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Biotech Outlook 2026: Advancing AI, Organoids, and Translational Science

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In 2025, innovation, teamwork, and digital transformation will propel the biotech ecosystem in Asia into an exciting period of rapid expansion. 2026 will be a critical year in converting scientific discoveries into significant results for human health as collaborations strengthen and human-relevant technology advances.

The Asia-Pacific biotech sector is entering 2026 with renewed momentum. Investment in the pre-clinical organoid space continues to grow as the industry increasingly explores human-relevant models and aims to reduce reliance on animal testing where scientifically feasible. At the same time, pharmaceutical companies are expanding their focus on next-generation drug modalities — particularly antibody-drug conjugates (ADCs) and targeted protein degradation (TPD) — further strengthening demand for advanced discovery platforms and more predictive research tools.

Growth Opportunities: AI, Multi-omics, and Organoid Models

Three converging forces are driving R&D acceleration across APAC: AI-powered discovery, multi-omics integration, and organoid-based physiological models. Together, these technologies are reshaping how scientists interrogate complex biology — with AI providing computational power, multi-omics offering molecular depth, and organoids and microphysiological

systems delivering human-relevant context. This convergence enables richer biological insights, more predictive translational models, and faster design-to-data cycles. Supported by rising global and regional investment, these approaches are becoming foundational to next-generation drug discovery.

Investment Focus: Automation, Digital Labs, and New Alternative Methods

In 2026, APAC investment priorities center on automation, AI-enabled digital laboratories, and the advancement of New Alternative Methodologies (NAMs). Digital experiments increasingly require confirmation in wet-lab environments, and NAM-derived models must be validated, scaled, and automated for routine use.

Revvity is well positioned to support this evolution with comprehensive lab automation solutions, biomarker quantification platforms, single-cell workflows, and microphysiological system (MPS) drug-response analytics. These integrated workflows empower researchers to address a broad range of biological questions with greater depth, precision, and efficiency.

Emerging Technologies: AI Acceleration and Human-Relevant Models

The rapid adoption of AI is accelerating discovery across the region. Increasingly, early-stage experiments can be simulated computationally and subsequently validated with a smaller set of wet-lab studies. AI-driven analysis — particularly in cellular imaging and small-animal imaging — is enabling faster, more consistent, and more data-rich experimental workflows. Revvity's Phenologic AI and Living Image Synergy AI platforms exemplify this transformation.

A parallel trend is the growing advancement of New Alternative Methodologies (NAMs) and Microphysiological Systems (MPS). Following recent U.S. FDA guidance encouraging the use of non-animal approaches in certain stages of drug development, researchers and biopharma companies are exploring more predictive and human-relevant models. Revvity's core capabilities in biomarker detection, 3D imaging, and single-cell analysis, strengthened by strategic collaborations in organoid systems, 3D bioprinting, and organ-on-a-chip technologies, position the company to support this shift toward sustainable, high-fidelity testing systems.

Regional Collaboration and Partnerships

Collaboration is a key driver of innovation in the APAC biotech ecosystem. Revvity actively seeks partnerships that create scientific and operational impact. A recent example is the company's collaboration with AIM Biotech in Singapore, which brings together complementary strengths to advance organoid and microphysiological system workflows. These partnerships help researchers adopt more predictive, translational models and bridge the gap between pre-clinical insights and clinical relevance.

Outlook 2026: Digital, Predictive, and Translational

Asia's biotech ecosystem is entering an exciting phase of accelerated growth powered by innovation, collaboration, and digital transformation. As partnerships deepen and human-relevant technologies mature, 2026 will be a pivotal year in translating scientific discovery into meaningful outcomes for human health. Revvity remains committed to enabling this journey — empowering researchers with the tools, platforms, and expertise needed to advance the next generation of biotech innovation.

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