

ODELIA Summer School

September 16 – 18, 2025

Vall d'Hebron Institute of Oncology (VHIO), C/ Saturnino Calleja 11-13, 08035,
Barcelona, Spain

Dive into the intersection of AI and medicine at the intensive ODELIA Summer School

Tailored for early career researchers eager to explore the integration of artificial intelligence in healthcare and clinical trials, this program will delve into transformative areas such as privacy-preserving Distributed Learning, the use of imaging in oncological routines, and the design and implementation of clinical trials, with special focus on how AI is reshaping and advancing these critical domains.

Hosted at the Vall d'Hebron Institute of Oncology (VHIO), leading center for personalised oncology in Europe, participants will benefit from a cutting-edge research environment. Founded in 2006, VHIO is renowned for its multidisciplinary, translational research model. Its Research Unit in Molecular Therapy of Cancer has contributed to the approval of over 70 new cancer therapies, transforming, in record time, the latest research discoveries into early clinical trials and, thus, in new opportunities for patients.

Programme:

Tuesday, 16th of September

13:30 – 14:00 – Arrival and Welcome (Raquel Pérez López – VHIO)

14:00 – 15:00 – Keynote Lecture: Healing With Words - Large language models in medicine (Daniel Truhn – Aachen University Hospital)

15:00 – 16:30 – SESSION I: Student Elevator Pitches (Moderators: Olivia Prior Palomares and Daniel Navarro Garcia - VHIO)

Students will give 5min presentations of their projects. A total of 10 projects will be selected based on submitted abstracts.

16:30 – 17:00 – Guided Tour of Vall d'Hebron campus

17:00 – 19:30 – Networking Tapas at CELLEX



Funded by
the European Union

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agreement No 101057091.

Wednesday, 17th of September

9:00 – 10:00 – Keynote Lecture: Development of a Clinically Viable MYC Inhibitor for Cancer Treatment: From an “Undruggable” Target to Clinical Trials (Silvia Casacuberta Serra – VHIO)

10:00 – 11:00 – Workshop Part I: Theory

Three experts will give introductory talks to the Workshop session. The talks will focus on Clinical Trials for Oncology and AI in clinical settings.

10:00 – 10:15 – Workshop Introduction (Raquel Pérez López – VHIO)

10:15 – 10:40 – Intro Lecture I: Clinical Trials 101 (Irene Braña – VHIO)

10:40 – 11:10 – Intro Lecture II: AI In and Around Clinical Studies in Oncology: How AI is reshaping clinical studies and how one does a clinical study of an AI-enabled point-of-care intervention (Stephen Gilbert – Technische Universität Dresden)

11:10 – 11:30 – Coffee Break

11:30 – 13:00 – Workshop Kick-Off and Group Work (A) - Moderator: Raquel Pérez López (VHIO)

Interactive sessions where participants will design a clinical trial including AI. Clinical trial experts from VHIO will be available throughout for support and guidance. Available experts include members from:

*VHIO's Radiomics Group
VHIO's Biostatistics Unit
VHIO's Clinical Trials Office
VHIO's Academic CRO*

13:00 – 13:45 – Lunch

13:45 – 14:45 – Workshop Part II: Group Work (B) - Moderator: Raquel Pérez López (VHIO)

14:45 – 16:00 – Workshop Final Presentations and Experts' Feedback - Moderator: Raquel Pérez López and Adrià Marcos Morales (VHIO)

17:00 – 19:00 – Teambuilding Activity: Guided Tour of Sant Pau Hospital



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Thursday, 18th of September

9:00 – 11:00 – SESSION II: Distributed Learning (Moderators: Cristina Villaseca Sitjar and Adrià Marcos Morales – VHIO)

9:00 – 9:30 Kaapana: Open-source Federated Medical Imaging AI Platform (Mikulas Bankovic - DKFZ)

9:30 – 10:00 Federated Learning Across High- and Low-resource Settings (Karim Lekadir - Universitat de Barcelona)

10:00 – 10:30 Swarm Learning: Bridging the Gap Between Data Sharing and Privacy (Oliver Saldanha - Technische Universität Dresden)

10:30 – 11:00 Multi-Modal Federated Learning from Heterogeneous Cardiovascular Data (Malte Toelle - Universität Heidelberg)

11:00 – 11:30 – Coffee Break

11:30 – 13:00 – SESSION III: Breast Cancer Screening Techniques (Chairs: Marta Buetas Arcas and Maria Balaguer Montero - VHIO)

11:30 – 12:00 Introduction to Breast Cancer Imaging (Julia Camps Herrero – Fundación Ribera Salud)

12:00 – 12:30 An overview of Magnetic Resonance Imaging (MRI): from basic principles to cutting-edge applications (Francesco Grussu - VHIO)

12:30 – 13:00 Breast MRI: Technique, Indications, and Future Applications (Belén Ubeda Hernández – Hospital Clinic de Barcelona)

13:00 – 13:30 – Closing Remarks & Elevator Pitch Awards (Raquel Pérez López – VHIO)

The ODELIA Summer School, Barcelona, Spain 16/09/2025 - 18/09/2025, has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with 11.5 European CME credits (ECMEC®s).