

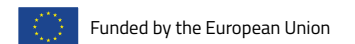
Handbook

EIT Health
Ageing
PhD School
Handbook





EIT Health Ageing PhD School Handbook



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Introduction

EIT Health Ageing PhD School is fueled by a pan-European collaboration of EIT Health Academic and Non-Academic partners to foster international and cross-sector training of a new generation of PhD specialists, to achieve solid Innovation and Entrepreneurship (I&E) competencies.

EIT Health Ageing PhD School stands on accredited PhD programs (Core Programs) complemented with robust EIT Health based-Innovation and Entrepreneurship training, multi-university portfolio of advanced teaching in Ageing, as well as international mobility and co-mentorship of PhD thesis in Universities, Hospitals and Companies. The School fosters competence-based and student-centered learning by doing, following the guideline of EIT Quality Assurance and Learning Model, Overarching Learning Outcomes (OLOs) and a true integration of the knowledge triangle to support healthy living of citizens and create tomorrow's entrepreneurs.



Vision and Mission

EIT Health Ageing PhD School seeks to promote a true integration of the knowledge triangle in advanced teaching of ageing-related PhD training, fostering science-based innovation and entrepreneurship skills in Europe. By integrating real-life business challenges in all phases of PhD training and by promoting cross-sector and international mobility schemes, the School will foster EIT mission and Students' Expected Learning Outcomes, including:

- L01- Entrepreneurship skills and competencies
- L02- Innovation skills and competencies
- L03- Creativity skills and competencies
- L04- Intercultural skills and competencies
- L05- Making value judgments and sustainability competencies
- L06- Leadership skills and competencies

PhD's will acquire the expected competencies to become the future leaders and entrepreneurs of innovation-driven Ageing Research and Ageing-Related business in Europe.

Organizational structure

Coordinator

EIT Health Ageing PhD School is coordinated by the EIT Health Core Partner, University of Coimbra.

Partnership

The partnership includes academic and non-academic partners open to EIT Health members.

For 2022 the PhD School involved the following partners:

Academic partners

 UNIVERSIDADE DE COIMBRA	University of Coimbra https://www.uc.pt/en/fmuc/phdhs
 LISBOA UNIVERSIDADE DE LISBOA FACULDADE DE MEDICINA LISBOA	University of Lisbon https://www.ulisboa.pt/en
 NOVA UNIVERSITY LISBON	University Nova of Lisbon https://guia.unl.pt/en/2019/itqb/program/IBB
 Trinity College Dublin Coláiste na Tríonóide, Baile Átha Cliath The University of Dublin	Trinity College Dublin https://www.tcd.ie/medicine/
 UNIVERSITY OF COPENHAGEN	Copenhagen University https://phd.ku.dk/english/
 umcg	University Medical Centre Groningen* https://www.umcg.nl/
 KU LEUVEN	Catholic University of Leuven https://www.kuleuven.be/english/
 University of Cologne	University of Cologne https://portal.uni-koeln.de/en/uoc-home
 U. PORTO	University of Porto https://sigarra.up.pt/up/en/WEB_BASE.GERA_PAGINA?p_pagina=home
 UM MEDICAL UNIVERSITY OF LODZ	Medical University of Lodz http://studymed.umed.pl/
 UAB Universitat Autònoma de Barcelona	Universitat Autònoma de Barcelona https://www.uab.cat/web/postgrado/doctorados/todos-los-doctorados/informacion-general/neurociencias-1345467765424.html?param2=1345657423259
 ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ UNIVERSITY OF CRETE	University of Crete https://en.uoc.gr/

Non-academic partners

 IPN	Instituto Pedro Nunes https://www.ipn.pt/ipn
 CHUC CENTRO HOSPITALAR E UNIVERSITARIO DE COIMBRA	Centro Hospitalar e Universitário de Coimbra https://www.chuc.min-saude.pt/
 CENTRO HOSPITALAR LISBOA NORTE, EPE CENTRO HOSPITALAR SANTAMARIA Hospital Público/Science	Centro Hospitalar Lisboa Norte http://www.chln.min-saude.pt/index.php
 IBEC ^R Institute for Bioengineering of Catalonia	Institute of Bioengineering of Catalonia http://www.ibebarcelona.eu/
 umcg	University Medical Centre Groningen* https://www.umcg.nl/
 CNC CENTER FOR NEUROSCIENCE AND CELL BIOLOGY	Center for Neuroscience and Cell Biology http://www.cnbc.pt/
 UNIKLINIK KÖLN	University Hospital of Cologne https://www.uk-koeln.de/en/uniklinik-koeln/international-office/about-university-hospital-cologne/
 FORTH FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS	PRAXI Network and Science and Technology Park of Crete [STEP-C] https://www.imbb.forth.gr/en/

*note University Medical Centre Groningen has a double role, academic and non-academic (University Hospital) partner

Program outcomes

For students

- › Grants to support mobility schemes for students (funded by EIT Health);
- › EIT label supplement to the University PhD diploma will be awarded to School PhD's (fulfilling the requirements for the School's curriculum portfolio and PhD thesis);
- › Knowledge integration and business driven training in PhD training;
- › High-quality training and expected learning outcomes.

For academic partners

- › International prestige by bringing together Core PhD Programs with EIT label;
- › Integration of knowledge triangle in PhD training;
- › International network of academic and non-academic partners;
- › Wider market and international visibility to recruit PhD students.

For non-academic partners

- › Access to highly trained, skilled and entrepreneur students;
- › Access to some of the best Research Centers and Universities in Europe;
- › Wider opportunity for educational opportunities by their collaborators;
- › Inclusion on market and business-driven problems in all phases of PhD education.

For the society

- › A new vision of PhD training beyond traditional University silos;
- › New opportunities for co-creation and co-development of solutions based on scientific research and advanced PhD training;
- › Prioritize societal meaningful problems for PhD training and business creation.

Application and Selection of Students

To be admitted in the EIT Health Ageing PhD School, students must:

- › be a PhD Student;
- › be registered in one of the selected "Core PhD Programs" or in a PhD Program within the EIT Network eligible to be a member of the Consortium;
- › be committed to complete during their studies a minimum of 30 ECTS in courses, internship and mobility at a partner university or non-academic partner.

The required documents to apply to the EIT Health Ageing PhD School are:

- › a Motivation Letter;
- › two letters of recommendation;
- › Curriculum Vitae.

An open call to recruit EIT Health Ageing PhD School students will be launched in October 2022.

In total, up to 35 PhD students (minimum 25 students), supported by EIT Health funds for mobility, will be selected for the fourth edition of the School (2023-2026). The selected students must be registered in one of the previously indicated Core PhD Programs. Students coming from non-EIT Health community (including non-Europeans) may be accepted if the students ensure timely registration in one of the selected Core PhD Programs.

The selection of students will be based on academic merit, adequacy of curriculum profile and support letters. The final selection of students will take in consideration other relevant issues including motivation and intellectual skills, entrepreneurial experience, gender balance, geographic distribution and equal opportunities. Additional students may be eligible to become EIT Health Ageing PhD School students in case of accomplishing the mandatory requirements of the program (core curricular elements and thesis) without EIT funds for mobility.

Academic Requirements and Regulations

Students must follow the academic requirements and regulations of their home University Core PhD Program and accomplish the common requirements of the curricular portfolio of the PhD School:

1. Advanced courses;
2. I&E activities;
3. Mobility Schemes;
4. Annual Retreat.

EIT label requirements for EIT Health Ageing PhD School include:
-30 ECTS acquired in international and cross-sector mobility, including:

- 1) 5 ECTS (minimum) acquired in Advanced Courses;
- 2) 10 ECTS (minimum) acquired in I&E activities;
- 3) 15 ECTS acquired in Mobility Schemes.
- 4) 5 ECTS acquired in the Annual Retreat (mandatory)

The 30 ECTS can be obtained from the following schemes:

Scheme 1	attendance of 5 courses from the school's portfolio curriculum + attendance of the annual retreat
Scheme 2	accreditation of courses corresponding to 10 ECTS (from the University where the student is enrolled) + attendance of 3 courses corresponding to 15 ECTS of the school's portfolio curriculum or others of proven scientific quality + attendance of the annual retreat
Scheme 3	accreditation of courses corresponding to 15 ECTS from other universities + attendance of courses corresponding to 10 ECTS from the school's portfolio curriculum or others of proven scientific quality + attendance of the annual retreat.
Scheme 4	accreditation of published scientific articles (2 articles as main author or 4 articles in co-authorship) corresponding to 10 ECTS + attendance of 3 courses corresponding to 15 ECTS of the school's portfolio curriculum or others of proven scientific quality + annual attendance retreat

Mandatory EIT Health Ageing ECTS should be acquired in the first year of each PhD Program.

Core PhD Programs

The following Core PhD Programs contribute to EIT Health Ageing PhD School:

University	Core PhD Program
University of Coimbra	Experimental Biology and Biomedicine (BEB) more info: https://apps.uc.pt/courses/EN/course/2161
	Health Sciences (PhDHS) more info: https://www.uc.pt/en/fmuc/phdhs
University of Lisbon	Neurosciences more info: https://www.ulisboa.pt/en/curso/doutoramento/neurosciences
University Nova of Lisbon	Integrative Biology and Biomedicine more info: https://guia.unl.pt/en/2019/itqb/program/IBB
Trinity College Dublin	PhD thesis being developed in Neuroscience Research Topics more info: https://www.tcd.ie/courses/postgraduate/az/course.php?id=DPTMD-NEUR-1F09
Copenhagen University	Graduate School of Health and Medical Sciences more info: https://healthsciences.ku.dk/phd
University Medical Center Groningen	Graduate School of Medical Studies (GSMS) in combination with Research Institute on Brain and Cognition (BCN) more info: https://www.umcg.nl/EN/Research/InstitutesProgrammes/Research-Institute-Brain-and-Cognition/Paginas/default.aspx
Catholic University of Leuven	Cognitive and Molecular Neurosciences more info: https://gbiomed.kuleuven.be/english/phd/PhD_Researchers/doctoral_school_programmes/cogn_mol_neuroscience.html
University of Porto	Gerontologia e Geriatria more info: https://sigarra.up.pt/icbas/pt/cur_geral.cur_view?pv_curso_id=1306
University of Lodz	The International Doctoral School more info: http://doctoralschool.umed.pl/
University of Cologne	Cologne Graduate School of Ageing Research more info: https://www.ageing-grad-school.de/home
Universitat Autònoma de Barcelona	PhD in Neurosciences more info: https://www.uab.cat/web/postgrado/doctorados/todos-los-doctorados/informacion-general/neurociencias-1345467765424.html?param2=1345657423259
University of Crete	PhD in Neurogenetics and Ageing more info: https://en.uoc.gr/

PhD supervision

The PhD thesis must address relevant research topics, included under the scope of Ageing or Neuroscience.

As part of the requirements for PhD thesis, students need to identify a PhD supervisor in one of the academic partners of the School. The PhD thesis project must enclose a co-supervision or a close collaboration with another academic or non-academic partner from a different EIT Health CLC/InnoStars.

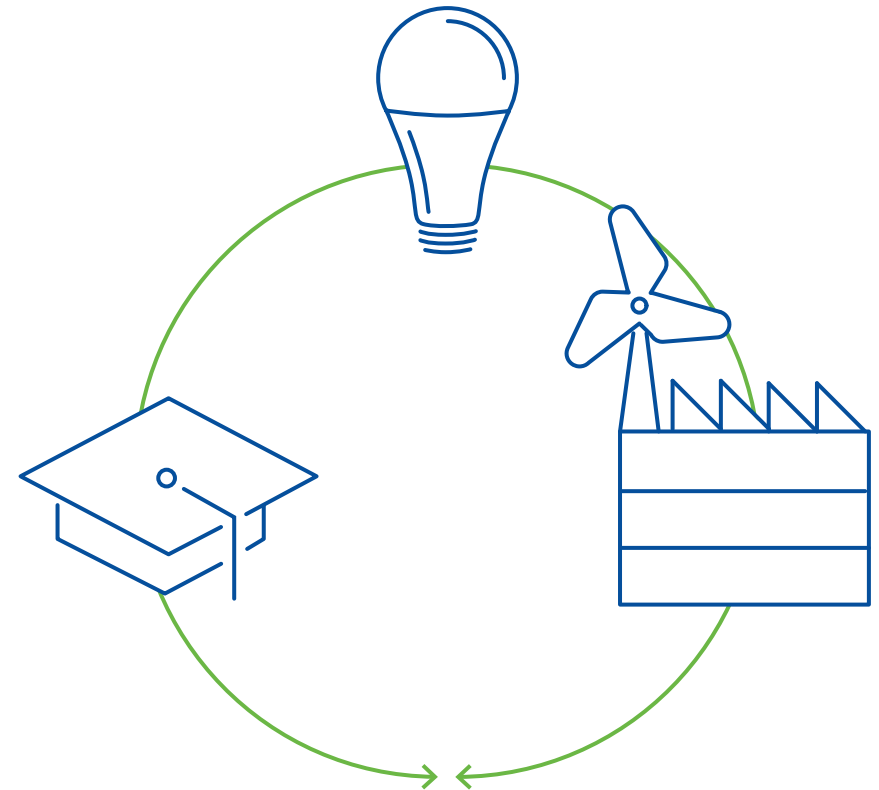
PhD thesis projects should be prepared by the candidate and presented to a PhD thesis committee (joining academic and non-academic members, as well as citizens/patient representatives) at the EIT Health Ageing PhD School annual Retreat (September 2022).

The PhD thesis should be prepared according to the requirements and regulations of the University PhD Core Program where the student is registered for a maximum period of 4 years (one year extension allowed).

Business challenges integration

EIT Health Ageing PhD School training encloses non-academic partners and industrial challenges during all phases of the education and training process. I&E activities, Advanced Courses and Mobility Schemes, offered by the School portfolio, enclose close collaboration (lectures, seminars and internship programs) between academic and non-academic partners. The offered teaching activities (total 30 ECTS) should inspire the student and supervisor to embrace industrial and society-meaningful businesses challenges as part of the PhD project.

Moreover, the Scientific and Business Committee and the Thesis Committee will enclose the view of the non-academic partners of the thesis plans; ensuring concept validation and performance monitoring.



Work Plan

1st year

- › Mandatory curricular units of Core PhD Programs – not required for EIT Health Ageing PhD School
- › I&E Activities (minimum 10 ECTS)
- › Advanced Courses (minimum 5 ECTS)
- › Mobility Schemes (between 0 and 15 ECTS equivalent)
- › Annual Retreat – mandatory, including PhD thesis project presentation (5 ECTS equivalent)

2nd year

- › Research project development

3rd year

- › Research project development

4rd year

- › Research project development
- › Papers writing and submission
- › PhD thesis writing and defense

List of Educational Offers – 2022 (provisional)



Advanced courses

(Duration 2 weeks/5ECTS, max, otherwise indicated)

Partner	Advanced courses	Course Organizer
Trinity College Dublin	Smart Communication and Networking (SCN)	Kumlesh Dev
	Assessment and Management of Frailty in Ageing Adults	Roman Romero-Ortuno
	Drug Development	Kumlesh Dev
University of Coimbra	Ageing from fundamental biology to societal impact	João Malva Paulo Oliveira Nuno Raimundo Ira Milosevic
Center for Neuroscience and Cell Biology	ONE HEALTH and the Metabolism-Disease-Environment Triangle: When Biomedicine meets Innovation, Science Outreach and Social Sciences	Anabela Azul and Paulo Oliveira
	Metabolic and inflammatory drivers in age-related neurodegenerative diseases	Armanda Santos, Cláudia Pereira, Paula Moreira, Sandra Cardoso, Maria Cruz
	Advanced Experimental Design	Ana Duarte, John Ioannidis, Teresa Cunha-Oliveira
Medical University of Lodz	Introduction to systems biology and metabolomics of ageing	Kinga Zel
Nova University of Lisbon	Cell and Molecular Mechanisms of Aging and Associated Diseases	Duarte Barral
	Translating clinical research into innovation to tackle age-related health problems	Catarina Madeira

I&E Activities

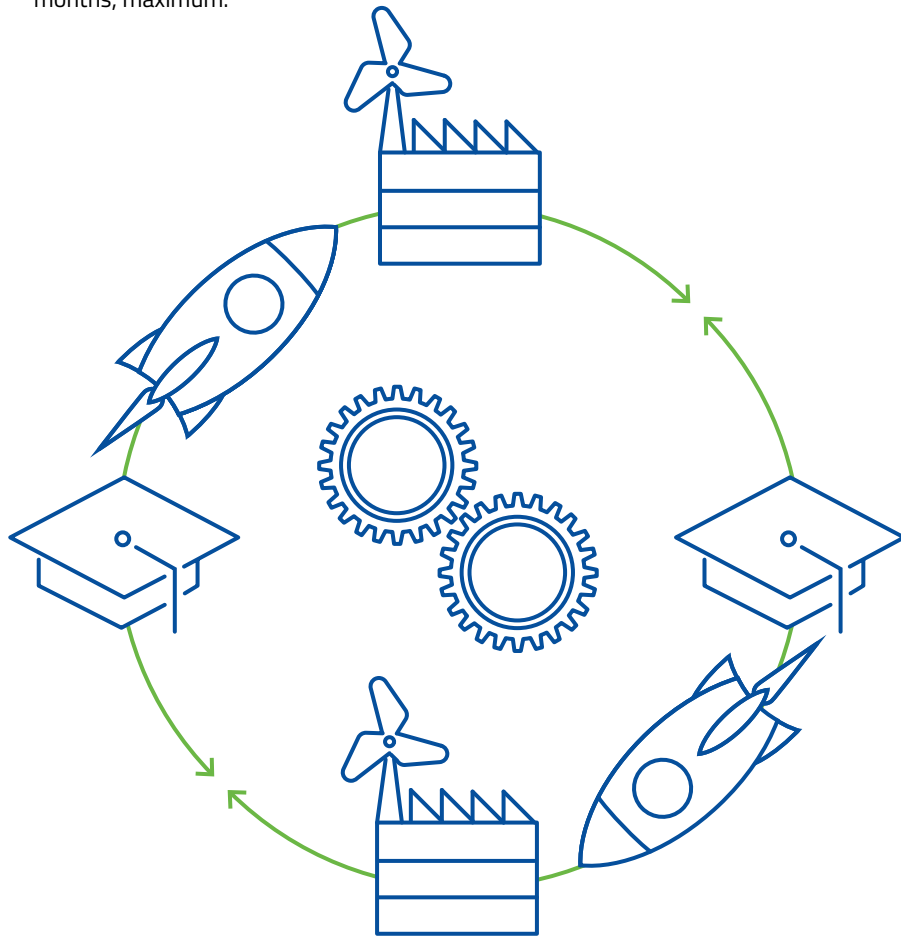
(Duration 2 weeks/5ECTS, max, otherwise indicated)

Partner	Activity	Course Organizer
University of Coimbra	Advanced Imaging Methods in Neuroscience	João Malva Luísa Cortes Jorge Valerol
	Engineering solutions for health (Onsite)	Cristina Arimany
Institute of Bioengineering of Catalonia	Bringing science to primary schools	Cristina Arimany, Pilar Jimenez
	IPN Innovation & Entrepreneurship Online Training Course	Cristiana Costa
University of Cologne	Frailty in real life and its Translational Implications	M. Cristina Polidori
	Frailty: Hands-on delivery of care for a rapidly changing society	M. Cristina Polidori
Nova University of Lisbon	Implementing value-based healthcare practices in a digital and ageing society	Ana Londral
FORTH	Access to finance: Horizon Europe – proposal preparation and project management	Katerine Papadouli
	Technology transfer & exploitation of research results	Maria Makridaki

Mobility Schemes

Personalized Mobility Schemes must be identified by common agreement between the supervisor(s) and the student, and validated by the Scientific and Business Committee, aiming to expose the student to real-life business challenges, understanding business ecosystems and learning experimental techniques to embed in his/her PhD thesis. This Personalized Mobility Schemes must fulfill the achievement of the intended learning outcomes, compulsory for the EIT Health program.

The mobility schemes include internships with non-academic partners. These individual internships must be framed between one week, minimum, and three months, maximum.



Annual Retreat

The Annual Retreat of the third edition of the EIT Health Ageing PhD School will likely occur in the fourth semester (place and dates to be defined). Due to COVID – 19 pandemics, social and military contexts this can be an on line event (via zoom and Microsoft Teams platforms) and it will join academic and non-academic partners and contribute to the global learning objectives of EIT Health Ageing PhD School.

In the Annual Retreat, besides the opportunity the students have to present their PhD Project, they also will contact with cross-sector projects, including important elements of Innovation and Entrepreneurship training. Moreover, based on their business ideas, the students can receive personalized scouting from IBEC, FORTH and IPN, a business incubator, and other relevant partners (eg. translational research centers and hospitals) supporting the students to seed and mature their business ideas, according to the proposed roadmap and translation research mindset.

The Annual Retreat program, which will include an “Entrepreneurship day” will certainly be enriched if it is designed by the School Coordinator, the consortium partners and the students enrolled in the EIT Health Ageing PhD School.

The students will be challenged to choose lecturers and to organize Alumni Sessions.

The coordination of the school will organize all the schedule of the program and reunite an advisory committee for the presentation of the PhD Projects.

Social Media

EIT Health Ageing PhD School has three social networks that were used to disseminate courses, lectures, testimonies of students and general information of the school.

FACEBOOK

<https://www.facebook.com/EITHealthAgeingPhDSchool/>

TWITTER

<https://twitter.com/eithealthphdsch>

LINKEDIN

<https://www.linkedin.com/company/eit-health-ageing-phd-school/>

WEBSITES

<https://eithealth.eu/programmes/eit-health-ageing-phd-school/>

www.eithealth.eu





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Health



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