

Program Proposal

Global Educational Center for Health (GEC-H) x Clinical Academic Centre Católica-Luz

TIME	ACTIVITY	LOCATION
DAY 1 – 11th November 2024		
09:00-9:15	Welcome & Greetings	Católica Medical School
09:15-09:45	Opening Ceremony	
09:45-11:15	Faculty Tour	
11:15 -11:45	Coffee-break	
11:45-12:00	Introduction of Speakers and Organization Members (Faculty)	
12:00-12:30	Mentorship in Medical Education & Discussion between participants	
12:30 – 13:00	Introduction to Problem-Based Learning & Discussion between participants	
13:00-14:00	Workshop on Problem-Based Learning (practical cases)	
14:00-15:00	Lunch & Networking	
16:00-	Tourist attractions (optional) - Sintra	
DAY 2 – 12th November 2024		
9:00-9:15	Welcome & Greetings	Hospital da Luz (Lisbon)
9:15-09:30	Introduction of Speakers and Organization Members	
09:30-10:15	Tour of Cardiac Rehabilitation Unit	
10:30-11:15	Simulation-based medical education & Discussion between participants	
11:15-11:45	Coffee-break	
11:45-12:15	Machine Learning in Health & Discussion between participants	
12:15-12:45	Hospital da Luz Test Bed Presentation	
12:45-13:30	Simulation Centre Tour	
13:30-14:30	Lunch & Networking	
15:00-	Tourist attractions (optional) – Lisbon City tour	
DAY 3 – 13th November 2024		
9:30-9:45	Welcome & Greetings	Católica Biomedical Research Centre (CBR)
9:45-10:00	Introduction of Speakers and Organization Members (Faculty)	
10:00-10:45	Health through fundamental science & Discussion between participants	
10:45-11:30	Coffee Break	
10:30-11:15	CBR Tour	
11:15-12:30	Gulbenkian Science Institute Tour	
12:30-14:00	Lunch & Networking	
20:00-23:00	Fado dinner (optional)	

Activity Brief Description

DAY 1 - Católica Medical School

09:45-11:15 Faculty Tour

The tour of Católica Medical School, located on the Sintra campus of Universidade Católica Portuguesa, will highlight the state-of-the-art facilities dedicated to medical education and research. Inaugurated in 2001, the 10,000-square-meter building has been meticulously adapted to support both individual and group study needs, equipped with the latest technology. The building houses a biomedical research center, which focuses on basic and translational research, as well as an advanced anatomy laboratory and a bioterium, enhancing practical learning and research capabilities. The campus also features classrooms, lecture halls, laboratories, a library, and a documentation center, along with comprehensive support services. Participants will explore these specialized spaces and gain insights into the innovative educational approaches employed at the faculty.

12:00-12:30 Mentorship in Medical Education & Discussion between Participants

A session focused on the importance of mentorship in the development of medical professionals. This activity will begin with a presentation on best practices and effective strategies for mentoring in medical education, highlighting the benefits for both mentors and mentees. Participants will briefly explore various mentorship models and discuss the critical qualities of successful mentors, while examining the experience and expertise of Católica Medical School in this area.

12:30-13:00 Introduction to Problem-Based Learning (PBL) & Discussion between Participants

This session will provide participants with a short overview of the PBL methodology, a student-centered pedagogy that involves solving complex, real-world problems to acquire knowledge and skills. The presentation will briefly cover the theoretical foundations of PBL, its benefits in medical education, and practical implementation strategies, while sharing the experience of Católica Medical School with this method. Participants will learn how PBL can enhance critical thinking, self-directed learning, and collaborative skills.

13:00-14:00 Workshop on Problem-Based Learning (Practical Case)

In this session, participants will engage in a hands-on, interactive session focused on applying PBL techniques to a practical case study. Participants will be presented with a complex medical scenario that requires a multidisciplinary approach to solve. Guided by an experienced facilitator, they will identify learning objectives, gather and analyze information, and propose evidence-based solutions. This workshop aims to provide participants with a deeper understanding of the PBL process and demonstrate how PBL can be effectively used in medical education to foster active learning and critical thinking.

DAY 2 - Hospital da Luz (Lisbon)

09:30-10:15 Tour of Cardiac Rehabilitation Unit

This tour offers participants an inside look at Portugal's first comprehensive cardiac rehabilitation program provided by a private hospital. This program caters to patients recovering from acute cardiac events, aiming to enhance their physical, psychological, and social well-being. The comprehensive cardiac rehabilitation program at Hospital da Luz Lisboa (HLL) includes hospital-based intervention, early outpatient care, and long-term maintenance. It offers their patients a motivated multidisciplinary team, excellent facilities, advanced technology, and a comprehensive approach encompassing all phases of cardiac rehabilitation, setting a benchmark for improving patient outcomes in cardiovascular care.

10:30-11:15 Simulation-Based Medical Education & Discussion between Participants

This session will explore the use of high-fidelity simulations in training medical professionals. The presentation will cover the different types of simulation modalities and how they are used to create realistic clinical scenarios for training purposes. Participants will learn about the benefits of simulation-based education, such as improving clinical skills, enhancing patient safety, and providing a safe environment for learners to practice. Following the presentation, there will be a discussion session where participants can share their experiences with simulation-based education, discuss the challenges of implementing simulation programs, and brainstorm innovative solutions to enhance the effectiveness of simulation in medical training.

11:45-12:15 Machine Learning in Health & Discussion between Participants

This session will explore the transformative impact of digitalization in healthcare, with a focus on the integration of computers in modern medicine. Participants will learn about the cutting-edge research conducted at Hospital da Luz Learning Health, particularly in the field of computational medicine. This research applies engineering principles to medicine, aiming to enhance healthcare delivery and patient outcomes through advanced computational models.

Participants will gain insights into how these technologies can optimize various aspects of healthcare, from diagnosis to treatment planning and operational efficiency. Following the presentation, there will be a discussion where participants can share their perspectives, experiences, and ideas on the application of machine learning in healthcare, fostering a collaborative exchange of knowledge and innovation.

12:15-12:45 Hospital da Luz Test Bed Presentation

This presentation will highlight the Intelligent Health Platform (IHP), part of the Portuguese Network of Test Beds. IHP supports startups and SMEs in developing and testing innovative digital healthcare solutions in three environments: the In Silico Lab for AI model validation, the Simulation Lab for safe product testing in a hospital replica, and the Living Lab for real-world testing at Hospital da Luz. These integrated environments accelerate product development and aim to transform healthcare by advancing products to higher Technology Readiness Levels.

Formed by Hospital da Luz Learning Health and Hospital da Luz Lisboa, IHP seeks innovative solutions in Health and Well-being, Operational Excellence, and Sustainability. The platform aims to enhance prevention, diagnosis, treatment, and disease monitoring while improving

healthcare access, customer experience, and system interoperability. Participants will gain insights into and discuss how IHP fosters innovation and supports the rapid development and market launch of new healthcare solutions.

12:45-13:30 Simulation Centre Tour

During the Simulation Centre Tour at Hospital da Luz Learning Health, participants will explore a hi-tech facility dedicated to practical training for healthcare professionals. This pioneering simulation center, the largest of its kind in Portugal, has 1,300 square meters within the new Hospital da Luz Lisboa building. The centre features 11 advanced simulation rooms and 4 debriefing rooms, equipped with the latest technology and staffed by expert simulation trainers.

Participants will see firsthand how various complex clinical scenarios are recreated, catering to the practical training needs of multiple medical specialties, nursing, and other healthcare professions. The center offers diverse training opportunities, from performing technical procedures to improving communication and teamwork skills in multidisciplinary settings. This immersive experience is designed to address the current challenges of biomedical education, ultimately aiming to elevate the standards of healthcare delivery.

DAY 3 - Católica Biomedical Research Centre (CBR)

10:00-10:45 Health through Fundamental Science & Discussion between Participants

This session will explore the critical role that basic scientific research plays in advancing medical knowledge and improving health outcomes. Participants will hear from our leading researchers about the latest discoveries in biomedical science and how these findings are translated into clinical practice. The presentation will highlight the importance of interdisciplinary research and collaboration in addressing complex health challenges. This will be followed by an interactive discussion, where participants can engage with the speakers, ask questions, and share their perspectives on how fundamental science can drive innovation in healthcare.

10:30-11:15 CBR Tour

The tour of the Católica Biomedical Research Centre (CBR) will provide participants with an in-depth look at this front-line research facility currently housed on the campus of the Instituto Gulbenkian de Ciência (IGC) in Oeiras. By leveraging IGC's specialized resources and advanced infrastructure, such as optical and electron microscopy, flow cytometry, genomics, and an animal facility, CBR aims to enhance its research capabilities.

The CBR occupies 592 square meters in the East Building of the IGC campus, commonly known as the Library building. Participants will explore this newly renovated facility and learn about the state-of-the-art research conducted at CBR, witnessing firsthand how this collaboration enhances biomedical research and innovation.

11:15-12:30 Gulbenkian Science Institute Tour

The tour of the Gulbenkian Science Institute (IGI), affiliated with the Calouste Gulbenkian Foundation, provides participants with insight into pioneering biological and biomedical research, innovative postgraduate training, and the societal impact of science. With 400 scientists from 44 nations, the IGI focuses on unraveling fundamental biological principles to understand organism formation and environmental interaction, leading to novel disease treatment approaches and global sustainability initiatives.