

UNLOCK ACTIONABLE INSIGHTS

Accenture Scientific Informatics Services

BUSINESS CHALLENGE

With rapid growth in pharmacogenomics research and biomarker development, this academic biorepository client **needed greater visibility and intelligence around sample management data** to support clinical research. While sample data might typically come from one particular study, group, or research environment, “future use consent” may allow those samples and associated data to be used more broadly than the researcher initially envisioned. Samples from one study may hold key biomarker information relevant to another study. Therefore, **integrating and reconciling disparate sample data into a single view** is critical to help scientists select the best existing samples or data to advance their research studies.

The client sought the assistance of Accenture Scientific Informatics Services to **identify technologies and related strategies that improve overall sample intelligence and enable pharmaceutical clients to efficiently utilize sample inventories**. The biorepository aimed to treat samples not just as a commodity but as a reusable and valuable scientific asset that could be repurposed.

PROJECT APPROACH

The Accenture team conducted an initial assessment to help the client understand how sample-related data could be coordinated and harmonized, using data virtualization. For example, in today’s environment, biorepository clients need to know more than just the sample’s location. Descriptive data that helps researchers understand important characteristics - such as **what the sample can be used for, how it has been consented and relevant clinical or laboratory testing result data** - are increasingly important. The Accenture team:



Developed the systems design and architecture for a sample intelligence platform



Facilitated the review, selection, negotiation and acquisition of best-fit commercial software tools to be used in the platform



Deployed, configured and developed the software environment to bring sample intelligence to market

Ultimately, the team **developed a virtual data layer that provides a logical and canonical view of data** from disparate, structured, semi-structured and unstructured data sources. Clinical datasets integrated within the platform included patient consent, patient demographics, patient visits, laboratory results, clinical observations and biospecimen metadata. This unified intelligence could then be served to scientists or clinical researchers in innovative visual ways, **providing them with insights needed to assess reuse of samples** or associated data in ongoing studies.

RESULTS

With its new data virtualization capabilities, the client is **elevating sample management data from an expendable commodity into a more strategic, reusable and valuable scientific asset** for the research community. Additionally, the insights and analysis supported by the sample intelligence platform reduce research operational costs and time to market for research deliverables.