



“Integrating Genomics into the EHR” Gen2EHR Implementation Guidelines Workshop

29 - 30 September 2025

The Cyprus Institute of Neurology and Genetics
Nicosia, Cyprus

Registration - Online participation: 29/09/25 & 30/09/25



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OVERVIEW

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01 MAIN GOAL

Based on the existing formal collaboration of the National eHealth Authority of Cyprus as the Competent Authority for eHealth and the Affiliated Entities (1) the Cyprus Institute of Neurology and Genetics, and (2) the University of Cyprus it is aimed to demonstrate the design of the prototype core of the data flow from the Genome of the citizen to the Electronic Health Record (EHR) for primary use enabled also by well-designed secondary use of health data. The formal collaboration of the organizing entities is co-funded by EU through the Extended EHR@EU Data Space for Primary Use (Xt-EHR) Joint Action and the direct funded by EU project European Health Data Space for Secondary Use @CY (EHDS2nd).

02 OBJECTIVES

- 01 To establish dialogue with the relevant stakeholders and have multidisciplinary representation in the design of the Data Flow from the Genome to EHR.
- 02 To define the requirements/specifications regarding the integration of Genomic Data into the EHR Data Flow, according to the overall Xt-EHR workflow.
- 03 To contribute a special section in a scientific review article on the design of the Genome to EHR Data Flow which is currently under preparation.
- 04 To disseminate the goals and results of the Xt-EHR and EHDS2nd projects.

03

ORGANIZERS

- National e-Health Authority of Cyprus (CA)
- The Cyprus Institute of Neurology and Genetics (AE)
- University of Cyprus (AE)

04

SESSIONS

- Open Sessions for Xt-EHR & CY EHDS2nd partners, local stakeholder for public disseminations (OS)
- Closed Designing/Working Sessions with only invited participants (CS)

05

PARTICIPANTS

- ▶ **Xt-EHR and EHDS2nd participants**
- ▶ **Clinicians / Clinical Geneticists**
- ▶ **Diagnostic Lab Experts**
- ▶ **Bioinformaticians**
- ▶ **Computer Scientists**
- ▶ **Researchers**
- ▶ **Developers**
- ▶ **Policy Makers**
- ▶ **Legal/Ethics Advisors**



AGENDA: Day 1

[Registration here](#)

[Online : 29/09/25](#)

[30/09/25](#)



8:30 - 9:00 (CY time)	Welcome and registration	
9:00 - 9:15 (CY time)	(OS) Opening Session: Welcome.	Organizers: Prof. Christos N. Schizas Prof. Costas Pattichis Dr. George Spyrou
9:15 - 9:45 (CY time)	(OS) Clinical Perspective: Introduce the EHR based on the EEHRxF format and the EHDS Regulation from the clinical point of view – clinical routines and workflow.	Clinicians: Dr. Theodoros Kyprianou
9:45 - 10:15 (CY time)	(OS) Clinical Perspective: Integrating Genomics into EHR for Personalized Medicine – How genomic data enhances clinical decision-making and patient outcomes.	Clinicians: Dr. Menelaos Pipis
10:15 - 10:30 (CY time)	(OS) Lab Workflow I: From Sample to Report – How lab experts generate genomic diagnostic reports to guide therapy decisions	Lab Experts: Dr. Kyproula Christodoulou
10:30 - 10:45 (CY time)	 Coffee Break & Networking	

10:45 - 11:00 (CY time)	(OS) Lab Workflow II: From Sample to Report – How lab experts generate genomic diagnostic reports to guide therapy decisions	Lab Experts: Dr. Sismani Carolina
11:00 - 11:15 (CY time)	(OS) Clinician’s Interpretation: Using Genomic Reports for Patient Care – How clinicians analyze, interpret, and apply lab-generated reports in treatment plans	Clinicians: Dr. Menelaos Pipis
11:15 - 11:30 (CY time)	(OS) Challenges in Genomics Data Integration: What Should Be Included in EHR?	Bioinformatics Expert: MSc, Styliana Menelaou
11:30 - 12:00 (CY time)	(OS) FHIR Data Models: how to gear the FHIR specification towards the needs of your use case, using genomics as an example.	Ward Weistra, Product Manager Simplifier/Content Lead FHIR DevDay/Member of the FHIR Management Group
12:00 - 12:15 (CY time)	(OS) Solutions in Genomics Data Integration – HL7 FHIR Genomics Reporting Implementation Guide	Medical Informatics Expert: Dr.Maria Papaioannou
12:15 - 12:45 (CY time)	(OS) Unlocking the Power of Genomic Data for Research & Personalized Medicine: Advancing Clinical Decision Support Systems (CDSS) – Exploring the secondary use of patient genomic data in clinical research, drug discovery, and AI-driven precision medicine with a focus on enhancing CDSS for improved patient outcomes.	Clinicians: Dr. Theodoros Kyprianou Dr. Andreas Menoikou
12:45 - 13:15 (CY time)	Questions - Discussion	

13:15 - 14:00 (CY time)	🍴 Lunch Break	
14:00 - 14:15 (CY time)	(OS) State-of-the-art Genomics Data processing – Data types, Pipelines, Computational Capacity Requirements, GPU-acceleration	Bioinformatics Experts: Dr. Marios Tomazou
14:15 - 14:30 (CY time)	(OS) Variant Interpretation and Reporting - Genomic data filtering, classification, validation, and reporting. Challenges and Clinical Implications	Bioinformatics Expert: Dr. Athina Theodosiou
14:30 - 15:00 (CY time)	(OS) Presentation of the Xt-EHR and EHDS2nd projects - Understanding the Existing prototype of EHR	Project Managers: Dr. Andreas Neocleous Dr. Maria Papaioannou
15:00 - 15:30 (CY time)	Discussion – Questions	





AGENDA: Day 2



8:30 - 9:00	Welcome and registration	
9:00 – 11:00	(CS) Working Session 1: Related scientific articles in preparation.	Session Chairs: Dr. Eirini Schiza Styliana Menelaou
11:00 – 13:00	(CS) Working Session 2: Define the requirements/specifications regarding the integration of Genomic Data into the EHR Data Flow, according to the overall Xt-EHR workflow.	Session Chairs: Dr.Marios Tomazou Dr. Andreas Menoikou
13:00 - 14:00	 Lunch Break	
14:00 – 15:00	(CS) Working Session 3: Summarize the solutions/specifications/recommendations to be announced for the closing event.	Session Chair: Dr. George Spyrou
15:00 – 16:00	(CS) Presentation of the Working Sessions outcome - Round Table Discussion and Refinements on the Workshop's outcome	Session Chair: Prof. Costas Pattichis

16:00-16:45	(OS): Announcement of updates on the design of the prototype core for the flow of patient genome data into the EHR, supporting primary use and enabling well-designed secondary use of data. Challenges, Future Work. Closing Remarks.	Prof. Christos N. Schizas Prof. Costas Pattichis Dr. Theodoros Kyprianou Dr. George Spyrou
16:45 - 17:00	(OS) Closing Remarks	



THANK YOU

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Years



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Republic of Cyprus



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