standards.	Yes	<p><i>Provide reference to local ethical committee and other organizations concerned with maintaining ethical standards. How are these standards implemented?</i></p> <p>All ethical issues are handled with high priority at the Faculty of Medicine. This is exemplified by the fact that one of four vice-deans at the faculty is responsible only for problems related to “employeehip and ethics”. The Vice Dean’s tasks include for instance gender issues, and harassment or abuse.</p> <p>All animal experiments, clinical trials as well as most other research involving human beings have to undergo ethical review according to Swedish law. For animals, applications are handled by The Swedish Board of Agriculture, for human beings by The Swedish Ethical Review Authority.</p> <p>Questions about research ethics such as management of personal data, biobank research, animal experiments, informed consent, and scientific misconduct can be interdisciplinary and they are therefore handled at the management level of Lund University. To this end Lund University has launched a website where all necessary information and rules are provided (below). The Faculty of Medicine also has a website with information (below).</p> <p><i>Research ethics</i> is a mandatory course during the PhD education. During this course PhD candidates</p>

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			<p>will learn more about the act concerning the ethical review of research involving animal experiments and clinical trials, ethical considerations on research on human beings, scientific misconduct, publication ethics, and researchers’ relation to society.</p> <p>Links</p> <p>Faculty management</p> <p>PhD course in ethics</p> <p>Course syllabus - Research Ethics.pdf</p> <p>Information about research and ethics at the homepage of Lund University</p> <p>Information about research and ethics at the Faculty of Medicine homepage</p>
#4: BR 1.4	There should be provision for allowing PhD candidates to perform part of their programme in	Yes	<p><i>Describe the arrangements provided for allowing PhD candidates to spend part of their time in another</i></p> <p>The Faculty of Medicine encourages PhD candidates to complete part of their programme at another institution abroad. Approximately 10 % of admitted doctoral candidates have their basic education from another country which implies that being at Lund University is part of their internationalisation. The International Office at the Faculty has one International Coordinator dedicated to working with PhD candidates and staff in order to facilitate mobility and exchange (since March 2018). An International Committee under the Research Studies Board has recently been established to work strategically with expanding international opportunities and partnerships within the PhD programme (since September 2018). Information regarding international</p>

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another institution, national and abroad.		<i>institution. How many take advantage of these arrangements? Who covers the expenses?</i>	<p>opportunities for PhD candidates is communicated through a presentation at the <i>Introduction Course</i>, on a website (below) as well as by email. Funding mobility can take many forms. The Faculty offers PhD candidates to apply for Erasmus study, staff exchange as well as traineeship grants. The Faculty offers a travel grant to all PhD candidates (below) as a way of encouraging mobility. Many PhD candidates have at least part of the expenses covered by their supervisor or research project related funding. The Faculty also offers temporary doctoral studentship funding (below) which can augment existing funding, allowing funds to be diverted to, for instance, periods abroad. The PhD training programme has yet to implement an exit poll and as such it is difficult to gauge how many take advantage of the available international opportunities. With this in mind, a survey was sent to all PhD candidates during the autumn semester 2018. The aim of this survey was to map how many go abroad during their PhD programme, what they do and where as well as barriers and drivers to mobility. The main findings were as follows:</p> <ul style="list-style-type: none"> - 37% of those PhD candidates who answered stated that they had been abroad already as part of the PhD training programme - Mean length of time abroad was 2 weeks - The three most common activities were conferences, courses and working on projects related to the thesis - 45% stated that they plan to go abroad in the future as part of their PhD training programme <p>Three main barriers to time abroad were family commitments, lack of time/fear of delay in PhD project and work progress and believing it was not necessary for their PhD project.</p>

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			Links Presentation Introduction Course (Swedish) (will be translated to English soon) Travel grant to PhD candidates Financial support in the form of a temporary doctoral studentship.
#5: QD 1.1	Institutions lacking facilities/expertise could collaborate with stronger institutions to obtain these.	Yes	<i>Describe collaborative arrangements with other institutions.</i> In order to facilitate collaborations and exchange of knowledge, expertise, technologies, and reagents among different institutions, the Faculty of Medicine has installed “specialised centres and research environments” and “strategic research areas”. Both types of network organization not only offer excellent seminars and research schools, they also promote joint projects and teamworking. In addition to these facilities, there are many national institutions such as SciLifeLab which offer all kind of state-of-the-art technologies. Considering the huge size of the Faculty of Medicine and the different local and national core facilities, most common technologies are available. If special equipment is required researchers usually seek for collaboration partners. Links Specialised centres and research environments at the Faculty of Medicine SciLifeLab

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#6: QD 1.2	Possibilities for joint and double degrees could be explored.	Yes	<i>Are there arrangements for joint or double degrees? How many PhD candidates are currently using such a programme?</i>	The Faculty of Medicine supports supervisors and research groups in initiating and taking on PhD candidates within joint programmes. The International Office at the Faculty has one International Coordinator dedicated to work with the research studies programme, including coordinating joint programmes (since March 2018). An International Committee under the Research Studies Board has recently been established to work strategically with expanding international opportunities and partnerships within the PhD programme (since September 2018). The Faculty of Medicine is involved in university-wide, faculty-wide as well as individual joint PhD programmes. All but one (joint degree) lead to a double degree. Joint programmes can and have developed as a result of previous research collaborations. The International Committee aims to develop a plan for establishing joint programmes with universities that are identified as strategically interesting or important. At this time, the Faculty of Medicine has 6 joint programmes and an additional 6 joint programmes in the pipeline. There are a total of 14 PhD candidates currently enrolled in a joint programme.

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2. Outcomes

#7: BR 2.1	PhD programmes should provide PhD candidates with competences to become qualified and independent researchers, according to principles of good research practice.	Yes	<i>What criteria are used to ensure that each PhD candidate has developed these competences?</i>	<p>In Sweden there are national learning outcomes for the doctoral degree, defined and used for all disciplines. They can be found in the Higher Education Ordinance and thus constitute part of the Higher Education legislation. The learning outcomes can be found on the Faculty website (below).</p> <p>Examples of learning outcomes with particular relevance for “becoming a qualified and independent researcher” are:</p> <ul style="list-style-type: none"> - demonstrate the capacity for scholarly analysis and synthesis as well as to review and assess new and complex phenomena, issues and situations autonomously and critically - demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work - demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics <p>There are no specific criteria to use for assessment. The assessment is based on course credits, the thesis, the defence of the thesis and the portfolio that each PhD candidate has to deliver. The portfolio formally constitutes the assessment of a course called <i>Comprehensive Generic Skills</i>. This course has been developed to complement the thesis and the defence of the thesis. The assessment of the thesis and its defence has, according to tradition, focused on the content of the thesis. Most of the</p>
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				<p>learning outcomes for a qualified and independent researcher will be assessed in the thesis and the defence, but the portfolio can be seen as a complement.</p> <p>Links Degree outcomes from the higher education ordinance The course Generic knowledge and skills - portfolio</p>
#8: BR 2.2	A PhD degree should also be of benefit in a career outside academic or clinical research (problem solving, analysis, evaluation, technology transfer etc.).	Yes	<i>What arrangements are made to ensure that each PhD candidate has developed these competences?</i>	<p>In Sweden there are national learning outcomes for the doctoral degree, defined and used for all disciplines. They can be found in the Higher Education Ordinance and thus constitute part of the Higher Education legislation. The learning outcomes can be found on the Faculty website. A learning outcome with particular relevance for transferable skills could be:</p> <ul style="list-style-type: none"> - Demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work. <p>There is furthermore a mandatory course for all PhD candidates, <i>Knowledge in collaboration - how research creates values in society</i>, which addresses the importance of academic research in society at large and how academic research can help solve society's challenges (see link below).</p>

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				<p>Since the thesis and its defence will usually be focused on research skills in a specific discipline the transferable skills will not be addressed. We therefore developed the course <i>Comprehensive Generic Skills</i> to complement the thesis and the defence of the thesis. It is assessed before the presentation of the thesis.</p> <p>Links Degree outcomes from the higher education ordinance</p> <p>The course Knowledge in collaboration - how research creates values in society</p> <p>The course Generic knowledge and skills - portfolio</p>
#9: BR 2.3	The outcomes for PhD candidates with a background in medicine or other professional training are the same as	Yes	<i>Are there any special arrangements for PhD candidates with background in professional training?</i>	The national learning outcomes are the same for all PhD candidates and should be attained also by PhD candidates with a background in medicine or other health sciences profession.

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	for any other PhD.		
3. Admission policy and criteria			
#10: BR 3.1	PhD candidates should be selected on the basis of a competitive and transparent process.	Yes and No	<i>Describe the admission process.</i> Prior to admission of a PhD candidate, the PhD project, the financing, and the qualifications of the supervisor have to be reviewed and approved by the Deputy Head of Department, and the Vice Dean with responsibility for the PhD programme. There are specific criteria that need to be fulfilled in order to proceed with the admission process. Once these criteria have been met, an announcement is made for a position as a PhD candidate for a duration of at least three weeks. The process is competitive and when the application period has closed, the supervisor will make a selection based on skills and experiences and eligibility described in the specific announcement. For candidates who will not be employed (meaning that they have an employment at e.g. a University Hospital or if they are funded by a personal external scholarship), the process is different. In those cases there is no announcement, instead the candidate and the supervisor agree on a collaboration, and if the criteria are met based on funding, project and supervisor, the student applies for admission to the PhD programme. The process is transparent and competitive for full-time candidates applying for admission and employment. However for part-time candidates, the process is transparent, but not competitive.
#11: BR 3.2	Applicants for PhD programmes should have an educational	Yes	<i>Describe the level required. Are persons with a medical degree or other professional</i> For admission to PhD education the applicant has to be deemed to have ability to benefit from the education and meet the general requirements to the third cycle: <ol style="list-style-type: none"> 1. a second cycle (masters’ level) qualification 2. completed course requirements of at least 240 credits of which 60 credits within the second cycle or equivalent level of knowledge acquired in Sweden or abroad, as well as specific

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	level corresponding to a master’s degree.	<i>degree accepted?</i>	requirements at the institutional level. According to Swedish law the requirement for acceptance to PhD education are as above, i.e. four years of undergraduate studies including one year in the second cycle (master’s level). Students with a medical degree are accepted. Medical students can be accepted before graduation provided that they have completed the master’s degree project included in the undergraduate programme. Most other health professions have a three-year undergraduate education and can be accepted for doctoral studies after one year of study on a master’s level, including a degree project.
#12: BR 3.3	Before enrolment or at clearly defined times during the programme, the institution should evaluate and approve: - Scientific quality of the project, - Likelihood	<i>Describe how and when the PhD project is approved.</i>	The process of admitting a PhD candidate begins with an assessment of the proposed PhD project, available resources, the supervisor’s suitability and the appropriateness of the supervision plan. This is to ensure that all PhD candidates have the opportunities and resources required to complete a high-quality PhD programme. It is important that the PhD project is designed to suit a PhD programme, both in terms of content and time. Therefore, the project plan is to be reviewed before the PhD candidate is admitted to ensure that the plan is reasonable in terms of content, including the depth and breadth of the project, the thesis components and timeframe. The supervisor must be able to demonstrate that there are sufficient resources to finance the PhD education. For the admission of a full-time PhD candidate, this means that there must be sufficient funds in place to finance the PhD candidate’s salary for a period of four years. For the admission of a part-time PhD candidate, employed by the University Hospital for example, the supervisor must be able to present a minimum of 9 500 euro (SEK 100 000) in funding, to ensure that resources are available to the PhD candidate for the purchase of a computer, travel funds for attending conferences, etc. The salary costs are already covered by the University Hospital.

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to complete within normal timeframe, - The possibility for candidate to provide creative input, - Qualifications of supervisors.			<p>The supervisor’s qualifications, experience and suitability as a supervisor are to be reviewed prior to the recruitment of a PhD candidate. The constellation of supervisors, and the supervisors’ respective roles in the PhD training programme in question, must be justified. The review is therefore to be based on: sufficient qualifications of the supervisor (e.g. the supervisor has undergone supervisor training) and an assessment of the supervisor’s track record and time available to supervise a PhD candidate, to determine the principal supervisor’s suitability as a supervisor.</p> <p>The PhD candidate can have a creative input after admission, when the individual study plan is written and agreed upon. When the PhD candidate is already employed by e.g. the health care sector he or she has an opportunity for creative input already at the stage when the project plan is written.</p>
#13: BR 3.4 A PhD programme should only be initiated when the resources for completion are available.	Yes	<i>Describe how PhD programmes are financed and how it is ensured that full financing will be available.</i>	The PhD programme is financed either through a full-time position at Lund university as a PhD candidate, or with “other financing” from an external employment at the University Hospital for instance, or with an external scholarship. In the case of an employment, the supervisor has to validate that there is sufficient funding to finance a PhD employment for four years. In the case of an external employment, the other organization has to validate that the PhD candidate will be allocated time to perform PhD studies 50 % of their time during a time period of eight years. When a PhD candidate is financed with an external scholarship, there needs to be proof from the scholarship giver that the scholarship will cover the PhD programme during four years of studies. There are regulations at local and national levels in terms of minimum amounts of the scholarship.
#14: QD 3.1 In choosing PhD	Yes	<i>Describe the application</i>	The applicant has to be deemed to have ability to benefit from the education, in addition to meeting the general requirements for the third cycle education.

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	candidates, the applicants’ potential for research ought to be considered, not just past academic performance.		<i>procedure, and the weight given to e.g. previous exam marks, research experience, expressed motivation, performance at interview, letters of recommendation, etc.</i>	As described in the question many aspects can be taken into consideration, including a higher academic education than the requirement, previous research experience, letters of recommendation and interviews. There are no rules as to the weight given to each of these, although previous research experience - especially in the area of the advertised studentship - will usually be considered very valuable.
#15: QD 3.2	Projects ought to be externally assessed by written project description or presentation to panel of independent	Yes	<i>Are PhD projects externally/independently assessed? Who does this?</i>	The projects are assessed by the Deputy Head of Department and the Vice Dean in charge of PhD education and have to be approved before an admission process starts for a PhD candidate. It is important that the PhD project is designed to suit a PhD training programme, therefore the project plan is reviewed to make sure that the plan is reasonable in terms of content, including the depth and breadth of the project, the thesis components and the timeframe.

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	scientists.			
#16: QD 3.3	If the PhD candidate is obliged to obtain extra income, it ought to be ensured that the PhD candidate has the necessary time to complete the programme.	Yes	<i>Do PhD candidates get extra time for their project if they have to work for extra income (e.g. by teaching or clinical duties?).</i>	PhD candidates with clinical employment who combine their employment with PhD studies, have eight years instead of four years to conclude their studies. Also, PhD candidates who perform administrative duties or who have teaching responsibilities can extend their programme with one year to compensate for the time spent on other duties.
4. PhD training programme				
#17: BR 4.1	Programmes should be based on original research, courses and other activities	Yes	<i>Describe the content of PhD programmes.</i>	In order to successfully pass a PhD degree at the Faculty of Medicine, PhD candidates have to demonstrate broad knowledge and systematic understanding of their research fields and show advanced and up-to-date specialized skills that are needed to run their projects. Moreover, PhD candidates have to prove that they are familiar with research methodologies in general and with the methods within their specific fields of research in particular. To this end, the Faculty of Medicine offers a number of mandatory courses including for instance oral communication, research ethics, theory and practice of scientific communication, applied qualitative methodology, applied statistics,

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<p>which include analytical and critical thinking.</p>			<p>and laboratory animal science. In addition a number of voluntary courses where special technologies or applications are taught. It is expected that the PhD candidates will attend symposiums or conferences.</p> <p>The research output should result in three to four papers that are part of the thesis, the number depending on the quality of the papers. At least two of the articles should have been accepted for publication. Also the PhD candidate should be single first author on two articles of which one has to be accepted for publication. It has to be documented that the PhD candidate was involved in the planning, conduction, and evaluation as well as in the writing of the articles. The thesis contains, apart from published and non-published articles, also an introductory part. The introduction will receive special attention as it offers the PhD candidate the chance to present the area of research and the importance of the finding without considering the input from the supervisor. To conclude, within the four-year training period, the PhD candidates have to develop into independent researchers who can plan, run, evaluate and publish research under the most recent ethical rules.</p> <p>Links List of compulsory PhD courses Handbook for PhD candidates List of all learning outcomes</p>

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#18: BR 4.2	Programmes should be performed under structured supervision.	Yes	<p><i>Describe how the supervision process is structured.</i></p> <p>All PhD candidates must have a principal supervisor and at least one co-supervisor. The Research Studies Board makes the formal decision regarding the principal supervisor and the co-supervisor(s) when the PhD candidate is admitted. It is required that both supervisors have obtained a PhD title and have passed a special supervisor course, which is held by the Faculty of Medicine. One of the supervisors must have at least Docent competence. Moreover, the principal supervisor should be employed at Lund University, the Skåne University Hospital or have another certificated connection to the Faculty of Medicine.</p> <p>It is the supervisor’s task to register the PhD candidate at the Faculty of Medicine. Once the registration is completed the PhD candidate with the help of the supervisor has to write and up-load an individual study plan. The study plan must state which project the PhD candidate will be working on and provide information about relevant literature and the courses the PhD candidate has to pass. The individual study plan is intended to serve as a basis for the PhD candidate and the supervisor for the ongoing process of the studies. It should be noted that the individual study plan (ISP) has to be reviewed and updated at least once a year. Without regular updates of the ISP, the PhD candidate will not be allowed to have his/her half-time review or thesis defense.</p> <p>According to the rules at the Faculty of Medicine the supervisors must spent at least 100 hours a year on the supervision of a PhD candidate. It is the supervisor’s task to ensure that the goals mentioned in the ISP plan are accomplished according to the proposed schedule. In case of changes of plans, the ISP has to be up-dated accordingly. In addition the supervisor is in charge of organizing the half time review and the thesis defense and he/she is also responsible for determining if the PhD candidate meets the requirements of an academic thesis, in terms of both scope and quality.</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
			Links Information about supervision Guidelines for applications to be appointed as docent (associate professor) at the Faculty of Medicine Information about the individual study plan Information about the half-time review Information about the thesis defence
#19: BR 4.3	Programmes should ensure that PhD candidates have appropriate training in ethics and responsible conduct of research.	Yes	<i>Provide a list of the courses in ethics and responsible conduct of research. How many PhD candidates take these courses each year?</i> It is mandatory for all PhD candidates to pass an ethics course. This course is a 1-week course, given approximately once a month and is held in Swedish or English. The course addresses topics such as codes of conduct, rules and principles in different parts of research ethics, an introduction to the act concerning the ethical review of research involving humans, ethical considerations on research on human beings, animal welfare, scientific misconduct, publication ethics, and researchers’ relation to society. A total number of 16 PhD candidates can attend a course at the same time. Links Information about the ethics course for PhD candidates Course syllabus - Research Ethics.pdf

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#20: BR 4.4	Programmes should have clear 3-4 year timeframe. Extensions should be possible but limited and exceptional.	Yes	<i>Provide information about the normal length of PhD programmes. What is the actual length of study from enrolment to (a) submission, (b) defence? How is permission granted for extension?</i>	The normal length of the PhD programme is four years fulltime studies. However, clinicians employed at the University Hospital (or candidates with other external employments) can be admitted to part-time studies and conclude the programme in eight years. Extensions are granted due to sick leave and parental leave for instance. In those cases, the time is extended relative to the time the PhD candidate has been on leave of absence. Extensions are also granted to PhD candidates who perform administrative duties (representatives in boards etc.) and to those with teaching assignments. The maximum time for extensions for these reasons are one year for fulltime PhD candidates.
#21: BR 4.5	Programmes should include relevant activities not directly related to the project (e.g. courses, journal clubs,	Yes	<i>Provide a list of courses and other activities. How are these assessed?</i>	Compulsory courses <ul style="list-style-type: none"> • Introductory course (1 ECTS) • Oral communication (1.5 ECTS) • Research Ethics (1.5 hp) • Theory and Practice of Scientific Communication (1.5 ECTS) • Knowledge in collaboration - how free research creates values in society (1,5 ECTS) • Applied Qualitative Methodology (1,5 ECTS) • Applied Statistics I (1.5 ECTS)

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
<p>participation in conferences, seminars and workshops, including preparation time) totalling about 15% of the whole programme. A substantial part should be concerned with training in transferable skills. (NB. “training” can be liberally interpreted as all scientific activities not directly related</p>			<ul style="list-style-type: none"> • Applied Statistics II (3 ECTS) • Laboratory Animal Science (3 ECTS) • Comprehensive Generic Skills (Portfolio) (12 ECTS) • One elective course (1.5 ECTS) <p>The Laboratory animal science course is compulsory only for PhD candidates who utilize animals for their PhD-project.</p> <p>Elective courses</p> <ul style="list-style-type: none"> • Applied Qualitative Methodology II (5 ECTS) • Applied statistics III – Survival analysis (1.5 ECTS) • Diabetes research (2 ECTS) • Gender and intersectionality in medical and health care science (3 ECTS) • MAX IV/ESS-based imaging for medical and biomedical research, introduction (1.5 ECTS) • MAX IV/ESS-based imaging for medical and biomedical research, experimental setup (1.5 ECTS) • Neutron scattering for medical and biomedical research, experimental part (1.5 ECTS) • Systematic review and meta-analysis: Introduction to Cochrane methodology (1.5 ECTS) • Writing and reviewing a draft research paper (1.5 ECTS) • X-ray micro- and nanoimaging for medical and biomedical research, experimental part (1.5 ECTS)

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
to the project, e.g. journal clubs, conferences, etc.).			<p>The course Writing and reviewing a draft research paper is given twice each year, the others usually once every third semester.</p> <p>In addition, the different research schools offer PhD courses related to special subject areas. It should be also be mentioned that PhD candidates are allowed to attend courses given at other Swedish universities.</p> <p>There are several opportunities for PhD candidates to attend seminars and it is compulsory to attend at least six seminars per year. These can occur in their research groups, but also seminars with invited guest will be counted. There are also frequent lunch seminars arranged by the Careers Centre. Half time reviews are public and so are thesis defences.</p> <p>It is considered compulsory to attend at least one international conference.</p> <p>Attendance at conferences, seminars and workshops is documented in the portfolio for the course <i>Comprehensive Generic Skills</i> and thus assessed before the thesis defence. The portfolio is assessed as a whole and details in attendance can vary between PhD candidates.</p> <p>As of 2019 the general study plan contains mandatory attendance at least six seminars (or likewise) per year during at least three years.</p> <p>Links Compulsory courses Elective courses</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
			Courses offered at other Swedish universities
#22: BR 4.6 PhD programmes that are performed in parallel with clinical or other professional training should have the same time for research and course work as any other PhD.	Yes	<i>Describe the arrangements for PhD candidates who do their PhD parallel with the PhD studies. How is it ensured that such PhD candidates have sufficient time for their PhD studies?</i>	<p>To be accepted for PhD education there is a general requirement of four years of study including one year in the second cycle which includes a Master thesis. Medical students can thus be accepted to PhD education before graduation from medical school. Since these students are not employed in health care they will have to apply for an open PhD studentship in competition. If they are accepted they can continue their studies in medical school while being PhD candidates. The time for PhD studies is four years as for all other PhD candidates.</p> <p>Combining PhD education with post-graduate medical training (to become a specialist) is common in the medical profession. They are employed in health care and combine their employment with part-time PhD education. This is common and recommended since the two parallel education enforce each other reciprocally.</p> <p>These arrangements are uncommon for other health professionals. They are not qualified for PhD studies until having graduated from their professional programs and had one year of study in the second cycle. Post-graduate education is not arranged as clinical training combined with employment and it is thus not possible to combine clinical training with PhD education for these professions.</p>
#23: BR 4.7 Progress of PhD candidates should be continuously	Yes	<i>Describe the arrangements to monitor PhD candidates.</i>	<p>After admission, the PhD programme and project for each PhD candidate is continuously reviewed and evaluated. Within three months after admission the supervisor and PhD candidate should establish an individual study plan describing the project as well as making a time plan. This individual study plan has to be reviewed at least once per year until the end of the programme. The study plan should be approved by the Deputy Head of Department for research studies. In addition</p>

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	assessed by the institution throughout the PhD.			to the plan, progress of the PhD candidates is also assessed at a half-time review, which takes place approximately halfway through their period of study. Two researchers from other research groups review the progress of the PhD candidate. The aim of the half-time review is for the supervisors and the PhD candidate to determine whether the project is progressing and achieving the results expected in the individual study plan established at the time of admission. At the review, the PhD candidate’s portfolio is also assessed by the reviewers. The portfolio is a documentation of the progression towards the learning outcomes of the PhD programme, and is a mandatory part of the programme in the form of a formal course (Comprehensive generic skills). The portfolio is further examined before the thesis defence by the Deputy Head of Department. The PhD candidate submits the documentation to the Deputy Head of Department 4 months prior to thesis defence.
#24: QD 4.1	For PhDs performed by clinicians, leave-of-absence from clinical duties could be provided for the PhD part of such programmes	Yes	<i>Is leave-of-absence provided?</i>	The Faculty of Medicine accepts part-time PhD candidates, which means that they are undergoing education in the framework of an employment with another employer than Lund University. In practice, this often means that a doctor, nurse or other health professional who has an employment in health care conducts his / her postgraduate studies as a part-time doctoral candidate in parallel with his / her work. Leave of absence should be granted for PhD studies.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#25: QD 4.2	PhD programmes could where relevant have an element of interdisciplinarity.	Yes	<i>What proportion of PhD projects could be termed “interdisciplinary”. Give examples.</i>	<p>Lund University offers different PhD programmes such as the National Graduate School on Ageing and Health (SWEAH), the translational cancer faster forward doctoral programme (CanFaster), the research school dedicated to scientific discovery using computers (Compute), and the cross-faculty research school about agenda 2030.</p> <p>Links</p> <p><u>SWEAH</u></p> <p><u>CanFaster</u></p> <p><u>Compute</u></p> <p><u>Research School Agenda 2030</u></p> <p>There are several PhD-programmes with elements of interdisciplinarity, see for example:</p> <p><u>MultiPark</u></p> <p><u>CARES</u></p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
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5. Supervision

#26: BR 5.1	Each PhD candidate should have a principal supervisor and normally at least one co-supervisor.	Yes	<i>How many supervisors do PhD candidates have? How are responsibilities divided?</i>	<p>The PhD candidate should have one main supervisor and at least one co-supervisor. It is not unusual for a PhD candidate to have two or three co-supervisors. The main supervisor has the overarching responsibility for the PhD candidate’s education. More specifically, their tasks are to:</p> <ul style="list-style-type: none"> • Participate in the formulation of the individual study plan • Ensure that the PhD candidate acquires the knowledge specified in the individual study plan • Facilitate the PhD candidate’s participation in relevant postgraduate courses, symposia and conferences. • Ensure that the research progresses at a reasonable rate so that it will be concluded within the time stipulated • Initiate the halfway review process and be responsible for its completion. • Determine when the PhD candidate’s research has reached the level required for a PhD thesis. <p>The co-supervisor’s tasks are to contribute with their specific expertise, and to provide additional support for the PhD candidate along the course of the training programme.</p>
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Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#27: BR 5.2	The number of PhD candidates per supervisor should be compatible with the supervisor’s workload.	Yes	<i>What is the usual number of PhD candidates per supervisor? What is the range?</i>	The Research Studies Board has decided that a supervisor can be rejected the admission of a PhD candidate if the supervisor already supervises a large number of PhD candidates and is deemed not to have the time and/or place for additional PhD candidates. Most of the main supervisors (190) only have one PhD candidate and 110 main supervisors have two PhD candidates. Range: 1-16 PhD candidates.
#28: BR 5.3	Supervisors should be scientifically qualified and active scholars in the field concerned.	Yes	<i>Provide information about the qualifications required for a supervisor.</i>	All PhD candidates must have a principal supervisor and at least one co-supervisor. As principal supervisor, the Research Studies Board may assign a person at the Faculty of Medicine who has been accepted as a Docent or who is the principal recipient of a three-year project grant. In cases where the principal supervisor is not a Docent then one of the co-supervisors must be a Docent. The principal supervisor should be active within Lund University, Skåne University Hospital, or have another clear connection to the Faculty of Medicine. All supervisors must have a PhD degree, and have completed a recognised supervisor course. If the principal supervisor reaches retirement age during the PhD candidate’s study period, then a co-supervisor with Docent status, supervision training and financing should be connected to the project.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#29: BR 5.4	Supervisors should have regular consultations with their PhD candidates.	Yes	<i>Provide information about the number and type of consultations that supervisors hold with their PhD candidates.</i>	The Research Studies Board has decided that supervisors must devote a minimum of 100 hours a year to supervising a PhD candidate. How that time is allocated should be linked to the PhD candidate’s needs and activity level, as well as the stage of the programme. Supervisory hours include the time that the supervisor and PhD candidate spend on the PhD candidate’s education, e.g. PhD project and other training. Supervisory hours also include time spent reviewing work and planning the thesis defence. Supervisory time should be divided between the main and co-supervisors. The main supervisor and the PhD candidate should review, and if necessary update, the individual study plan at least once a year.

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#30: BR 5.5	It should be ensured that training for all supervisors and potential supervisors is available.	Yes	<i>Describe the training courses available. Provide information about number of supervisors who have taken these courses.</i>	<p>It is compulsory for all supervisors, including co-supervisors, to have taken part in an introductory course in research supervision. The Centre for Teaching and Learning at the Faculty of Medicine provides this course.</p> <p>Upon successful completion, the participant should be able to</p> <ul style="list-style-type: none"> • define his or her role and responsibility within PhD education • explain how PhD education and supervision are regulated and organized at the Faculty of Medicine • discuss supervision in relation to rules, regulation and praxis at the Faculty of Medicine as well as to supervisor ethics and the learning outcomes of PhD education <p>The course comprises four days of study. Two days will take place in classes and include lectures, individual tests and group work. The other two days include individual studies and the preparation of individual assignments. The teachers of the course are experienced supervisors from the Centre for Teaching and Learning, who are acquainted with published research in PhD education and supervision.</p> <p>The course is given three times each year, twice in Swedish and once in English (this may change to two or all three in English with an increasing number of international participants). Since 2004 the course is compulsory and between 2009 and 2018, there have been 979 course participants.</p> <p>Links Course information - Research Supervision</p>

<p>Basic Recommendations (abbreviated - see Best Practices document for full recommendations)</p>	<p>Does your institution comply? Yes, No, Maybe</p>	<p>Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.</p>	<p>Response. Please be succinct and refer to e.g. graduate school website where relevant</p>	
<p>#31: BR 5.6</p>	<p>The supervisor-candidate relationship is the key to a successful PhD programme. There should be mutual respect and shared responsibility.</p>	<p>Yes</p>	<p><i>Describe the procedures taken to enhance the supervisor-candidate relationship.</i> <i>Describe how supervisors and PhD candidates are matched.</i> <i>Describe arrangements for solving supervisor-candidate conflicts.</i></p>	<p>Posts as PhD candidates are to be advertised for application. This means that a PhD project has already been designed and supervisors (including one or two co-supervisors) are already assigned. The successful applicant should be the one “who can benefit the most from the education” (according to the Higher Education Ordinance). PhD candidates and supervisors are thus matched to a specific PhD project. Medicine and Health Science professionals who combine their studies with clinical work are not accepted after competition, but are individually matched to a suitable PhD project and supervisors.</p> <p>Since it is important to establish a good learning climate with constructive communication between PhD candidates and supervisor(s), this is an important part of the course for the supervisors. Co-supervisors can be added if a need for a competence arises, and it is easier for the PhD candidate to be involved when he/she is already in training.</p> <p>According to the Higher Education Ordinance PhD candidates have the right to change the supervisor(s). This is however often a complicated process due to e.g. external grants for PhD projects, and it is better to work proactively to avoid conflicts. The Research Studies Board has established recommendations in an action plan to prevent and manage conflicts.</p> <p>Links Supervision recommendations Action plan to prevent and manage conflicts</p>

<p>Basic Recommendations (abbreviated - see Best Practices document for full recommendations)</p>	<p>Does your institution comply? Yes, No, Maybe</p>	<p>Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.</p>	<p>Response. Please be succinct and refer to e.g. graduate school website where relevant</p>	
<p>#32: BR 5.7</p>	<p>Institutional assistance should be provided for career development. This should be continuous, starting from the time of enrolment.</p>	<p>Yes</p>	<p><i>Describe how and when PhD candidates are assisted in career development. How many PhD candidates take advantage of these arrangements?</i></p>	<p>In order to assist in the career development the Faculty of Medicine has implemented 7 different possibilities:</p> <ul style="list-style-type: none"> • Individual study plan (ISP) The ISP is a web-based document that is filled out by the supervisor and PhD candidate after admission. As a living document the ISP has to be updated on a regular basis according to the developments of the projects. At least once a year, it has to be signed by the PhD candidate and the supervisor to confirm that the study goals have been achieved or need to be modified. The last part of the ISP is dedicated to career development. Here the PhD candidate and the supervisor have to discuss different career opportunities for the student. • Portfolio The portfolio is a tool for the PhD candidates to document their learning outcomes which are not necessarily related to their thesis or the thesis defence (see also #59: QD 7.4). This document also allows PhD candidates to reflect about their career development options. Like the ISP, the portfolio is a web-based living document. It has to be updated on a regular basis by the student. As the document may contain personal reflections that should not be seen by the others, the PhD candidate has the option to indicate which parts are classified. The portfolio will be read and approved by for instance the reviewers at the halftime control and examined by the Deputy Head of Department before the thesis defence. It is up to the PhD candidate to use these opportunities to discuss career development options.

<p>Basic Recommendations (abbreviated - see Best Practices document for full recommendations)</p>	<p>Does your institution comply? Yes, No, Maybe</p>	<p>Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.</p>	<p>Response. Please be succinct and refer to e.g. graduate school website where relevant</p>
			<ul style="list-style-type: none"> • Staff appraisals According to Lund University’s rules staff appraisals are compulsory and have to be conducted annually with all employees. The appraisal is divided into three parts: <ul style="list-style-type: none"> • Individual goals • Professional development plan – short-term • Professional development plan – long term <p>The conversation involves the line manager and the PhD candidate and should be used to discuss different career options.</p> • Careers Centre The Careers Centre is located at the Faculty of Medicine and it serves as a platform to discuss and plan different career options. For instance, the Careers Centre offers lectures about the current labor market situation, provides help in writing grant applications, and gender aspects in career planning. The Careers Centre invites once a year PhD candidates to a career day where topics such as hidden job advertisements, how to write a CV for job interview, and how plan an academic career are discussed. The Careers Center also offers individual career coaching. • Mentorship programmes The Faculty of Medicine offers a number of different mentorship programs that are tailored for PhD candidates with an interest in planning a career within academia, industry, as a

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			<p>physician, or as an entrepreneur. These services are voluntary and PhD candidates have to submit an application in order to enter one of these programmes.</p> <ul style="list-style-type: none"> Time 2 Talk seminars The Time 2 Talk seminars are organized by the Careers Centre and offers PhD candidates seminars and workshops dealing with topics on professional development and provides opportunities for the candidates to meet with colleagues from other research groups. MedCUL MedCUL is the Centre for Teaching and Learning at the Faculty of Medicine, Lund University. The centre organizes a wide range of professional-development courses, seminars and workshops for younger researchers and provides support to the different programs offered at the Faculty of Medicine. PhD candidates who have teaching assignments in their individual study plans should take an introductory course in Teaching in Higher Education. This course is given by the Centre for Teaching and Learning, where further courses and workshops for teacher development can be attended. <p>We do not register participation in these arrangements and we cannot give a figure for the number of PhD candidates participating.</p> <p>Links Individual study plan</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
				Portfolio Staff appraisals Careers Centre Mentorship programs Time 2 Talk MedCUL
#33: QD 5.1	Responsibilities of each supervisor ought to be explicit.	Yes	<i>Provide information about the responsibilities of the supervisor.</i>	The responsibilities for each supervisor are regulated in the project plan, and are therefore reviewed and approved before admission of a PhD candidate. These responsibilities should also be mentioned in the individual study plan, which is subjected to review at least once a year.
#34: QD 5.2	Supervisors ought to have broad local and international scientific	Yes	<i>How is it ensured that supervisors have suitable networks?</i>	As all supervisors are part of a department at the Faculty of Medicine, they are automatically imbedded in a local network. Each department or institution is organizing different seminar series, journal clubs, etc. where different scientists meet and discuss research. It is clearly stated in the guidelines for supervisors that a supervisor has to “ <i>be supportive, encouraging and available for consultations with the student to the extent indicated in the study programme. It is advisable to</i>

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networks.			<p><i>expedite the student's integration into the department by arranging seminars at which the student presents his/her work from the outset and at regular intervals thereafter</i>”. Thus, it is ensured that PhD candidates have the chance to build their own networks. These activities are mentioned in the individual study plan (ISP), which has to be approved by the Deputy Head of each department. If these requirements are not described or fulfilled, the individual study will not be approved. To promote networking, Lund University and the Faculty of Medicine offer a number of support tools that can be used by supervisors to establish suitable collaborations (local, national/international):</p> <ul style="list-style-type: none"> • Local Each department has its own meetings and seminar series where scientists with similar research interests can meet, discuss science and form collaborations. At cross-departmental level the Faculty of Medicine has launched a number of specialized centers and research environments. Other programmes have been established that help to promote collaborations between the Faculty of Medicine and the University Hospital or within other Health Science institutions. There are special programs for young researchers such as the Wallenberg Centre for Molecular Medicine (WCMM) where preclinical and clinical researchers have to establish a team in order to get funding. • National/International The Lund University Research Services Office provides help for researchers to seek for international partners and apply for funding. The International Office at the Faculty of Medicine helps with all administrative and legal issues such as establishing a contract for

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			<p>double PhD degree.</p> <p>It should be mentioned that the Faculty of Medicine offers a number of scholarships in order to promote networking for PhD candidates.</p> <p>Links</p> <p>Handbook for PhD candidates</p> <p>Promoting local networks</p> <p>Wallenberg Centre for Molecular Medicine (WCMM)</p> <p>Research support office</p> <p>International office</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#35: QD 5.3	Supervisors ought to assist with career development.	Yes	<i>How do supervisors assist with career development?</i> <i>Does the graduate school provide assistance?</i>	<p>Out of the seven career development possibilities mentioned above (#32:BR 5.7), four are run by the PhD Studies Office at the Faculty of Medicine (ISP, portfolio, Careers Centre, and mentor program). As the ISP has to be updated on a regular basis, career related issues can be added anytime during the PhD training. Thus, it is guaranteed that all questions related to professional development will be discussed.</p> <p>Recently the Faculty of Medicine launched a mandatory course for all PhD candidates entitled “Knowledge in collaboration - how research creates values in society”. The aim of this course is that PhD candidates should learn to create collaborations with different stakeholders. Some of the specialised centres and research environments such as the Stem Cell Centre and the Wallenberg Centre for Molecular Medicine have their own graduate schools, where special mentorship programs are offered.</p> <p>Part-time PhD candidates who are also physicians can take part in a Clinical Research School which is designed to help them in developing their future careers as clinical researchers.</p> <p>Links</p> <p>PhD course on “Knowledge in collaboration - how research creates values in society”</p> <p>Specialised Centres and Research Environments</p> <p>Lund Research School in Stem Cell Biology</p> <p>Wallenberg Centre for Molecular Medicine Graduate School</p> <p>Clinical Research School (information in swedish only)</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#36: QD 5.4	Institutions could consider having contracts on the supervision process, signed by supervisor, PhD candidate and head of graduate school.	Yes	<i>Are such contracts being used?</i>	There is no contract between the supervisor and PhD candidate per se, but there is an agreement in the form of an individual study plan which has to be signed by the PhD candidate and the supervisor, and finally approved and signed by the Deputy Head of Department. The individual study plan contains a plan for the programme in terms of the projects, the time plan, the expectations of the PhD candidate and the supervisor respectively, course content etc. More formal contracts are not allowed according to Swedish legislation of Higher Education.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#37: QD 5.5	The principal supervisor, at least, ought to have some formal training as supervisor.	Yes	<i>Provide information about training courses for supervisors. How many supervisors have had such courses?</i>	<p>(Same answer as #30 BR 5.5)</p> <p>It is compulsory for all supervisors, including co-supervisors, to have taken part in an introductory course in research supervision. The Centre for Teaching and Learning at the Faculty of Medicine provides this course.</p> <p>Upon successful completion, the participant should be able to</p> <ul style="list-style-type: none"> • define his or her role and responsibility within PhD education • explain how PhD education and supervision is regulated and organized at the Faculty of Medicine • discuss supervision in relation to rules, regulation and praxis at the Faculty of Medicine as well as to supervisor ethics and the learning outcomes of PhD education <p>The course comprises four days of study. Two days will take place in class and include lectures, individual tests and group work. The other two days include individual studies and the preparation of an individual assignment. The teachers in the course are experienced supervisors from the Centre for Teaching and Learning, who are acquainted with published research in PhD education and supervision.</p> <p>The course is given three times each year, twice in Swedish and once in English (this may change to two or all three in English with increasing numbers of international participants).</p> <p>Since 2004 the course is compulsory and between 2009 and 2018, 979 participants have taken the course.</p> <p>Links Course - Research Supervision</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#38: QD 5.6	Supervisors could where possible also act as co-supervisors for PhD candidates at other graduate schools.	Yes	<i>Is this common?</i>	It is possible for all supervisors to act as supervisors or co-supervisors at other graduate schools, according to rules at these schools. National and international research cooperation is encouraged and this opens such opportunities. As we do not document such arrangements, we cannot give any figures.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#39: QD 5.7	Graduate schools ought to consider appointing a mentor or equivalent for each PhD candidate, in addition to the supervisor team, to discuss programmes from another aspect than the science topic alone.	Yes and No	<i>Are mentors appointed? If not, would it be a good idea?</i>	<p>The Faculty of Medicine offers different mentorship programmes. In some programmes such as the programme for clinical PhD candidates, it is mandatory that each PhD candidate is appointed a mentor. Other mentor programmes such as the MentLife programme or the programme offered by the Lund Research School in Stem Cell Biology are elective and it is up to the PhD candidate to decide whether or not to apply for. Mentors are not appointed for all PhD candidates. We agree that it would be good that all PhD candidates are appointed a mentor and we have made attempts towards this aim. However, considering that we have more than 1000 PhD candidates at our Faculty, we have a serious problem to recruit a sufficient number of mentors for this purpose. We are currently working on different strategies that may help to overcome this problem. Some of the research schools, e.g. the Clinical Research School appoint mentors and offers programmes for PhD candidates with an interest in a career outside university.</p> <p>Links Clinical research school (Swedish) MentLife Lund Research School in Stem Cell Biology</p>
6. PhD thesis				

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#40: BR 6.1 The PhD thesis should be the basis for evaluating if the PhD candidate has acquired independent research skills and can evaluate work done by others.	Yes	<i>Is this correct for your institution? Does the institution have other means for assessing these competences?</i>	The thesis and the public defence seminar form the basis for assessing these competences. The supervisor is very much involved in formative assessment, and responsible for following the progress of the PhD candidate. When the PhD candidate and the supervisor start the process of registering the thesis for the defence, the supervisor must include a signed statement about the progress and independence of the PhD candidate. To a certain extent the portfolio in the course <i>Comprehensive Generic Skills</i> can also be used to assess these competencies.

<p>Basic Recommendations (abbreviated - see Best Practices document for full recommendations)</p>	<p>Does your institution comply? Yes, No, Maybe</p>	<p>Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.</p>	<p>Response. Please be succinct and refer to e.g. graduate school website where relevant</p>
<p>#41: BR 6.2</p> <p>The benchmark for a PhD thesis in health sciences is the equivalent of three <i>in extenso</i> papers in scientific peer-reviewed international journals. Manuscripts are also acceptable. It is the task of the assessment committee to determine if the material demonstrates 3-4 years of research at international level.</p>	<p>Yes</p>	<p><i>Describe the content normally required by the institution for a PhD thesis regarding original work.</i></p>	<p>The normal requirement is that at least three articles are included in the thesis. Two of them must be published or accepted for publication in international peer-reviewed journals and the PhD candidate must be single first author on one of those. If unpublished manuscripts are included they should have a standard equivalent to articles than can be published in international peer-reviewed journals, and the PhD candidate must be first author on one of those. In the case of three papers they must be of very high quality and two have to be published or accepted with the PhD candidate as the single first author on at least one article. Multiple authorships are allowed and the supervisor must write a statement about the role the PhD candidate has had in the included articles. The assessment committee decides if the original work is equivalent to four years of study (minus time for courses).</p> <p>Links PhD degree requirements</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? ? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#42: BR 6.3	In defining the benchmark for a PhD thesis, the assessment committee should take account of the provisos listed in the Annotations, for example the annotation indicating that fewer than three papers may be accepted if published in highly rated journals.	No	<i>To what extent are the “normal” requirements as described in BR6.2 adhered to, and under what circumstances are other criteria accepted?</i>	Fewer than three articles are not accepted. Two articles should be published or accepted and the PhD candidate must be the first author on one of the published papers and on one other article.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#43: BR 6.4	In addition to papers, the thesis should include a full literature review and full account of aims, method, results, discussion and conclusion.	Yes	<i>Describe the content of the other parts of the thesis.</i>	The thesis must include an introductory part, usually called a thesis summary. It should contain a literature review and a background to the studies; aims and if relevant detailed research questions, methods, results, discussion, conclusion, proposed use of the results, and finally future research plans. This part usually comprises 50 -100 pages.
#44: BR 6.5	If the thesis is presented in other formats (e.g. as single monograph), the assessment committee should ensure equivalence to the above benchmark.	Yes	<i>How many theses are presented in other formats e.g. monographs?</i>	In principle the thesis can be presented as a monograph but this is not recommended. So far we have had only one monograph during the last twenty years. In such case it is up to the assessment committee to decide if it is equivalent to four years of PhD education and to the standard of three to four articles.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#45: BR 6.6	A PhD thesis in clinical medicine should meet the same standards as other PhD theses .	Yes	<i>Is this correct for your institution?</i>	Yes, the requirements are the same for all theses, whether in clinical medicine, health sciences or biomedical sciences.
#46: QD 6.1	The thesis ought to be written and optimally also defended in English, unless national regulations stipulate otherwise. An abstract of the thesis should be published in English.	Yes	<i>Provide information about the language used in the thesis, and in the defence.</i>	All articles included in the thesis must be written in English. The introductory part of the thesis is almost always also written in English. However, occasionally the introduction is written in Swedish, usually within the field of health sciences. The reason for this is that the PhD candidate wishes to reach professional colleagues who may not be comfortable in reading English, but may use the thesis for professional development and apply the results in their practice. The public defense seminar is usually in English but occasionally in Swedish (only if the PhD candidate, the opponent and the members of review committee are all Swedish). The reason for this is that the defense seminar is open to the public and it may be difficult for clinical and health science professionals to understand a defense seminar in English. As in most cases the research environment is commonly international and the opponent is from outside Sweden, the defense seminar also takes place in English.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#47: QD 6.2 If articles/manuscripts are joint publications, co-author statements ought to document that the PhD candidate has made a substantial and independent contribution. Ownership of results from PhD studies ought to be clearly stated.	Yes	<i>Describe the procedure used to identify the contribution of the PhD candidate to each of any multi-authored publications. What procedure is used to assess the accuracy of any statements made? Are there circumstances where the same publication is used in more than one thesis? How is the question of ownership dealt with?</i>	When the PhD candidate and the supervisor register the thesis to be defended, the supervisor must write a statement about which roles the PhD candidate had, and if there are multiple authorships. The main focus in the statement is on the role of the PhD candidate and the independence of the PhD candidate. The PhD candidate, the main supervisor and all co-supervisors sign this statement. It is also the role of the opponent and the assessment committee at the defence seminar, to pose the questions to the PhD candidate so that accuracy of the statement can be ascertained. The same publication can be used by two (not more) different PhD candidates. It must then be clarified in the statement from the supervisor which roles the two PhD candidates had. The ownership of the results can be complicated and depends on the exact role of the PhD candidate versus the supervisor. When the results have been published they are public and all authors can use the articles in their lists of publications. However, with unpublished articles the right to the results will usually remain with the supervisor, at least if the supervisor was the PI for the grants. Patent issues can arise in particular for PhD candidates who are employed by a private company during their PhD programme. Usually contracts are signed to protect the PhD candidate in such cases.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#48: QD 6.3	PhD theses ought to be published on the graduate school’s homepage, preferably <i>in extenso</i> . If patent or copyright legislation prevent this, at least abstracts of the theses ought to be publicly accessible.	Yes	<i>Provide information about how PhD theses are published.</i>	<p>The introductory summaries of the thesis are published at the university webpage, whereas the included articles are usually not online because of eventual copyright issues. However, these articles can be easily found in databases. Also manuscripts intended for future publication are usually not published online.</p> <p>If there are issues with e.g. patents the PhD candidate can be allowed to publish only a short summary of the thesis.</p> <p>Links Electronic registration of thesis and publishing of summary (kappa)</p>
#49: QD 6.4	There could be a lay summary of the thesis in the local language.	Yes	<i>Describe the format of any lay summary.</i>	An abstract of the thesis (approx. 250 words) in English is an absolute requirement. A lay summary in Swedish comprising two to three pages is strongly recommended. As not all international PhD candidates speak Swedish, a lay summary is not mandatory. Sometimes PhD candidates include a lay summary in their own language.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
7. Thesis assessment			
#50: BR 7.1	Acceptance of a PhD thesis should include acceptance of both written thesis and a subsequent oral defence.	Yes	<p data-bbox="577 667 813 842"><i>Describe the procedures for assessing the written thesis and the oral defence.</i></p> <p data-bbox="842 667 2136 802">Prior to the oral defence, the PhD candidate has to submit the content of the written thesis (articles and manuscripts) to the PhD Studies Office. The material is then sent to the opponent and the members of the assessment committee, which are appointed by the Chair of the Research Studies Board.</p> <p data-bbox="842 815 2136 919">The members of the assessment committee will make a preliminary assessment of the thesis and a subsequent statement to the department regarding whether or not the thesis is of high enough quality to recommend proceeding with the public defence.</p> <p data-bbox="842 938 2136 1042">With reference to the assessment committee’s preliminary assessment, the registration should then be completed with a statement from the Deputy Head of Department that supports the recommendation to proceed with the public defence.</p> <p data-bbox="842 1066 2136 1249">The assessment committee’s task in the preliminary assessment process is to ensure the material included in the thesis meets both the qualitative and quantitative requirements necessary to proceed with the public defence. At the time of the oral defence, the board makes a new assessment of the thesis and the PhD candidate’s knowledge and skills in light of the questions and responses, and evaluate the summary and defence of the thesis.</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#51: BR 7.2	PhD degrees should be awarded by the institution on the recommendation of the assessment committee which has evaluated the thesis and the oral defence.	Yes	<i>Is this correct for your institution?</i>	Provided that the PhD candidate has taken all compulsory courses with a pass grade, and received a pass grade on the portfolio for the <i>Comprehensive Generic Skills</i> .

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#52: BR 7.3	The assessment committee should consist of established and active scientists without connection to the milieu where the PhD was performed and without conflict of interest. Min. two should be from another institution.	Maybe	<i>How many members does the assessment committee have, how are they appointed and how is it ensured that there is no conflict of interest?</i>	<p>The assessment committee consists of three or five members, of whom one has to come from another university. The PhD candidate and supervisors have to sign a form, confirming there is no conflict of interest.</p> <p>The Faculty of Medicine at Lund University adheres to the conflict of interest policy set out by the Swedish Research Council. Their policy sets out the following:</p> <ul style="list-style-type: none"> • A conflict of interest exists in the case of close collaboration on a scientific project and coproduction that has taken place within the last 5-year period. A joint article is deemed to be coproduction. • A conflict of interest can exist for longer than 5 years if close collaboration has taken place. • A PhD candidate’s relationship to his/her supervisor is deemed to be a conflict of interest regardless of how long ago the collaboration took place. • Exceptions to the 5-year rule can be made if the collaboration was in the form of multi-centre studies. These cases are judged on an individual basis.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
#53: BR 7.4	The supervisor should not be a member of the assessment committee. If local regulations require this, the supervisor should not have a vote.	Yes	<i>Is this correct for your institution?</i>	The supervisor is not a member of the assessment committee, but takes part in the first part of the committee meeting to be able to answer questions. It is recommended that the supervisor should leave the room before the decision is taken.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#54: BR 7.5	If the assessment of the thesis/defence is negative, the PhD candidate should normally be given an opportunity to rewrite/an additional defence.	Yes	<i>What arrangements are there following a negative assessment?</i>	If the content of the thesis receives negative feedback from the committee members prior to the oral defence, the PhD candidate has the opportunity to reschedule the time for the defence and continue to work on improvements of the thesis. In terms of negative feedback at the oral defence, there are very few cases where a PhD candidate has failed. Should this happen they would have the opportunity to make substantial adjustments to the thesis and have another opportunity to defend it.
#55: BR 7.6	The oral examination should be detailed enough to ensure that the thesis is the candidate’s own work, that	Yes	<i>Describe the format of the oral defence and the extent to which this is a true examination or more a traditional formality. Does the PhD</i>	The oral defence seminar has the following format. It is a public event, where anyone can attend. The chair person is usually a professor from the Medical Faculty. All supervisors should be present. The opponent always presents the thesis usually putting it into a broader context. It is common, but not compulsory, that the PhD candidate then presents the thesis in greater detail. After the presentations, the opponent asks questions. These questions should concern the whole thesis, both the introduction and the articles. The opponent can also ask broader questions aiming at testing other learning outcomes for the PhD education. However, there is usually a strong focus on the thesis. This questioning can go on for as long as the opponent thinks is necessary. Thereafter, the members of the assessment committee and the audience are allowed to ask questions.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
	the intended training goals have been achieved, and that the candidate is able to put the results into scientific context.		<i>candidate also give a lecture?</i>	<p>For evaluation the assessment committee meets with the opponent and supervisors and can ask questions to those, e.g. the opponent’s opinion of the quality and the supervisors’ view of the development and independence of the PhD candidate. Finally, the assessment committee alone decides whether or not the PhD candidate has passed the thesis defence.</p> <p>Though the process constitutes a true examination, in practice there are hardly any failures because of additional controls and formative evaluation steps the PhD candidate has to pass. For instance, the half time review will give feedback on the progress to that stage. Two articles must be published and are thus subject to external review. There are also formative thesis seminars in the department where the PhD candidate is registered, before the thesis is printed, to give the PhD candidate opportunities to revise according to feedback obtained. Finally the articles included in the thesis are sent to the assessment committee well before the printing of the thesis. The committee can give feedback and if they are in doubt about the quality they can recommend to postpone the defense seminar until the quality has been improved. Together, this means that PhD candidates who would risk a failure at the defence seminar are given opportunities to improve before defending.</p> <p>Links Public defence seminar</p>
#56: QD 7.1	The oral defence ought to be open to the public.	Yes	<i>Who is able to attend the oral defence?</i>	It is open to the public and announced at the Faculty webpage. Anyone is able to attend.

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)		Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#57: QD 7.2	Where possible at least one member of the assessment committee could be from another country.	Yes	<i>What proportion of assessment committees includes members from another country?</i>	One of the assessment committee members must be from another university, in Sweden or abroad. The opponent is often from outside Sweden. Although there are no exact numbers, an estimate is that in about 10 % of the dissertations, one of the assessment committee members is from outside Sweden.
#58: QD 7.3	Apart from the thesis, the institution ought to ensure that sufficient transferable skills have been acquired during the PhD programme.	Yes	<i>How does the graduate school ensure that transferable skills have been acquired?</i>	The national learning outcomes include transferable skills. The learning outcomes should guide the construction of the individual study plan and thus acquiring transferable skills should be included in the PhD training programme. The course <i>Comprehensive Generic Skills</i> further focus these skills. In the portfolio used for assessment the PhD candidates should demonstrate their achievements and reflect over their personal progress. This course has been developed to complement the thesis and the defence of the thesis. The assessment of the thesis and its defence has, according to tradition, focused on the content of the thesis and some other assessment of these skills have been deemed necessary. Links The course Generic knowledge and skills - portfolio

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
#59: QD 7.4 The competences developed during the PhD programme could be documented in a portfolio. This documentation could be evaluated by the assessment committee and form part of their decision concerning the award of the PhD degree.	Yes	<i>Do PhD candidates prepare a portfolio, and is this assessed as part of the decision on award of the PhD degree?</i>	<p>Yes, there is a portfolio. It is compiled within the course Comprehensive Generic Skill which has been referred to in several of our answers in this questionnaire. The portfolio is not assessed by the assessment committee since it would be an extra burden on assessment committee members at our Faculty, and portfolios are not used by other medical faculties in Sweden. It is assessed by the Deputy Head of Department.</p> <p>The portfolio is intended for the PhD candidate to demonstrate the achievement of learning outcomes that are not easily, or commonly, addressed in the thesis or the thesis defence. The reason for the credits given for this course is to give the PhD candidate credit for the time spent on compiling the portfolio. It should include evidence of achievement and the PhD candidate’s reflections of his/her progress towards the learning outcomes.</p> <p>At the half-time review the PhD candidate presents a showcase version of the portfolio and the half-time reviewers give feedback. There are criteria that can be used for the feedback. A few months before the presentation of the thesis the PhD candidate compiles a final version of the portfolio and this version is assessed by the Deputy Head of Department. The same criteria can be used as a support for the decision. It has been decided not (yet) to ask the assessment committee to evaluate the portfolio since this is not common tool in Sweden. The members of the assessment committees are thus not used to make such evaluations.</p> <p>The portfolio system is introduced to supervisors in the course for supervisors and to PhD candidates in the introductory course for them. There are also workshops available for PhD candidates who need further support.</p> <p>The portfolio system met considerable resistance from the supervisors as well PhD candidates when it was introduced. However, over the years acceptance, particularly among PhD candidates, has increased.</p> <p>Links The course Generic knowledge and skills - portfolio</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
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8. Structure of Graduate School

#60: BR 8.1	The graduate school should have sufficient resources for proper conduct of PhD programmes. This includes resources to: Support admission of PhD candidates, implement the PhD programmes of the PhD candidates enrolled,	Yes	<i>Provide information about the resources available to the graduate school.</i>	<p>There are resources available at different levels of the organization for PhD candidates. At an administrative level, there is a PhD Studies Office that provides information and advice prior to and during the PhD programme. The office administers the admission process, application and admission to PhD courses, travel grants and other financing, and the process related to the thesis defence. The PhD Studies Office also has resources in the form of a career coach who can provide advice, support and coaching related to career issues. There is also an international coordinator who gives support in the process of double degrees and other mobility activities.</p> <p>At the departmental level there are Deputy Heads of Department with responsibility for PhD candidates. Their role is to provide support and advice to prospective students and enrolled PhD candidates during the course of their studies. Furthermore, their role is to assess;</p> <ul style="list-style-type: none"> • the eligibility of students applying to the PhD programme • and approve the individual study plan on a yearly basis • and examine the course Comprehensive Generic Skills • and approve registration for thesis defence <p>At the Faculty level, there is also a Vice Dean with responsibility for PhD education. Apart from being the Chair of the Research Studies Board, and thereby leading the PhD programme in terms of content and strategic direction, the Vice dean’s role is to offer advice and support to PhD candidates and supervisors. The Research Studies Board as a whole also plays a central role as a resource for PhD candidates. The board takes decisions on general syllabi for third cycle programmes, on the</p>
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Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant
	assess PhD theses and award PhD degrees.		<p>range of courses and course syllabi, as well as financial resources for third cycle programmes. Furthermore, the board takes decisions on the announcement of posts within the third cycle programmes. Prior to decisions on announcements, the board shall approve a project plan which shall contain information on supervisors, supervision, funding and the project.</p> <p>The Research Studies Board shall, at the student’s request in each individual case, review whether credits can be transferred for previous training or professional activity when the student is admitted to the third cycle programme. The board decides on the allocation of doctoral studentships within the faculty, as well as funds for thesis defences. Furthermore, the board decides on allocations of travel grants to students in the Faculty.</p> <p>Also at the Faculty level, there is a Study Coordinator with the role to assist the Vice Dean on an operational level with quality assurance of the courses offered within the program. The coordinator also assists in quality assurance of the program as a whole.</p>
#61: BR 8.2	The graduate school should have a website in English and possibly also the national language including	Yes	<p><i>Describe the website and give its URL. Refer to Best Practices document for type of information that is recommended.</i></p> <p>For the PhD programme there are both external websites for prospective students and internal websites for students who are already enrolled. Both the external and the internal websites are in duplicate in Swedish and English.</p> <p>Links External Utbildning på forskarnivå vid Medicinska fakulteten (Swedish) PhD programme</p>

Basic Recommendations (abbreviated - see Best Practices document for full recommendations)	Does your institution comply? Yes, No, Maybe	Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.	Response. Please be succinct and refer to e.g. graduate school website where relevant	
	transparent information about the content of PhD programmes and the policies of the graduate school.			Internal Doktorand och handledare (Swedish) PhD candidates and supervisors
#62: BR 8.3	Merit should be given for courses taken elsewhere or other relevant experience.	Yes	<i>Is merit given? For courses? For previous research?</i>	<p>Merit can be given for courses taken elsewhere. If it is a course which overlaps with the mandatory courses within the programme, the course leaders make an assessment based on the curriculum of the course, and the PhD candidate can receive a credit transfer. Furthermore, if it is a course which is not part of the mandatory course content, the PhD candidate can receive the credit corresponding to an elective course. If PhD candidates take courses that are not compulsory, these courses should be in agreement with the individual study plan. The supervisor then decides if the course will give credits. The individual study plan can be revised when needed, which means that the PhD candidate and the supervisor can add a course that was not there in the first plan.</p> <p>A PhD candidate can get merit for previous research experience if it has resulted in articles or manuscripts. However, not more than half of the number of articles in the thesis (usually four or more in total) can be produced elsewhere since it is important to know which role the PhD</p>

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				<p>candidate had in the production of the articles. Since most PhD candidates have four (or three) articles in their thesis only one article produced before acceptance to PhD studies can be used.</p> <p>Other relevant experience cannot be given formal credits, but a PhD candidate who already has experience will probably proceed faster and a thesis can be presented after three years instead of the normal four years.</p>
#63: QD 8.1	There ought to be procedures for regular review and updating of the structure, function and quality of PhD programmes, including both supervisor and candidate feedback.	Yes	<i>Provide information about how this is performed.</i>	<p>The Research Studies Board is ultimately responsible for the quality of the PhD education. The PhD candidates and the supervisors are represented on the board and contribute to quality assurance. The Deputy Heads of department are responsible for contacts with PhD candidates and supervisors at their department and they can thus obtain relevant information from those groups. The Board and The Deputy Heads meet twice a year. The Board decides on development and updates that are needed as a response to national and international developments or change of rules nationally. The Board is thus responsible for updating in accordance with relevant information.</p> <p>All courses are evaluated and the results are presented to the Board, which can take action when this is needed.</p> <p>There are not any standardized evaluations that all PhD candidates or supervisors take part in. Such evaluations have been undertaken at times, but not regularly. However, such evaluations are in a process of development. Questionnaires for PhD candidates at the half-time review and after the thesis defence will be implemented during 2019 or 2020, and a questionnaire for supervisors probably during 2020.</p>
#64:	Representativ	Yes	<i>How are PhD</i>	PhD candidates who are representatives in different boards (there are many at the Faculty of

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QD 8.2 es of the PhD candidates ought to interact with the leadership of the graduate school regarding the running of the graduate school. Candidate organisations ought to be encouraged and facilitated.		<i>candidates involved in the running of the graduate school? Is there a PhD association or equivalent?</i>	Medicine) can get their PhD studentship extended with the equivalence of the time they have devoted to their assignments. These extensions are payed by the Faculty. Links Doctoral student council (MDR)
#65: QD 8.3 PhD candidates ought to have rights and duties	Yes	<i>Describe the rights and duties of PhD candidates. How much are PhD</i>	PhD candidates have rights to supervision and other resources, which are regulated in the individual study plan. Since the education is also an employment, the PhD candidates have rights and duties both as students and as employees. These are in accordance with Swedish legislation of university students and for employees. For example a PhD candidate cannot be expelled from PhD education by the supervisor, department

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	commensurate with the value (to the institution) of the research performed.		<i>candidates paid?</i>	or faculty. The Vice-chancellor of the university can do so, but only if a PhD candidate has severely violated agreements in the individual study plan, or committed a serious crime. PhD candidates employed at the Medical Faculty have a starting salary of 2 680 euro (28 100 SEK) before tax (levels in 2018). This level has been agreed on by the faculty and the union. As employees the PhD candidate receive the same social benefits as other employees at the university, including social security and paid holiday.
#66: QD 8.4	There ought to be an appeal mechanism allowing PhD candidates to dispute decisions concerning their programmes and thesis assessment.	Maybe	<i>How can PhD candidates appeal?</i>	If a PhD candidate does not agree with a negative decision concerning the transfer credits for a course or the outcome of a thesis assessment, he or she can appeal to the The Higher Education Appeals Board. In general terms, the PhD candidates are represented within the Research Studies Board and can therefore dispute decisions.
#67: QD 8.5	Confidential candidate counselling concerning	Yes	<i>Describe what counselling facilities are available, and the</i>	<i>Deputy Head of Department responsible for PhD education</i> The Deputy Head responsible for PhD education at each department is the first instance to which PhD candidates can turn to for counselling regarding the PhD programme and supervision. The Deputy Head is independent from the supervisors, but is responsible for the PhD education at each

<p>Basic Recommendations (abbreviated - see Best Practices document for full recommendations)</p>	<p>Does your institution comply? Yes, No, Maybe</p>	<p>Please expand your answer with the following information. If the answer is “No” please indicate if you would like to make changes that would allow compliance. If such changes are not wanted, please explain.</p>	<p>Response. Please be succinct and refer to e.g. graduate school website where relevant</p>
<p>e.g. the PhD programme, supervision, as well as personal matters ought to be offered by the graduate.</p>		<p><i>degree to which the counsellor is independent of the doctoral school leadership and supervisors.</i> <i>How many PhD candidates use such facilities each year?</i></p>	<p>department. <i>Occupational Health Service</i> Lund University provides free access to an occupational health service which helps with counselling and rehabilitation issues. This service is independent from the doctoral school leadership, supervisors as well as the Faculty of Medicine.</p> <p><i>Doctoral student council (MDR)</i> The Medicine Doctoral Student Council (MDR) is the PhD candidate council at the Faculty of Medicine, representing PhD candidates in 25 different boards and committees, including the faculty board, departmental boards, research education committee, boards of strategic research areas etc. This service is independent from the doctoral school leadership, supervisors as well as the faculty of medicine.</p> <p><i>The Doctoral Student Ombudsman (DOMB)</i> The Doctoral Student Ombudsman (DOMB) is a service provided by Lund University Doctoral Student Union (LDK). The DOMB is mandated to assist PhD candidates at Lund University and the student unions that organize those PhD candidates when they run into challenges concerning PhD education. This service is independent from the university leadership, supervisors as well as the Faculty of Medicine.</p> <p>Links Occupational Health Service</p>

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			Doctoral student council (MDR) Lund's Doctoral Student Union
#68: QD 8.6	Graduate schools could consider having a thesis committee for each PhD candidate that monitors the progress of the PhD candidate through meetings with the PhD candidate and the supervisors.	No	<i>Do PhD candidates have a thesis committee? Who is on this committee?</i> No there is no thesis committee for all PhD candidates. There is a recommendation from the Research Studies Board that one of the reviewers at the halftime review, is part as a member of the final thesis committee. In this way, they can follow the progression from the halftime review up to the time of defence.

Please provide any

recommendations you may have for improvement of this questionnaire

For institutions that would like to have input from ORPHEUS

The completed questionnaire should be sent to the Chairman of the ORPHEUS Labelling Board, Prof. Michael Mulvany, Aarhus University, Aarhus, Denmark. Tel. +45 28992189, mm@farm.au.dk, who will arrange for expert facilitators to examine the responses and provide suggestions. In this case, please also provide the core data indicated below.

Please note that this service is only available for members of ORPHEUS. Please note also that this information is to provide facilitators with a general overview of the institution, and precise data are not needed; estimates are sufficient.

Please confirm that your institution is a member of ORPHEUS in good standing	Yes
Name, position and e-mail of person completing the questionnaire	Heiko Herwald, Vice-Dean Faculty of Medicine, heiko.herwald@med.lu.se Emma Roybon, Head of research administration, emma.roybon@med.lu.se
Name of PhD organization responsible for PhD education (e.g. Graduate School of ...)	Research Studies Board
Name of the University or Faculty of which the PhD organization is a part	Faculty of Medicine, Lund University
Name and e-mail of the head of the PhD organization	Heiko Herwald, heiko.herwald@med.lu.se
Name and e-mail of the head of the PhD organization administration	Emma Roybon, emma.roybon@med.lu.se
Total number of PhD candidates (PhD students) currently enrolled	1073
Gender, age, etc. of PhD candidates	477 men and 596 female. The age span ranges from 23 years to 83 years.
Number of PhD candidates who entered the graduate school	In 2018, there were 223 PhD candidates that entered the programme.

in most recent year (give date)	
Number of dropouts in most recent year (give date).	Between 2014-2016 an average of 40 candidates per year dropped out of the programme.
Number of PhD theses successfully defended in most recent year (give date)	2018, there were 160 dissertations.
Total number of international PhD candidates currently enrolled	There are currently 128 candidates enrolled with a basic education from another country.
Number of qualified persons available to the Graduate School for supervision (supervisor pool)	In order to be a qualified supervisor, certain requirements have to be fulfilled as outlined in #12 and #18. Based on these criteria we estimated that approximately 800 researchers can according to our rules supervise PhD candidates. Notably, retired, but still active, researchers are not any longer allowed to be a supervisor for PhD candidates and, thus, they have been excluded from our calculation.
Number of current principal supervisors	454
Number of current co-supervisors	We do not have these numbers, but most candidates have two co-supervisors, which means approximately 1000 (the requirements for co-supervisors are not the same as for principle supervisors, therefore the pool is larger).
Number of PubMed publications of supervisor pool in most recent year	Our library performed a PubMed search and calculated that 1460 articles were published in 2018 with a last author from the Faculty of Medicine (Lund University). We assume that the majority of these authors have supervisor competence.
URL of the PhD organization (website address)	https://www.med.lu.se/english/intramed/teaching_research/phd_students_supervisors