

World's first full-length single-molecule protein sequencer gets boost to accelerate drug development

July 1, 2025 | News | By Hithaishi C Bhaskar

Portal Biotech raises \$35 Million Series A, leveraging AI to deliver breakthrough proteomics platform technology unlocking full-length protein sequencing and characterisation



Portal Biotech, a pioneering biotechnology company headquartered in London, has secured \$35 million in Series A funding, representing one of Europe's largest investments into a life sciences tools company. This significant milestone positions Portal Biotech as the leading innovator set to deliver full-length single-molecule protein sequencing - a breakthrough never before accomplished - and promises transformative impact on drug discovery, precision medicine, and global biosecurity.

Portal Biotech's platform delivers the world's first technology for sequencing intact full-length proteins at the single-molecule level to completely characterise all protein mutations and modifications. Coupled with advanced AI methods, this data gives researchers a detailed view into the complexities of the proteome that traditional technologies cannot match, laying the groundwork for new foundational AI models of the dynamic proteome that will reshape our understanding of protein biology and accelerate breakthroughs throughout the life sciences.

Portal Biotech's nanopore-based platform technology is set to transform proteomics by delivering rapid, full-length, single-molecule protein characterisation at the point of need for a fraction of the price, empowering earlier go/no-go decisions, more reliable diagnostics, and stronger biosecurity responsiveness worldwide.

"Portal Biotech's technology offers unprecedented capabilities in protein identification and characterisation, providing unmatched detail on protein structure and modifications at the single-molecule level—on accessible desktop instruments that bring this state-of-the-art characterisation to any lab," said Andy Heron, co-founder and CEO of Portal Biotech. "These powerful advances are essential for accelerating drug discovery and enhancing diagnostic precision, positioning Portal Biotech as the frontrunner in the race to unlock the full potential of protein sequencing."

Portal Biotech's benchtop platforms are set to transform proteomics from a specialised, capital-intensive procedure into an agile, cost-efficient workflow that can be performed in any lab. Its accessible and high throughput instruments sidestep the expense and inaccessibility of traditional mass spectrometry, streaming whole-protein data directly to the bench so teams can

accelerate early drug-discovery pipelines and make rapid diagnostic decisions.

With the genome decoded, Portal Biotech turns the spotlight to proteins to unlock new discoveries in medicine and biology that are still not accessible from genomics alone.