Revvity and Profluent to launch AI-enhanced adenine deaminase pin-point base editing systems

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To inspire accelerated development of novel gene editing therapies

US-based Revvity, Inc. has announced a strategic collaboration with Profluent, also based in the US, bringing together a range of its novel artificial intelligence (AI)-engineered enzymes with Revvity's established Pin-point^{TM} base editing platform. The result is simplified access for customers to a therapeutically relevant base editing toolkit.

This new Pin-point configuration allows for increased precision and efficiency, with some combinations being precise to single nucleotide edits without bystander editing.

Additionally, the Pin-point platform's modular design has shown delivery of ultra-low amounts of deaminase while maintaining clinically-relevant levels of base editing and reducing off-target activity, which leads to enhanced safety. The result is a toolkit for therapeutic applications where control, safety, and reproducibility are paramount.

Unlike traditional base editors, which are based on naturally occurring enzymes and subject to complex licensing restrictions, Profluent's AI platform designs proteins from the ground up, enabling novel functionality, rapid iteration, and therapeutic precision. When paired with Revvity's proprietary Pin-point system, scientists gain a fully customizable editing toolkit. This latest collaboration builds on Revvity's earlier demonstration of the ability to replace Cas9 in the Pin-point system with Profluent's open-access OpenCRISPR^{TM} nuclease.