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AstraZeneca breaks ground new Antibody Drug Conjugate (ADC) Manufacturing Facility in Singapore

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AstraZeneca's first end-to-end Antibody Drug Conjugate (ADC) production facility will span 58 acres and will cover the complete manufacturing process for ADCs by 2029.



Image Caption: Distinguished guests breaking ground at AstraZeneca's end-to-end ADC manufacturing facility in Singapore. Pictured from left to right: Mr. Michael Teehan, Program Lead, ADC Singapore Facility, AstraZeneca, His Excellency, Nikesh Mehta, British High Commissioner to Singapore, Ms. Pam Cheng, EVP, Global Operations & IT, Chief Sustainability Officer, AstraZeneca, Guest-of-Honour Mr Gan Kim Yong, Deputy Prime Minister and Minister for Trade and Industry, Sir Pascal Soriot, Chief Executive Officer, AstraZeneca, Mr. Png Cheong Boon, Chairman, EDB, His Excellency, Anders Sjöberg, Ambassador of Sweden to Singapore, and Ms. Christine Wong, Assistant CEO, JTC Corporation.

AstraZeneca held a groundbreaking ceremony at their Singapore ADC Manufacturing Facility on 7 November to commemorate the expansion of their new largest Antibody Drug Conjugate (ADC) Manufacturing Facility in Asia Pacific. AstraZeneca has committed $1.5 billion, its largest first-stage investment to date, to establish the facility spanning 58 acres (more than 2.5 million square feet). As AstraZeneca's first ADC manufacturing investment in Singapore, the facility will be operational by 2029.

Singapore's Deputy Prime Minister and Minister for Trade and Industry Gan Kim Yong and AstraZeneca Chief Executive Officer Pascal Soriot commemorated the groundbreaking ceremony along with other leaders from the industry.

The new manufacturing facility is the company's first end-to-end ADC production site globally and is capable of expanding AstraZeneca's capability for **Antibody Drug Conjugates (ADCs)** that deliver highly potent cancer-killing agents directly to cancer cells through targeted antibodies, providing supply of the next-generation precision therapeutic medicines to support global healthcare.

ADCs are a key part of AstraZeneca's Oncology R&D strategy. With six wholly-owned ADCs in the clinic and many more in preclinical development, the company has a broad portfolio of in-house ADCs. Leveraging internal ADC expertise,

AstraZeneca demonstrates the strength of its proprietary platform.

AstraZeneca is expanding beyond conventional monotherapy ADCs, which target a single protein on tumor cells, with a multispecific discovery platform capable of targeting two or more target proteins expressed on tumour cells. Multispecific ADCs are highly targeted therapies that have the potential to improve target selectivity and reduce treatment side effects.

Manufacturing of ADCs is a multi-step process that comprises antibody production, synthesis of chemotherapy drug and linker, conjugation of drug-linker to the antibody, and filling of the completed ADC substance into vials. The facility will feature exclusive zones, such as the Drug Linker zone, the conjugation mAbs zone, the fill finish secondary packaging zone, and the GMP warehouse, as well as a QC lab and administrative space. The planned greenfield facility is fully incorporating all steps of the manufacturing process at a commercial scale to be built across three phases.

Strengthening Singapore's burgeoning biopharmaceutical skill force

The Biomedical Sciences industry, which comprises the biopharmaceutical and medical technology sectors, is a key contributor to Singapore's economy. In 2022, the industry accounted for 2.3% of Singapore's Gross Domestic Product and manufactured close to S$39 billion worth of products for the global market. There are over 60 biopharmaceutical manufacturing facilities in Singapore across diverse modalities – from Active Pharmaceutical Ingredients (APIs) to Biologics (Therapeutics and Vaccines) and Cell Therapies. These facilities produced more than S$19 billion worth of products in 2022, a threefold increase over the past 20 years.

This new facility which is AstraZeneca's first end-to-end ADC production site (globally) is expected to recruit more than 800 skilled specialists in areas such as engineering, quality, and technical services as well as for global supply chain management.

Jacqueline Poh, Managing Director of the Singapore Economic Development Board (EDB), said: "Singapore is delighted to partner with AstraZeneca to establish its first global end-to-end ADC manufacturing facility here. This greenfield investment will add significant capabilities to Singapore's growing biopharmaceutical sector, especially in the development and manufacturing of precision medicines for better healthcare outcomes. Beyond creating meaningful jobs for Singaporeans, AstraZeneca's facility is aligned with Singapore's push towards sustainable manufacturing and national target of achieving net zero emissions by 2050."

Pam Cheng, Executive Vice President, Global Operations, IT & Chief Sustainability Officer, AstraZeneca, said: "I am truly excited for AstraZeneca to locate our ADC manufacturing facility in Singapore and our groundbreaking today puts us on track for it to be operationally ready by 2029. Singapore is one of the world's most attractive countries for investment given its strong reputation in complex manufacturing and the depth of its talent. As part of AstraZeneca's commitment to driving sustainability in healthcare, this ADC facility will be designed to emit zero carbon from its first day of operations."

The planned greenfield facility is AstraZeneca's first end-to-end ADC production site globally, fully incorporating all steps of the manufacturing process at a commercial scale.

Sustainable practiceses have been incorporated into the site's planning. It will be designed to be a highly efficient and green facility, operating on 100% renewable energy and achieving zero carbon emissions from day one.

Onsite coverage by Hithaishi Bhaskar