eatris connect

Summer School

Personalised Medicine Using Digital Approaches

22-24 September 2025
Ljubljana, Slovenia

The EATRIS-CONNECT project has received funding from the European Union's Horizon Europe Research & Innovation programme under grant agreement No 101130349.

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eatris
European infrastructure for translational medicine

Welcome to the EATRIS-CONNECT Summer School on Personalised Medicine Using Digital Approaches

We are delighted to welcome you to the EATRIS-CONNECT Summer School, organised by EATRIS Slovenia, led by University of Ljubljana, Faculty of Pharmacy and supported by the EATRIS-CONNECT project. This Summer School brings together early-stage researchers, PhD students and early-career professionals from across Europe and beyond, to explore how digital tools and approaches are shaping the future of personalised medicine.

It has truly been our pleasure to put together the scientific programme for this Summer School, and to hand-pick the speakers. Over the course of three days, you will be introduced to the transformative role of digital approaches in shaping the future of personalised medicine. Expert-led lectures will guide you through key themes such as the application of AI and machine learning in healthcare, digital biomarkers as well as ethical data use.

In addition to lectures, the programme includes a variety of interactive activities - such as workshops, an escape room, and small group challenges - designed to provide hands-on learning, encourage creative problem-solving, and foster teamwork. Networking opportunities will also play a central role, with a welcome dinner, coffee breaks, and social activities planned throughout the event.

We also invite you to take time to enjoy the beautiful city of Ljubljana, a place rich in history, culture, and natural beauty. We hope that beyond the scientific sessions, you will find inspiration in your interactions with colleagues and in the environment that hosts us.

We wish you a warm welcome and inspiring days of learning, collaboration, and discovery!

Dr Dunja Urbančič
Assist prof Alenka Šmid
Prof Irena Mlinarič-Raščan

eatris connect project is an EU-funded project launched to ensure that EATRIS remains at the forefront of translational medicine and is prepared for the digital era of personalised healthcare. It strengthens the long-term sustainability of the infrastructure while addressing the ongoing transformation in healthcare: the shift from a “one-size-fits-all” approach to personalised medicine, driven by big data, artificial intelligence, and digital health tools.

EATRIS-CONNECT aims to establish the EATRIS Digital Transformation Expert Network and the EATRIS Digital Hub for access to validated digital tools, adapt digital services to clinical decision-making, including AI-driven solutions and integrated data streams, align the EATRIS business model with national strategies and strengthen digital skills within the network, promote synergies across European research infrastructures and scientific fields and build a stronger personalised medicine ecosystem by engaging industry, supporting reproducibility, and shaping policy recommendations.

Through these activities, EATRIS-CONNECT contributes to scientific excellence and supports Europe’s green and digital transition by linking innovation with sustainability.

Practical Information

Venue	University of Ljubljana, Faculty of Pharmacy Aškerčeva 7 1000 Ljubljana, Slovenia Lecture room: P1 (ground floor)
Registration desk timetable	University of Ljubljana, Faculty of Pharmacy In front of lecture room: P1 (ground floor) Monday, 22 September 2025: 8:15 – 8:45
WiFi	FFA-GUEST Passcode will be shared at the venue
Workshop language	The official language of the workshop is English. There will be no simultaneous translation.
Coffee breaks & lunches	In front of lecture room P2 (first floor)
Workshop dinner	For no additional costs at Restaurant Ljubljančanka Knafljev prehod 2 1000 Ljubljana
Name tags	Participants will receive name tags and are kindly asked to wear them throughout the workshop, even at social events.
Mobile phones	We kindly ask you to mute your phones during the lectures and workshop activities. The recording of lectures is not permitted.
Questions	Do not hesitate to ask: Dunja Urbančič: dunja.urbancic@ffa.uni-lj.si

Programme - 22 September - Day 1

Registration 08.15-08.45

Welcome 08.45-09.00
Prof Irena Mlinarič-Raščan, National Director of EATRIS Slovenia
Prof Igor Locatelli, Vice-dean of UL FFA

Digital transformation in personalised medicine 09.00-09.45
Assoc Prof Leonor Cerdá Alberich, La Fe University and Polytechnic Hospital, Spain

Biomarkers through time: from bench to big data 09.45-10.30
Prof Alain van Gool, Radboud University, The Netherlands

TRUSTroke: Developing an AI-based, federated-earning solution from real-world data to assist clinicians, patients & caregivers in ischemic stroke management 10.30-11.00
Dr Sara Zullino, EATRIS, the Netherlands

Coffee break 11.00-11.30

AI-driven personalised medicine for cancer treatment 11.30-12.15
Prof Sven Nelander, Uppsala University, Sweden

Digital approaches in pre-clinical drug discovery 12.15-13.00
Prof Marián Hajdúch, Institute of Molecular and Translational Medicine, Czech Republic

Lunch 13.00-14.00

Applications of machine learning in medicine (with workshop) 14.00-16.30
Dr Djeane Debora Onthoni, Institute of Computer Science, University of Tartu, Estonia
With coffee break

Wrap-up activity 16.30-17:00
Dr Sarah Morgan, EATRIS, the Netherlands

Summer School Dinner 18.00-20.00
Ljubljančanka restaurant

Programme - 23 September - Day 2

Ethical considerations of data use (sensitive data, AI use)	09.00-09.45
FAIR data escape room Dr Sarah Morgan, EATRIS, the Netherlands	09.45-10.30
Coffee break	10.30-11.00
Digital biomarkers for individuals with type II diabetes Dr Willem van den Brink, Netherlands Organisation for Applied Scientific Research, the Netherlands	11.00-11.45
Personalised prognostics and diagnostics for improved decision support in cardiovascular diseases Prof Mark van Gils, Tampere University, Finland	11.45-12.30
Discussion: Translating digital potential into clinical practice: barriers and breakthroughs	11.30-12.15
Lunch	13.00-14.00
Tools to support AI implementation to diagnostics Carina Østervig Byskov, CAIDIX	14.00-14.45
Workshop part 1: Using tools to support AI implementation to diagnostics Carina Østervig Byskov, CAIDIX	14.00-16.15
Coffee break	15.15-15.45
Workshop part 2: Using tools to support AI implementation to diagnostics Carina Østervig Byskov, CAIDIX	16.15-17:00

Programme - 24 September - Day 3

EATRIS role in digital transformation in personalised medicine 09.00-09.45
Prof Laura Maria Garcia Bermejo, SERMAS, IRYCIS Scientific Director, National Director of EATRIS Spain

***In silico* prediction tools in drug repurposing** 09.45-10.30
Dr Jernej Repas and Gašper Tomšič, University of Ljubljana, Slovenia

Coffee break 10.30-11.00

Drug repurposing for rare diseases: small group challenge 11.00-11.45
Dr Jernej Repas and Gašper Tomšič, University of Ljubljana, Slovenia

Wrap up and farewell 13.00-14.00

Speakers

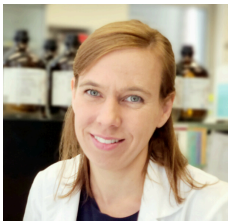
Irena Mlinarič-Raščan

Professor at the University of Ljubljana, Faculty of Pharmacy & National Director of EATRIS Slovenia

Prof Irena Mlinarič-Raščan, MPharm, is a full professor at the University of Ljubljana, Faculty of Pharmacy, National Director of EATRIS Slovenia, former dean of University of Ljubljana, Faculty of Pharmacy and President of the UNESCO national committee.

Irena is a professor in pharmacogenomics, immunology and cell biology. She has completed two postdoctoral fellowships at the Mount Sinai Hospital Toronto and at the Tokyo University, and was a guest professor at the Universities of Bern and Vienna.

Her research work involves pharmacogenomics approaches in individualisation of leukaemia and lymphoma therapies, focusing on thiopurine personalised therapy, identification of novel target molecules including prostaglandin receptor 4, proteasome and immunoproteasome, which further serve for lead design and optimisation.



Dunja Urbančič

Researcher & Teaching Assistant in Clinical Biochemistry at University of Ljubljana, Faculty of Pharmacy & National Coordinator of EATRIS Slovenia

Dr Dunja Urbančič is a postdoctoral researcher and teaching assistant in Clinical Biochemistry at University of Ljubljana, Faculty of Pharmacy, Slovenia.

Dunja works in the fields of pharmacogenomics, cell and molecular biology. After obtaining her PhD at University of Ljubljana, Faculty of Pharmacy, she continued her research career with post-doctoral studies in prof Eggeling lab at MRC Weatherall Institute of Molecular Medicine, University of Oxford.

She is an institutional project manager for European projects of EATRIS Slovenia node, responsible for organisation of workshops on the topics of advanced therapy medicinal products, public-private collaboration and personalised medicine. Since 2022, she is the National Coordinator of EATRIS Slovenia.

Alenka Šmid

Assist prof in Clinical Biochemistry and Laboratory Medicine at University of Ljubljana, Faculty of Pharmacy, Slovenia

Dr Alenka Šmid earned her PhD in Biomedicine from the University of Ljubljana, where she currently serves as an Assistant Professor in Clinical Biochemistry and Laboratory Medicine. Her research focuses on pharmacogenomics, disease biomarkers and development of analytical tests for therapeutic drug monitoring (TDM).

Her work bridges laboratory science and clinical practice, with an emphasis on understanding genetic factors that influence drug response, identifying biomarkers, and optimising patient treatment outcomes.

In addition to her research, she is actively involved in teaching and mentoring the next generation of scientists and healthcare professionals. She contributes to curriculum development and applies evidence-based teaching strategies to foster critical thinking and practical skills among her students.

Beyond her academic and research roles, she is a member of the UL Faculty of Pharmacy's Ethics Committee and the UL Faculty of Pharmacy's Financial Board.

Emanuela Oldoni

Scientific Lead – Personalised Medicine at EATRIS, the Netherlands

Dr Emanuela Oldoni earned her PhD in Molecular and Translational Medicine at the University of Milano, after which she worked as a Postdoctoral Researcher at KU Leuven.

In 2020 she joined the European Infrastructure for Translational Medicine (EATRIS) as a Scientific Programme Manager. In 2025 she has been appointed as a Scientific Lead – Personalised Medicine, where she applies her passion for tackling complex challenges to drive tangible patient impact.

Within this independent non-profit research infrastructure—dedicated to connecting resources and services to help research communities transform scientific discoveries into clinical solutions—she bridges clinical practice and laboratory research to foster seamless knowledge exchange and accelerate patient-centric innovation. In addition, Emanuela coordinates the Biomarkers Platform, a pan-European consortium of academic and clinical centres, focused on discovery, analytical validation, and clinical qualification of molecular and digital biomarkers to refine patient stratification and inform treatment decisions.

Her role at EATRIS enables her to leverage scientific expertise and interpersonal skills to cultivate high-impact partnerships across the translational medicine ecosystem. Collaborating with stakeholders in industry and academia, she drives forward translational research and personalised medicine initiatives—fostering innovation and ultimately enhancing patient outcomes.

Leonor Cerdá Alberich

Assoc prof at La Fe University and Polytechnic Hospital, Spain

Dr. Leonor Cerdá Alberich earned her PhD in Physics from the Institute of Corpuscular Physics (Spain) and CERN. She is co-Principal Investigator and Head of Computing and AI in the Biomedical Imaging Research Group (GIBI230) at La Fe Health Research Institute, and Associate Professor at the Polytechnic University of Valencia.

Her research centres on medical image processing (MR, CT, PET) and AI methodologies for extracting imaging biomarkers and predicting clinical outcomes. Key areas include oncological imaging, multimodal foundation models, and AI agents for scientific discovery. Applications span image harmonisation, lesion detection, radiogenomic signature extraction, synthetic data generation, and prediction of tumour aggressiveness, treatment response, and survival.

Since 2024, she has coordinated DeTeRMIA, a public–private initiative (ISCIII–CDTI) developing advanced MR techniques and AI models for rapid prostate cancer diagnosis. In 2025, she became coordinator of SYNTHIA, a European project creating validated tools for synthetic data generation across laboratory, clinical, imaging, genomic, and m-health domains. She also contributes to the European cancer imaging infrastructure funded by the European Commission, where she leads tasks on data governance and interoperability to support the European Health Data Space.

She has broad experience in technical project management, mentoring, and academic supervision, having completed the direction of one PhD and currently supervising two more in medical imaging and AI. She is actively engaged in scientific outreach and serves on international committees, including the ECR 2025 Imaging Informatics/AI and ML Subcommittee.

Alain van Gool

Prof of Personalized Healthcare at the Radboud University Medical Centre, the Netherlands

Prof Alain van Gool is professor Personalized Healthcare at the Radboud University Medical Centre (Radboudumc), with a strong passion in the application of biomarkers in translational medicine and personalised healthcare, with experience in academia, pharmaceutical industries, applied research institutes and university medical centres. His technical expertise resides most strongly in omics approaches, analytical biomarker development, data and AI, and applications in translational scientific research.

Alain thrives to work with specialists to translate basic research to applied science and clinical impact. He coordinates several biomarker/omics/mHealth/data/AI programms as part of the Translational Metabolic Laboratory including Project leader and PI of the Netherlands X-omics Initiative, is Domein Leader MedTech & Data Sciences of Radboudumc's Research Institute for Medical Innovation, co-coordinates the Radboudumc Technology Centers, is scientific director of the Radboud Healthy Data program, leads the sectorplan team on AI, e-health and medical technology, is Chair Biomarker Platform of EATRIS (the European infrastructure for Translational Medicine), is co-initiator of Health-RI (the Netherlands Health Research Infrastructure for Personalised Medicine and Health) and former Scientific Lead Technologies of DTL (the Dutch Techcenter for Life Sciences), thus contributing to the organisation and coordination of local, national and European technology infrastructures. Complementing his daily work, he enjoys contributing to scientific advisory boards of start-up entrepreneurs, multinational companies, translational organisations, funding agencies and conference organisers.

Sara Zullino

Scientific Lead AI in Medical Applications at EATRIS, the Netherlands

Dr Sara Zullino is the Scientific Lead AI in Medical Applications at EATRIS. She is a Biomedical Engineer by training and holds a PhD in Complex Systems for Life Sciences. Her expertise lies at the intersection of translational medicine, artificial intelligence, and healthcare innovations. She is involved in several high-impact EU-funded initiatives, including EUCAIM, UMBRELLA, and TRUSTroke, which aim to develop trustworthy, AI-driven solutions to support clinical decision-making and improve patient outcomes. Her work plays a key role in bridging the gap between research, innovation, and clinical translation, advancing the development of cutting-edge technologies and AI-based medical applications.

Sven Nelander

Prof of Integrative Cancer Research at Uppsala University, Sweden

Prof Sven Nelander is a professor of Integrative Cancer Research at Uppsala University. He is a cross-disciplinary scientist focused on understanding, modelling, and treating brain cancers. With a background in medicine and mathematics, his research applies mathematical and experimental techniques to identify mechanisms and therapeutic targets, emphasising cellular reprogramming to suppress tumour growth and improve therapies.

Originally from southern Sweden, Sven studied medicine and mathematics in Lund before earning a Ph.D. in developmental processes in Gothenburg, doing early work in decoding cell type-specific gene regulation. As a postdoc in Chris Sander's lab and later as an independent investigator, he invented new ways of modelling how cancer cells integrate perturbations from mutation, treatment, and stress. Since joining Uppsala University and SciLifeLab in 2012, Sven has built a research program linking tumour biobanking and neuro-oncology with modern systems biology, with support from several major foundations.

He also serves as the founding director of CNSx3, a national centre advancing modelling approaches for brain diseases. Outside the lab, Sven enjoys time with family, running, mushroom foraging, and restoring his summer house. He's also an avid watercolourist with a passion for capturing light and fleeting moments in pigments.

Djeane Debora Onthoni

Research Fellow in Health Data and AI at the University of Tartu, Faculty of Science and Technology, Institute of Computer Science, Estonia

Dr. Djeane Debora Onthoni, earned her PhD in 2022 at Chang Gung University (Taiwan) with dissertation entitled Computer Vision Tasks for Analysing Non-Contrast and Contrast CT Images of ADPKD Patients with Deep Learning Approach.

From 2022 to 2025 she worked as a Postdoctoral Research Associate at the National Health Research Institutes (Taiwan), Institute of Population Health Sciences and in March 2025 joined as a Research Fellow in Health Data and AI at the University of Tartu, Faculty of Science and Technology, Institute of Computer Science. She has co-authored > 15 peer-reviewed scientific papers. Her research interest is focused on AI for Personalised Medicine and Disease Risk Assessment.

Sarah Morgan

Training Manager at EATRIS, the Netherlands

Dr Sarah Morgan has a background in Biomedical and Translational Research, with a BSc and MSc in Biomedical Sciences, followed by a PhD in Tumour Diagnostics for bladder and colorectal cancer. Following a brief stint as a postdoc, she became a lecturer in Molecular Medicine, leading on the design and delivery of MSc programmes including Translational Medicine, Clinical Research and Molecular Medicine. This experience lead her to complete an MA in Healthcare Law and Ethics, to expand her knowledge of ethical and legal aspects of medical research.

Sarah left academia in 2013 to join the EMBL-European Bioinformatics Institute, where she lead the external user training programme, a global programme of training which encompassed onsite, offsite and online learning. In 2023 she became a skills and training consultant focused on digital skills development for the life-sciences and joined EATRIS as a Training Manager. She supports training needs analysis and content development across a range of European projects, especially focused on the management and use of data to support the translation of research. Sarah also has an interest in research and data ethics and in supporting others to develop their training skills.

Sarah is currently working on projects including EATRIS-CONNECT, iRISE and OSCARS.

Willem van den Brink

Senior Scientist - Digital Biomarkers Lead at TNO (Netherlands Organization for Applied Scientific Research), the Netherlands

Dr van den Brink earned his PhD in Systems Pharmacology translational CNS drug development at Leiden University, the Netherlands. He joined TNO (Netherlands Organisation for Applied Scientific Research) in 2018 and is currently working in the Systems Biology team as a scientist. Within the overarching theme ‘quantifying health and lifestyle effects on health and disease’ his current focus is biomarker development, in particular digital biomarker development.

Dr van den Brink has published >15 peer-reviewed scientific papers with an H-index of 10. He is a driving force in connecting multiple disciplines, leading several work packages bringing together sensor technology, data science, social innovation and clinical domain knowledge towards and health applications related chronic lifestyle related diseases. Dr. van den Brink leads several clinical development programs of medical wearables and digital biomarkers for metabolic syndrome, diabetes, chronic obstructive pulmonary disease, inflammatory bowel disease, sleep apnea, psychological stress, and cardiovascular disease.

Marián Hajdúch

Director at the Institute of Molecular and Translational Medicine, Faculty of Medicine & Dentistry, Palacky University & National Director of EATRIS Czechia

Dr Marián Hajdúch is a scientist and medical professional mainly involved in molecular and translational medicine (disease area oncology and infectious diseases); long-term experience in project management; R&D and technology transfer activities, including the construction and management of large research infrastructures. He has been involved as principal investigator, investigator or clinical site manager in 12 clinical trials; actively participated in the research and/or management of more than 40 national and international projects; established major cancer research foundation in the country; two sister organisations performing early cancer diagnostics within the the Czech and Slovak Republics; spin-off company focused on manufacturing of molecular diagnostics; participated in creation of national network for personalised medicine and cancer management policies. Published more than >400 papers, >30 books/chapters, >35 patents, >6000 SCI citations, H-index 40.

Marián's specialties are molecular and translational medicine, oncology, aging, drug and biomarker research and development, technology transfer and science management.

Mark van Gils

Prof of Digital Healthcare, the Faculty of Medicine and Health Technology of Tampere University, Finland

Prof Mark van Gils is a professor of Digital Healthcare, leading the research group Decision Support for Health, at the Faculty of Medicine and Health Technology at Tampere University. Activities in his over 25-year career in health data analysis have ranged from AI-driven patient monitoring in critical care to preventive approaches during daily living.

Mark has special interest in addressing real-life challenges such as dealing with imperfect data, heterogeneity of data sources and ambiguity in outcomes. Mark has worked tightly with renowned university hospitals and health tech companies, and he has obtained extensive experience in carrying out leading roles, including coordination, in multi-disciplinary international research consortia, such as in EU projects.

Carina Østervig Byskov

Project Manager at the Innovation Clinic (Region North Denmark Innovation Unit & Tech Transfer Office), Denmark

Carina Østervig Byskov is a Project Manager at the Innovation Clinic (Region North Denmark Innovation Unit & Tech Transfer Office) and responsible for coordinating the commercialisation of clinical artificial intelligence solutions, turning research into usable solution, including facilitate collaboration between multidisciplinary teams of clinicians, engineers, IT, regulatory specialists, etc. She is the Lead Partner of the EU-funded CAIDX project, overseeing development and dissemination of the Clinical AI Pathway Toolbox to guide clinical AI projects from idea to deployment.

Laura Garcia Bermejo

Scientific Director at the Ramón y Cajal Health Research Institute & National Director of EATRIS Spain

Dr. María Laura García Bermejo holds a degree in Biology (with an extraordinary degree award) and a PhD in Cell Biology and Genetics from the University of Alcalá de Henares. She has performed postdoctoral trainings at New York Medical College, USA and University of Pennsylvania. Since 2006, Laura has led the Biomarkers and Therapeutic Targets group, at the Ramón y Cajal Health Research Institute (IRYCIS), and since 2019, she has served as its Scientific Director.

Since 2017, she is the Co-chair of the EATRIS Biomarkers Platform and since 2022, the National Director of EATRIS Spain. Laura is a member of the Innovation Advisory Board of EP PerMed.

Laura has extensive experience in studying pathophysiological mechanisms, particularly in cancer and kidney diseases, with the goal of identifying and validating new biomarkers and therapeutic targets for their subsequent implementation in clinical practice. At the European level, she also leads data management and exploitation initiatives for the development of Artificial Intelligence, in the context of multi-omic approaches and the development of multimodal biomarkers.

Laura has published 99 articles in international journals, with a total of 5937 citations, an H-index of 40, and an i10-index of 86. She has participated in 66 projects (46 national and 20 international), serving as Principal Investigator in 9 international and 27 national projects. She has supervised 17 doctoral theses, with 4 more in progress, and 8 master's theses. Laura has 32 patents grouped into several families (5), some of which have already been licensed to a pharmaceutical company.

Jernej Repas

Postdoctoral Researcher & Teaching Assistant in Clinical Biochemistry at the University of Ljubljana, Faculty of Pharmacy, Slovenia

Dr Jernej Repas is a Postdoctoral Researcher and Teaching Assistant in the field of Clinical Biochemistry at the University of Ljubljana, Faculty of Pharmacy, Slovenia.

Jernej works in the field of cell biology, energy metabolism, immunology and drug repurposing. As pharmacist by training, he obtained his PhD at the University of Ljubljana, Faculty of Medicine, where he studied the effects of metabolic drugs such as metformin as potential therapeutic or immunomodulatory adjuvants in the context of breast cancer.

He is currently involved in the Horizon Europe project REMEDi4ALL focusing on drug repurposing and developing the tools required to facilitate its successful implementation at the *in vitro* screening and validation stage. He is also a member of the REMEDi4ALL General Assembly Meeting 2025 organising team.

Gašper Tomšič

Doctoral Student of Clinical Biochemistry at the
University of Ljubljana, Faculty of Pharmacy, Slovenia.

Gašper Tomšič is a doctoral student, young researcher and Teaching Assistant in the field of Clinical Biochemistry at the University of Ljubljana, Faculty of Pharmacy, Slovenia.

Gašper works in the field of drug design and synthesis, cell biology, immunology, and drug repurposing. After earning his master's degree in the field of in silico drug design and pharmaceutical chemistry at the Slovenian National Institute of Chemistry, and Faculty of Pharmacy, he began his PhD, in the scope of which he is developing novel proteolysis-targeting chimeras and exploring drug repurposing in the context of chronic lymphocytic leukaemia.

He is currently involved in the Horizon Europe project REMEDi4ALL, which focuses on advancing drug repurposing methodologies and developing robust tools to support efficient in vitro screening and validation.

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