**Subject**: Pennsylvania Senate Hearing on AI in Life Sciences
**Date**: Thursday, January 22, 2026
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**Location**: Merck, 351 N. Sumneytown Pike, North Wales, PA 19454

**Ref**.: Altasciences Testimony

Good afternoon. Thank you for the opportunity to speak with you today about artificial intelligence in biotechnology and how Pennsylvania is positioned to lead in this transformative field.

I'm here representing Altasciences, a contract research organization with a comprehensive service portfolio including preclinical testing, clinical trials, bioanalytical labs, and drug manufacturing. We have the privilege of operating three sites here in Pennsylvania: our preclinical facility in Scranton, our contract drug manufacturing facility in Harleysville, and soon, our bioanalytical laboratory, also in Harleysville.

What makes our perspective unique is that we're integrating AI across our entire drug development value chain. Not just one piece, from the earliest phases of testing through manufacturing. Today, I want to share Altasciences' AI strategy and why Pennsylvania is the ideal location for this work.

Let me start with why Pennsylvania is uniquely positioned for biotech innovation.

Pennsylvania sits right in the middle of the northeast corridor that is home to extensive government-sponsored and academic research as well as a prestigious biotechnology hub.

Pennsylvania is home to world-class research institutions. The University of Pennsylvania, University of Pittsburgh, and Carnegie Mellon University form a powerful innovation triangle. Penn Medicine generated $37 billion in economic impact in 2024 and is launching an $18 million NSF AIRFoundry focused on RNA research using artificial intelligence. CMU and Pitt are collaborating on AI healthcare applications, and Pittsburgh is rapidly emerging as a national biotech hub.

Beyond academia, Pennsylvania hosts a significant pharmaceutical presence with GSK, Merck (our generous hosts), and most recently, Eli Lilly's announced investment in Philadelphia. These industry anchors create an ecosystem where companies like Altasciences thrive.

What's critical for legislators to understand: our Pennsylvania operations aren't isolated facilities. They're integrated into a nine-site North American network supporting drug development for hundreds of clients annually. The AI innovations we're implementing here have ripple effects across the entire continent.

Here's where we are tapping into the technology supporting end-to-end AI-enabled drug development.

In our industry AI is accelerating drug discovery and target identification and predicting toxicity and drug efficacy. This moves optimized compounds into clinical testing months faster than traditional approaches.

In clinical trials, AI is used to optimize patient recruitment, design adaptive trial protocols, and analyze real-time safety data. This is especially powerful for rare diseases where identifying and reaching patients is the biggest bottleneck.

In manufacturing, like at our Harleysville CDMO, AI solutions will ensure quality at scale. Process optimization algorithms will improve efficiency and consistency, ensuring every patient receives consistent, high-quality medication.

AI is also being used to reduce the burden of regulatory submissions. We're automating document creation, and the FDA is already using AI to assist reviewers, significantly accelerating the path to approval. AI from end-to-end.

This last part is very good news and shows that the FDA has been proactive. Just last January, they released comprehensive guidance establishing a risk-based credibility assessment framework for AI in drug development.

In the FDA's risk-based framework for AI in drug development, high-risk applications close to patient care require rigorous validation. Lower-risk applications, like early research analytics, have more flexibility. And the FDA requires ongoing life cycle monitoring to ensure AI models remain accurate over time.

The framework is clear, science-based, and already operational. This gives companies like Altasciences the certainty to invest confidently in AI infrastructure.

That said, challenges remain that benefit from state partnership.

Data access and sharing is the primary hurdle. AI models require large, diverse datasets, but health data remains siloed across institutions. Pennsylvania can facilitate data-sharing infrastructure that protects privacy while enabling research collaboration.

Evolving standards require ongoing investment. As AI technology advances rapidly, companies must continuously update their validation approaches and staff expertise. Smaller biotech companies can struggle with these resource demands.

Regulatory capacity requires investment. Federal and state agencies need staff with AI expertise to evaluate submissions. Building that capacity strengthens oversight while supporting industry growth.

As in many other industries, there's tension between speed of innovation and safety assurance. We must move quickly to bring treatments to patients, but we cannot compromise on safety. Finding that balance requires close collaboration between industry and regulators.

Another key challenge lies in privacy and data security. These are non-negotiable priorities and the standards we have developed for our data need to evolve with technology.

HIPAA compliance must continue to be mandatory. Every AI application handling patient data must meet strict federal privacy standards.

We layer onto this data de-identification and the growing use of synthetic data. The technologies for these approaches are maturing, allowing researchers to develop AI models using data that cannot be traced back to individuals.

For our industry, trade secret protection is equally important both for patented drug molecules and for proprietary AI algorithms. These algorithms represent significant investment and competitive advantage. The FDA's confidentiality provisions continue to protect commercial data while ensuring regulatory oversight.

The last “challenge” I’ll address is workforce displacement. I put challenge in quotes here as I can definitively say that in biotechnology AI is augmenting our workforce, not replacing it.

Our Scranton preclinical facility, our Harleysville CDMO, and our growing analytical operations share in our common approach- every team is involved in AI discussions from

day one. The message is clear: AI is becoming part of every role, but it's not about replacing people.

When we implement AI systems, the response from our scientists and technicians is remarkably consistent: "This will save me so much time!" or "If this automates routine monitoring, I actually have time to focus on X." They understand that AI handles repetitive work like data entry, routine inspections, and documentation, freeing them for complex problem-solving that requires human judgment.

For critical decisions, we use a human-in-the-loop approach. AI provides analysis and recommendations. Experienced professionals make the final call. The FDA expects this, and it's the right approach.

AI makes our workforce more productive and our work more meaningful, not obsolete.

Let me make this concrete. Our three Pennsylvania sites demonstrate integrated AI strategy.

We are implementing AI-assisted protocol generation, exploring predictive toxicity modeling, automating document generation and accelerating the timeline to regulatory submission.

In parallel with these very practical efforts, we are prioritizing AI literacy for our teams. We are openly discussing initiatives and our road map and also creating training to reduce anxiety surrounding the evolving technologies in work and even daily life.

As I mentioned previously, data is half of the equation when creating AI tools. This is where Altasciences is uniquely positioned. We are aggregating the manufacturing, laboratory, preclinical, and clinical data from 30 years of research to apply predictive analytics across these disciplines. We're excited for the drug development insights we will gain from applying AI to our data.

Pulling these together, pharmaceutical and biotech clients benefit from each facility's AI capabilities, and more importantly, from the integrated insights across our North American network. A pattern detected in preclinical work at our Scranton site might inform clinical trial design at another site. That's the power of coordinated AI strategy.

Pennsylvania has research institutions, the industrial base, the talent pipeline, and companies like Altasciences ready to execute. With thoughtful state partnership, Pennsylvania will lead the country in discovering the cures of tomorrow.

Thank you for your time and attention. I'm happy to answer any questions about AI in biotechnology, our operations here in Pennsylvania, or how we're approaching this transformation responsibly.

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