

Synergy at the Crossroads: Fusing Bioprocessing and AI for Innovative Solutions

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Mainland biotechnology company Great Bay Bio draws on the combined strength of Hong Kong and the GBA to expand its global footprint.

Headquartered in Hong Kong, Great Bay Bio (GBB) is an innovative biotechnology company that aims to enhance bioprocessing efficiency using artificial intelligence (AI) and cutting-edge technologies. Its mission is to elevate drug development efficiency and success rates, while also propelling progress in various bioprocessing sectors including synthetic biology, in vitro diagnostics (IVD), and cell and gene therapy (CGT). Recently, GBB has introduced multiple proprietary AI platforms for cell line development and cell culture media development technology services. As a trailblazer in the field, the company has secured 26 patents for its AI-powered bioprocessing solutions and has forged strategic collaborations with over 20 prominent companies at home and abroad.

Creating Hong Kong-Mainland Synergy

According to Kingsley Leung, Chairman and Co-founder of Great Bay Bio, Hong Kong's distinctive status and global connectivity are conducive to GBB's expansion. Leung said, "At present, our primary research and development (R&D) activities are conducted in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Our Hong Kong headquarters functions as a worldwide hub, linking our Mainland R&D operations with global community. Additionally, the city serves as a global logistic hub for our certain products." In August this year, GBB inaugurated a

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Kingsley Leung
Chairman and Co-founder
Great Bay Bio

laboratory in Hong Kong to enhance its endeavours in the GBA. "Our objective is to provide stronger support to the local market and our regional partners in their AI-enabled cell line development initiatives," Leung added.

The vibrant innovation and technology (I&T) landscape of the city accelerates GBB's regional growth. "The I&T industry has achieved remarkable progress in recent years. Notably, Hong Kong stands as Asia's largest and the world's second-largest funding hub for biotechnology, fostering an environment conducive to expansion, partnership and engagement with potential investors," Leung elaborated. "Furthermore, the government supports innovative startups through a broad range of initiatives like the Strategic Tech Fund and the GBA Investment Fund. It has also been proactively attracting international corporations and investors, creating an ideal platform for the industrialisation and commercialisation of Hong Kong's innovations."

Leveraging Hong Kong's Advantages to Expand the Horizon

GBB is dedicated to propelling innovation and progress in biotechnology, while enhancing human health. Leung remarked, "With a team of top-tier professionals specialising in fields such as medicine, pharmacy, synthetic biology and AI, GBB stands at the cutting edge of technology, merging two incredibly advanced domains – bioprocessing and AI. Through our self-developed platforms, we are able to accelerate the drug development cycle and lower associated costs, facilitating the streamlined creation of biological drugs for medical companies." With the successful commercialisation of these platforms, GBB has formed enduring collaborations with enterprises worldwide, propelling its business to new heights.



"By having a presence in both Hong Kong and the Mainland, we can harness unparalleled advantages, including financial strength, talent exchange and technological collaboration, to spur growth," Leung added. "As we look ahead, we are committed to strengthening our foothold in Hong Kong and utilising it as a launchpad for expanding our global business. Ultimately, our goal is to create an end-to-end AI-enabled bioprocessing platform, addressing significant R&D challenges across various biotechnology sectors."

Great Bay Bio

- Founded in Mainland China in 2019, the company has developed three AI-enabled cell line engineering platforms
- It was admitted into the Hong Kong Science and Technology Park Elite Programme in May 2023
- It has completed three financing rounds, raising over US\$30 million as of the end of 2022

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