

Genomic and Clinical Informatic Biorepository Audit and Strategic Plan

Client Profile: Major North American Academic Medical Center
Focus Areas: Operations, Capital Planning, & Governance

SETTING

An academic health system supported an enterprise-scale biorepository that had accrued over 60,000 participants over an eight-year period. ArgoPond was engaged to evaluate the program as it prepared to accelerate sample acquisition, scale-up facilities, and pursue BioPharma partnerships.

The operational baseline was characterized by three structural challenges:

Capital and Operating Intensity: The program received a \$15 million lifetime institutional investment, with an annual operating budget often exceeding \$1.5 million. Importantly, the performance of internal user recharge billing was unknown.

Operational and Asset Fragmentation: The core flagship program co-existed alongside more than 70 independent, uncoordinated campus biorepositories, driving redundant physical footprints, duplicative staffing structures, and zero centralized visibility into total biological assets.

Metric and Feedback Deficits: The program lacked any structured mechanism to track sample utilization, direct scientific impact (publications and grants), or service turnaround times, leaving investigator satisfaction entirely unmeasured.

OPERATIONAL AUDIT

To establish an empirical baseline for the repository's operational performance and user sentiment, we executed a multi-month, 360-degree assessment:

Stakeholder and User Interviews: Conducted 76 structured interviews across the organization, engaging medical school scientific and financial leadership, core operational personnel, and both active and unsuccessful users.

User Sentiment Analysis: Measured investigator satisfaction using a standardized Net Promoter Score (NPS) benchmark, isolating a strongly bimodal score of 27%. Dissatisfied users cited opaque sample access workflows, unexplained decision delays, and perceived departmental favoritism.

Asset, Demand, and Efficiency Mapping: Assessed capital equipment inventory, staffing ratios (FTE requirements per sample processed), and historical researcher demand. These

datasets enabled Monte Carlo-based 10-year forecasts simulating operational requirements across limited, expected, and aggressive growth scenarios.

External Benchmarking & Competitive Analysis: Engaged directors of the largest US and UK biorepositories to map industry best practices in service quality and recharge cost-recovery. Interviews with pharma technical leaders and audits of public records for analogous consumer genomics platforms (such as 23andMe) informed our commercialization assessments.

STRATEGIC RECOMMENDATIONS

We delivered an actionable operational blueprint to position the program for long-term fiscal sustainability, structural succession, and improved research service delivery:

10-Year Capital and P/L Modeling: Built predictive simulations projecting payroll, equipment replacement, and spatial constraints across three distinct scaling scenarios.

Governance Restructuring: Proposed transitioning from investigator-led management to a centralized, operations-focused Executive Director (MBA or equivalent) to align day-to-day service delivery with institutional budgets.

Structured Recharge Capture: Formulated a tiered, federally compliant user-fee architecture to offset operating overhead and establish an active cost-recovery model.

Community Trust Framework: Established a formal, representative consultation model to proactively manage the ethical, regulatory, and public relations risks of transitioning diverse patient cohorts into commercial BioPharma partnerships.

FIDUCIARY IMPACT

While institutional implementation of large-scale consolidation is a multi-year administrative process, the immediate value of our engagement was the elimination of strategic and financial opacity:

Quantified Hidden Liabilities: For the first time, university leadership received an objective valuation of the physical, capital, and compliance liabilities across their 70+ uncoordinated facilities.

De-Risked Capital Planning: The 10-year Monte Carlo models provided the Dean's Office with a rigorous, data-driven framework to evaluate future BioPharma partnerships and capital scale-ups.

Solidified Internal Governance: The independent review transitioned a highly sensitive, politically charged internal discussion into an objective, finance-driven capital allocation exercise.