Implementation plan: LIH quality framework for doctoral training (QFDT)

Status: September 2016

LUXEMBOURG INSTITUTE OF HEALTH — RESEARCH DEDICATED TO LIFE

What?	Present situation/Compliance to FNR QFDT	Further necessary development	Who?	When?
Doctoral research environment and management				
Infrastructure	Research facilities on 3 sites; 3 departments (Population Health, Oncology, Infection & Immunity); biobank (IBBL); animal facilty and technological platforms; quality laboratory equipment; sufficent laboratory and office space; acquirement of new state-of the art equipment in 2015 (mass cytometry, MRI); ISO 9001 certification for adminstrative and research-support services since 2013			
Access to documentation	Findit portal of Luxembourg National Library: 53,000 electronic journals, 93,500 science eBooks, specialised databases and reference platforms; introduction to use of portal and bibliography search by documentary manager; internal PhD theses database	Inquire on needs of LIH researchers for access to scientific journals	PhD training coordinator, documentary manager	10/2016
Scientific and social exchange	Good internal communication system (Intranet, common server); organisation of scientific seminars (e.g. lecture series in 'Cancer Research' and in 'Infection & Immunity'); department and research unit meetings; possibility to attend national and international scientific conferences; 2 yearly social events gathering entire LIH staff; information on activities of young researchers associations (LuxDoc, LISA)	Development of PhD seminars within DTUs/departments	DTU coordinators	PRIDE start (Q4 2016)
Quality control of doctoral training	Monitoring by universities/doctoral schools, mainly by thesis supervisory committee (TSC); face-to-face institutional survey conducted with all PhD candidates and PhD supervisors between 11/2014 and 02/2015 (assessment of satisfaction with work, supervision and research conditions and training offer)	Institutional mandatory TSC procedure (for PhD candidates not subject to TSC obligation by their university); quality monitoring at institutional level throughout the doctoral life cycle: yearly online surveys with PhD candidates, PhD supervisors, DTU coordinators/ heads of unit (assessment of supervision, training courses, work environment and doctoral management); yearly report on doctoral training to Executive Committee and Quality Management (QM); development of quality indicators; development of further quality control tools if necessary	PhD training coordinator, QM, Executive Committee	TSC procedure: 11/2016; Implementation: 01/2017; Survey forms: 02/2017; Implementation: 6 months after PRIDE start
Recruitment and admission into doctoral training				
Recruitment strategy	National and international advertisement of job offers (general and science job portals, professional and social networks, internal announcement) to attract excellent candidates	Advertisement of pool of PhD positions in PRIDE context; emphasis in job description on research scope, inter-institutional and public-private collaborations,QFDT and attractiveness of Luxembourg as a research location	DTU coordinators, PhD supervisors, HR	07/2016, done
Recruitment procedure	Conformity to European Charter for Researchers and Code of Conduct for the Recruitment of Researchers; HR Excellence in Research label since 2010; LIH general recruitment procedure (not mandatory for recruitment of students)	Revision of recruitment procedure; consistent application of LIH general recruitment procedure to hire PhD candidates; selection committee with at least one HR member ensuring gender equality and absence of employment discrimination; handbook on recruitment	DTU coordinators, PhD supervisors, HR, PhD training coordinator	Revision: PRIDE start, Handbook: 12/2016
Project and candidate evaluation	Evaluation ensured by universities/doctoral schools and funding bodies; project review by LIH Research and Knowledge Transfer Office (RKTO) for potential for scientific, economic and/or societal value creation; project review by LIH Methodology and Statistics research-support service for feedback on the best suitable experimental design	Guidelines for PhD project evaluation in PRIDE context (scientific quality, feasibility, thematic fit, supervisor qualification); candidate evaluation (academic ability, research potential) ensured during recruitment and by TSC thoughout PhD trajectory	PhD training coordinator, DTU coordinators, TSC	Guidelines: 09/2016, Implementation: PRIDE start
Employment contract	Employment contract for all PhD candidates since 2009			

Institute induction	New Hires Day 3x/year: Introduction to research topics of departments (1 day); 'Checklist Support Services' 3x/year: Introduction to administrative and research-support services (1/2 day); organisation by HR	Slide presentation on doctoral training, introduction during 'Checklist Support Services' (15 min) and individual detailed introduction to new PhD candidates (1 h)	PhD training coordinator	09/2016
Supervision				
Supervision guidelines		Institutional guidelines on responsibilities of PhD candidate, PhD supervisor and PhD training coordinator	PhD training coordinator	11/2016
Supervisor criteria	LIH criteria for PhD supervisors established in 06/2016: definition of junior and senior PhD supervisor			
Supervisory team	1 or more supervisors; 1 main supervisor responsible for day-to-day supervision	Clear definition of roles of different supervisors in supervision agreement	PhD supervisors	PRIDE start
Supervision agreement	Existing at some universities	Development of a supervision agreement template according to FNR guidelines (based on that of University of Luxembourg); establishement and signing of supervision agreement mandatory for each PhD candiate	PhD training coordinator, PhD supervisors, PhD candidates	Template: 12/2016, Implementation: PRIDE start
Conflict mediation	Definition of mediation contact points depending on nature of conflict (HR, head of doctoral school, head of department or scientific mediator); Appointment in 09/2015 of a mediator with scientific background specifically for conflicts between PhD candidates and PhD supervisors	Training in mediation techniques for scientific mediator, conflict mediation guidelines	HR, mediator	Guidelines: 01/2017
Absence of supervisor	No institional guidelines on replacement in case supervisor is unable to continue supervision	Replacement by another member of the supervisory team; decided by TSC	TSC	11/2016
Supervisor evaluation	Monitoring by universities/doctoral schools	Part of internal quality monitoring of doctoral training	PhD training coordinator	6 months after PRIDE start
Supervision training	Offer of team management courses for team leader (external training provider)	Offer of a training course on PhD supervision (external training provider)		First training in 2016
Skills training and professional development				
Training courses	Training & Workshops series with 4 types of courses: scientific techniques, transferable skills, methodology and software, technology transfer (18 courses organised between 05/2015 and 02/2016); English lessons	Further development of Training & Workshops series according to feedback of participants	PhD training coordinator, HR	Done for 2016
Professional development and career orientation	Workshops of lecture series in 'Cancer Research' and 'Infection & Immunity' specifically for early-stage researchers (>10/year): information on academic careers; mentoring by PhD supervisors; information on careers events by PhD training coordinator	Organisation of encounters with PhD holders working in a different field than public research: information on alternative career opportunities e.g. in industry (2x/year)	PhD training coordinator	First event in 2016, done
Teaching activities of PhD candidates	Involvement of PhD candidates in academic teaching depending on univerity rules; general encouragement for teaching actvities and supervision of training periods of Bachelor or Master students	Definition of volume of teaching activities in supervision agreement	PhD supervisors, PhD candidates	PRIDE start
Participation in outreach activities	Encouragement to participate to and organise outreach activities (e.g. Science Festival, Researcher's Days, 'Chercheurs à l'école', Girls & Boys Day, LIH Open Day; World Days); support by Communication Unit			
Dissemination				
Rules on authorship in publications	Orientation on Vancouver recommendations	Institutional policy regulating authorship on publications based on Vancouver recommendations	PhD training coordinator, QM, RKTO	03/2017
Dissemination to a non-scientific public	Dissemination with help of Communication Unit: press releases, newsletters, website news, social media posts, activity report			

Intellectual property rules and support for valorisation	RKTO in charge of identifying research results that give scope for translation into socio-economic value; policy on knowledge transfer; policy on intellectual property protection for scientific publications and abstracts			
Public availability of PhD theses	Public availability ensured by universities; confidentiality possibly requested by LIH; embargo period not exceeding two years			
Good practice in research				
Compliance to ethical and data protection standards	Condition in PhD candidate work contract; compliane with European Charter for Researchers; ethics charter concerning animal experimentation; control by Animal Welfare Structure	Ethics charter in ROI (Règlement d'Ordre Intérieur)	Management	PRIDE start
Research integrity	Procedure on management and investigation of suspected scientific misconduct; plagiarism guidelines	Ethics charter in ROI (Règlement d'Ordre Intérieur); Procedure on laboratory book documentation	Management, RKTO	PRIDE start
Training in ethics and responsible research conduct	Good Scientific Practice course offered at University of Luxembourg and at other universities	Course mandatory for all PhD candidates	PhD training coordinator	PRIDE start
Responsibility of supervisors	Main supervisor has prime responsibility for PhD candidate to conduct research according to the established standards of the research field			
Thesis assessment committee and procedures				
Functioning and quality control	Procedures defined by PhD-awarding institutions	Advice on presence of at least one external member	PhD training coordinator	PRIDE start
Additional approaches for the QFDT				
Doctoral representative		Appointment of a representative for doctoral and postdoctoral researchers		Election in 2017
Staff appraisal system		Integration of PhD candidates into staff appraisal system		01/2016, implemented
Statistics on career paths of alumni	Availabilty only in a few research groups	Trace career path of leaving PhDs for 6 years by sending a questionnaire every 2 years	PhD training coordinator	PRIDE start