

Medical Informatics Europe

# MIE 2025



EFMI

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The  
Chartered  
Institute  
for IT



**GLASGOW**  
**19 - 21 MAY**  
**2025**

**TECHNOLOGY AND  
INNOVATION CENTRE**

**PROGRAMME**

**INTELLIGENT HEALTH SYSTEMS:  
FROM TECHNOLOGY TO DATA AND KNOWLEDGE**

<https://mie2025.efmi.org>





## Scientific Programme Committee

### CO-CHAIRS:

**Dr Elisavet Andrikopoulou**, Senior Lecturer, School of Computing, Faculty of Technology, University of Portsmouth, UK.

**Assistant Professor Parisis Gallos**, EFMI Publications Officer & Board Member, Assistant Professor of Health Informatics, Department of Nursing, University of West Attica, Greece.

### MIE 2025 CONFERENCE DIRECTOR:

**Professor Philip Scott**, IMIA Vice President, Professor of Digital Health & Care, Programme Director for MSc in Digital Transformation in Health and Care, University of Wales Trinity Saint David, Swansea, UK.

### MEMBERS:

**Professor Theodoros Arvanitis**, Chair in Digital Health Technology, School of Engineering, University of Birmingham, UK.

**Dr Rosalynn Austin**, Postdoctoral Researcher, Faculty of Health Sciences, Department of Public Health, University of Stavanger, Norway.

**Professor Arriel Benis**, EFMI Executive Officer & Board Member, Associate Professor in Medical Informatics and Health Data Science, Head of Department of Digital Medical Technologies, Holon Institute of Technology, Holon, Israel.

**Professor Ronald Cornet**, Director of Education, Professor of Medical Informatics, Amsterdam University Medical Centers - University of Amsterdam, The Netherlands.

**Dr Panagiotis Chatzistergos**, Senior Lecturer, School of Science and Engineering, University of Dundee, UK.

**Dr Alexander Dejaco**, Research Group Lead, Anaesthesiologist, Biomedical Engineer, University Hospital of Regensburg, Germany.

**Assistant Professor Linda Dusseljee-Peute**, Assistant Professor of Medical Informatics, Amsterdam University Medical Centers - University of Amsterdam, The Netherlands.

**Dr Alaa Mohasseb**, Senior Lecturer, School of Computing, Faculty of Technology, University of Portsmouth, UK.

**Dr Pantelis Natsiavas**, Head of eHealth Lab, Institute of Applied Biosciences, Centre for Research and Technology Hellas, Thessaloniki, Greece.

**Dr Haythem Nakkas**, Senior Lecturer, School of Computing, Faculty of Technology, University of Portsmouth, UK.



## Welcome to Medical Informatics Europe 2025

We are pleased to welcome you to the Technology Innovation Centre in Glasgow, for the 35<sup>th</sup> Medical Informatics Europe (MIE) conference!

The theme of MIE 2025 is **Intelligent Health Systems – From Technology to Data and Knowledge**. In an era when ‘artificial intelligence’ is once again being over-hyped as a panacea, the purpose of this theme is to emphasise that technology is a necessary but insufficient dependency for intelligent health systems. Technology must provide not just functionality for healthcare processes, but enable high quality data capture and analysis. Whether structured or unstructured, data does not in itself provide unmediated insights but requires skilled humans who understand context and purpose and can use analytics to draw meaningful conclusions to effect improvement. Iteratively, we can derive knowledge from the synthesis of operational data and research evidence that becomes the basis for better practice as part of a learning health system.

Thanks to the tireless efforts of our Scientific Programme Committee and Local Organizing Committee, working with our conference partner MCO, we have a rich programme of full papers, short communications, panels, workshops and tutorials. We are grateful to the hundreds of authors who have made submissions to MIE 2025, and look forward to informative and stimulating presentations and discussions. The conference proceedings are available online from our publishers, IOS Press.

We are delighted to have three excellent keynote speakers: Professor Charles Friedman, Dr Elia Lima-Walton and Professor Kathrin Cresswell. Don’t miss their plenary talks!

MIE is also a great social opportunity, to meet old friends and make new ones. The European Federation of Medical Informatics (EFMI) is a convivial and welcoming community, so, especially if this is your first time at MIE, feel free to approach EFMI leaders from the Board, Council and working groups.

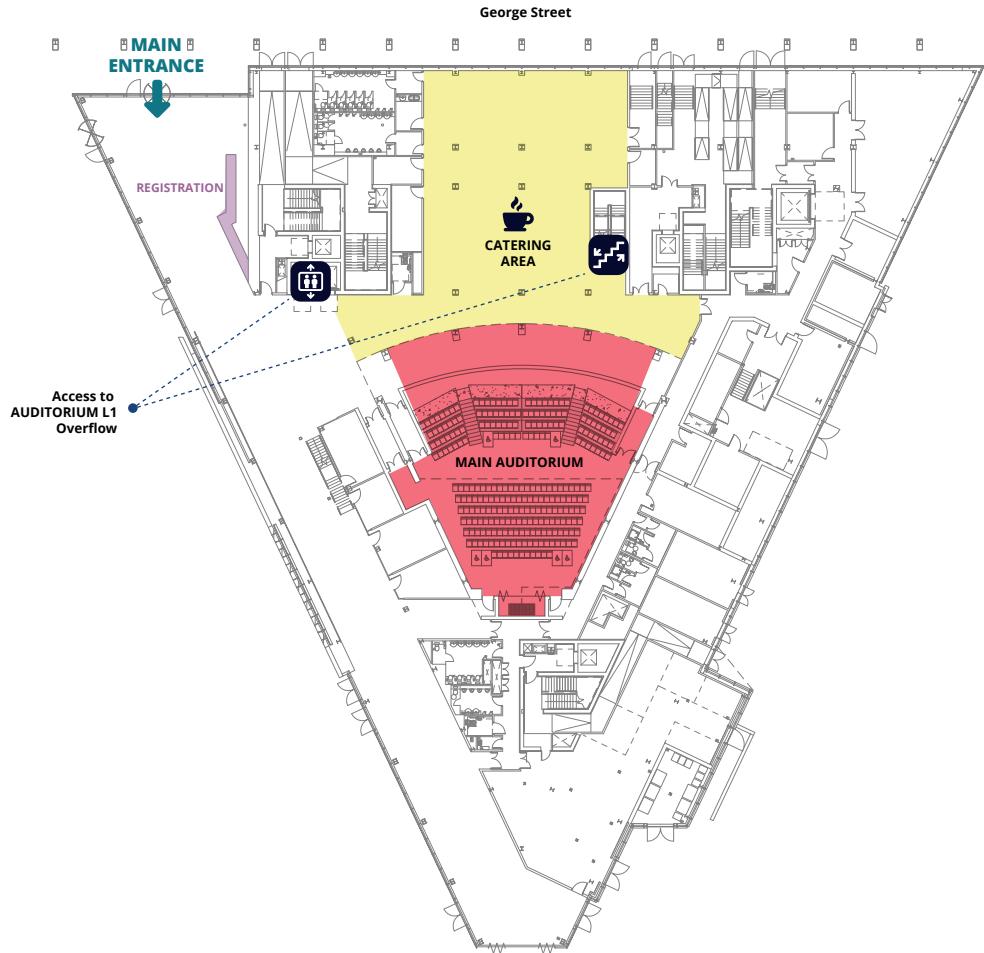
Enjoy MIE 2025!



**Professor Philip Scott**  
*MIE 2025 Conference Director*

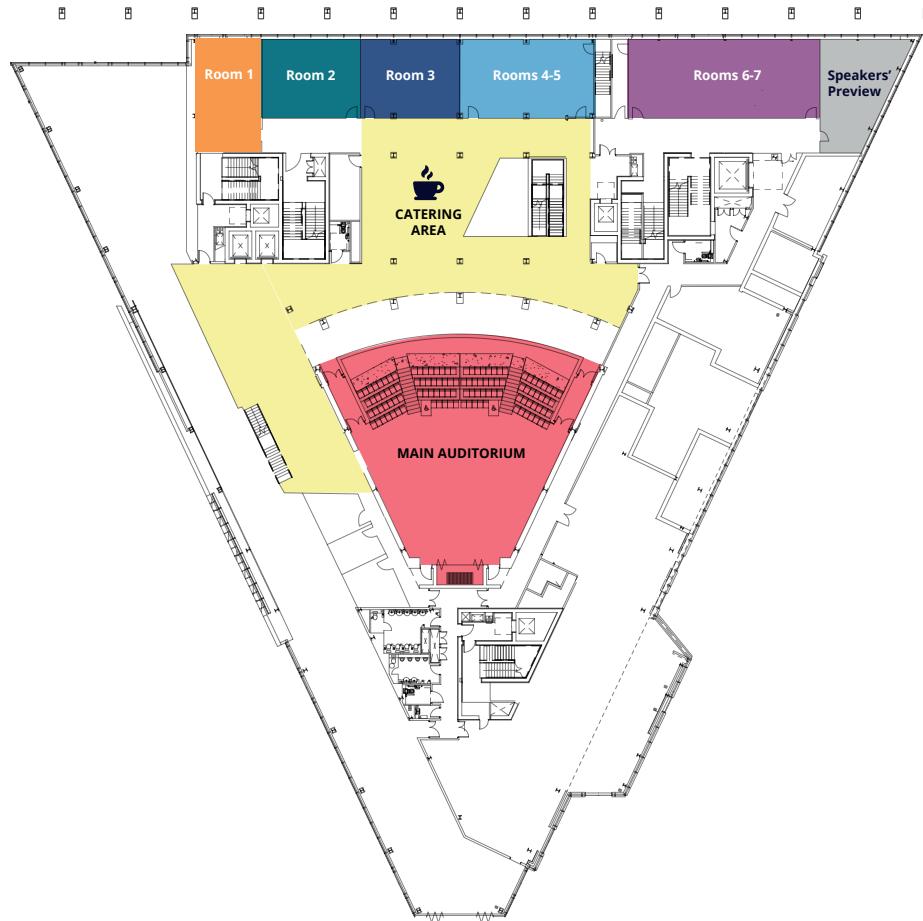


## LEVEL 2 PLAN





## LEVEL 3 PLAN





# PROGRAMME - MONDAY 19 MAY 2025

Complete author lists and poster details can be found in the proceedings



## 09:00-09:30 **OPENING SESSION**

Main Auditorium

Welcome to MIE 2025

Prof Philip Scott, MIE 2025 Conference Director  
Dr Elisavet Andrikopoulou, MIE 2025 SPC co-chair  
Dr Parisis Gallos, MIE 2025 SPC co-chair

Welcome from the European Federation of Medical Informatics

Dr Lars Lindsköld, EFMI President

Welcome from the Scottish Government and NHS Scotland

Dr John Harden, National Clinical Lead for Quality & Safety

Introduction to programme theme and content

Prof Philip Scott, MIE 2025 Conference Director

## 09:30-10:30 **KEYNOTE**

Main Auditorium

**Chair: Philip Scott**

Synergy Between AI and Learning Health Systems  
A Key to Mobilizing Data and Knowledge  
Prof Charles Friedman, University of Michigan

## 10:30-11:00 **COFFEE BREAK**

Catering Area



## PROGRAMME - MONDAY 19 MAY 2025

**11:00-12:30 SESSION A1** **Main Auditorium**

**Chair: Ronald Cornet**

**Computable knowledge and decision support**

Enhancing Patient Care in Intensive Care Units: Advancing Nursing Diagnoses with a Decision Support System. **Cynthia Abi Khalil**

Graph Neural Networks for Gleason Grading in Prostate Histopathology Images. **Hafsa Akebli**

Humane Endpoint Estimation in Laboratory Rodents Using Bayesian Time Series Forecasts. **Michael Blaß**

Privacy-Protecting Image Classification Within the Web Browser Using Deep Learning Models From Zenodo. **Florian Auer**

Enhancing Healthcare Professionals' Adherence to the MyPal Project Digital Health Intervention Protocol Through Quick Reference Guides. **Panagiotis Bonotis**

Privacy Protection in Data Synthesis: Effects on Survival Analysis Performance. **Mareile Beernink**

A Heterogeneous Bipartite Graph Framework for Donor-Recipient Matching in Kidney Transplantation. **Sheida Majouni**

**11:00-12:30 SESSION B1** **Auditorium L1**

**Chair: Pantelis Natsiavas**

**Data Science and Visualisation**

The Data Sharing Paradox of Synthetic Data in Healthcare. **Jim Achterberg**

Hackathon Insights: The Critical Role of Custom Data Selection and Aggregation in Longitudinal Health Analytics. **Lena Baum**

Prototypical Visualization of Patient Similarities in cBioPortal to Enhance Decision-Making in Molecular Tumor Board. **Jan Bossenz**

Does Whole Brain Radiomics On Multimodal Neuroimaging Make Sense In Neuro-Oncology? A Proof of Concept Study. **Gleb Danilov**

Comparison of Early Warning Scores Utilising Patient Trends. **Raphael Ehmann**

From Normal to Optimal: Investigating Metabolic and Inflammatory Parameters as Predictors of Survival in Locally Advanced Cervical Cancer. **Mayra Roxana Elwes**

Lung Cancer Survival Estimation Using Data from Seven German Cancer Registries. **Sebastian Germer**



# PROGRAMME - MONDAY 19 MAY 2025

**11:00-12:30 SESSION C1** Rooms 4-5

**Chair: Oscar Tamburis**

**One Health**

Implementing FAIR Principles in Health Terminology Servers: The HeTOP Case Study hosting ODH-UT. [Arriel Benis](#)

Patient Satisfaction with Digital Health Solutions for Depression Treatment: A Scoping Review. [Ali Ebrahimi](#)

Feasibility of Telerehabilitation for the Treatment of Interstitial Lung Disease. [Aileen Gabriel](#)

Towards Semantic Interoperability Health Standardization Recommendation Tool. [Amelie Gyrard](#)

Patient-Centered Approaches in Patient Pathway Development and Implementation Methods. [Emily Hickmann](#)

Leveraging Vision Transformers in Multimodal Models for Retinal OCT Analysis. [Christina Karakosta](#)

Improving the Usability of a Digital Questionnaire to Elicit Symptoms for Patients Referred via the Cancer Diagnostic Pathway for Suspected Head and Neck Cancer. [Chinasa Odo](#)

**11:00-12:30 SESSION D1** Rooms 6-7

**Chair: Gabriella Balestra**

**Personal health records and mHealth**

Development of a Patient-Centered App for an University Hospital: An Usability Engineering Approach. [Laura Bresser](#)

Journey of a Data Element to data interoperability & reuse. [Isabelle de Zegher](#)

Attitudes of Developers Towards Privacy in Personal Health Applications. [Luke Flanagan](#)

Machine Learning-Based Hospital Readmission Prediction: A Comparative Analysis of Speciality-Specific vs. All-Specialities Models. [Teresa Garcia-Navarro](#)

Barriers and Facilitators Affecting Healthcare Professionals' Adoption of Digital Tools for Self-Management and Remote Monitoring in South Wales and the Netherlands. [Angela Jones](#)

The Gender Gap in EHR Experiences and Preferences: Results from an International Cross-sectional Survey of Patients. [Anna Kharko](#)

The Experiences of People with Multiple Sclerosis on Patient-Generated Data through Digital Tools. [Virpi Jylhä](#)



## PROGRAMME - MONDAY 19 MAY 2025

<p><b>11:00-12:30</b></p>	<p><b>SESSION E1</b>  <b>Chair: Mihaela-Marcella Crisan-Vida</b>  <b>Precision care and other tracks</b>                  Towards multiple sclerosis personalised interventions based on real-world predictive analytics. <a href="#">Antonis Billis</a></p> <p>Enhancing Longitudinal Data Analysis with Unstructured EHRs: A Case Study of Renal Function Evaluation in Rare Disease. <a href="#">Xiaomeng Wang</a></p> <p>Participatory Health and Artificial Intelligence: A Literature Review.  <a href="#">Octavio Rivera-Romero</a></p> <p>Evaluating a New Electronic Medical Record System for Emergency Room Performance: Insights from Time Metrics and User Feedback. <a href="#">Dennis Rausch</a></p> <p>INTERPOLAR_MI - A Study Platform Concept for IT-Supported Drug Therapy Safety Research. <a href="#">Daniel Neumann</a></p> <p>Transforming Healthcare: The Role of Artificial Intelligence. <a href="#">Omid Pournik</a></p> <p>Population Group 2.0: Bringing the UMLS Semantic Network up to speed.  <a href="#">Naren Khatwani</a></p>	<b>Room 2</b>
<p><b>11:00-12:30</b></p>	<p><b>SESSION H1</b>  <b>Chair: Mauro Giacomini</b>  <b>Combined tracks</b>                  PANEL: Bridging Digital Health Interoperability through Education: Building Common Curricula and Embracing Micro-learning. <a href="#">Simon Lewerenz</a></p> <p>Open-Source Synthetic Data Generation of Clinical Routine Data. <a href="#">Michael Größler</a></p> <p>Piloting an Augmented Reality Exergame for Persons with Intellectual Disabilities. <a href="#">André Henriksen</a></p>	<b>Room 3</b>
<p><b>11:00-12:30</b></p>	<p><b>SESSION G1</b>  <b>Chair: Paris Gallos</b>  <b>Information systems</b>                  WORKSHOP: FAIR interfaces for improved research data sharing and interoperability. <a href="#">Harald Kusch</a></p> <p>Enhancing Theory-Driven Design and Evaluation of Patient-Facing Technologies.  <a href="#">Yang Gong</a></p> <p>A knowledge graph for the exploration of human RSV infection.  <a href="#">Guillermo Lopez-Camp</a></p>	<b>Room 1</b>
<p><b>12:30-13:25</b></p>	<p><b>LUNCH</b></p>	<b>Catering Area</b>



## PROGRAMME - MONDAY 19 MAY 2025

13:25-14:55	<b>SESSION A2</b> <b>Chair: Theodoros Arvanitis</b> <b>Computable knowledge and decision support</b> Building a Knowledge Base for Variant Annotation using Therapy Recommendations in cBioPortal. <a href="#">Dominik Boehm</a>  Argumentation-based framework selection for clinical decision-making. <a href="#">Nada Boudegsdame</a>  Semantic Difficulties in FHIR 'Conditions'. <a href="#">Ivanković Ceusters</a>  Validating Hierarchical Alignments of Partially Antonymous Concept Pairs in SNOMED CT. <a href="#">Eunsuk Chang</a>  Implementing Ontology-Driven Care Pathways Using UML Activity Diagrams. <a href="#">John Chelsom</a>  Forecasting Banned Substances: Leveraging GNN for Anti-Doping Intelligence. <a href="#">Alina Gavrish</a>  Real-World Deployment of a ML pipeline for Pressure Wounds Prediction. <a href="#">Jérémie Despraz</a>	Main Auditorium
13:25-14:55	<b>SESSION B2</b> <b>Chair: Alaa Mohasseb</b> <b>Health Information Systems and Digital Tools</b> GRU-D Characterizes Age-Specific Temporal Missingness in MIMIC-IV. <a href="#">Niklas Giesa</a>  R/Shiny Application: Transfer office monitoring and data quality assessment. <a href="#">Dennis Hübner</a>  Intelligent System for Automated Spheroid Segmentation Using Machine Learning. <a href="#">Alessandra Introviaia</a>  XGBOrdinal: An XGBoost Extension for Ordinal Data. <a href="#">Fabian Kahl</a>  Evaluation of a DIC Broad Consent Cohort. <a href="#">Marvin Kampf</a>  Using the Hospital Frailty Risk Score to predict in-hospital mortality across all adult ages. <a href="#">Huda Kutranji</a>  A customizable data quality tool for global observational research networks. <a href="#">Judith Lewis</a>	L1 Auditorium



## PROGRAMME - MONDAY 19 MAY 2025

<b>13:25-14:55</b>	<b>SESSION C2</b> <b>Chair: Kaija Saranto</b> <b>Education</b> Harnessing Virtual Reality For Training Care Home Staff in Remote Telehealth Assessments: A Digital Health Innovation. <a href="#">Sheiladen Aquino</a>  Developping a Telemedicine Curriculum with Micro-Credentialling Insights from the Erasmus Plus TEAM Project. <a href="#">Micrea Focsa</a>  Effectiveness of Online Self-Learning Platform for Promoting Digital Health Literacy: A Randomised Controlled Trial (RCT). <a href="#">Annika Hering</a>  Development of a Demonstrator for the Digital Authorization Process of Medication in Mobile Care. <a href="#">Gerda Huber</a>  The FAIR Lesson Plan Handbook: Open Educational Resources for FAIR Training. <a href="#">Martijn G. Kersloot</a>  Exploring Data Science Students' Engagement, Usage Patterns, and Perceptions of Large Language Models in Programming. <a href="#">Lilia Khendek</a>  Bridging AI and Medical Expertise: ChatGPT's Success on the Specialization Residency Admission Exam in Spain. <a href="#">Miguel Angel Mayer</a>	<b>Rooms 4-5</b>
<b>13:25-14:55</b>	<b>SESSION D2</b> <b>WARIFA - Exploring the Benefits, Risks, and Ethical Considerations of AI-Based Medical Devices: Navigating Law, Policy, and Data Access Rights.</b> PANEL: From Innovation to Impact – WARIFA and the Future of AI in European Healthcare Moderator: Conceição Granja, NSE 	<b>Rooms 6-7</b>



Ricardo Cruz-Correia  
 Associate Professor at the Department of Community Medicine, Information and Decision Sciences (MEDCIDS), the Faculty of Medicine of the University of Porto (FMUP)



Norwegian Centre for  
 E-health Research

Gro-Hilde Severinsen  
 Senior researcher at Norwegian Centre for E-health Research



# PROGRAMME - MONDAY 19 MAY 2025

<b>13:25-14:55 SESSION E2</b> <b>Information Systems</b> <b>WORKSHOP:</b> Tracking Events Affecting Secondary Uses of Health Data: Description, Data Model, and Reporting. <a href="#">Antoine Lamer</a>  <b>Demonstration:</b> Croatian Experience in Research and Development of Hospital Information Systems. <a href="#">Antea Jezidžić</a>	<b>Room 2</b>
<b>13:25-14:55 SESSION H2</b> <b>Chair: Maria Hägglund</b> <b>Human Factors, Social and Organisational Issues</b> <b>Proxy Online Record Access.</b> <a href="#">Maria Hägglund</a>  Sociodemographic disparities in the stage of prostate cancer diagnosis in England: A population-based analysis using linked electronic health records data. <a href="#">Gayasha Batheegama Gamarachchige</a>  Developing a Dashboard to Facilitate Exploration of MAUDE Studies. <a href="#">Yang Gong</a>	<b>Room 3</b>
<b>13:25-14:55 SESSION G2</b> <b>Chair: Paris Gallos</b> <b>Population Health and Education</b> <b>PANEL:</b> Leveraging the EHDS for advancing Public Health. <a href="#">Eugenia Rinaldi</a>  Assessment of machine learning algorithms to predict medical specialty choice. <a href="#">David Vicente Alvarez</a>  Virtual Enumerator's Training for Time and Motion Studies Using AI Scenarios. <a href="#">Daniel Alejandro Rizzato Lede</a>	<b>Room 1</b>
<b>14:55-15:15 COFFEE BREAK</b>	<b>Catering Area</b>
<b>15:15-16:45 SESSION A3</b> <b>Chair: Thomas Deserno</b> <b>Computable Knowledge and Decision Support</b> Predicting 1-Year Survival Using Machine Learning in Very Old Patients Before ICU Admission. <a href="#">Arthur Kassa-Sombo</a>  Understanding Stain Separation Improves Cross-Scanner Adenocarcinoma Segmentation with Joint Multi-Task Learning. <a href="#">Ho Heon Kim</a>  Modelling and Standardisation of EHR Data for Mild Traumatic Brain Injury Patient Management. <a href="#">Julia Hernández Sánchez</a>  Automatic Segmentation of Histopathological Glioblastoma Whole-Slide Images Utilizing MONAI. <a href="#">Ellena Spiess</a>	<b>Main auditorium</b>



## PROGRAMME - MONDAY 19 MAY 2025

Customizable Rule-Based System for Enhanced Clinical Decision-Making in Dementia Risk Reduction. [Hannes Hilberger](#)

Ideal Features of Clinical Decision Support System and Rules in Primary Care Settings. [Xia Jing](#)

Real-Time Automated Monitoring Architecture for Ensuring Quality ETL Processes in Healthcare Data. A Case Study from Cologne University Hospital's Medical Data Integration Center. [Md Mostafa Kamal](#)

Comparison of Human and GPT-Generated Concept Maps in a Clinical Reasoning Collection of Educational Virtual Patients. [Renata Szydlak](#)

**15:15-16:45 SESSION B3 L1 Auditorium**

**Chair: Haythem Nakkas**  
**Information Systems**

Design and Implementation of a FHIR-based data infrastructure from hospital information systems to the German emergency department data admission registry AKTIN. [Romina Blasini](#)

RDB2RDF for Health Data: Advancing Semantic Interoperability.  
[Jane-Ly Buhvestova](#)

Towards Interoperable ECGs: Converting proprietary XML to DICOM.  
[Lennart Graf](#)

mdm2neo4j: Generating Graph Representations of Medical Data Models.  
[Lea Gütebier](#)

A Sustainable Future in Digital Health: Leveraging Environmentally Friendly Architectural Tactics for Sustainable Data Processing. [Tia Haddad](#)

Optimizing Hospital Device Integration: Responsibility Mapping and Automation.  
[Patrick Heeren](#)

Data Science Orchestrator: A Containerized Trusted Research Environment for Flexible and Secure Analytical Pipelines. [Jori Kern](#)



## PROGRAMME - MONDAY 19 MAY 2025

15:15-16:45 **SESSION C3** Rooms 4-5

**Chair:** Lars Lindskold

**Population Health**

Leveraging Patient-Need-Group (PNG) Analysis to Address Multimorbidity in the Healthcare Network. [Jacob Hofdijk](#)

Involving Vulnerable User Groups for Designing eHealth: A Designers' Perspective. [Sari Kujala](#)

Designing and testing a physical activity app with a ChatGPT-based chatbot. [Dillys Larbi](#)

Processing UK Biobank high resolution accelerometry data for unsupervised identification of activity profiles and their differences in clinically relevant outcome parameters – the ATLAS index revisited. [Michael Marschollek](#)

Perceptions of the German general population towards implementing artificial intelligence in medical care: a population-based survey. [Sarah Negash](#)

Metadata-driven approach to generalisation of transformations in ETL processes. [Sara Bachir](#)

Sociodemographic profile of people with diagnosed pancreatic cancer in the UK: retrospective sentinel network cohort study. [Claire Price](#)

15:15-16:45 **SESSION D3** Rooms 6-7

WARIFA - Exploring the Benefits, Risks, and Ethical Considerations of AI-Based Medical Devices: Navigating Law, Policy, and Data Access Rights.

PANEL: AI-Powered Healthcare in Europe – From Policy to Practice, Market & Reimbursement



Moderator: Chiara Zocchi, CiaoTech-Gruppo PNO



Line Linstad

PhD student and senior advisor at the Norwegian Centre for E-health Research



Nicola Gentili

Digital health specialist and data strategist at IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST)



Alice Andalò

Data scientist working in the Data Unit of IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST)



Conceição Granja,

Senior Researcher at Norwegian centre for e-health research



# PROGRAMME - MONDAY 19 MAY 2025

15:15-16:45	<b>SESSION E3</b> <b>Chair: Rebecca Randell</b> <b>Learning Health Systems</b> Assessment of Elapsed Time Between Dental Radiographs Using a Siamese Network. <a href="#">Marija Milutinovic</a>  Integrating Real-World Data and Computational Guidelines: A Dashboard for Nationwide Evaluation of Molecular Diagnostics in Oncology. <a href="#">Robin Pasman</a>  Artificial Intelligence in Narrative Feedback Analysis for Competency-Based Medical Education: A Review. <a href="#">Jamal Taiyara</a>  Indicator and modelling opportunities for data-driven decision-making. <a href="#">Tuulikki Vehko</a>  Characterizing ASD Subtypes using Morphological Features from sMRI with Unsupervised Learning. <a href="#">Ayush Raj</a>  Donor-Recipient Matching for Kidney Transplantation Using Uncertainty Estimation in Generalized Propensity Score. <a href="#">Syed Asil Ali Naqvi</a>  Machine Learning and Urinary Incontinence in Prostate Cancer: A Generalized Additive Model of Physical Activity and Recovery Patterns. <a href="#">Athanasios Anastasiou</a>	Room 2
15:15-16:45	<b>SESSION H3</b> <b>Chair: Alfred Winter</b> <b>Personal Health Records and mHealth</b> WORKSHOP: Inclusion Health Informatics. <a href="#">Alfred Winter</a>  DEMONSTRATION: Advancing IoMT Security: The MedSecurance Automated Analysis & Assurance Toolbox. <a href="#">Parisis Gallos</a>	Room 3
15:15-16:45	<b>SESSION G3</b> <b>Human Factors, Social and Organisational Issues</b> WORKSHOP: What Does Register Data Cost? And What is the Data Worth? An Economic View on Medical Patient Registries. <a href="#">Rainer Röhrig</a>  DEMONSTRATION: How to use WOMBAT: A tool for measuring the impact of informatics interventions on the work and communication patterns of health professionals. <a href="#">Johanna Westbrook</a>	Room 1
17:00-17:45	<b>KEYNOTE</b> Informatics and AI at the Crossroads - Empowering Clinicians, Patients Educators and Researchers. <a href="#">Elia Lima-Walton, Mayo Clinic</a>	Main Auditorium
<b>19:00-20:30 CIVIC RECEPTION</b> , Glasgow City Chambers, 82 George Square, G2 1DU		



## PROGRAMME - TUESDAY 20 MAY 2025

- 08:30-10:30 SESSION A4** **Main Auditorium**
- Chair: Ronald Cornet**  
**Computable knowledge and decision support**  
HealthTermFinder: Enhancing Multilingual Interoperability. **Richard Noll**
- A Model-based Approach for Glucose Control via Physical Activity.  
**Alessia Pagliaalonga**
- Simulation trials for evaluating clinical decision support systems: lessons learned. **Jean-Baptiste Lamy**
- On the Harmonisation of Time Series Data for the Optimisation of Machine Learning Using the Example of Rejection Prediction after Kidney Transplantation. **Darian Liehr**
- Predicting care times at PACU. **Lars Mattsson**
- A Medical Decision Support System for Automatic Treatment Plan Generation using Machine Learning Algorithms. **Florian Mazura**
- Evaluation of a Multi-Axes Multi-Channel Heartbeat Detection Algorithm in Ballistocardiography. **Evguenii Pustozerov**
- A Practical Approach to Evaluating Machine Learning Algorithms for Anomaly Detection in Epidemic Surveillance. **Antoine Saab**
- Preliminary Exploration of Pre-trained Vision-Language Models for Cyber-Threat Modelling in Internet of Medical Things (IoMT). **Saadullah Farooq Abbasi**
- 08:30-10:30 SESSION B4** **L1 Auditorium**
- Chair: Mirela Prgomet**  
**Data Science and Visualisation**  
Visualising Uncertainty of Vaccine Data. **Qianhui Lin**
- Utilising Machine Learning for Better Mental Health and Decision Making: A Case Study of Timebanking UK. **Alaa Mohasseb**
- An Interpretable Model for Predicting Acute Myocardial Infarction In Distinct Patient Profiles. **Anthony Onoja**
- Exploring Differential Diagnosis-Based Explainable AI: A Case Study in Melanoma Detection. **Bjorn Buijing**
- Advancing Usability and Decision Support for Molecular Tumor Boards: Insights from PM4Onco's Visual Analytics Workshop. **Cosima Strantz**
- Data quality and diversity in health care and health research. **Jürgen Stausberg**
- Bigger isn't always better: data considerations for latent class analysis.  
**Imogen Stafford**



# PROGRAMME - TUESDAY 20 MAY 2025

How Useful Is Synthetic Data in Developing Predictive Models for Health?

Helen Chen

User-centered design of ALERT-ITS: an ICU bed forecasting monitoring system.

Yevgenia Ignatenko

## 08:30-10:30 **SESSION C4**

Rooms 4-5

**Chair: John Mantas**

**Combined tracks**

Publish or Perish? Shaping the Future of Health Informatics Through BMJ Health and Care Informatics. [Philip Scott](#)

Concept of Modeling Pharmacist-led Medication Reviews in Clinical Setting: A Knowledge Graph-Based Approach. [Daniel Neumann](#)

Detecting the Potential for Bias in Healthcare Data. [Emel Seker](#)

Reliability of multicentric extracted EMR Data: Quantifying Amitriptyline Use in Elderly Patients – a POLAR\_MI study. [Markus Loeffler](#)

Improving Independent Living and Quality of Life for Dementia Patients with Open-Interface Sensor-Based Home Monitoring. [Harish Kambampati](#)

Quality of Life Trajectories with EHR integration. [Martin Dugas](#)

## 08:30-10:30 **SESSION D4**

Rooms 6-7

**Chair: Ursula Hübner**

**Combined tracks**

Challenges for People with Depression in using Online Mental Health Communities (OMHCs) in Saudi Arabia. [Sara Alrashed](#)

Mapping Ethical Guidelines for AI in Healthcare: A Global Perspective. [Selen Bozkurt](#)

Customising a Digital Solution to Ensure Data Integrity in Hospital Pharmacy Formulation and Dispensing Processes. [Marta Durá](#)

Implications on Work Practices for Mental Health Care Workers using an Electronic Medication Management System. [Kjersti Zakariassen Fosse](#)

Effective Requirements Engineering in Early-Stage Digital Health Startups. [Marius Gerdes](#)

Sex Education and Terminologies: A Gap Analysis in SNOMED CT and LOINC. [Nina Haffer](#)

From Fragmentation to Integration: Challenges and Solutions for Record Linkage in OMOP CDM. [Elisa Henke](#)

Developmental insights from modelling the digital maturity of the Oxford-RCGP Research and Surveillance Centre (RSC). [Cecilia Okusi](#)



## PROGRAMME - TUESDAY 20 MAY 2025

**08:30-10:30 SESSION E4** Room 2

**Chair: Linda Peute**

**Human factors, social and organisational issues**

A semi-automated approach based on network analysis to suggest new collaborations and foster multisite clinical trials. [Giovanna Nicora](#)

Prototype for Information-Oriented Global Loneliness Map. [Hurmat Ali Shah](#)

Exploring Telemedicine acceptance: Applying the COM-B model to understand cancer patients' perspectives. [Pantelis Natsiavas](#)

Enhancing Collaboration and Innovation in Patient Monitoring: Insights from the Patient Monitoring Roundtable (PMRT). [Elena Hinz](#)

Chain of Thought Strategy for Smaller LLMs for Medical Reasoning. [Hurmat Ali Shah](#)

WORKSHOP: Usability Evaluation Outcomes in Medical Informatics: is All That Glitters Gold? [Liesbeth van den Berg](#)

**08:30-10:30 SESSION H4** Room 3

**Chair: George Demiris**

**Combined tracks**

PANEL: Informatics Strategies to Mitigate Ageism in AI Design. [George Demiris](#)

Insights on Training and Certification in Digital Health Technologies. [Emmanouil Rigas](#)

Analyses of the Accessibility of interactive learning content in H5P. [Anna Boehm](#)

A natural and unobtrusive conversation using a RASA-driven chatbot for monitoring the wellbeing of elderlyes. [Armel Lefebvre](#)

Machine Learning Models Predicting Hospital Admissions During Chemotherapy Utilising Longitudinal Symptom Severity Reports and Patient-Reported Outcome Measures. [Zuzanna Wójcik](#)

**08:30-10:30 SESSION G4** Room 1

**Chair: Maria Tsirintani**

**Combined tracks**

Initial Evaluation of ICD-11's Adherence to Acceptable Terminology Practices. [Kathy Giannangelo](#)

A LLM-based chatbot for mindfulness practice with older adults: A development and usability study. [Lucy McCarron](#)

Patients vs. Healthcare Providers: A Comparative Analysis of Technology Acceptance Using the UTAUT Model. [Shramika Panchal](#)



## PROGRAMME - TUESDAY 20 MAY 2025

Method for ContSys-based Semantic Annotation of the Estonian Law of Obligations. **Kristian Juha Ismo Kankainen**

Hidden in plain sight: The harmful side of AI-based mental health interventions.  
**Kerstin Denecke**

Towards the Common Data Model for an Intensive Medicine Data Space in Europe. **Carlos Luis Parra-Calderón**

Experiences translating and introducing the ISO 13940 ContSys in Estonia: Challenges and perspectives. **Kristian Juha Ismo Kankainen**

### 10:30-11:00 COFFEE BREAK

Catering Area

### 11:00-12:30 SESSION A5

Main Auditorium

**Chair: Fahad Ahmad**

Computable knowledge and decision support

Pros, Cons and Limits of AI in Public Health. **Maria Tsirintani**

Using Optimal Survival Tree Model for AF Event-Free Survival Time Prediction.  
**Giovanna Nicora**

Identifying Phenotypes for Earlier Diagnosis of Rare Diseases. **Casey Ta**

Designing a clinical decision support prototype for urinary tract infection treatment in nursing homes: experiences from a research partnership.  
**Magdalena Raban**

Subgroup Discovery to Identify Determinants of Influence on CDSS Medication Alert Handling: a Feasibility Study. **Kimmy Raven**

Behavioral Change through Serious Gaming Approaches for Childhood Obesity Interventions. **Ioannis Vondikakis**

The Terminology Server Challenge 2023. **Joshua Wiedekopf**

### 11:00-12:30 SESSION B5

L1 Auditorium

**Chair: Haythem Nakkas**

Information Systems

Efficient Scheduling for Minimizing Radioactive Waste in a PET/CT setting.  
**Vassiliki Koufi**

Using Machine Learning for the Fusion of Tumor Records on a Real-World Dataset. **Clarissa Krämer**

Physicians' Experiences of Health Information Exchange in Finland after Ten Years of National Patient Data Repository Services. **Tinja Lääveri**



## PROGRAMME - TUESDAY 20 MAY 2025

Agent-Based Healthcare Chatbots for Regional System Services: A Case Study in the Friuli-Venezia Giulia Region. [Riccardo Lunardi](#)

Is research data trustworthy? A quality comparison between FHIR, TriNetX and clinical data sources. [Jonathan M. Mang](#)

Automated Compliance Checking for Medical Rosters. [Marinella Quaranta](#)

INGENIO-DQ: Data Quality Assessment for a Precision Medicine Data Model using an International Common Framework. [Paula Rubio Mayo](#)

**11:00-12:30 SESSION C5** Rooms 4-5

**Chair: Christophe Gaudet-Blavignac**

**Population health & One Health**

WORKSHOP: Challenges in curation of clinical concepts in research: evaluation the effectiveness of influenza vaccination in patients with chronic asthma as an exemplar. [Gavin Jamie](#)

A Deep-learning Framework for Ovarian Cancer Subtype Classification Using Whole Slide Images. [Amir M Hajiyavand](#)

Finding groups in a Portuguese overweight population, with real world data. [Andreia Teixeira](#)

**11:00-12:30 SESSION D5** Rooms 6-7

**Chair: Antonis Billis**

**Personal health records and mHealth**

Regional use of open notes via nationwide web-based MyKanta patient portal in 2017–2024 in Finland. [Vesa Jormanainen](#)

User needs assessment for gestational diabetes care and management digital tool: a qualitative study. [Jasmine Kirkwood](#)

PanCareSurPass Project in Germany: Local Developments for the Multi-Country Implementation Study of SurPass v2.0 at University Hospital Schleswig-Holstein. [Anke Neumann](#)

Long Short-Term Memory Network for Accelerometer-Based Hypertension Classification. [Melissa Ouellet](#)

Decoding Digital Therapeutics: A Qualitative Analysis of Software Features in German Digital Health Applications. [Sascha Noel Weimar](#)

Indicators of Disease Burden among People with Epilepsy or Multiple Sclerosis May Reflect Reduced Adoption of Health Technologies. [Tuuli Turja](#)

Cognitive Accessibility in User Experience Assessment of Mobile Health: A Review. [Laura Montoya](#)



# PROGRAMME - TUESDAY 20 MAY 2025

<b>11:00-12:30</b>	<b>SESSION E5</b> Education Working Group meeting. <i>Kaija Saranto</i>	<b>Room 2</b>
<b>11:00-12:30</b>	<b>SESSION H5</b> <b>Chair: Guillermo Lopez Campos</b> <b>Combined tracks</b> WORKSHOP: Advanced Technologies for Logging and Sharing Health Data. <i>Simon Lewerenz</i>	<b>Room 3</b>
	Gemelli SLE Data Mart: a Real World Evidence Framework for the Evolution of Systemic Lupus Erythematosus Patients. <i>Livia Lilli</i>	
	Analysis of Respiratory Muscles Density in Different Age Groups Using CT Scans. <i>Giulia Carpani</i>	
<b>11:00-12:30</b>	<b>SESSION G5</b> <b>Chair: Laura-Maria Peltonen</b> <b>Combined tracks</b> WORKSHOP: Advancing Academia-Industry Informatics Networks for Better Healthcare. <i>Laura-Maria Peltonen</i>	<b>Room 1</b>
	HSG-Assistant: AI-Enhanced Diagnostic System for Hysterosalpingography Image Analysis. <i>Amir M Hajiyavand</i>	
	Energy-Aware AI for Medical Diagnostics: Performance and Sustainability Analysis of ResNet and MobileNet. <i>Zia Ur Rehman</i>	
<b>12:30-13:25</b>	<b>LUNCH</b>	<b>Catering Area</b>
<b>13:25-14:55</b>	<b>SESSION A6</b> <b>Chair: Matthias Löbe</b> <b>Computable knowledge and decision support</b> WORKSHOP Computable biomedical knowledge to activate European learning health systems. <i>Philip Scott</i>	<b>Main Auditorium</b>
	DEMONSTRATION: SPHN Connector: Convert real-world sensitive health data into de-identified and validated knowledge graphs. <i>Vasundra Touré</i>	
<b>13:25-14:55</b>	<b>SESSION B6</b> <b>Chair: Antonis Billis</b> <b>Human factors, social and organisational issues and Data Science and Visualisation</b> Compact Usability Evaluation Procedure for HIS Procurement: Oral Imaging PACS. <i>Mari Tyllinen</i>	<b>L1 Auditorium</b>
	Aligning organization and health system digitalization efforts. <i>Susan Usher</i>	



## PROGRAMME - TUESDAY 20 MAY 2025

Enhancing clinical decision support: A heuristic evaluation of explainable AI in healthcare dashboards. [Bethany Van Dort](#)

Leveraging Data Pipeline and LLM to Advance Patient Safety Event Studies.  
[Yang Gong](#)

Generating Focused Probabilistic Models for Diagnosis of Rare Diseases.  
[Charles Kahn](#)

Connecting Academia and Industry Through Communities of Practice in the Informatics Domain. [Laura-Maria Peltonen](#)

One system, many professions: A system usability scale evaluation of a multi-professional therapy and monitoring system. [Stefan Hochwarter](#)

**13:25-14:55 SESSION C6** Rooms 4-5  
**Young EFMI session**  
yEFMI: a Driving Force at the nexus across people, history, and education in the Public Health sector. [Oscar Tamburis](#)

**13:25-14:55 SESSION D6** Rooms 6-7  
**Chair: Michael Marschollek**  
**Mixed topics**  
Exploring the Potential of GPT-4 in Creating Billing Codes from Clinic Notes.  
[Qingyuan Song](#)

Requirements for Hospital Innovation Labs: A Mixed Methods Study.  
[Louis Agha-Mir-Salim](#)

Healthcare professionals' perceptions on advances in digital health devices for growth hormone therapy: clinical expert panel discussion in the UK and France. [Octavio Rivera-Romero](#)

Detecting Adverse Drug Events in Clinical Notes using Large Language Models.  
[Tora Hammar](#)

Advanced Digital Skills for Health Professionals: 20 joint Learning Objectives.  
[Guido Giunti](#)

WORKSHOP: An interactive guiding toolkit for creating an EIF-based interoperability framework in alignment with EHDS2. [Rada Hussein](#)



## PROGRAMME - TUESDAY 20 MAY 2025

<p><b>13:25-14:55 SESSION E6</b></p>	<p><b>Chair: Elisavet Andrikopoulou</b>          Precision care and other tracks – short communications          Towards EHDS Compliance in Europe to Support Public Health. <a href="#">Eugenia Rinaldi</a></p> <p>Controlled intervention study on effects of an AI-based app to support wound care: First results. <a href="#">Uli Fischer</a></p> <p>Development of a nursing sensitive quality indicator dashboard for critical care. <a href="#">Jon Barrenetxea</a></p> <p>Implementation of an app-based dementia risk assessment. <a href="#">Sten Hanke</a></p> <p>Participatory design framework - Validation in the field of mental health. <a href="#">Kerstin Denecke</a></p> <p>Workshop: Exploring the Meaning of “Learning” in Learning Health Systems: Establishing Core Principles of Evaluation. <a href="#">Elisavet Andrikopoulou</a></p>	<b>Room 2</b>
<p><b>13:25-14:55 SESSION H6</b></p>	<p><b>Chair: Pantelis Natsiavas</b>  <b>Combined tracks</b>          Novel Tinnitus Diagnosis: Biology and Technology for Public Health Management. <a href="#">Fahad Ahmad</a></p> <p>Telemedicine in Italy: the case of Frosinone Local Health Unit. <a href="#">Fabrizio Pecoraro</a></p> <p>PANEL: Connecting research to entrepreneurship: the power of European Digital Innovation Hubs. <a href="#">Pantelis Natsiavas</a></p>	<b>Room 3</b>
<p><b>13:25-14:55 SESSION G6</b></p>	<p><b>Chair: Ricardo Correia</b>  <b>Education and short communications</b>          PANEL: Advancing International Health Informatics Education: Challenges and Opportunities from the IPHIE Collaboration. <a href="#">Linda Peute</a></p> <p>Wearable Technology for People with MS in Saudi Arabia: Preliminary Findings on Adoption and Use Factors. <a href="#">Shemah Alsulami</a></p> <p>Assessment Recommendations for Digital Public Health Interventions in Low-Resource Settings: Initial Results of a Scoping Review. <a href="#">Henrik Hülsmann</a></p> <p>Continuous Vital Sign Monitoring Data in the General Ward: Exploratory Analysis. <a href="#">Mobinasadat Tayyeb</a></p> <p>Exploring the Role of Digital Health Technologies in Reducing the Carbon Footprint of Health and Care Systems: A Scoping Review Protocol. <a href="#">Olufisayo Olakotan</a></p>	<b>Room 1</b>



## PROGRAMME - TUESDAY 20 MAY 2025

Coding Clinic: A Multidisciplinary Approach Supporting Early-Stage Medical Data Science Research. [Elias Grünewald](#)

Transformer-based Multilabel NER Using Wikipedia Corpora in Multiple Languages. [Yelyzaveta Ahapova](#)

### 14:55-15:15 COFFEE BREAK

Catering Area

### 15:15-16:45 SESSION A7

Main Auditorium

**Chair: Linda Peute**

**Human factors, social and organisational issues**

Formative Usability Testing of Artificial Intelligence in Pathology: The Challenge of Assessing Guidance. [Natasha Alvarado](#)

Barriers and Facilitators for Federated Health Data Networks: Lessons Learned from a Nordic-Baltic Experience. [Aleksandar Babic](#)

Technical functional assessment of the needs in terms of medical devices for a paediatric hospital under construction. [Simone Falco](#)

Assessing Healthcare Stakeholder Understanding of Machine Learning Model Documentation. [Nicolas Frey](#)

Automated and AI-based communication in the GP practice as a replacement for personal doctor-patient contact – a patient survey on acceptance.

[Dana Goebel](#)

Innovative Design of an Augmented Reality Device for Anesthesia: User Insights and Usability Evaluation. [Honoré Guise](#)

Participatory co-creation of an AI-supported patient information system: a multi-method qualitative study. [Carolin Heizmann](#)

### 15:15-16:45 SESSION B7

L1 Auditorium

**Chair: Alaa Mohasseb**

**Natural language processing and generation**

Smoking Status Normalization with Cross-Encoders and SNOMED CT.

[Akhila Abdulnazar](#)

ArtInsight: A Multimodal AI Framework for Interpreting Children's Drawings and Enhancing Emotional Understanding. [Mowafa Househ](#)

ChatEndoscopist: A Domain-Specific Chatbot with Images for Gastrointestinal Diseases. [Xiaohong Gao](#)

Comparative Analysis of ChatGPT-4 for Automated Mapping of Local Medical Terminologies to SNOMED CT. [Sookyoung Huh](#)



## PROGRAMME - TUESDAY 20 MAY 2025

Manuscript Classification to Support the Analysis of Biases in Publication Opportunities. [Luc Mottin](#)

Exploring the Potential of Retrieval Augmented Generation for Question Answering in Radiology: Initial Findings and Future Directions. [Yongli Mou](#)

Fake it till you predict it: data augmentation strategies to detect initiation and termination of oncology treatment. [Valentin Pohyer](#)

**15:15-16:45 SESSION C7** Rooms 4-5

**Chair: Jakob Hofdijk**

**Computable knowledge and decision support**

Focusing on diagnostic accuracy jeopardises therapeutic optimality. [Vive Rajput](#)

Towards migraine-event prediction using continuous long-term biometric sensor data. [Anja Davis Norbye](#)

Fine-Tuning an Existing Large Language Model with Knowledge from the Medical Expert System Hexpaxpert. [Klaus-Peter Adlassnig](#)

Exploring the Role of Digital Twins in Heart Care: Research Directions and Applications. [Anders Borkenhagen](#)

Standards-Based Interoperability for Clinical Decision Support Systems. [Klaus-Peter Adlassnig](#)

Development of a standardized drug nomenclature in France. [Catherine Duclos](#)

Bias Detection in Histology Images Using Explainable AI and Image Darkness Assessment. [Inna Skarga-Bandurov](#)

**15:15-16:45 SESSION D7** Rooms 6-7

**Chair: Thomas Engelsma**

**Mixed topics**

A Discussion on Available Software Tools for the FAIR assessment of the CORE DATA SET for Diabetes Research in Germany. [Esther Inau](#)

Developing an innovative holistic approach for assessing the impact of Urban Blue-Green Spaces on Human Health and Well-Being in the HEART study. [Sanja Ivanković](#)

Generating a FHIR ConceptMap from WHO's ICD-10 to ICD-11 Mapping Tables. [Tessa Ohlsen](#)

Medication recommender system for ICU patients using autoencoders. [Tsvetan Yordanov](#)



## PROGRAMME - TUESDAY 20 MAY 2025

The Business Model Framework for Digital Health Startups in Europe.  
*Gaurang Thanekar*

Enhancing obstructive sleep apnea diagnosis: integrating automated detection and event duration analysis. *Daniela Ferreira-Santos*

Explainable versus Interpretable AI in Healthcare: How to Achieve Understanding. *Murat Sariyar*

**15:15-16:45 SESSION E7** **Room 2**

**Chair: Simon De Lusignan**

**Combined tracks**

RepSE-CBAMNet: A Hybrid Attention-Enhanced CNN for Brain Tumor Detection.

*Sandeep Singh Sengar*

Few-Shot Learning of Medical Coding Systems: A Case Study on Death Certificates with BERT and Mistral. *Mihai Horia Popescu*

WORKSHOP: From Text to Tech: hands-on Intelligent Health Systems building.  
*Matthijs Sloep*

**15:15-16:45 SESSION H7** **Room 3**

**Chair: Nicole Egbert**

**Combined tracks**

WORKSHOP: The Future of Nursing Informatics – Update of the International Recommendations Framework of Core Competencies for Nurses. *Nicole Egbert*

Barriers and Opportunities in Developing Health Information System (HIS) Architectures to Support Universal Health Coverage in Resource-Limited Settings. *Pushpa Kumarapeli*

Protecting Confidentiality in Online Records of Minors at Risk of Harm: Experiences in Pediatric Oncology Care. *Josefin Hagström*

**15:15-16:45 SESSION G7** **Room 1**

**Chair: Fahad Ahmad**

**Combined tracks**

WORKSHOP: Trust in AI: What do we mean by trust and how should we measure it? *Jessica Ancker*

Applying AI to support categorization of heterogeneous epidemiological datasets. *Juliane Fluck*

Efficient Semantic Similarity Computing with Optimized BERT Models. *Hayfa Zgaya-Biau*



# PROGRAMME - TUESDAY 20 MAY 2025

16:50-18:20	<b>SESSION A8</b> <b>Chair: Linda Peute</b> <b>Human factors, social and organisational issues</b> Data-Driven Healthcare Innovations in a Fragmented Healthcare System: A Modular Approach. <a href="#">Arjan Huizing</a>  Targeted interventions to improve the systematic collection of acute respiratory infection clinical data from primary care computerised medical records. <a href="#">Gavin Jamie</a>  Facilitators and Barriers to ICU Providers' Usability of Flowsheets in Electronic Health Records. <a href="#">Saif Khairat</a>  Usability Testing an Educational Telemedicine Simulation: Description of Methods and Preliminary Findings. <a href="#">Blake Lesserloth</a>  Co-designing a "win-win" in predictive AI: First results from interviews and focus groups with persons with Parkinson's Disease. <a href="#">Jamie Luckhaus</a>  Usability and UX in Healthcare: Exploring current practices and future directions. <a href="#">Romaric Marcilly</a>  A governance framework for Federated Learning projects in Healthcare. <a href="#">Johan van Soest</a>	Main Auditorium
16:50-18:20	<b>SESSION B8</b> <b>Chair: Alaa Mohasseb</b> <b>Natural language processing and generation</b> Identifying Long COVID Patients Using General Practice Data: Challenges, Classification and Long COVID Patterns. <a href="#">Mirela Prgomet</a>  Exploring Zero-Shot Cross-Lingual Biomedical Concept Normalization via Large Language Models. <a href="#">Hossein Rouhizadeh</a>  German Medical NER with BERT and LLMs: The Impact of Training Data Size. <a href="#">Suteera Seeha</a>  Assessing the Potential of an LLM-Powered System for Enhancing FHIR Resource Validation. <a href="#">Parinaz Tabari</a>  A Review of Challenges in Speech-based Conversational AI for Elderly Care. <a href="#">Bram van Dijk</a>  Leveraging Large Language Models for Synthetic Data Generation to Enhance Adverse Drug Event Detection in Tweets. <a href="#">Anthony Yazdani</a>  AI-Powered Affiliation Insights: LLM-Based Bibliometric Study of European Medical Informatics Conferences. <a href="#">Ehsan Bitaraf</a>	L1 Auditorium



## PROGRAMME - TUESDAY 20 MAY 2025

16:50-18:20	<b>SESSION C8</b> <b>Chair: Haythem Nakkas</b> <b>Information Systems</b> Patient survival prediction by analyzing pathological images of patients after liver transplantation. <a href="#">Ko seung hyoung</a>  From Medication Experts to System Navigators: Exploring Pharmacists' EHR Challenges and Opportunities. <a href="#">Celina Sving</a>  PANEL: Outcomes of an International Summit on the Use of Information Technology in Care of Older People. <a href="#">Gregory Alexander</a>	Rooms 4-5
16:50-18:20	<b>SESSION D8</b> <b>Chair: Matthias Löbe</b> <b>Data science and visualization &amp; Education</b> WORKSHOP: The EFMI Knowledge Graph Project: Unlocking Value of Researchers' Network. <a href="#">Daniel Rodrigues</a>  DEMONSTRATION: The SPHN Metadata Catalog: A Comprehensive Tool for Health Data Discovery and Exploration based on FAIR Principles. <a href="#">Harald Witte</a>	Rooms 6-7
16:50-18:20	<b>SESSION E8</b> <b>Chair: Kaija Saranto</b> <b>Education</b> WORKSHOP: What to teach tomorrow's doctors about AI and data science. <a href="#">Paul Taylor</a>  Building a Modular Health Information Crawler: Leveraging the Nutch for the tala-med Search Engine. <a href="#">Raphael Scheible</a>  Comparing the Accuracy of Traditional vs. Electronic Health Record Extracted Data in a Clinical Trial. <a href="#">Maryam Garza</a>	Room 2
16:50-18:20	<b>SESSION H8</b> <b>Other related topics</b> WORKSHOP: CAREPATH: Empowering Integrated Care for Multimorbid Elderly with Mild Cognitive Impairments and Mild Dementia. <a href="#">Omid Pournik</a>  DEMONSTRATION: Improving Visibility, Care and Research for Rare Diseases – An Invitation to Participate in Standardised Rare Disease Studies. <a href="#">Miriam Hübner</a>	Room 3



## PROGRAMME - TUESDAY 20 MAY 2025

16:50

- 18:20 **SESSION G8**

Room 1

**Chair:** Paris Gallos

**Learning health systems panel and short communications**

PANEL: Learning Health Systems in Practice: Improving medication management in aged care settings. **Johanna Westbrook**

Harnessing Visualization to Enhance Digital Twin in Health Applications.

**Johanne Irene Andreassen**

Challenging Black-Box Models: Interpretable Explanations for ECG classification.

**Lucas Bickmann**

From Federated Learning to Publicly Facing Platform Proof-of-Concept of the

STRONG AYA Information Portal. **Joshi Hoogenboom**

Enhancing Trust by a Keycloak-Flower Integration for Federated Machine Learning. **Mathias Kaspar**

Metadata Quality in Imaging Trials: A Knowledge Graph-Based Approach.

**Elias Grünewald**

C-Scrum: Agile and Automated Software Development for Digital Health.

**Marius Gerdes**

19:00

**CONGRESS DINNER AT TRADES HALL**



# PROGRAMME - WEDNESDAY 21 MAY 2025

**09:00-10:30 SESSION A9** **Main Auditorium**

**Chair: Laura-Maria Peltonen**

**Nursing Informatics Event**

Opening of Nursing Event. **Lars Lindsköld, EFMI President**

AI for nursing decision support: from evidence to action. **Gregor Štiglic**

Cutting-edge AI approaches to improve patient outcomes. **Max Topaz**

The role of nursing in capturing the patient voice in AI development and evaluation. **George Demiris**

Embedding nursing expertise in AI development and implementation: ethical, legal, and managerial considerations. **Laura-Maria Peltonen**

**09:00-10:30 SESSION B9** **L1 Auditorium**

**Chair: Elisavet Andrikopoulou**

**Combined tracks**

Semantic representation of medical data collection forms using standards.

**Stefan Schulz**

Integrating patient-generated health data from a smartphone app across multiple healthcare providers: a case study. **Sabine N van der Veer**

Preparing for ICD-11: Exploring the Current Use of ICD-10 in Dutch Hospital Mortality and Morbidity Coding. **Myrthe van Heerde**

The European Health Data Space as 3LGM<sup>2</sup>-based enterprise architecture model. **Alfred Winter**

Validation of MUISCA for Blockchain Interoperability: A Case Study in a Healthcare Environment. **Edgar Dulce Villarreal**

User Experience and Vendor Lock-in with Current Diabetes Information System. **Pietro Randine**

Profile of Diabetic Patient Requirements using FHIR Resources. **Ylenia Murgia**



# PROGRAMME - WEDNESDAY 21 MAY 2025

**09:00-10:30 SESSION C9** Rooms 4-5

**Chair: Jan David Liebe**

**Human factors and Computable Knowledge and Decision Support**

Clinical Requirements for Transparent Machine Learning Model Information: A Mixed Methods Study Protocol. [Louis Agha-Mir-Salim](#)

Machine Learning-Based Clinical Decision Support System for Personalized Suicide Risk Management: The PERMANENS Project. [Miguel-Angel Mayer](#)

Participatory Design of an AI-based CDSS for Delirium Prevention. [Philipp Kellmeyer](#)

Clustering Event Trajectories with Machine Learning: An Approach for Electronic Healthcare Records. [Asra Aslam](#)

**WORKSHOP: From Pilot to Practice: Embedding Digital Health Innovations in Clinical Workflows Using a Process-Oriented Approach.** [Christine Knoll](#)

**09:00-10:30 SESSION D9** Rooms 6-7

**Human factors, social and organisational issues and Computable Knowledge and Decision**

PANEL: Taking the Hard Road Towards Inclusive Digital Health Interventions. [Kerstin Denecke](#)

**DEMONSTRATION:** Processing an imperfect world – a case study in overcoming incomplete data and insufficient thresholds through fuzzy logic. [Klaus-Peter Adlassnig](#)

**09:00-10:30 SESSION E9** Room 2

Evaluation working group meeting. [Kathrin Cresswell](#)

**09:00-10:30 SESSION H9** Room 3

**Chair: Theodoros Arvanitis**

**AI, automation and robotics in healthcare and Human Factors short communications**

PANEL: Revisiting Health Record Banking in light of AI and technology advancements. [Amnon Shvo](#)

Investigating the Implementation of Monitoring Technology: an Interdisciplinary Collaborative Process. [Stephan Bethe](#)

End-user Participation in Developing an Ophthalmological Dashboard Prototype. [Sophia Grummt](#)

Beyond Model Performance: Information Needs for an Algorithmvigilance Sociotechnical System. [Megan Salwei](#)

Co-Designing AI Interventions: A Participatory Approach using System Mapping. [Tabea Rambach](#)



# PROGRAMME - WEDNESDAY 21 MAY 2025

**09:00-10:30 SESSION G9** Room 1

**Chair: Silvia Llorente**

**Natural language processing and generation**

Workshop: How to create a large distributed Non-English Medical Text Corpus (GeMTex). [Martin Boeker](#)

Automating Performance Status Annotation in Oncology Using Llama-3. [Irene Cara](#)

Evaluating LLMs' potential to identify rare patient identifiers in patient health records. [Arlene Casey](#)

A perfect start with Retrieval-Augmented Generation: Building a chatbot for onboarding process in SMEs. [Lena Frischen](#)

Delirium Identification from Nursing Reports Using Large Language Models. [Lisa Graf](#)

Optimizing Automated KCD Coding: A Retrieval-Verification Approach. [Sangji Lee](#)

**10:30-11:00 COFFEE BREAK** Catering Area

**11:00-12:30 SESSION A10** Main Auditorium

**Nursing Informatics Event**

Keynote: Reflections on 25 years of training nurse scientists in AIS. [Susanne Bakken](#)

Empowering Nurses in the AI Era. [George Demiris](#)

Summing up the Nursing Event

**11:00-12:30 SESSION B10** L1 Auditorium

**Natural language processing and generation and AI, automation and robotics in health care - Short communications**

Artificial Intelligence: Addressing the Effects of Diverse Definitions. [Carolyn Sun](#)

AI Chatbot for Cancer Patient Support: Development and Evaluation Using Llama 3.1, Mistral 7B, and PHI 3B. [Samuel McInerney](#)

Artificial Intelligence Powered Audiomics: The Future of Biomarker in Pulmonary Medicine. [Sakthi Jaya Sundar Rajasekaran](#)

Improving the Readability of Dementia Information Documents Using ChatGPT. [Jonathan Turner](#)

Measuring the State of Information Security and Data Protection in Healthcare Web Applications. [Julian Schallenberg](#)

Translating UMLS Concepts to Improve Medical Term Linking in French: A SapBERT-Based Approach. [Sébastien Jodogne](#)



# PROGRAMME - WEDNESDAY 21 MAY 2025

## 11:00-12:30 **SESSION C10**

Rooms 4-5

### Short Communications

Repositioning the health workforce in Africa: the critical role of intelligent health systems. [Akaninyene Asuquo Otu](#)

Towards skin cancer detection through low resolution images. [Jenny Vega](#)

Risk stratification using a novel Polypharmacy Assessment Score. [Jung Yin Tsang](#)

A Case Study on the Barriers of Digital Transformation in Public Hospitals.

[Yan Bertrand](#)

Designing an equitable text messaging service for South Asians to manage hypertension: understanding gender norms. [Syed Mustafa Ali](#)

Education and capacity building for AI health research teams by moving beyond multidisciplinary approaches. [Batool Almarzouq](#)

## 11:00-12:30 **SESSION D10**

Rooms 6-7

### Short Communications

Use and evaluation of clinical decision support systems in hospital pharmacy setting: current barriers and opportunities. [Anaïs Payen](#)

Clinical factors associated with delayed diagnosis of Ovarian Cancer: retrospective cohort study using linked medical data. [Elizabeth Ford](#)

Monitoring Mental Health in Esports: Requirement Analysis and Design Concepts of an mHealth Application. [Leona Stolberg](#)

Feasibility of a Low-Cost Clinical Informatics and mHealth Program to Improve Diabetes Outcomes in Youth. [Shelagh Mulvaney](#)

A Federated Learning Model for the Prediction of Blood Transfusions in Intensive Care Units. [Johanna Schwinn](#)

## 11:00-12:30 **SESSION E10**

Room 2

IMIA Health Record Banking working group meeting. [Amnon Shvo](#)



# PROGRAMME - WEDNESDAY 21 MAY 2025

**11:00-12:30 SESSION H10** Room 3

**Chair: Franziska Jahn**

AI, automation and robotics in healthcare workshop & general tracks full papers

Workshop: Measuring Health AI Maturity Across Healthcare Organizations: A Collaborative Workshop. **Laurie Novak**

Measuring expressiveness of the clinical data interchange standards consortium (CDISC) study data. **Manju Bikkanuri**

A Mixed-Methods Evaluation of LLM-Based Chatbots for Menopause. **Roshini Deva**

What to report? A systematic review of medical AI reporting guidelines: preliminary results. **Ekaterina Akhmad**

**11:00-12:30 SESSION G10** Room 1

**Chair: Paris Gallos**

Computable knowledge and decision support

PANEL: Clinical decision support system evaluation framework: what should be considered? **Xia Jing**

OMOP-on-FHIR: Integrating the Clinical Data Through FHIR Bundle to OMOP-CDM. **Prabath Jayatissa**

Tailoring Clinical Decision Support Systems to nurse anesthetists: A Rapid Review of Current Practice. **Paul Quindroit**

Data Sharing's Different Meanings: A Hierarchy of Privacy and Ethical Challenges. **Ross Koppel**

**12:30-13:15 LUNCH** Catering Area

**13:15-14:00 KEYNOTE** Main Auditorium

Large-Scale System-Level Digitalisation Initiatives in the National Health Service – Insights from Three National Evaluations

**Prof. Kathrin Cresswell, University of Edinburgh**



# PROGRAMME - WEDNESDAY 21 MAY 2025

## 14:00-14:45 **CLOSING CEREMONY**

### Awards for:

- Best full paper
- Best poster
- Best student paper
- Mantas' Prize for Best Paper on Education

Presented by: Prof. Philip Scott, MIE 2025 Conference Director

Dr. Elisavet Andrikopoulou, MIE 2025 SPC Co-chair

Dr. Parisis Gallos, MIE 2025 SPC Co-chair

### Awards for:

- Best nursing poster
- Best nursing paper

Presented by: Dr. Laura-Maria Peltonen, Chair, EFMI Nursing Informatics Working Group

### Invitations:

- EFMI Special Topic Conference 2025 (20-22 October, Osnabrück)

Presented by: Prof. Ursula Hübner and Prof. Jan David Liebe, SPC co-chairs

- MIE 2026 (25-28 May, Genova, Italy)

Presented by: Prof. Mauro Giacomini, SPC Chair

### Closing Remarks:

Dr. Lars Lindsköld, EFMI President

Prof. Philip Scott, MIE 2025 Conference Director

Printed on 30 April 2025. The latest updates to the programme  
are available on the conference website





## CONGRESS ORGANIZATION:



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