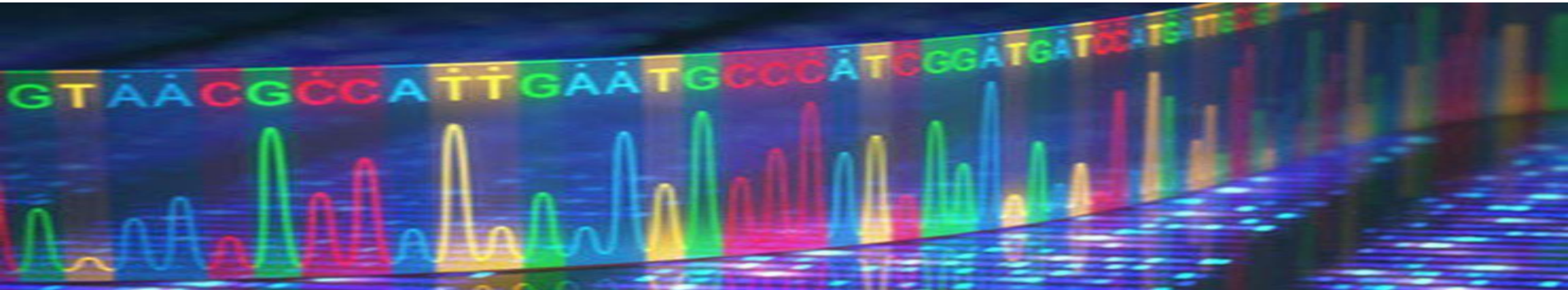
USZ Universitäts Spital Zürich

Merging Clinical Data for Oncology Patients

The challenge of aggregating informative data sets

Martin Zoche, PMNET Forum *Oct 12, 2023*



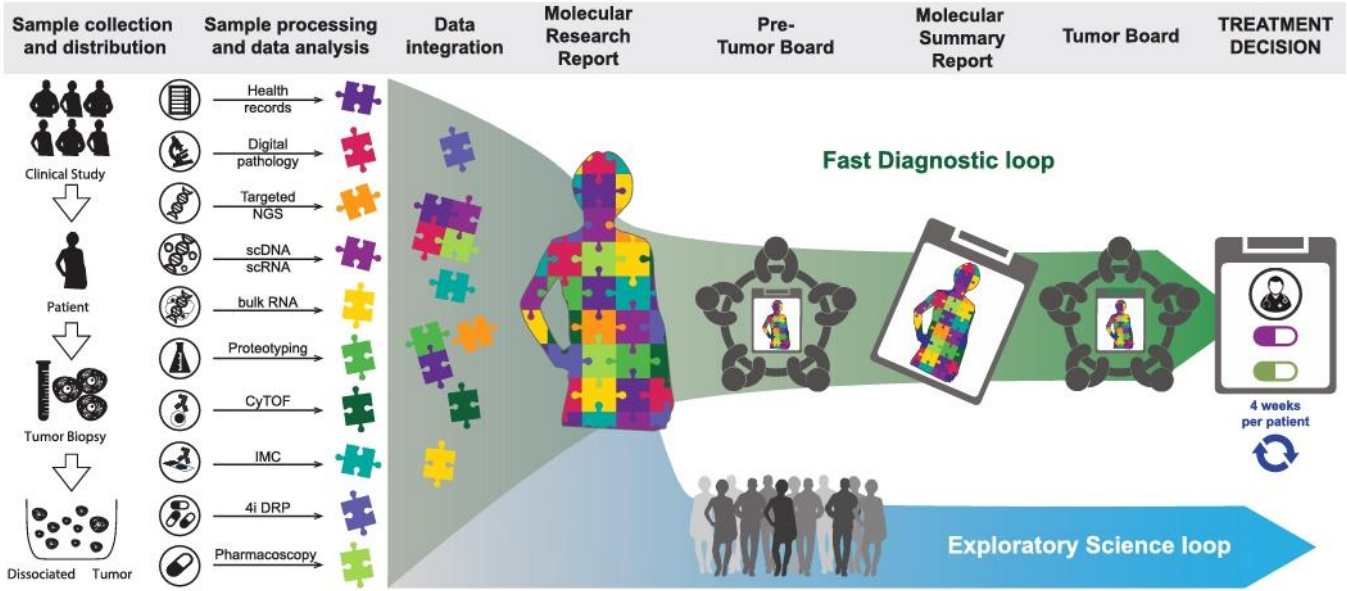
Disclosures

Martin Zoche receives research grants from F. Hoffmann-La Roche Ltd. and consulting fees from Astra Zeneca, Bayer, GSK and the Swiss Government.

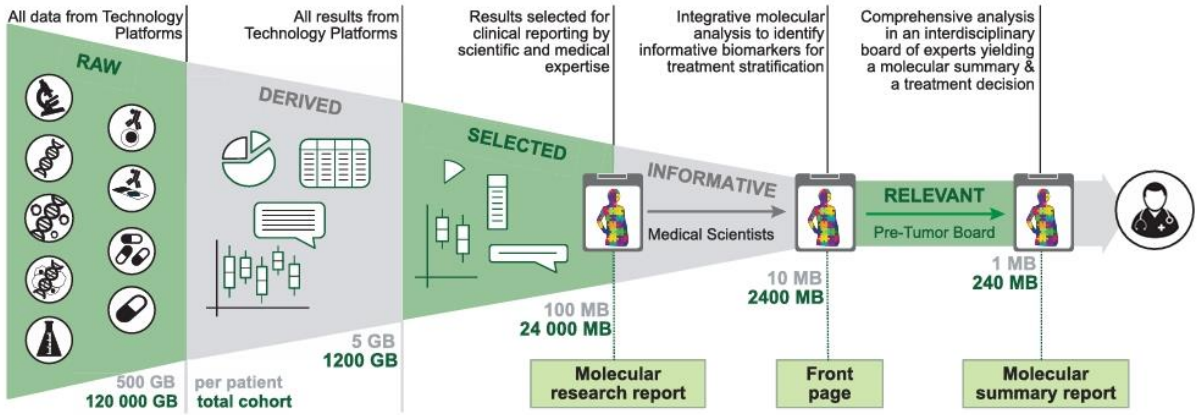
Beyond Genomics: Functional and -omics Data for Therapy Decison

The Tumor Profiler (TuPro) Study

The study workflow



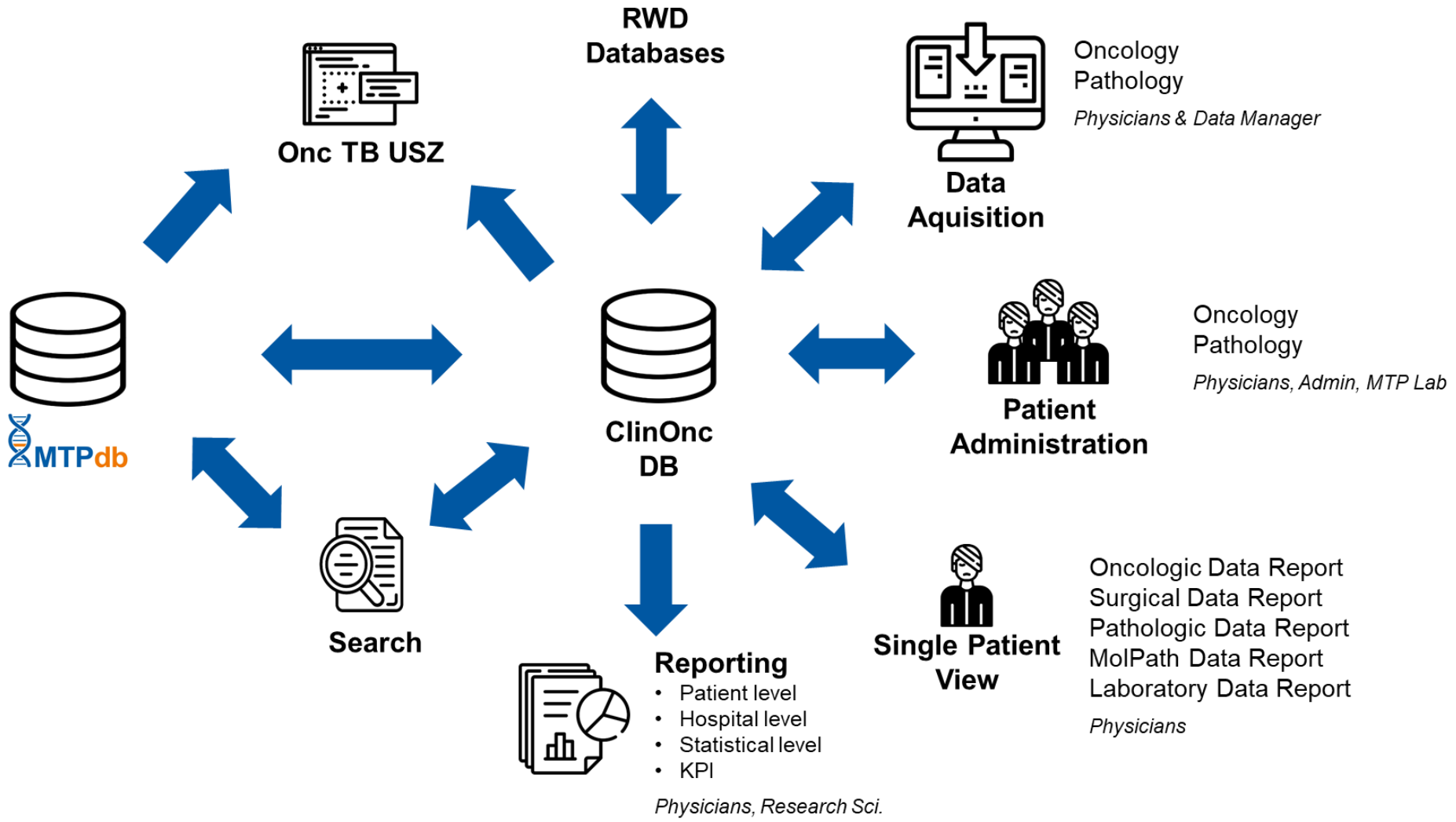
Schematic representation of the qualitative and quantitative transition from the raw data generated by all TuPro technology platforms to the molecular summary report.



4i DRP, iterative indirect immunofluorescence imaging Drug Response Profiling; CyTOF, mass cytometry; IMC, imaging CyTOF; sc, single-cell

Oncology Database

Communication with a variety of different databeses in the hospital



FHIR – Fast Healthcare Interoperability Resources

A global international standard - open source

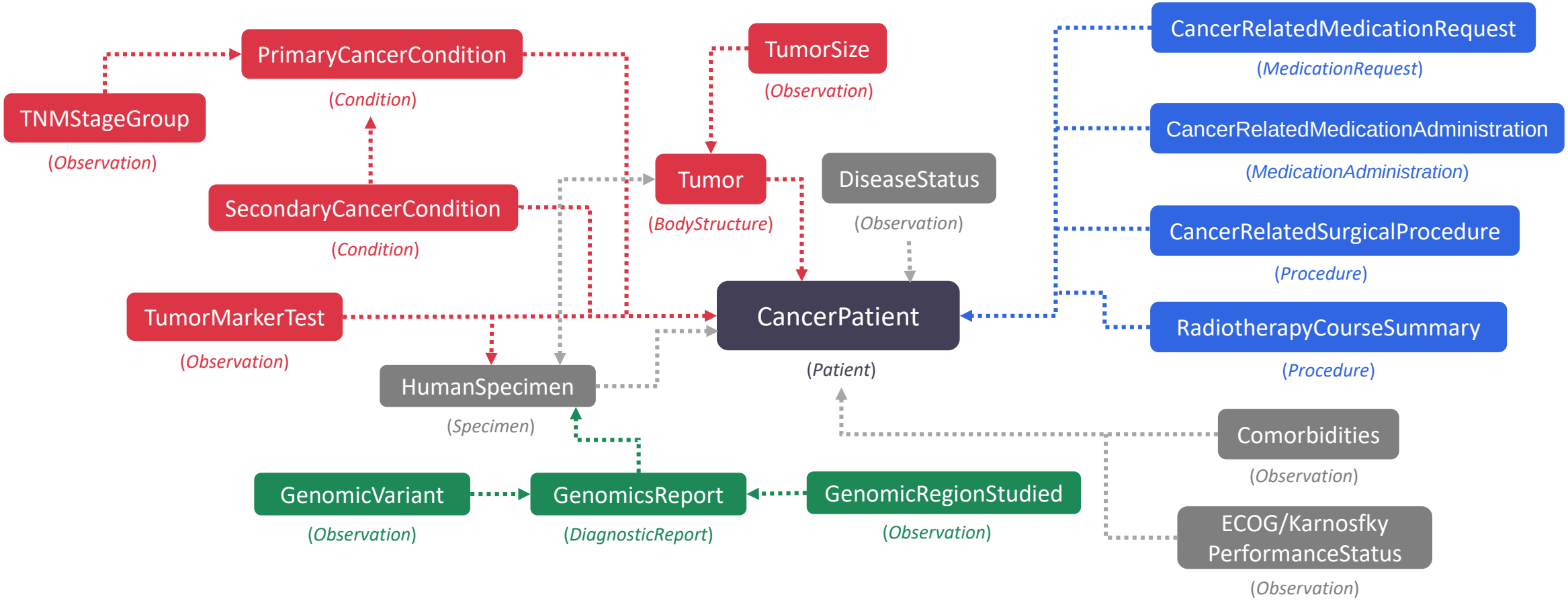
HL7 FHIR

- Natural **evolution of HL7** standards
  Combines the best of HL7 with the latest of web standards
- Full use of **terminology systems** and **coded concepts**
  No free-text or unstructured data
- Already adopted or integrated in most **modern EHR systems**
  EPIC and KISIM already provide FHIR interfaces
- All content is **freely available**
  Open-source with no charges for licensing
- Quickly gaining **popularity** and adoption
  A statistic of FHIR projects in just one popular public FHIR repository:

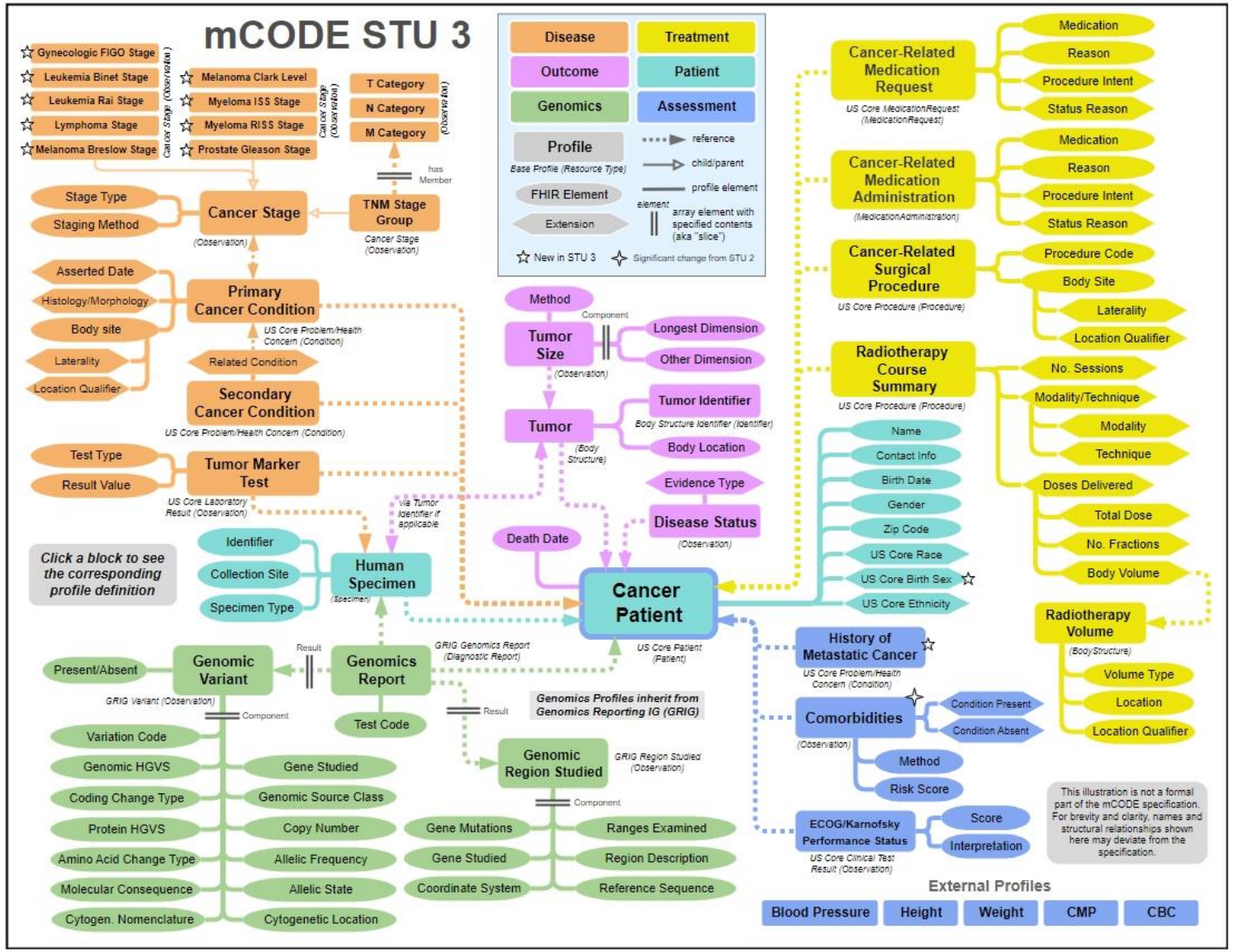
ORACLE · Google · IBM · NHS · Allscripts · Mayo Clinic · CISTEC · Stanford Health Care · Cleveland Clinic · amazon · Karolinska University Hospital · Roche · Microsoft · Amsterdam UMC · Epic · NIH · CODEX · MITRE · Massachusetts General Hospital · Johns Hopkins Medicine · Geisinger Health Plan

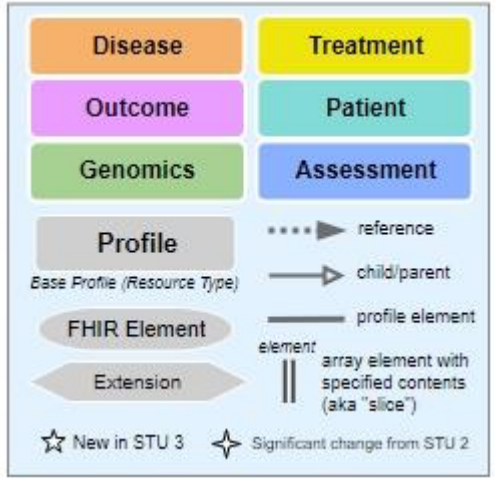
mCODE – Minimal Common Oncology Data Elements

"mCODE™ is an initiative intended to assemble a core set of structured data elements for oncology electronic health records (EHRs). mCODE is a step towards capturing research-quality data from the treatment of all cancer patients."



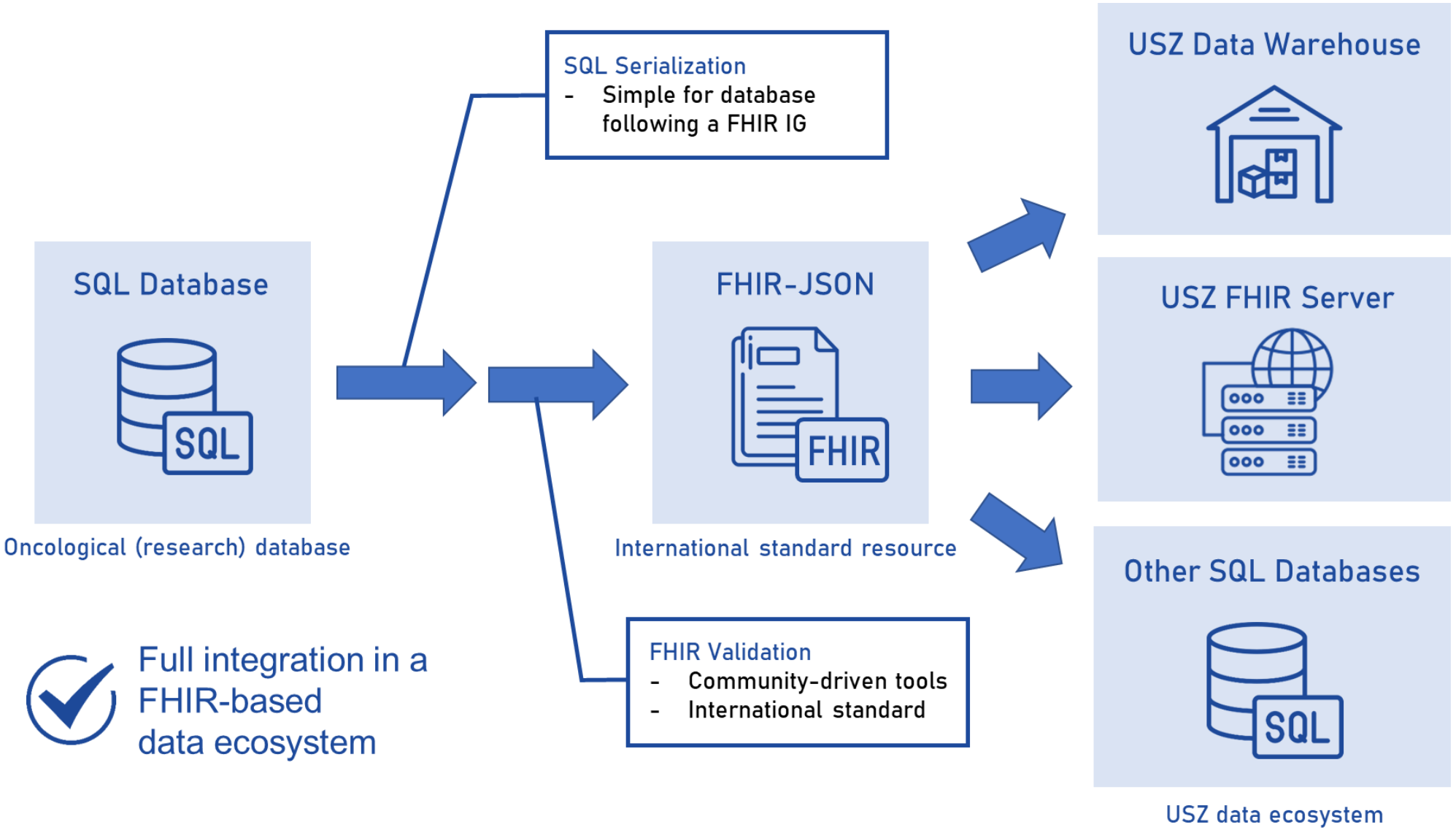
mCODE – Minimal Common Oncology Data Elements



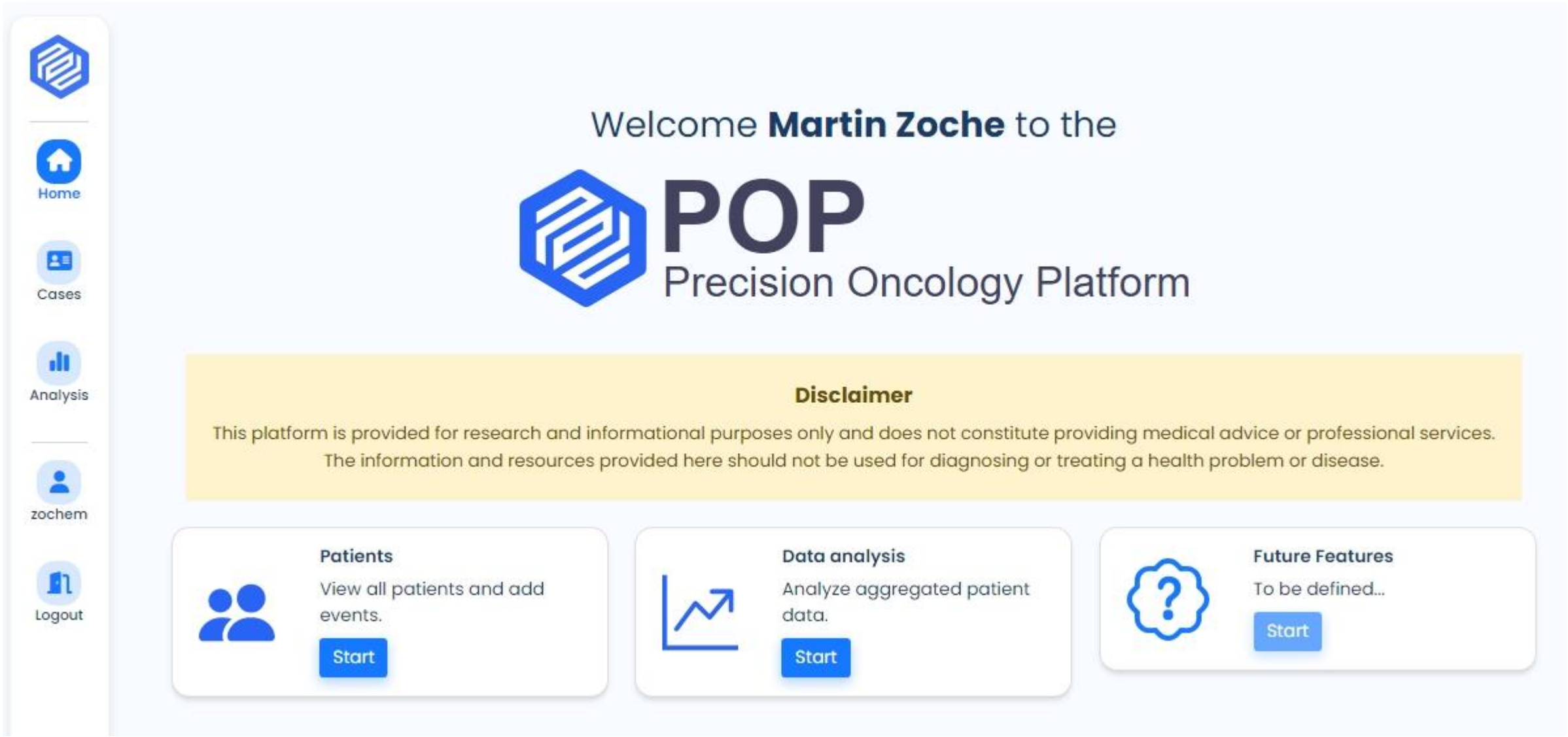


adapted from build.fhir.org/ig/HL7/fhir-mCODE-ig/

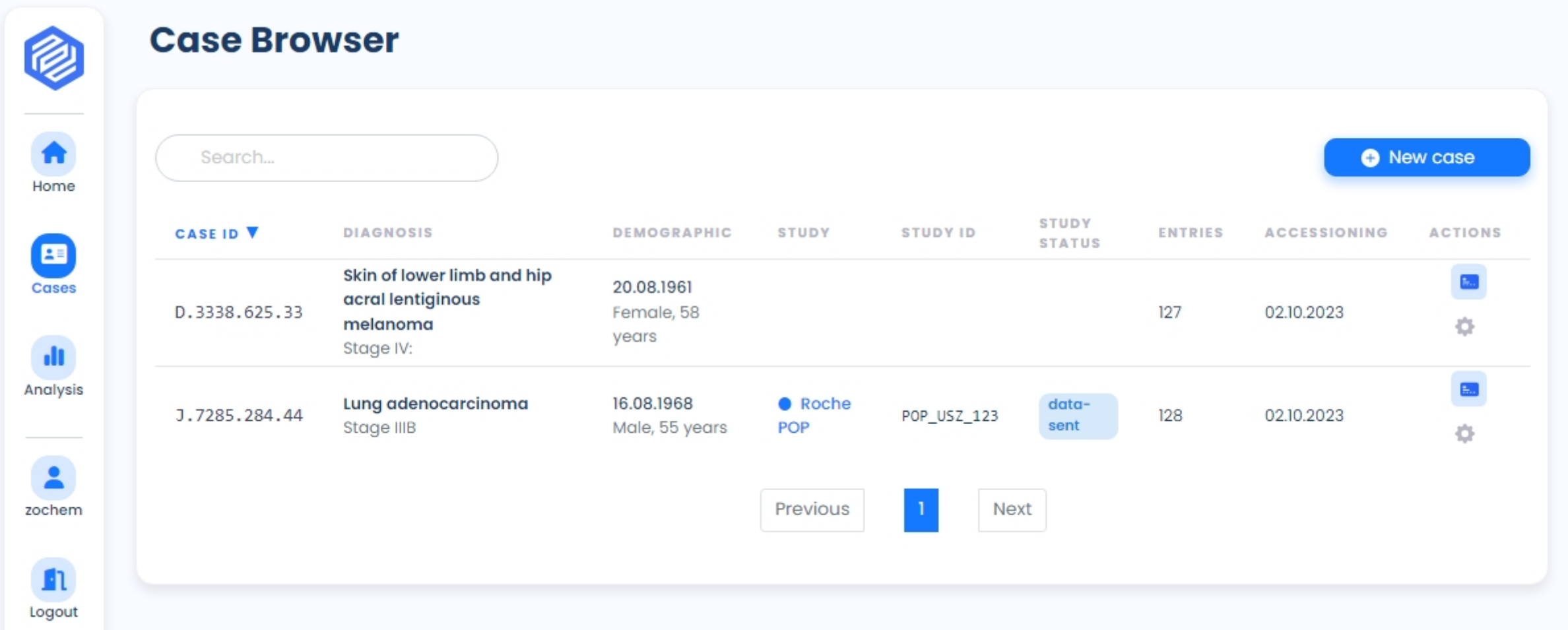
mCODE – Integration and Interoperability



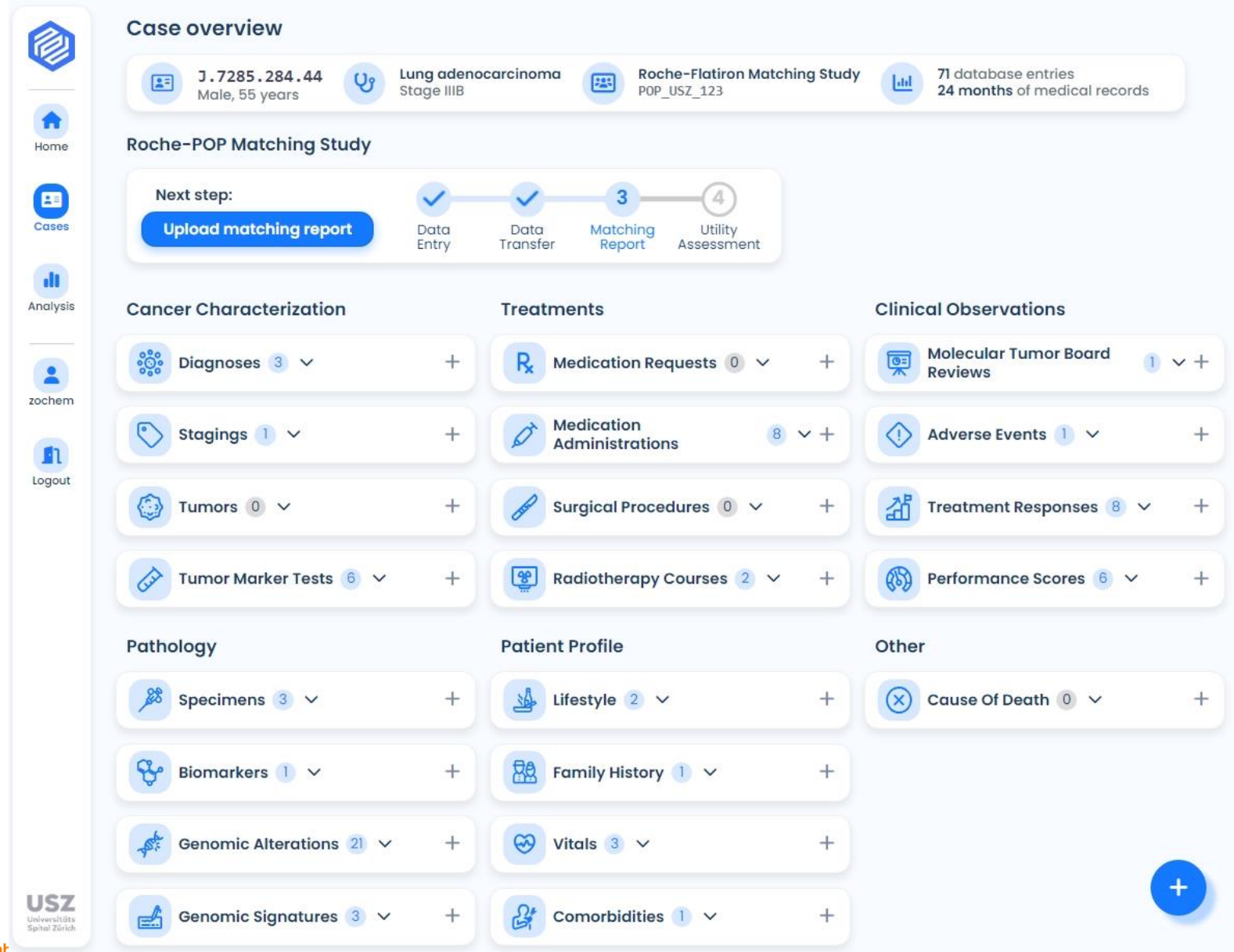
POP – Landing Page



POP – Case Browser



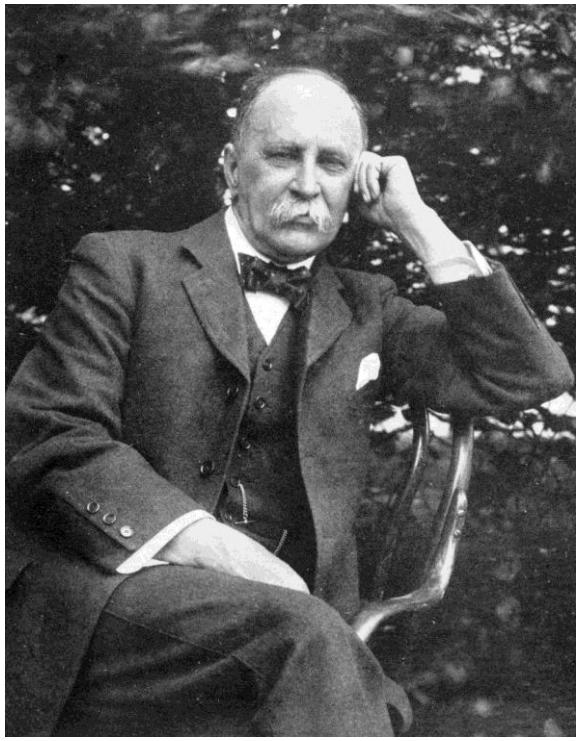
POP – Case Overview



Thank You for Your Attention

"If it were not for the great variability among individuals, medicine might as well be a science and not an art"

Sir William Osler, 1892



Where molecular tumor profiling leads oncology to best patient care

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