# Pharmaceutical industry prepares for transformative year ahead



The pharmaceutical industry is gearing up for a transformative year, as highlighted in the eighth episode of the bi-weekly panel discussion series "Behind the Headlines" by PharmTech. The episode featured a noteworthy panel consisting of Dr. Vanessa Almendro, VP and Head of Science & Technology Innovation at Danaher Corporation; Elliot Berger, Board Member and Strategic Advisor at Orientation Marketing; Benjamin McLeod, founder of Convey Bio; and Turna Ray, Managing Editor of Precision Medicine Online.

During the discussion, the panel examined the pivotal trends that are expected to shape the pharmaceutical landscape in 2024. A significant focus was placed on the role of artificial intelligence (AI), which has emerged as a critical element across various stages of the pharmaceutical pipeline. From novel drug discovery to minimising batch loss in manufacturing, AI technologies are set to transform how pharmaceutical companies operate and innovate. The panel underscored AI’s potential to streamline processes and enhance efficiency in the industry.

The conversation also addressed the increasingly politicised climate impacting the sector, a trend exacerbated by a perceived decline in public trust and the influence of social media on public perceptions about pharmaceuticals and regulatory bodies. The FDA, in particular, has faced heightened scrutiny amid this environment, which has complicated its operational landscape while attempting to maintain regulatory standards.

Technological advancements in gene therapy were highlighted as another key trend, particularly the development of upgraded vector technologies and enhancements in drug delivery systems. The group specifically underscored the importance of targeting tissue cell types, which represents a significant shift towards more effective treatment modalities. Projects such as the Human Cell Atlas and the Innovative Genome Institute were also noted for their role in revolutionising the industry, challenging traditional for-profit drug development models and paving the way for commercial-scale genomic medicines.

Legal changes influencing the pharmaceutical sector's relationship with healthcare providers were discussed, with the panel pointing out that these transformations could introduce hurdles. The overarching political uncertainty was seen as a complicating factor that may lead to unpredictable impacts on the industry.

As the year progresses, these discussions are integral to understanding how emerging technologies and evolving legislative landscapes will shape pharmaceutical practices. The insights provided by the panelists are essential for stakeholders within the industry as they navigate the complexities of innovation and regulatory compliance in the evolving market.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www2.deloitte.com/us/en/insights/industry/health-care/life-sciences-and-health-care-industry-outlooks/2025-life-sciences-executive-outlook.html> - This link corroborates the significant role of artificial intelligence (AI) in the pharmaceutical industry, including its potential to streamline processes, enhance efficiency, and drive innovation across various stages of the pharmaceutical pipeline.
2. <https://www2.deloitte.com/us/en/insights/industry/health-care/life-sciences-and-health-care-industry-outlooks/2025-life-sciences-executive-outlook.html> - This link also supports the discussion on technological advancements and the impact of digital transformation on the life sciences industry, including the integration of gen AI and data to boost operational efficiencies.
3. <https://www.pwc.com/us/en/industries/pharma-life-sciences/pharmaceutical-industry-trends.html> - This link highlights the trend towards prevention, personalization, and prediction in healthcare, which aligns with the discussion on gene therapy and targeted treatment modalities.
4. <https://www.pwc.com/us/en/industries/pharma-life-sciences/pharmaceutical-industry-trends.html> - This link discusses the changing policy landscape and its potential impact on the pharmaceutical industry, reflecting the panel's concerns about political uncertainty and regulatory changes.
5. <https://www.drugdeliveryleader.com/doc/reasons-why-2025-is-the-year-pharma-companies-will-revisit-their-drug-delivery-device-strategies-0001> - This link supports the trend of technological advancements in drug delivery systems, including the development of new devices and alternative routes of administration such as transdermal and pulmonary delivery.
6. <https://www.drugdeliveryleader.com/doc/reasons-why-2025-is-the-year-pharma-companies-will-revisit-their-drug-delivery-device-strategies-0001> - This link also discusses the increasing demand for GLP-1/GIP medications and the need for pharmaceutical companies to revisit their device strategies, which aligns with the panel's discussion on emerging therapies.
7. <https://www2.deloitte.com/us/en/insights/industry/health-care/life-sciences-and-health-care-industry-outlooks/2025-life-sciences-executive-outlook.html> - This link mentions the impact of patent expirations and the subsequent focus on mergers and acquisitions, reflecting the panel's discussion on legal and regulatory changes.
8. <https://www.pwc.com/us/en/industries/pharma-life-sciences/pharmaceutical-industry-trends.html> - This link emphasizes the importance of data-driven, customized treatments based on factors like genetics and behavior, aligning with the panel's discussion on gene therapy and targeted treatments.
9. <https://www2.deloitte.com/us/en/insights/industry/health-care/life-sciences-and-health-care-industry-outlooks/2025-life-sciences-executive-outlook.html> - This link highlights the industry's focus on advancing therapeutic solutions and improving patient outcomes, which is in line with the panel's discussion on innovative genome projects and their impact on the industry.
10. <https://www.pwc.com/us/en/industries/pharma-life-sciences/pharmaceutical-industry-trends.html> - This link discusses the shift towards more accessible and convenient settings for the delivery of care, reflecting the panel's points on evolving healthcare practices and delivery systems.
11. <https://www.drugdeliveryleader.com/doc/reasons-why-2025-is-the-year-pharma-companies-will-revisit-their-drug-delivery-device-strategies-0001> - This link underscores the need for pharmaceutical companies to adapt to new trends and innovations to remain competitive, aligning with the panel's insights on navigating the complexities of innovation and regulatory compliance.
12. <https://www.pharmtech.com/view/behind-the-headlines-2024-year-in-review> - Please view link - unable to able to access data