

From AI Research to Clinical Implementation – BosomShield Summer School (September 8th - 12th, 2025)

Venue: Maribor, Slovenia (Faculty of Electrical Engineering and Computer Science, University of Maribor)

Day 1: Opening Ceremony & Introduction to Clinical AI (September 8th)

Opening Ceremony (9:00 - 09:30)	Opening statements and welcome addresses Prof. dr. Zdravko Kačič, rector University of Maribor, Slovenia Mag. Ksenija Klampfer, Minister of Digital Transformation, Slovenia Dr. Aida Kamišalić Latifić, State secretary at the Ministry of Digital Transformation, Slovenia Iztok Kos, MD, State secretary at Ministry of Health, Slovenia Ministry of Higher Education, Science and Innovation, Slovenia, TBC Dr. Izidor Mlakar, University of Maribor, Slovenia
EU vision for healthcare AI (policy view) (9:30 – 10:00)	
EU Cancer Mission & Cancer Clusters AIA, MDR-IVDR MSCA	Marianne Ines DA SILVA, Health and Digital Executive Agency (HaDEA), TBC EVAS Tatjana, DG CNECT, European Commission Domna PASCHALIDOU, Research Executive Agency (MSCA), European Commission (REMOTE)
Keynote Address (10:00 - 11:00)	
Digital Transformation of Hospitals Healthcare innovation strategy Vision for academic-clinical collaboration	Prof. dr. Vojko Flis, MD, general director of University Medical Centre Maribor, Slovenia National Institute of Public Health (NIJZ), Slovenia, TBC Dr. Izidor Mlakar, University of Maribor, Slovenia
Coffee Break (11:00 - 11:30)	
Medical Research in Action (11:30 - 13:30)	Research projects showcase session with Q&A
BosomShield, Horizon Europe MSCA project DIOPTRA, Horizon Europe project RAIDO, Horizon Europe project SHIELD, Horizon Europe project TARGET, Horizon Europe project Immune checkpoint inhibitors	Prof. dr. Domenec Puig, Universitat Rovira i Virgili, Spain Dr. Christos Fotis, Protavio, Greece Prof. dr. John Shawe Taylor, Jožef Stefan Institute, Slovenia, TBC Prof. dr. Athanasios Anastasiou, Harokopio University of Athens, Greece (remote) Dr. Hatem A. Rashwan, Universitat Rovira i Virgili, Spain Assist. dr. Nežka Hribernik, MD, Institute of Oncology Ljubljana, Slovenia

Lunch & Networking (13:30 - 15:00)

Clinical Trial Design for AI-driven Cancer Research (15:00 - 16:30)

Topics: Trial types and methodologies, Statistical considerations, Protocol development.

Lecturers: Assoc. prof. dr. Georgios Dimitrakopoulos and Prof. dr. Athanasios Anastasiou, Harokopio University of Athens, Greece (remote)

Closing Remarks, Student Task assignments & Day 1 Wrap-up (16:30 - 17:00)

Day 2: Regulatory Framework & Compliance (September 9th)

European Medical Device Regulation (9:00 - 10:00)

Topics: Overview of MDR framework, Classification of AI-based medical devices, Risk classification and management, Post-market surveillance requirements

Lecturer: Dr. Magda Chatzikou, PharmEcons Easy Access, Greece

Coffee Break (10:00 - 10:30)

AI Act & Compliance (10:30 - 11:30)

Topics: Intersection of MDR and AI Act, Additional requirements for AI systems, Impact on medical device development

Lecturer: Dr. Piercosma Bisconti, DEXAI, Italy

HTA and Health Economics (11:30 - 13:00)

Topics: Economic evaluation methods, Cost-effectiveness analysis, Quality-adjusted life years (QALYs), Healthcare resource utilization

Lecturer: Dr. Magda Chatzikou, PharmEcons Easy Access, Greece

Lunch & Networking (13:00 - 14:00)

Practical Compliance Workshop (14:00 - 17:00)

Lecturers: Dr. Magda Chatzikou and Dr. Piercosma Bisconti

Closing Remarks & Day 2 Wrap-up (17:00 - 17:30)

Day 3: Clinical Research & Ethics (September 10th)

Bridging the Gap Between AI Research & Clinical Adoption (9:00 - 10:30)

Success stories and lessons learned

Dr. Matej Horvat, MD, Department of Oncology, UMC Maribor, Slovenia



Key challenges and opportunities	Sara Močnik, MD, Unit for pediatric and adolescent psychiatry & Prof. dr. Hojka Gregorič Kumperščak, MD, Head of Unit for pediatric and adolescent psychiatry, UMC Maribor, Slovenia
The potential of AI in health registries - the case of the Slovenian Cancer Registry	Dr. Tina Žagar, Institute of Oncology Ljubljana, Slovenia
Coffee Break (10:30 - 11:00)	
Ethical Aspects of Medical AI (11:00 - 12:30)	
Ethical Frameworks for Clinical Implementation of AI	Dr. Antonio Carnevale, University of Bari, Italy
Bias & End-User Perspective	Prof. dr. Bojan Musil, University of Maribor, Slovenia
XAI & Transparency	Dr. Izidor Mlakar, University of Maribor, Slovenia
Lunch & Networking (12:30 - 14:00)	
Internet of Things - Case Studies & Workshop (14:00 - 17:00)	
Cloud Computing and Sensing networks 1	Dr. Zouhair Haddi, NVISION Systems, Spain
Cloud Computing and Sensing networks 2	Dr. Nurlan Dauletbayev, University Marburg, Germany
Closing Remarks & Day 3 Wrap-up (17:00 -17.30)	

Day 4: Interoperability, Commercialization & Funding (September 11th)

Interoperability, Standardization and Data Spaces in Medical AI (09:00 - 10:00)	
Healthcare data standards, Data spaces implementation, Cross-border sharing	Dr. Antonis Billis, Aristotle University of Thessaloniki, Greece
Coffee Break (10:00 - 10:30)	
Commercialization and Funding	
From Cancer Research to Startup (10:30 - 11.30)	Dr. Christos Fotis, Protavio, Greece
Commercial Exploitation of Research and Innovation Projects (11:30 - 12:30)	Dr. Marios Logothetis, Netcompany – Intrasoftware, Greece
Medical Research Ecosystem (12:30 - 13:00)	Prof. dr. Denis Horgan, European Alliance for Personalised Medicine
Lunch & Networking (13:00 - 14:00)	
Future of AI in Cancer Research and Practice (14:00-14:30)	Dr. Antonis Billis, Aristotle University of Thessaloniki, Greece
Closing Remarks & Day 4 Wrap-up (14:30 -15:00)	

*Maribor - guided city tour (15:00 - 16.15) - TBC

BosomShield project meeting (15:00 – 17.00) (CLOSED meeting for BosomShield project partners)

Day 5: Student, Early Research Contributions (September 12th)

(CLOSED meeting)

Group Project Presentations & Discussion (9:00 - 12:00)

BosomShield Students

Closing Remarks and Wrap-up (12:00-12:30)

Lunch & Networking with goodbye (12:30 - 15:00)
