

Biotech in 2025: The Biggest Challenges and How to Overcome Them

Insights from Denzel Gieling, Vice President Client Services at Panda International

Panda

Biotech in 2025: The Biggest Challenges and How to Overcome Them.

As we enter 2025, the biotech industry stands at a crossroads—facing both unprecedented opportunities and complex challenges. From the rising cost of innovation to evolving regulatory landscapes, companies must navigate a rapidly shifting environment to stay competitive.

At Panda, we work closely with biotech leaders, investors, and innovators to understand the biggest trends shaping the industry. In this article, Denzel Gieling, Vice President of Client Services, explores the key challenges and opportunities biotech companies will face in the coming year - and what they can do to stay ahead.

Let's start by looking at what will be the biggest issue in the biotech industry in 2025 and why.



What will be the biggest issue in the biotech industry in 2025 and why?

The biotech industry faces a critical challenge in balancing the rising costs of innovation with ever-evolving regulatory requirements. As technologies like CRISPR, mRNA, and AI-driven drug development advance, the financial and compliance hurdles grow more complex. This dual pressure threatens to slow down progress, particularly for smaller biotech firms and startups.

The Cost of Innovation Is Rising

Biotech breakthroughs have always required significant investment, but the integration of technologies has raised the stakes even higher. Developing advanced therapies such as cell and gene therapies demands specialised facilities, expert teams, and lengthy research timelines - all of which increase expenses. For emerging biotech companies, securing the necessary funding has become a daunting task, especially as venture capital becomes more selective in an uncertain economic climate.

Consider gene therapy: approximately 95% of these therapies are still in early-stage development, making the investment landscape particularly high-risk. In contrast, cell therapies have progressed further along the clinical validation pipeline, offering a slightly less precarious investment. This imbalance creates additional financial uncertainty, complicating decisions for both investors and biotech innovators.

Adapting to a Shifting Regulatory Landscape

As science evolves, regulatory frameworks are racing to keep up. Authorities like the FDA and EMA are adapting approval processes for emerging technologies, but the landscape remains complex and fragmented. Unclear compliance requirements can delay product launches and increase development costs.

Personalised medicine offers a prime example. Because these therapies are tailored to individual patients, they face heightened regulatory scrutiny and often require custom approval pathways. This bespoke approach slows the journey from lab to market, adding another layer of complexity for biotech firms striving to innovate.

By understanding these challenges, biotech companies can better prepare for the financial and regulatory hurdles ahead. Addressing these issues proactively will be essential to driving sustainable growth and ensuring life-changing therapies reach the patients who need them most.

How can the biotech industry address this issue, or what advice do you have in this area?

Tackling these issues will require a comprehensive approach. Governments and regulatory bodies can play a crucial role by introducing incentive programs such as tax credits for R&D, streamlined approval pathways for groundbreaking therapies, and clearer guidelines for emerging technologies. Encouraging partnerships among biotech firms, academia, and large pharmaceutical companies can also help distribute costs and risks more effectively.

If we look ahead, the biotech industry holds immense potential, but its future will depend on successfully navigating the cost of innovation alongside an evolving regulatory environment. Strategic investments, regulatory modernisation, and enhanced collaboration across the industry will be key to unlocking the next wave of biotech breakthroughs. By addressing these challenges head-on, the industry can continue to deliver transformative therapies that improve lives worldwide.

What will be one of the top trends in biotech in 2025, and how should biotech companies and professionals navigate this trend?

The integration of AI and automation into biotech processes is set to redefine the industry in 2025, driving transformative changes across the value chain. From drug discovery and preclinical testing to manufacturing efficiency and patient monitoring, these technologies hold immense potential to accelerate timelines, reduce costs, and improve outcomes. However, realising this potential requires strategic action, a skilled workforce, and a forward-looking mindset.

The convergence of biology and technology presents both opportunities and challenges. AI models can now analyse complex datasets, predict drug efficacy, and optimise clinical trial design, while automation can streamline manufacturing processes and scale personalised medicine. Yet, to unlock these benefits, biotech companies need professionals who can bridge the gap between computational expertise and scientific knowledge.

The adoption of AI and automation also raises critical ethical considerations, particularly around data usage, algorithmic bias, and patient privacy. Companies must proactively address these challenges to build public trust and align with evolving regulatory standards. Transparent data governance frameworks and a focus on explainability in AI models are not optional—they are essential to maintaining compliance and preserving public confidence.

AI and automation will not just improve existing processes in the future - they will redefine what's possible in biotech. Companies that successfully integrate these technologies into their operations will gain a significant competitive edge, accelerating innovation cycles and bringing therapies to market faster. However, the real value of AI lies in its ability to improve patient outcomes. Those who harness its potential while maintaining an ethical and people-centric approach will lead the industry into a new era.



Any additional thoughts or advice on biotech issues and trends in 2025?

Building a resilient talent strategy for biotech companies transcends traditional hiring practices and extends into fostering an environment that promotes innovation, inclusion, and global collaboration. In 2025, talent acquisition and retention will play pivotal roles in addressing the industry's rapid technological advancements and evolving workforce expectations.



1. Diversity, Equity, and Inclusion as a Strategic Imperative

Today, 85% of biotech companies recognise DEI as essential for success. Research consistently shows that diverse teams drive faster innovation and achieve better business results. But meaningful diversity goes beyond policies; it requires action. Partnering with diverse educational institutions and using detailed demographic data in workforce planning can create a more inclusive environment. This approach not only strengthens the talent pipeline but also attracts professionals who seek employers who share their values.



2. Global Collaboration to Close Expertise Gaps

Biotech research thrives on international collaboration. Scientific breakthroughs in areas like gene editing or AI-powered drug discovery often come from combining expertise from different regions. Creating cross-border partnerships addresses talent shortages while fostering cultural exchange and boosting innovation. With 80% of medtech leaders prioritising investments in advanced technologies, forming global, cross-functional teams is essential for staying competitive.



3. Employee Empowerment and Well-Being

Retaining top talent means creating workplaces where employees feel valued. Companies that offer mental health support, flexible work options, and career development programs see higher engagement and productivity. Notably, 90% of organisations implementing DEI strategies report increased employee satisfaction. Empowered employees are more likely to innovate, stay committed, and reduce costly turnover—a critical factor in the high-stakes biotech sector.

Navigating 2025 and budling a strong talent strategy

In 2025, having the right talent in place is just as critical as navigating regulatory and financial challenges. Whether you're scaling your team, seeking specialised expertise, or future-proofing your hiring strategy, Panda is here to help.

Let's connect to discuss how our team can support your hiring needs in 2025 and beyond.



Denzel Gieling
Vice President Client Services



+31 (0)6 11 13 15 74



d.gieling@panda-int.com