Enhancing Oncology PTRS Processes With a Cutting-Edge, AI Approach

Global biopharma company leverages patented Intelligencia Portfolio Optimizer™ to enhance its scientific and business decision-making

Core Challenges

- Reliant on a resource-intensive and inconsistent process for evaluating phase transition and probability of technical and regulatory success (PTRS)
- Limited data and lack of objectivity for drug development portfolio go/no-go and investment decisions
- Need to support oncology pipeline development with data-backed insights for informing more confident scientific and business decisions

Key Outcomes and Impact

- Streamlined and improved workflow for PTRS assessments leveraging AI-supported insights and consistent data
- Time savings from months to weeks on the PTRS process
- Access to AI Explainability providing transparency into the why behind the predictions
- Potential savings of an estimated $22M in Phase 3[1] clinical development costs

Background/Challenge

A global biopharma company approached Intelligencia AI™ with two main objectives: improving the success of its oncology drug development process and fostering more efficient workflows and processes. The company sought assistance from an external solution provider to address internal inconsistencies and inefficiencies in evaluating phase transitions and the probability of technical and regulatory success (PTRS) in early-stage drug development.

With a growing oncology portfolio and complex clinical development pathways, the biopharma company needed to enhance its internal PTRS methodology. At the time, the company relied on data from pharma consortium databases for a phase 2 asset. To obtain statistically significant results and improve decision-making, the company augmented its approach with Intelligencia AI's AI-driven PTRS process, aiming to establish a more efficient, consistent and unbiased method for informed scientific and business decisions.

The Collaboration Process

In leveraging Intelligencia Portfolio Optimizer™, the head biostatistician at the biopharma company, discovered a significant discrepancy between the internally calculated PTRS prediction for a leading program and Intelligencia AI's AI-driven prediction. The internal prediction - at 45% - was significantly more favorable than the Intelligencia AI PTRS assessment, which was below 10%.

The Outcome and Impact

The biopharma's oncology program failed during the engagement period with Intelligencia AI. If they had had access to the more accurate, AI-powered prediction, the company could have discontinued the program earlier, saving significant resources. Comparing the PTRS assessments, the low PTRS and then approval failure validated the accuracy and credibility of Intelligencia AI's methodology.

Using insights generated with Portfolio Optimizer, Intelligencia AI could have saved the biopharma organization an estimated $22M of phase 3 development costs.

"I've had the opportunity to work with Intelligencia AI for over a year, and I have consistently experienced the thorough thinking behind every assumption and methodology being used. Because of this, I have built great trust in our working relationship and trust and confidence in the data and the processes. The quality of work produced has been overwhelmingly impressive. This was truly the first time I felt I had access to enough data to help me test my theory and draw meaningful conclusions."

—Portfolio Management and Optimization Leader, Biopharma Company

Intelligencia AI

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"We see Intelligencia AI as an extension of our internal team – a true collaboration. We rely on their expertise, meticulous processes and methodologies to guide us and augment our clinical development risk assessment efforts. They are far more than just another vendor."

—Head of Disease Area Strategy, Biopharma Company

The results of this study convinced the biopharma company to adjust its current workflow for late-stage assets. They evolved the process to require a triangulation of internal predictions, expert elicitation, and the newly added AI-driven phase transition and PTRS predictions from Intelligencia AI to have a more comprehensive, objective and data-backed approach.

Making Substantial Impacts Both Short- and Long-Term

Through this collaboration, the biopharma company experienced an immediate positive impact of introducing a complementary and enhanced approach to PTRS assessments. By leveraging the new AI-backed process and working collaboratively with the Intelligencia AI team, the company can make better science and data-driven decisions.

The global biopharma company now has greater consistency when assessing phase transition and PTRS as well as a streamlined workflow that reduces the burden on project teams and shortens decision-making timelines from several months to weeks.

1 Office of Science and Data Policy. (2014, July 25). Examination of clinical trial costs and barriers for drug development. U.S. Department of Health and Human Services. https://aspe.hhs.gov/reports/examination-clinical-trial-costs-barriers-drug-development-0

Want to enhance your current PTRS processes for elevated decision-making? Let's Talk

About Intelligencia AI
Intelligencia AI™ leads the way in leveraging proprietary data, biomedical expertise and artificial intelligence (AI) with its patented technology to address significant challenges in the pharmaceutical industry. These challenges include lengthy drug development timelines, excessive costs, and unsustainable return on investment (ROI). Its suite of AI-powered solutions delivers actionable insights crucial in mitigating risks and enhancing decision-making associated with drug development by providing an accurate, unbiased assessment of a drug's probability of success.

Founded in 2017, Intelligencia AI is headquartered in New York, NY, with offices in Athens, Greece, and employs 110 individuals globally. Visit intelligencia.ai to discover more.

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