

Modernizing Clinical Analytics With Shiny App Development

A top 10 biopharma modernized clinical analytics at scale with Atorus™

The Challenge

Regeneron, a top 10 biopharma company, was running its safety, efficacy, and biomarker analytics on static SAS® reports and aging visualization tooling. The workflows were slow to produce, expensive to maintain, and difficult to reuse across studies. One program was generating roughly 5,000 static reports a year. The goal was a reusable clinical analytics model: one that worked study after study, served a wide range of stakeholders, and held up under regulatory scrutiny.

The Solution

Shiny App Development

Atorus led the engagement start to finish, from system architecture and data access design through application development and ongoing managed services. Instead of adding a dashboard to existing reports, the team built a reusable model for clinical analytics that can be used study after study.

Atorus delivered four production-grade Shiny applications, hosted on Posit Connect with Active Directory and role-based access control. Atorus also connected to the client's existing SAS® infrastructure so data teams could work across both environments. Each application replaced a slow, static workflow with interactive, GxP-validated data visualization built for the way clinical teams review data.

Adverse event safety monitoring, with
interactive incidence, timelines, and TEAE views

Replaced static SAS® safety reports

A consolidated key metrics and statistical review app

Unified two separate review frameworks
into one configurable tool

Biomarker visualization for multi-analyte comparison

Replaced a legacy commercial visualization platform

A configurable statistical review application

For participant disposition, efficacy endpoints,
and safety analysis

Why It Worked

The gamechanger lies in shared reusable components and a common data model. Database ingestion that once took months was reduced to days, and standardized outputs made figure generation faster and more consistent across teams. Together, each new study loads immediately from the start.

The Impact

The move from static reports and legacy visualization to reusable Shiny dashboards is projected to deliver significant and compounding savings:

~\$10M

projected annual savings, and counting

4

production applications in a multiyear engagement

~69%

projected cost reduction vs current state

~5,000

static reports a year replaced

“Our teams were spending far too much time producing reports that no one could interact with. Moving to reusable Shiny apps changed how soon we could query the data and get an answer. Atorus understood the clinical side and the engineering side, which is why the work held up in a regulated environment.”

— Ryan Yu, Director, Statistical Programming, Head of Scientific Computing Technology, Regeneron

Why Atorus

Atorus pairs extensive statistical programming and biostatistical analysis experience with production R programming and Shiny app development built for regulated environments. That combination is what lets a validated application move from development to production without compromising GxP compliance and regulatory readiness.

Ready to modernize your clinical data visualization?

Talk with Atorus about Shiny app development for your clinical portfolio.

LET'S TALK

