Clinical Trial Operations Dashboard

Overview

This dashboard was developed as part of the Novartis Case Study Competition to address operational risk management in clinical trials. It transforms complex trial data into prioritized, actionable insights for Clinical Research Associates (CRAs) and Data Quality Teams.

What This Dashboard Does

- **Identifies high-risk subjects** automatically across all active studies
- **Calculates a Data Quality Index (DQI)** that scores each subject's operational risk
- **Detects risk signals** like missing data, overdue visits, and unresolved queries
- **Prioritizes work** so teams focus on what matters most
- **Maintains compliance** with full audit trails for regulatory requirements

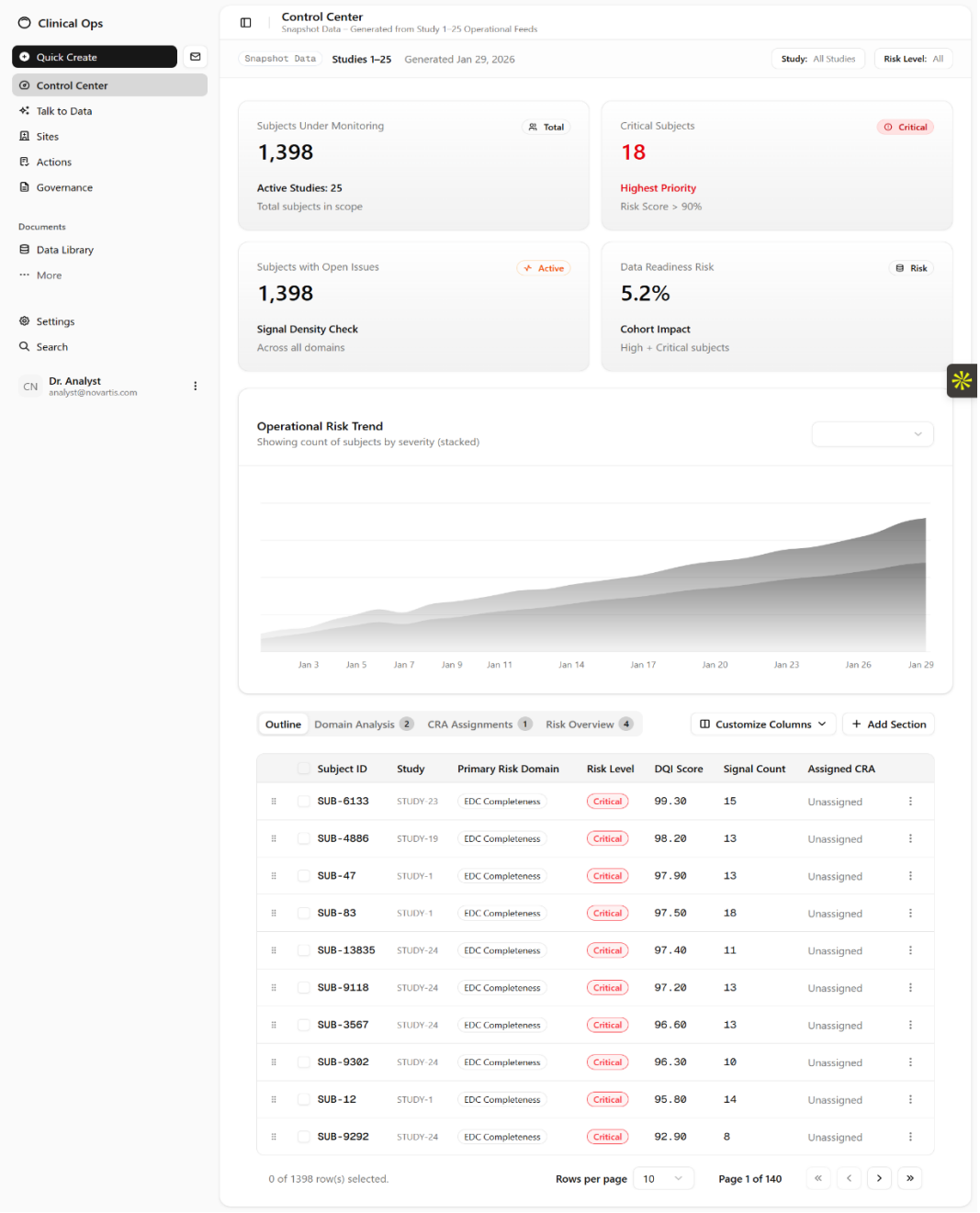
Live Demo

- **Landing Page:** https://novaratis-landing-page.vercel.app/
- **Dashboard Application:** https://novaratis-app.vercel.app/

Dashboard Sections Guide

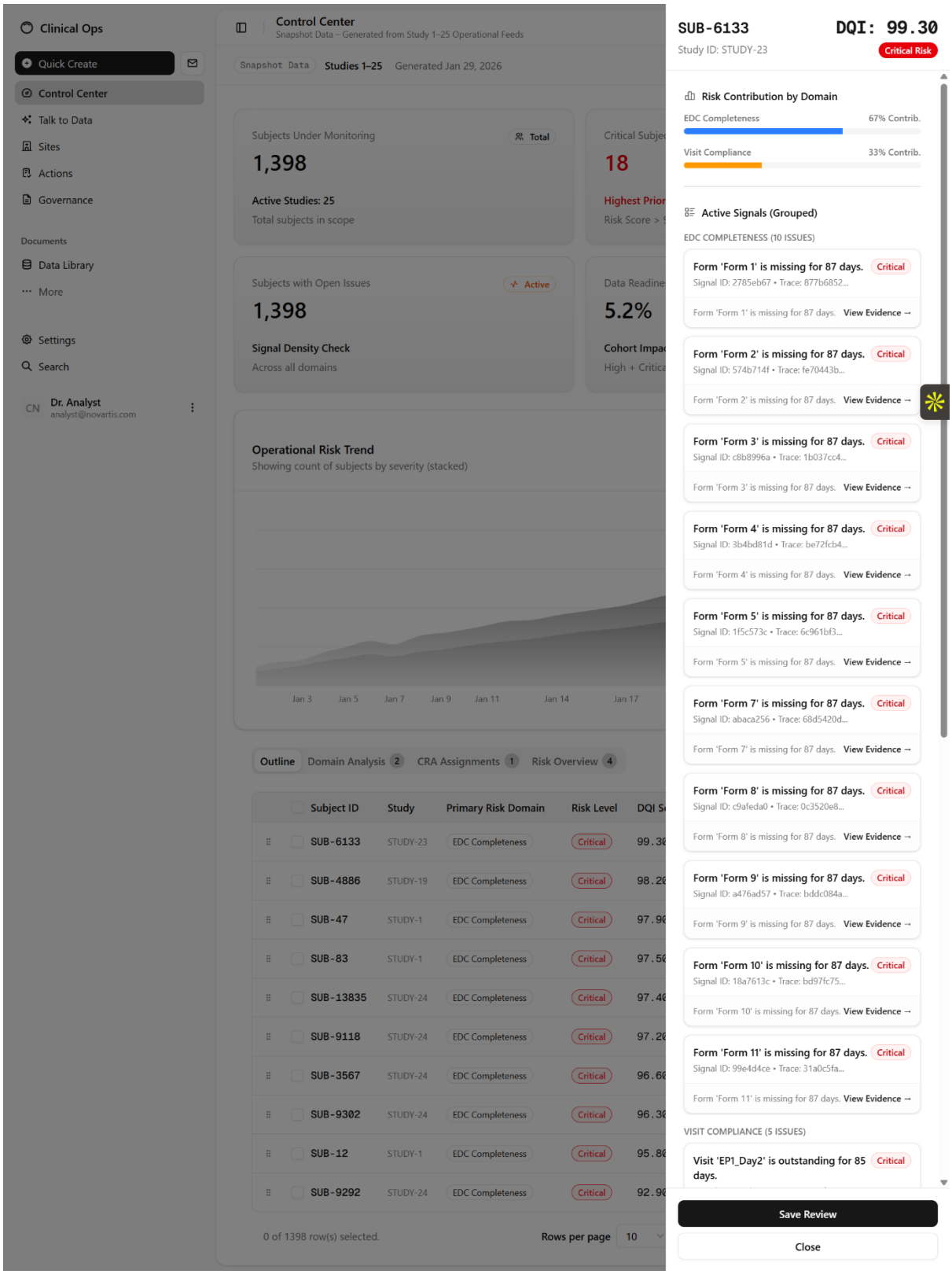
The following pages provide detailed descriptions of each dashboard section with screenshots showing how to navigate and use the platform.

1. Front Page – Control Center



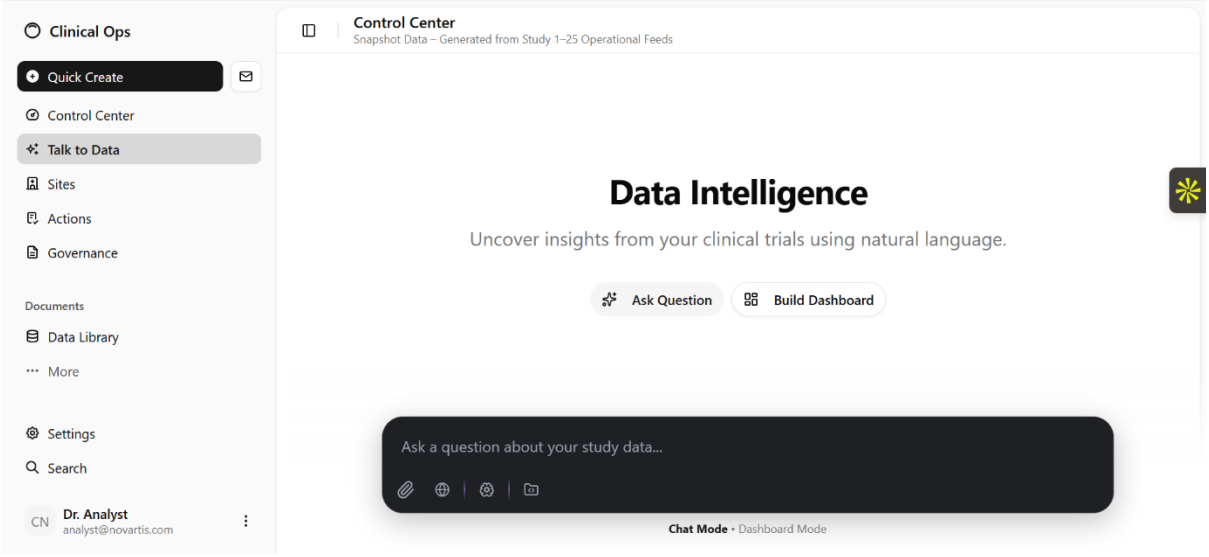
(Your main dashboard showing real-time portfolio health and high-priority subjects that need attention.)

2. Detailed Analysis on clicking the subject ID on the front page



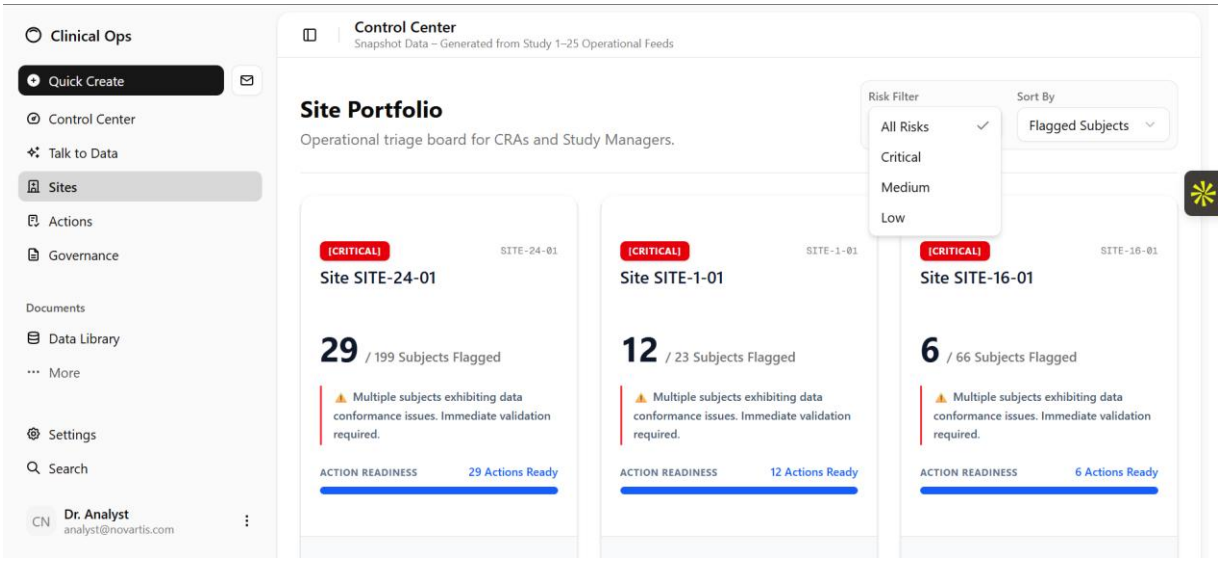
Detailed view of a single subject showing their DQI score (say 99.30 for SUB 6133), risk breakdown by domain, and all active signals with evidence links.

3. Talk to Data – Chatbot

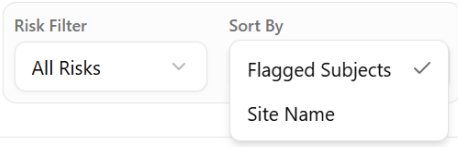


Natural language query interface to ask questions about your trial data and get instant answers without writing code or reports.

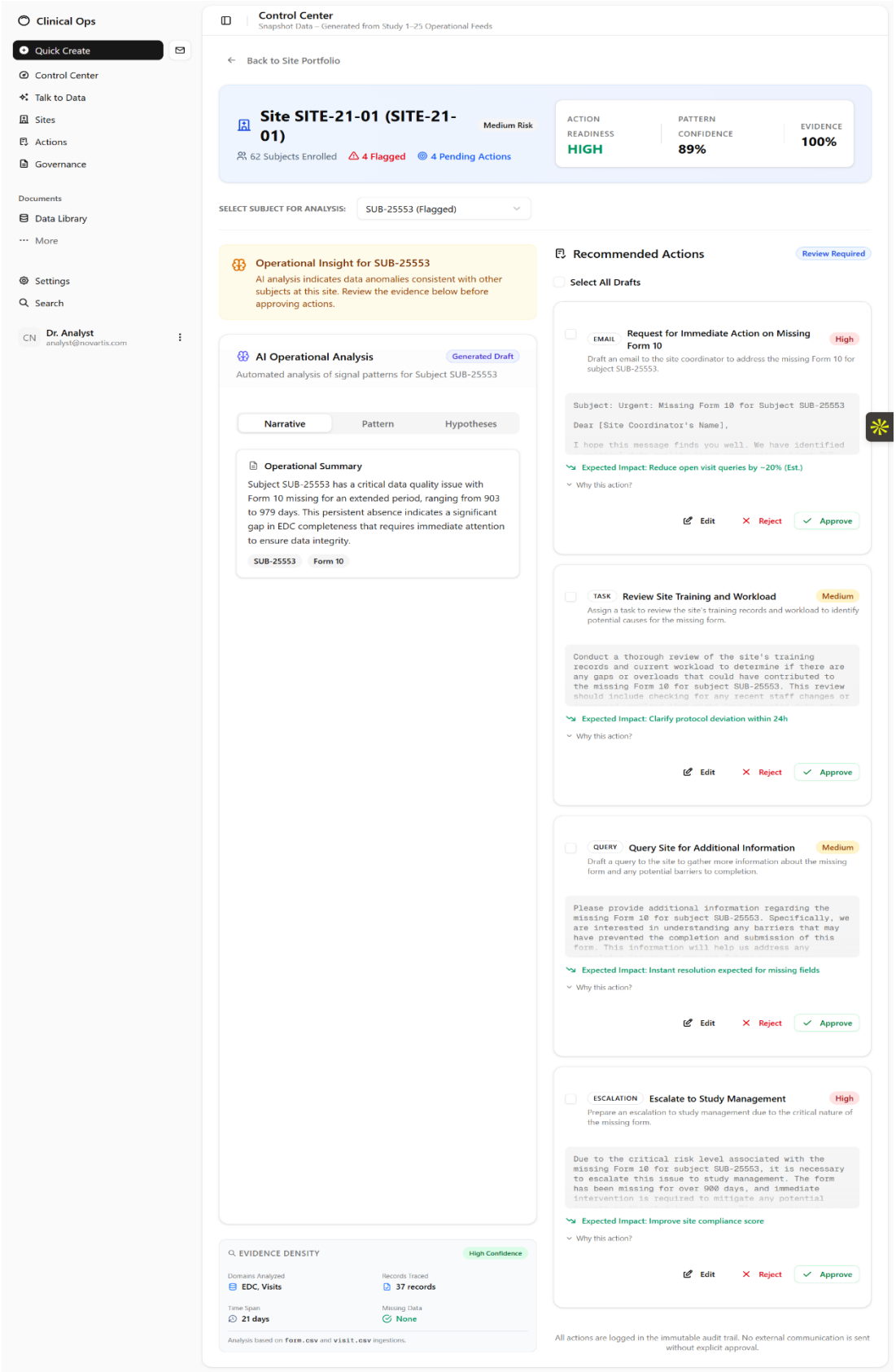
4. Sites



Site-level performance monitoring showing flagged subjects per site, risk status, and action readiness with filters to identify sites needing attention.

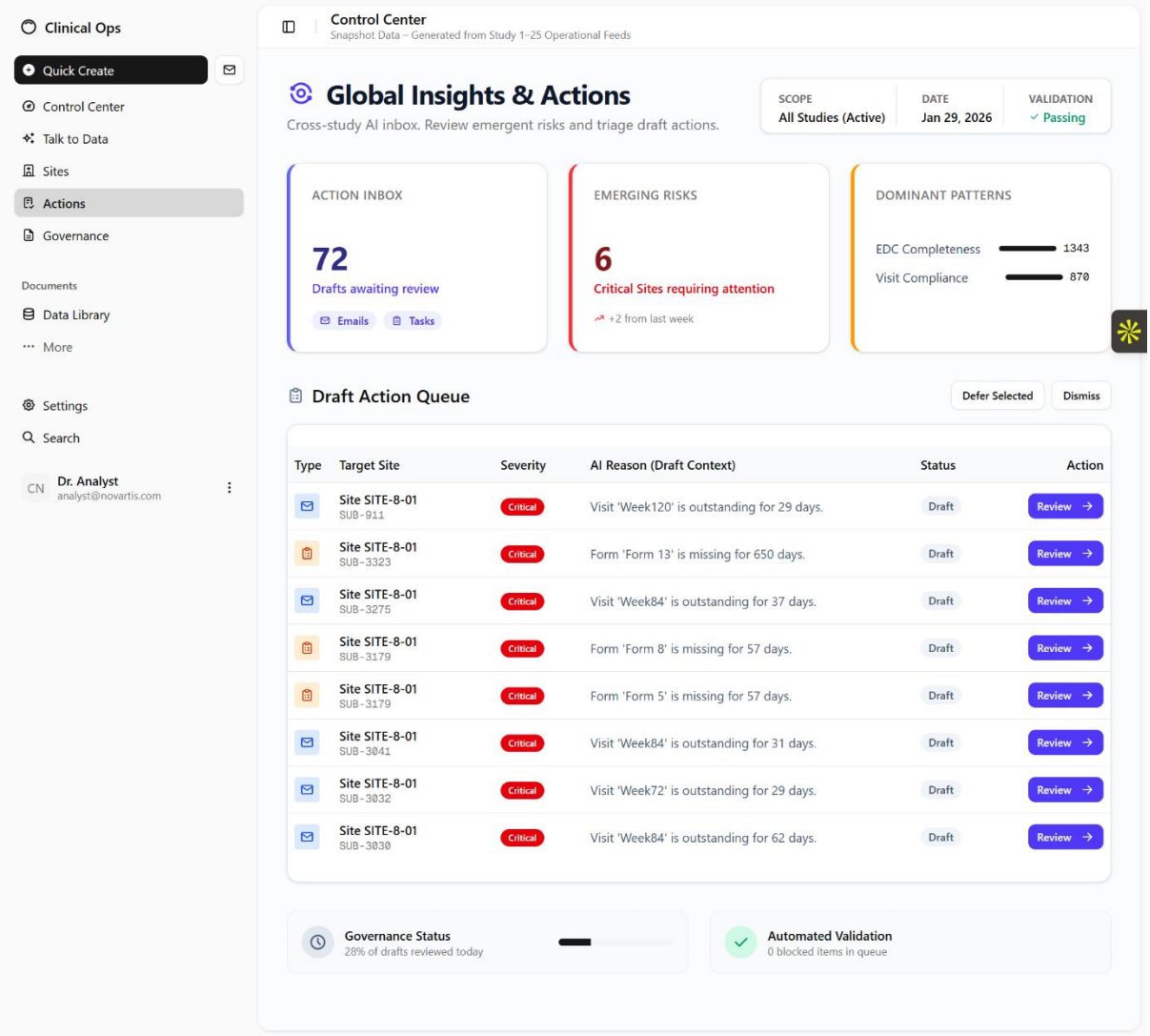


5. Page that opens up on clicking “review and approve actions”



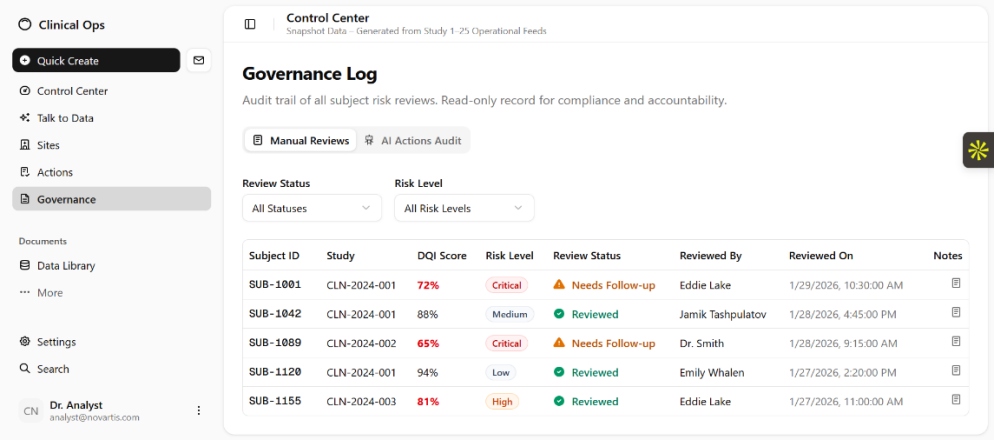
Deep dive into a specific site showing AI-generated operational insights, recommended actions with expected impact, and workflows for review and approval. (This is where Human-in-loop comes in)

6. Actions (Global insights and actions)



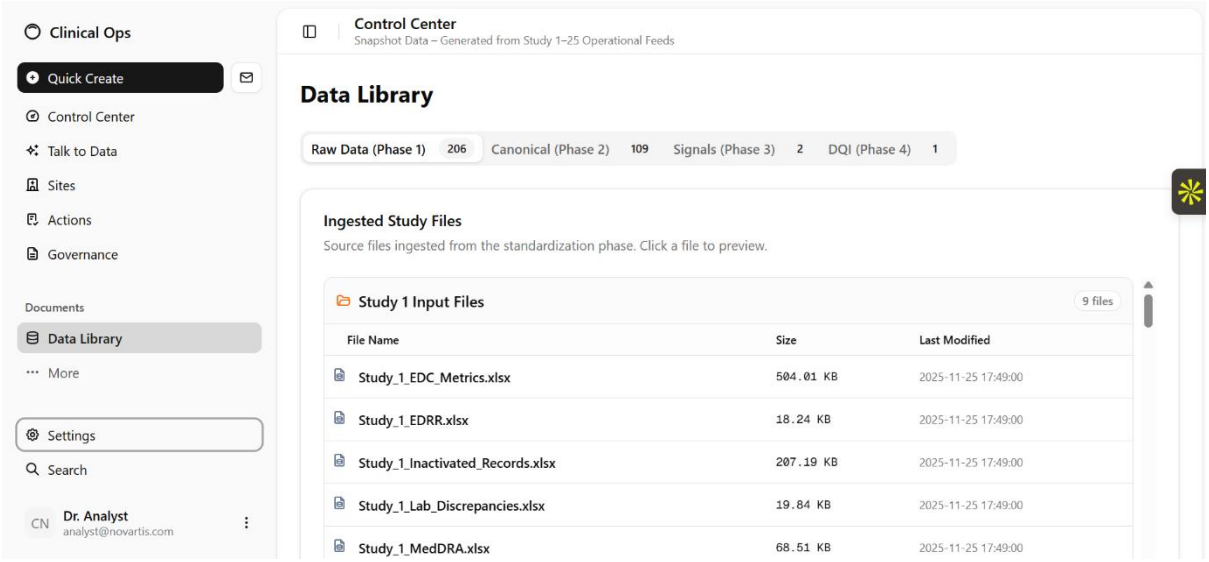
AI-powered cross-study action inbox showing 72 draft actions awaiting review, 6 critical sites requiring attention, and dominant risk patterns across the portfolio.

7. Governance



Complete audit trail of all subject risk reviews showing who reviewed what, when, and their decision status for regulatory compliance and accountability.

8. Data Library



Repository of all ingested study files organized by processing phase (Raw Data, Canonical, Signals, DQI) with file previews and metadata.

Conclusion

This dashboard demonstrates a comprehensive approach to clinical trial risk management by combining automated risk detection, AI-powered insights, and governed workflows. By prioritizing subjects based on data quality metrics and providing clear evidence trails, the platform enables clinical operations teams to focus their efforts where they matter most, ultimately improving data quality, reducing monitoring burden, and ensuring regulatory compliance throughout the trial lifecycle.

For Questions or Feedback:
Contact the development team or refer to the detailed methodology report accompanying this submission.