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Revvity introduces AI-augmented design platform for molecular and materials discovery

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New AI Models-as-a-Service offering to integrate in-silico design with experimental data

US-based Revvity, Inc. has announced the introduction of its forthcoming Signals Xynthetica™ Models-as-a Service (MaaS) AI offering within the Revvity Signals platform.

The Signals Xynthetica offering will enable AI-augmented molecular and materials design, and brings together advanced in?silico generation, predictive modeling, and experimental validation within a single, governed environment that allows scientific teams to iteratively design, test, and refine candidate molecules with increasing confidence.

Across life sciences and materials research, the application of artificial intelligence (AI) and machine learning is rapidly shifting discovery from trial-and-error experimentation toward predictive, data driven design. While powerful algorithms and models continue to emerge, their real?world impact is limited without tight integration with high?quality experimental data and the workflows scientists already use. The Signals Xynthetica offering is intended to address this gap by embedding models directly into the scientific context, connecting AI predictions with real wet-lab outcomes to drive continuous learning and improvement.

The Signals Xynthetica platform will support a wide range of in-silico design approaches, including de novo generation, property prediction, and multi-objective optimization. Delivered as an AI MaaS offering, it enables organizations to access, govern, and apply predictive models without building or maintaining a complex AI infrastructure. Models can be used consistently across projects, refreshed as new data emerges, and evaluated transparently alongside experimental results.

The Signals Xynthetica offering is expected to become a cornerstone of Revvity’s broader vision for AI-augmented discovery, enabling customers to harness predictive power at scale while maintaining strong governance, data stewardship, and scientific rigor. Pre-registration for customers is underway with early access programmes available in 1H 2026.