



# UNIVERSITY OF ICELAND

Faculty of Pharmaceutical Sciences

SCHOOL OF HEALTH SCIENCES

SELF-REVIEW REPORT



February 2020





**UNIVERSITY OF ICELAND**

## Introduction

This report is an abstract of the Self-Review Report of the Faculty of Pharmaceutical Sciences at the School of Health Sciences, University of Iceland and is intended for public disclosure at the University's website.

In accordance with the Icelandic Quality Enhancement Framework at the University level in Iceland and the University of Iceland's Guidelines for the organization, schedule and process of institution-led review of faculties and interdisciplinary programs, the Faculty of Pharmaceutical Sciences (the Faculty), School of Health Sciences (SOHS), University of Iceland (UI), carried out self-evaluation during the autumn semester of 2019. The results are presented in this report. A self-evaluation Committee was established in April 2019:

1. Elín Soffía Ólafsdóttir, Professor, Head of Faculty, Chair
2. Berglind Eva Benediktsdóttir, Associate Professor, Vice-Head of Faculty
3. Sveinbjörn Gizurarson, Professor
4. Lárus S. Guðmundsson, Associate Professor
5. Freyja Jónsdóttir, Adjunct Professor, Clinical Pharmacy
6. Árni Freyr Helgason, MSc student, representative of graduate students
7. Guðrún S. Þórhallsdóttir, BSc student, representative of undergraduate students
8. Ingunn A. Ragnarsdóttir (replaced by Heba S. Björnsdóttir 09.19.), Administration
9. Sólveig M. Karlsdóttir, Project Manager of Academic Affairs, Committee secretary
10. Klara Sveinsdóttir, external representative, MSc in Pharmacy graduated in 2007

The first meeting of the Committee was in June 2019 together with the Quality Committee of the University. The first work-meeting was August 26<sup>th</sup> to lay-out the plan for this work, divide tasks and discuss the results of the student surveys. The second meeting September 12<sup>th</sup> discussed the work in progress draft and the students focus groups results. The third and fourth working meetings were September 26<sup>th</sup> and October 10<sup>th</sup> discussing the draft, the action points and SWOT analysis of research management.

The student focus groups organized by the student representatives of the Committee, met and discussed the BSc and MSc programmes in Pharmacy with representatives of the Social Science Research Institute (Félagsvísindastofnun) on September 4<sup>th</sup>. Additionally, the MSc students in Clinical Pharmacy and the PhD students participated in Socratic-surveys organized by the Project Manager of Academic Affairs in October 2019. Results are discussed in the report.

The self-review process and main results were introduced at the Faculty Board meeting October 15<sup>th</sup> 2019 and the final draft was handed to the Director of Quality Management October 18<sup>th</sup>. The international expert panel visited the Faculty on October 29<sup>th</sup> for a whole day visit with meetings with Faculty members and students' representatives and a guided tour through the Faculty research facilities in Hagi.

The expert panel delivered its report mid-November 2019. They acknowledged the many action points specified in the self-review as highlighting the most important needs of the

Faculty in an excellent way. They identified one of the major weaknesses of the Faculty to be lack of resources. Their specific recommendations were considered in this revised final version of the self-review report.

## Faculty Characteristics

The Faculty offers BS, MS and PhD programmes in the field of pharmacy, clinical pharmacy and pharmaceutical sciences (Appendix 1, Table 1) as well as PhD programs in Public Health in collaboration with the Centre of Public Health and interdisciplinary MS program in Industrial Biotechnology (start autumn 2019).

The curriculum for the pharmacy programme is constructed in such a way that it fulfils the EU requirements of DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7th September 2005. It is comparable with programmes run by the other Scandinavian universities, mainly University of Copenhagen and University of Uppsala, as well as other Pharmacy programmes in European countries. The Pharmacy programmes are reviewed, and revised curriculum implemented approximately every five years. The MS programme in pharmaceutical sciences is open to students with other BS degrees e.g. chemistry, biology or related subjects. The final three years in the Bologna process provides a PhD degree in either pharmacy (students with MS in pharmacy) or pharmaceutical sciences. The first PhD student graduated in 1997.

Faculty members are 15 (10.65 full time equivalent, FTE) and sessional teachers are 75 (3.7 FTE) (Appendix 1, Table 2). All academic Faculty members in >50% positions have a PhD degree and are active researchers in relevant fields. Three Faculty members, one with a PharmD and two with pharmacy and clinical pharmacy MSc degrees, have shared positions with the University Hospital; they manage the Clinical Pharmacy programme and courses. Fall 2019 we are strengthening the clinical pharmacy team by increasing a 37% Adjunct position to a 50% Assistant Professor which will serve as the manager and academic leader of the Clinical Pharmacy programme. The Faculty has employed a laboratory manager since 2013 and a Project Manager of Academic Affairs since 2017 that has been an immense improvement and taken a huge workload that previously was on the academic staff. This has increased the quality of teaching and laboratory management.

On average about 200 students have been registered in the Faculty over the last four years (Appendix 1, Table 3). One BS programme is offered within the Faculty (LYF262). Despite medium retention rate (50%) the four-year completion rate of 92% can be considered exemplary. The Faculty has three MS programmes (LYF442, LYF443, LYF431). Both the retention rate as well as the three-year completion rate for the MSc programme in pharmacy is 97% which can be considered excellent. The Faculty has two doctoral programmes (LYF561 and LYF562). As few pharmacists pursue a PhD degree (LYF561) most prospective PhD students enrol in the LYF562 study programme. A total of 29 PhD students have graduated from the Faculty since 1997.

As of last academic year (2018-2019) the total number of students within the Faculty was 203; 116 undergraduate students, 72 master's students and 15 PhD students.

## Summary and Main Conclusions for the Faculty

### Lessons learned from QEF1

The quality of the Pharmacy BSc and MSc programmes has improved since QEF1. Curriculum of the Pharmacy studies is revised every five years. Student feed-back on teaching are discussed with students' representatives regularly, and student workload is adjusted for each semester. Further adjustments on workload and organization, provided with the new BSc and MSc in Pharmacy curriculum are planned. BSc student satisfaction surveys 2012-18 in overall satisfaction is well above that of UI and SOHS as well as all the five other Faculties of SOHS. Similar results can be found for the MSc programme in Pharmacy although students are less satisfied with the feedback of their work and organization of the programme. However, the PhD students' satisfaction scores are too low and the Faculty addresses this in the action points in this report.

Diversity of teaching methods were addressed in QEF1 and were a recurring theme in this report as well. Currently, three Faculty members are taking a course in Introduction into Teaching that should result in a more teaching- and assessment approaches.

By updating LOs for courses belonging to the BSc and MSc in Pharmacy as well as LOs for the study programmes and further matrix them as a function of LOs for individual courses, has sharpened the Faculty's view on the programmes and made all teachers aware of their own courses importance and impact in the BSc and MSc Pharmacy programmes.

The Postgraduate Studies Research Board and the Project Manager of Academic Affairs have sharpened rules and protocols for the MSc projects in Pharmacy preparation, framework, thesis writing, evaluation and defence since QEF1, increasing the quality of this part of the MSc programme. The extent of the MSc project is now 40 instead of 30 ECTS giving more time for external MSc projects including abroad. Remaining tasks are to outline guidelines for duties and tasks of supervisors and students to work towards improvements in the MSc and PhD programmes.

International collaboration networks have been finalized and other started, since QEF1, resulting in several PhD students and Postdocs, collaboration on teaching with companies and institutions is extensive giving the students direct contact with society.

It is still a challenge to run the expensive laboratory facilities for teaching and research within the financial frame given, although some progress has been made and limited support can be sought to the SOHS for maintenance of the infrastructure. Another point of improvement since QEF1 is increased administrative support from SOHS for applicants of research grants and around managing research grants. This support is essential for Faculty members taking on this time-consuming task in a highly competitive environment.

### Teaching and Learning

The quality of teaching and learning in the Faculty is monitored by several measures. (1) The LOs for the Pharmacy BSc and MSc programmes have be revised and updated and arranged

in a LOs matrix 2019. This will be revised regularly in the coming years and is stated as an action point in this report. (2) The teachers of courses taught in the same semester, meet before the courses are fully planned and coordinate students' tasks and deadlines to secure an even distribution throughout the semester. (3) The student teaching evaluation surveys are analysed by the Study Board and discussed at meetings with the students every semester, followed by action. (4) Student satisfaction surveys for BS, MS and PhD are reviewed and improvements needed discussed at Faculty meetings every year. (5) The Study Board regularly reviews and revises the curriculum of the Pharmacy programmes (approx. every five years) in accordance with EU regulations and development and changes that take place in other Nordic countries and Europe. Further (6) the rules for advancing from first year of the BS in Pharmacy programme to the second year has been tightened. The quality of the Clinical Pharmacy programme is monitored continuously in collaboration with the "model" programme at the UCL SOP. The PhD programme follows the rules for PhD studies of the SOHS and the UI. Midterm evaluation is now required, and rules and guidelines will be outlined.

Improvement tasks for the coming years are: (1) updating LOs for PhD studies, (2) outline Faculty guidelines for post-grad supervision and monitoring, (3) Faculty members trained in teaching by attending teaching studies for higher education at UI (4) part-time adjunct positions and adjunct connections in teaching, and (5) promote collaborative MS projects with institutions and companies. Further the Faculty will (6) send a representative to the annual EAFP (European Association of Faculties of Pharmacy) conference where development and challenges of the Pharmacy programmes and curriculum are presented and discussed. All improvement tasks are given as action points in this report (see Appendix 2).

## Management of Research

The Faculty has established research groups within the fields of bioactive natural products, metabolomics and clinical mass spectrometry, nanomedicine and drug delivery systems such as cyclodextrins, chitosan-conjugates, ocular and nasal drug delivery, antimicrobials, maternal health, clinical pharmacy and pharmacoepidemiology.

Research output of academic staff (based on full time equivalent, FTE) is keeping up with the mean of recent years (Appendix 1, Table 4).

The mean research output for peer-reviewed publications (**B**) for 2015-18 for the Faculty (24.5) is very close to that of UI (24.8) but somewhat lower than for the SOHS (27.6). The Faculty and the SOHS both have relatively stronger emphasis on peer-reviewed publications (**B**) against the mean research points (**A**) as a research output, compared to the UI total numbers.

Currently the Faculty has two Marie Curie networks, transMed [www.transmed-itn.eu](http://www.transmed-itn.eu) and Orbital [www.orbital-itn.eu](http://www.orbital-itn.eu) and one ERA network (CYNOBESITY [www.marinebiotech.eu/cyanobesity](http://www.marinebiotech.eu/cyanobesity) ongoing as well as the Nordic POP network [www.nordforsk.org/en/programmes-and-projects/projects/nordic-pop](http://www.nordforsk.org/en/programmes-and-projects/projects/nordic-pop). Five PhD students and one PostDoc are funded by these networks. They boost research collaboration across borders, increases the number of PhDs and Postdocs and are important for the research impact of the Faculty.

The Faculty is active in innovation and patenting. Research by Faculty members has led to the establishment of several start-up companies. Three of them have marketed products or are about to reach the market.

The significance of the Faculty research output is therefore considerable both national and international with (1) emphasis on high impact peer-reviewed publications and collaboration (2) emphasis on implementing and advancing clinical pharmacy and pharmaceutical care in the Icelandic Health Care system and (3) innovations and patents reaching the market.

To analyse the quality of the management of research the following SWOT analysis was carried out including research strategy, management of research output, external support and impact of the Faculty.

### SWOT analysis of the four dimensions of management of research

	Strengths	Weaknesses	Opportunities	Threats
1. Research strategy	-ambitious -fully coherent with UI HI21 strategy	-counts on increase in number of Faculty members -supervision of postgrad students and monitoring is not addressed in the strategy	-increase support from UI and SOHS - write concise descriptions of the role of supervisors	-underfunded -understaffed Faculty -lack of central support -lack of core facilities
2. Management of research output	-easy to compare research points with UI, Schools and faculties	- lack of clear protocol with goals and measures for more diverse research outputs	-develop a scorecard with measurable goals for the Faculty to monitor annually	-research point system of the UI might not pull research into the direction of quality or high impact.
3. External support	-new opportunities in Nordic collaboration NordicPop -extensive collaboration	Young Faculty in early phases of their research carriers, inexperienced in research fund raising	-increase collaboration, external funding and networking -increased support to young scientist -reduced teaching load on productive researchers	-work-overload in teaching and administration on Faculty members -lack of core facilities
4. The impact of Faculty	- emphasis on high impact publication in research output - start-up companies and patents reaching market	-to few Faculty members with respect to teaching and administration leads to less time for research	-add new Faculty members -grant applications -collaboration and networking -collaboration with authorities to	-work-overload in teaching and administration on Faculty members -lack of core facilities

	<ul style="list-style-type: none"> <li>- increased impact of clinical pharmacy in the society</li> <li>- collaboration with industry and important institutions</li> </ul>	<ul style="list-style-type: none"> <li>-young Faculty still establishing their research carriers</li> <li>-lack of seed money for young Faculty</li> <li>- lack of PhD background and research in clinical Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>embrace the knowledge of Pharmacists to the benefit of the Icelandic Health care system</li> <li>PhDs in clinical Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>-lack of political understanding and readiness to recruit clinical Pharmacists</li> </ul>
--	--	--	--	--

### Follow-up Processes

The implementation of the Action Plan will be a standing item on meetings of the Faculty Board and similarly Faculty Head will report on the progress regularly to the SOHS Board. Faculty Head reports formally to the SOHS Dean on the status of the implementation and plans for next year together with other relevant QA matters no later than December 1<sup>st</sup> and this will be followed up in the SOHS Board. The SOHS Dean will subsequently make use of this report in a status report for all Faculties in the SOHS, which will be submitted to the Quality Committee no later than January 15<sup>th</sup>. The Quality Committee writes a report to the Rector no later than February 1<sup>st</sup>, which will subsequently be discussed in a meeting between the Chair of the Quality Committee, the Director of Quality Management and Rector, Vice-Rectors. Deans of Schools and the Managing Director of the Central Administration.



## Appendix 1. Key Figures.

**Table 1. Overview of present Study Programmes within the Faculty**

Name of Study Programme	Cycle <sup>1</sup>	Degree	Credits (ECTS)
LYF262 Pharmacy	1.2	BS	180 ECTS
LYF443 Pharmacy	2.2	MS	120 ECTS
LYF431 Clinical Pharmacy	2.2	MS	90 ECTS
LYF442 Pharmaceutical Sciences	2.2	MS	120 ECTS
LYF561 Pharmacy	3	PhD	180 ECTS
LYF562 Pharmaceutical Sciences	3	PhD	180 ECTS

<sup>1</sup> See National Qualification Framework for Higher Education No. 530/2011.

**Table 2. Faculty members as of 1 March 2019 and sessional teachers 2018, number (No.) and full time-equivalent (FTE)**

	Male		Female		Total	
	No.	FTE	No.	FTE	No.	FTE
Professors	4	3.49	3	2.05	7	5.54
Associate Professors	1	0.70	1	1.00	2	1.70
Assistant Professors	2	1.37	3	1.67	5	3.04
Adjunct Lectures	0	0.00	1	0.37	1	0.37
<b>Total</b>	<b>7</b>	<b>5.56</b>	<b>8</b>	<b>5.09</b>	<b>15</b>	<b>10.65</b>
Sessional teachers	24	0.67	51	3.03	75	3.70

**Table 3. Total number of students, number of entrants, retention rate for first year, and completion rate (4-year mean).**

Programme	No. of students			No. of entrants <sup>3</sup>	Retention rate %	No. of graduates	Completion rate <sup>4</sup> %
	Total no.	Full time <sup>1</sup>	Part time <sup>2</sup>				
LYF262 Pharmacy	131	91	34	54	50	29	92
LYF443 Pharmacy	54	50	3	27	97	21	97
LYF431 Clinical Pharmacy	3	0.50	0.50	1.50	100	0	-
LYF442 Pharmaceutical Science	1.75	1.00	0.75	0.50	100	0.50	100
LYF561 Pharmacy	6.25	5.50		0.75	-	0.75	75
LYF562 Pharmaceutical Science	8.00	6.00		0.75	-	1.75	88

<sup>1</sup> > 22.5 ECTS completed. For Ph.D. students > 1 ECTS completed.

<sup>2</sup> 1-22 ECTS completed.

<sup>3</sup> For all programmes except Ph.D., no. of students completing at least one examination in first term.

<sup>4</sup> 2-year rate for diploma, 4-year rate for B.A./B.S., 3-year rate for M.A./M.S., 5-year rate for Ph.D.

**Table 4. Research output of Faculty members, based on the Evaluation System for the Public Universities in Iceland, expressed by mean total research points (A) and mean research points from peer-reviewed publications only (B) per FTE.**

	2015		2016		2017		2018		Mean	
	A	B	A	B	A	B	A	B	A	B
Faculty	37.9	29.9	32.6	24.0	29.4	20.2	35.0	24.1	33.7	24.5
School	39.7	29.0	40.6	29.6	34.7	24.1	37.7	27.6	38.2	27.6
University	37.8	24.7	37.1	25.1	34.8	22.8	37.8	26.4	36.9	24.8

## Appendix 2. Action Plan for Teaching and Learning in QEF2, and Management of Research

	Actions	How	Deadlines	Responsible party
--	---------	-----	-----------	-------------------

### 1. FACULTY LEVEL

Ch. 1.2	Faculty Characteristics			
1	Better Faculty connection for sessional teachers	Adjunct connections for selected teachers with high responsibility	2020	Head of Faculty/Office Manager
2	Increase the number of Faculty with knowledge in various teaching methods	Teachers supported to take courses at UI	2022	Head of Faculty/Office Manager
3	Increased collaboration with industry	Number of MSc project and teaching agreements	2024	Head of Faculty/Chairs of Boards
4	Increase the number of full time Faculty members	Hire four new Faculty members, one each year 2021-24	2021-24	Head of Faculty/Dean of SOHS/UI
5	Increase support to young Faculty to start their research carriers	Establish a pool of PhD grants and seed money earmarked for newly hired Faculty members.	2024	Head of Faculty/Dean of SOHS/UI
6	Emphasize importance of practical courses and their relationship to the real-life pharmacists' work	Meet with all supervising teachers of practical courses and discuss how they can convey this	2020	Chair of Study Board
Ch. 1.3	Academic Vision			
1	Connect the UN SDGs to teaching and research in the Faculty	Seminar/work groups meeting on the SDGs	2020-21	Head/Chairs of Boards/Faculty members
2	Follow the research output with measurable goals	Develop a scorecard with measurable goals for the Faculty to monitor annually	2020 and annually	Head/Office Manager/Chairs of Boards
3	Faculty guidelines for post-grad supervision and monitoring	Write descriptions for supervisors' duties and roles in MSc and PhD projects	2020	Chair of Pgrad. Stud. Res. Board /Project Man. Acad. Affairs
4	Monitor Learning outcomes for programmes and courses	Review and revise when needed	annually	Chair of Study Board and all supervisors for courses
5	Follow closely the development in the Pharmacy curriculum	The Faculty sends the Chair of the Study Board to an annual	2020 annually	Head/Chair of the Study Board

	in the Pharmacy Faculties of Europe	EAFP conference on Pharmacy education		
<b>Ch. 1.4</b>	<b>Student Support</b>			
1	Introduce the library of health sciences earlier on in the studies	By including an introduction of the library in courses	Spring 2020	Study Board
2	Update the Faculty webpage	Coordinate with IT and/or SOHS to update the Faculty webpage	Fall 2020	Project Leader of Academic Affairs/Admin. Officer

## 2. STUDY PROGRAMMES

### 2.1 LYF262 Pharmacy (BS 180 ECTS)

Ch. 2.1.1	Students			
1	Consider changing current admission rules to the BSc study programme to obtain students with relevant preparation for the Pharmacy programme. This would enable subsequent re-examinations offered for courses with LYF numbers	Special Faculty member meeting discussing pros and cons. Study Board meeting on the matter.	Spring 2020	Study Board and Head of Faculty
2	Coverage of different ethnicity and sex orientation in the course: Communication (LYF219F)	Discuss with the course supervisor to add this course subject to the current curriculum	Spring 2020	Study Board
3	Encourage teachers to implement Socratic and other versatile teaching methods	Include this topic in "teachers talks" that will be implemented for teachers in the Faculty, held once per semester	Fall 2020/21	Study Board
4	Consider changing the curriculum exclusively to block system	Meeting with supervisory teachers to discuss the implementation of such system	Spring 2020	Study Board and Head of Faculty
5	Automatically get the course evaluations for courses that our students attend and are taught at other Faculties	Meeting with the Deans of the Schools, the SOHS and SOENS, to address this important issue	Fall 2020	Head of Faculty

<b>Ch. 2.1.2</b>	<b>Teaching and Learning</b>			
1	Systematic overview of how Faculty members can be aided in implementing versatile teaching methods	Fac meeting to discuss this in conjunction to teaching grants (Kennslumálasjóður)	Spring 2020 and annually	Study Board
2	Sharing of experience in teaching and teaching methods	Include this topic in "teachers talks" (kennsluspjall) that will be implemented for teachers in the Faculty, held once per semester	Fall 2020	Study Board
3	Increase formative assessment	Teachers responsible for courses reduce the weight of the final exam to < 70%	Fall 2020	Study Board
4	Streamlining the workload for students where partial exams are implemented vs courses offering one final exam	Meetings of the Study Board with supervisory teachers	Fall 2020	Study Board
5	The importance of LOs made aware to not all supervising teachers	A meeting with all supervising teachers discussing the importance of LOs. A follow-up meeting 6 months later	Spring 2020	Study Board
6	Revision of LOs for each course	Update the current protocol so that the teachers are reminded once per year to update the LOs and notify the office on changes.	Fall 2020	Project Manager of Academic Affairs with aid from the Study Board
7	Recognition of excellent teachers within the SOHS	Top three teachers within each Faculty of the SOHS are eligible for this reward. The Faculty provides recommendation.	Fall 2020	Dean of the SOHS/Head of Faculty
<b>Ch. 2.1.3</b>	<b>Coordination between teaching and research</b>			
1	Improve research facilities	See Ch.3.3 nr. 3		

## 2.2 LYF443 Pharmacy (MS 120 ECTS)

<b>Ch. 2.2.1</b>	<b>Students</b>			
1	Consider small introduction placement	Discuss alternative opportunities with the	Spring 2021	Study Board

	programmes in other sectors than pharmacies	supervisors of the placement progr.		
2	Consider changing the curriculum exclusively to block system	Meeting with supervisory teachers to discuss the implementation of such system	Fall 2020	Study Board and Head of Faculty
<b>Ch. 2.2.2</b>	<b>Teaching and Learning</b>			
1-6	Same as for BSc Programme in Pharmacy Ch. 2.1.2			
7	MSc students made aware of the grade score card for MSc projects	The current MSc grade scorecard introduced earlier to students	Spring 2020	Postgrad. Studies Res. Board
<b>Ch. 2.2.3</b>	<b>Coordination between teaching and research</b>			
1	Clarify the roles of each party involved in each MSc project (student, supervisor and sometimes instructor)	Write written agreement templates that all responsible parties sign	Fall 2020	Postgraduate Studies Res. Board
2	Improve research facilities	See Ch.3.3 nr. 3		

### 2.3 LYF431 Clinical Pharmacy (MS 90 ECTS)

<b>Ch. 2.3.2</b>	<b>Teaching and Learning</b>			
1	Rotation within a general practice	Already planed	2020	Educational Programme Director
2	OSCE facilities	Promote need by participating the working group developing new facilities for the hospital training	2025	Educational Programme Director
<b>Ch. 2.3.3</b>	<b>Coordination between teaching and research</b>			
1	Promote the FS2 tasks within the hospital	Find opportunities for the trainees to present the findings	2020	Education programme director
2	Promote the FS2 tasks within the hospital	Find opportunities to inform stakeholders at the Hospital about FS2 task to promote partnership	2020	Education programme director

### 2.4 LYF442 Pharmaceutical Science (MS 120 ECTS)

<b>Ch. 2.4.1</b>	<b>Students</b>			
------------------	-----------------	--	--	--

1	Put more emphasis for Faculty members to recruit students into this programme.	Provide MSc projects and advertise within the UI.	Fall 2020	Postgraduate Studies Res. Board
2	Invite a representative of this programme to voice their satisfaction and concern with this programme	Annual meeting with the students of this programme	Fall 2020	Postgraduate Studies Res. Board
3	Orientation for MSc students in this programme more coherent	Create general orientation and lab orientation check sheet material	Fall 2020	Postgraduate Studies Res. Board
<b>Ch. 2.4.2</b>	<b>Teaching and Learning</b>			
1	MSc students doing their MSc project have access from the beginning to the grade score card	The current grade scorecard supplied to students at the beginning of their project	Spring 2020	Postgraduate Studies Research Board
<b>Ch. 2.4.3</b>	<b>Coordination between teaching and research</b>			
1	Improve research facilities	See Ch.3.3 nr. 3		

### 2.5 LYF561 Pharmacy (PhD 180-210 ECTS) and LYF562 Pharmaceutical Sciences (PhD 180-210 ECTS)

<b>Ch. 2.5.1</b>	<b>Students</b>			
1	Analyse the low score in the students satisfaction with the PhD programme	Focus group meetings	2020	Office Man. /Chair Pgrad. Stud.Res. Board/ PhD progr. repr.
2	Clarify the journey of PhD students and their supervisors through a whole program	Faculty guidelines for the PhD study programme	2020	Office Man. /Chair Pgrad. Stud. Res. Board/PhD programme repr.
3	Follow up the decision to implement a mid-program evaluation for PhD students	Faculty guidelines and rules for the PhD midterm exam	2020	Chair Pgrad. Stud. Res. Board PhD programme repr.
4	Follow closely the overall satisfaction of PhD students in the Faculty	Socratic surveys on top of UI PhD student satisfaction surveys	annually	Office Manager/Project Man. of Academic Affairs/PhD programme repr.
<b>Ch. 2.5.2</b>	<b>Teaching and Learning</b>			
1	Learning outcomes (LOs) of the PhD programme is from 2007 and need upgrading.	Review and upgrade the LOs of the PhD programme	2020	Chair Pgrad. Studies Res. Board/ PhD programme representative

2	Improve and broaden the PhD students community awareness	Increase collaboration with the SOHS	2021	Head/Chair Pgrad. Studies Res. Board/ PhD programme representative/SOHS Committee for Doctoral Studies
3	Improve the PhD students involvement in Faculty affairs that concern them	PhD students elect two representatives for Faculty affairs	Annually from 2020	Office Man./Project Manager of Academic Affairs
<b>Ch. 2.5.3</b>	<b>Coordination between teaching and research</b>			
1	Encourage collaborative research networking such as Marie Curie that include PhD students and Postdocs	Encourage Faculty members to engage: 2-3 new networks	2024 Following calls	Head/Office Manager/PhD programme representative/SOHS administrative research manager
2	Improve research facilities			

### 3. Management of Research

<b>Ch. 3.3</b>				
1	Clarify the vision of the research strategy for the Faculty	Score chart with clear measurable goals	2020	Head/Office Manager
2	Add four new Faculty members	<u>Reduced workload</u> on each Faculty member in teaching and admin. <u>Lower student/teacher ratio, increased research impact</u>	2021-24	Head/Dean of SOHS/UI
3	Work towards better facilities and equipment for research	New facilities in a new house	2025	Head/Dean of SOHS/UI
4	Support to young Fac. members	Facilities, start-up fee, PhD student	2021-25	Head/Dean of SOHS/UI