CAYLENT

Clinical Trial Design Optimizer

Achieve Clinical Trial Excellence with Artificial Intelligence

aws PARTNER Premier Tier Services

Ineffective Trial Design Costs Life Sciences Companies Millions

Life sciences organizations struggle with clinical trial design due to fragmented data systems, siloed decision-making processes, and limited analytics capabilities. This disjointed approach leads to suboptimal patient selection, inappropriate endpoints, and disconnected portfolio strategies, with *over 30% of trials failing due to design issues alone*. Without a data-driven methodology to integrate historical evidence, real-world data, and regulatory precedents into cohesive trial designs, companies face extended timelines, escalating costs, and diminished portfolio value in an increasingly competitive market landscape.

Evolve Clinical Trial Economics & Development with Agentic AI

Our solution provides an agentic approach, using Amazon Bedrock and Amazon SageMaker AI, to clinical trial design through an AI system that integrates disparate data sources, validates design decisions against regulatory precedents, and automates complex optimization scenarios. We create a framework where trial data, patient demographics, and competitive intelligence converge to inform strategic decision-making. By transforming fragmented trial design processes into a data-driven ecosystem, organizations gain unprecedented precision, scalability, and confidence in their clinical development strategy.

Source: McKinsey Research

Impact & Benefits

Cost Efficiency

10-20% reduction in trial execution costs through optimized patient selection and fewer protocol amendments

Time-to-Trial

5-10% acceleration in overall development timelines by streamlining recruitment and reducing screen failures

Better Program NPV

20-30% increase in net present value through improved odds of technical and regulatory success

Learn More

Driving Business Value

Ensuring growth, efficiency, and success through strategic alignment

Areas of Focus

Population Selection	Identify optimal subpopulations based on historical evidence, biomarkers, and predictive modeling
Endpoint Optimization	Design endpoints that balance regulatory requirements, clinical relevance, and statistical power
Protocol Positioning	Analyze market and portfolio fit to differentiate trial designs from existing therapeutic approaches
Criteria Matching	Enhance patient-trial matching through AI-powered document analysis and conversational interfaces

Taking Action

Delivering work that ensures successful execution and maximum impact

Deliverables

Custom Trial Design System	AI platform designed specifically for your unique challenges, therapeutic areas, and data environment
Implementation Support	Comprehensive technical integration, user training, and change management to ensure successful adoption
Strategic Roadmap	A clear path for scaling the solution across additional therapeutic areas and future use cases

www.caylent.com | sales@caylent.com