
Insights from bPrescient



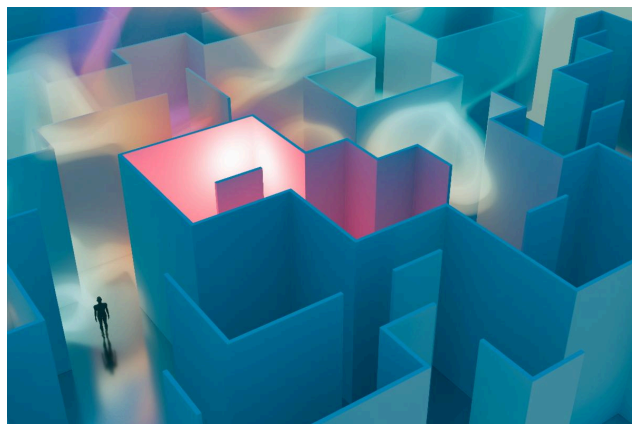
INSIGHTS ON TECHNICAL INNOVATION IN BIOTECH AND PHARMA

AUGUST 2026

Translating AI Investment into Clinical Success

Challenges in AI Adoption and New Therapy Development

A widely-cited 2025 MIT study found that 95% of enterprise AI pilots did not deliver measurable business impact. Crucially, the primary barrier was not the technology itself. Many initiatives focused on isolated point solutions that were disconnected from real workflows, robust data foundations, and clear organizational ownership.



In pharmaceutical R&D, the implications are particularly significant. Estimates suggest that bringing a new medicine to market can require investment of up to \$2.6 billion, although the figure varies considerably by methodology, therapeutic area and program.

Approximately one in ten candidates entering Phase I clinical development ultimately achieves regulatory approval. With a growing number of AI-enabled and AI-discovered candidates entering clinical development, organizations face increasing pressure to translate investment in AI into better decisions, more effective trials and improved clinical outcomes.

What Effective AI Looks Like in the Clinical Space

The probability of clinical success can be increased when organizations define the required clinical outcomes first, then work backwards to identify the evidence, decisions and AI capabilities needed across development. One area in which bPrescient is seeing meaningful progress is the early development of a coherent biomarker and patient stratification strategy. This strategy can inform fit-for-purpose sample collection, assay development, and biomarker analysis across preclinical and clinical phases. The resulting evidence can support earlier termination of programs that are unlikely to succeed, while enabling clinical trials to focus on the patient populations most likely to benefit.

Today's AI tools are well-suited for meeting these challenges, but only when two conditions are met. First, they need access to well-governed, interoperable data across the R&D lifecycle. Second, they must be embedded within a holistic decision framework designed to increase the probability of clinical success. Technology creates value only when its outputs influence consequential scientific, portfolio, and clinical decisions.

How bPrescient Can Help Improve Success Rates

At bPrescient, our consultant experts help organizations close the gap between AI ambition and clinical delivery. We develop strategies, decision frameworks, and tools that help teams prioritize candidates, generate the right evidence, and allocate resources towards programs with the strongest probability of clinical success. To help our clients, we are offering organizations an initial consultation with a senior advisor from our extended consultant ecosystem, bringing extensive experience in pharmaceutical R&D strategy, digital health, and data-enabled transformation. Our perspective helps organizations identify where AI-enabled programs create value, where they commonly stall, and what must change to achieve measurable clinical impact.

Contact info@bprescient.com to arrange an initial clinical AI strategy discussion with our AI and pharmaceutical R&D strategy experts.

[Get In Touch](#)



[Our Story](#) | [Contact](#)