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Importance of building Australia-China biotech collaborations

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China is Australia’s greatest two-way trading partner in products and services, making up close to one-third of the nation's international trade, as per the Australian Department of Foreign Affairs and Commerce. Resources and energy make up the largest share of Australia's exports to China, with iron ore, natural gas and gold leading the way.

There are a number of other industries where Australian companies benefit from collaborations with China including food and beverage, healthcare, technology, and biotech. China’s biotech industry is the second largest in the world, behind only the United States and it is predicted to grow.

With a population of 1.4 billion people, China offers an extensive and genetically diverse patient pool. This provides easier access to patients that meet specific criteria for clinical trials, compared with countries with a smaller patient pool like Australia. By fostering collaborations between the two countries, Australian companies benefit from being able to access patients that meet specific requirements for a clinical trial and biotech companies in China are able to gain access to new therapeutics for patients and the health and commercialisation benefits that this entails.

China has the world’s largest aging population, and its middle class and affluent consumer population will increase by 80 million by 2030 - making it well placed to invest in better healthcare, new therapies, and innovation. A recent study by Clinical Trials Arena revealed that China is a popular location for Western sponsors running immuno-oncology and CAR-T trials.

China ranks first in the world for both incidence of cancer (accounting for 23.7% of new global cases) and cancer deaths (accounting for 30% of all cancer deaths) The annual growth rate of cancer clinical trials in China in 2020 was 52.3%.
While both Australia and China are increasing their investment and government support in biotech, China has a larger investment pool due to its market size. Investors in China seem to be shifting focus from real estate to new technologies, including biotech.

More and more private capital is available to the industry through venture capital (VC) and private equity (PE) funds, which underwrite most R&D in China. Government and institutional funding through the China National Science Foundation and government grants are also channelled through PE firms and are an important source of funding.

Australia's innovative life sciences sector is worth more than $250 billion and home to more than 2,600 organisations. However, there are still challenges around accessing seed funding locally for start-up biotechs given the smaller investor pool available compared to larger countries such as China and the US. Biotech start-ups in Australia are challenged with a capital-constrained operating environment and are required to get to the next value inflection point with minimal cash burn.

It's also important to look at the regulatory environment in China compared with Australia. Reforms to China's drug approval process in 2015 helped create the conditions for the country's biotech industry to grow. These reforms improve market access and support innovation. For example, in 2011, it took 31 months to get a clinical trial application approved in China; by 2018 it took just two months.

China offers significant opportunities for Australian biotech companies with access to a large consumer and patient population, leading research facilities as well as access to institutional and private Chinese investors. However, it also presents regulatory and market access challenges, including how to protect intellectual property. Cartherics has received private investment from China and has provided development and commercialisation rights to China for an autologous clinical therapy for ovarian cancer. The relationship is expected to grow.

Although Australia generally has stronger intellectual property protection laws and a more reliable legal system, China's IP and legal system has now developed to a level where risks can be mitigated in most cases.

Australian biotechs are often attractive to Chinese investors as they tend to be undervalued compared to their US counterparts. Many of China's biotech companies are able to in-license new therapeutic products from countries like Australia and fast-track their development in China.

It is clear that both countries have unique value propositions in biotech, highlighting the importance and mutual benefits from collaborations between Australia and China. Australia has a highly skilled life sciences workforce with advanced clinical development capabilities, beneficial R&D tax incentives and a strong manufacturing and regulatory capacity. Australian companies have advanced research and early development capabilities and are able to develop unique IP protected technologies. Biotech companies in China prefer to focus on late-stage products; they have strong translation and product development expertise and are usually more aggressive at fast-tracking products to the clinic and commercialising them.