

An All-Island eHealth Hub for Cancer

AICRI Showcase: Vision and Progress

Wednesday, 28th September 2022

Herbert Park Hotel, Dublin

**eHealth-Hub: All Island Research Hub
for Federated Analysis of Cancer Data**

Emerging Hub of Excellence



eHealth@ul.ie



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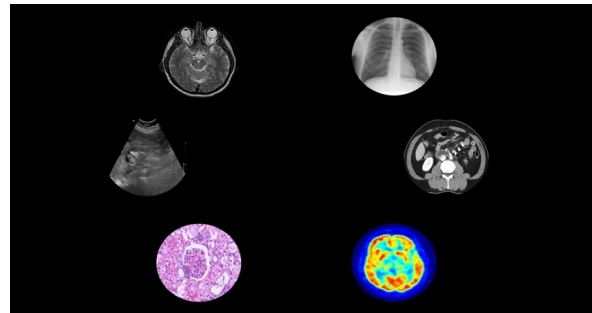
Limerick Digital
Cancer Research
Centre



Rialtas na hÉireann
Government of Ireland

HEA | AN tÚDARÁS um ARD-OIDEACHAS
HIGHER EDUCATION AUTHORITY

Background: Cancer Clinical Genomic Informatics Research



Data Saves Lives



- Development & implementation of genomics-based clinical informatics need
 - patient history
 - clinical data
 - genetics and genomics assays
 - imaging
 - treatment data
- Frameworks that enable sharing of all-island cancer data facilitate
 - All-island clinical cancer research
 - Real-time data to support policy decisions
 - Enables meta-analysis, disparity research
 - Increase sample size, > statistical power
 - Connects Irish data to EU and global research
- Federated GDPR compliant frameworks such as **the OHDSI common data model** are used in EU countries.
- Over **1 billion patients records** are mapped to the OMOP common data model and are used in observational health research. Framework such as HL7 FHIR enable data sharing.



Background: eHealth Hub harnessing all-island expertise to drive cancer digital health research

- UL is a collaborator in **OHDSI**, a global leader in **R/Bioconductor**, experienced in development of **open-source software** in cancer genomics research
- Northern Ireland has the **most advanced electronic health and social care records** in the UK. The **Northern Ireland Trusted Research Environment** provides safe and effective use of data. QUB work on COVID-19 and cancer has gained **international recognition**
- QUB **expertise in secure connected intelligence and health data research** combines with UL leadership and experience in **OHDSI, Bioconductor and open-source science** provides a strong foundation to develop robust eHealth frameworks for harmonization of electronics health records to advance **cancer digital health research**

Partners: harnessing all-island expertise to drive cancer digital health research



Mark Lawler (QUB)



Heterogeneous
Cancer EHR Data

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eHealthHub
For Cancer

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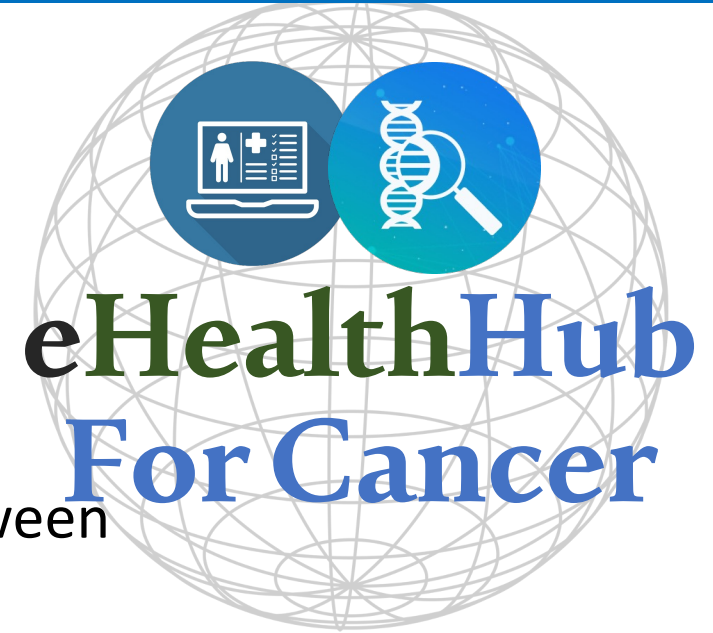
Progress to Date (April – September 2022)



Mark Lawler (QUB)



€4 Million



Memorandum between Universities signed
DPIA/ethics initiated

Initial meeting with OHDSI, EDHEN training academy and DARWIN EU representatives

UL Partner in HRB B1+MG federated sharing of genomes



Aedin Culhane (UL)



Key Future

Participation in US annual OHDSI conference in Washington DC (October)

Data Protection, Ethics

Hiring Training of

10 PhD Students

4 Post doctoral Fellow

7 Research Assistants

Email us at: ehhealth@ul.ie

