What our biotech sector can learn from Boston

WA's rapidly expanding life sciences sector needs to leverage its optimal conditions to allow the sector to truly flourish, writes neuroscientist **Dr Liz Dallimore**.

I recently attended the largest and most influential global event for the biotechnology industry in Boston, the Biotechnology Innovation Organisation International Conference 2023 (BIO), as part of an Australian delegation promoting Western Australia's biotechnology benefits.

Boston is one of the world's leading biotech hubs, centred largely around Kendall Square in Cambridge, with more than 1000 biotech companies, representation from all the major pharmaceutical companies, and a continued funnel of research from teaching hospitals, Massachusetts Institute of Technology and Harvard.

In 2008, $1 billion was pumped into the sector to create a collaborative, centralised environment, promoting knowledge-sharing and innovation.

As it stands, Western Australia boasts world-class research institutions, universities and medical facilities renowned for their expertise, with some of the brightest minds in the world.

However, in order to truly capitalise on this, WA must now take the next step to developing a centralised, collaborative hub – similar to that in Boston – to solidify our position as a global leader in research, development and commercialisation.

We have strong foundations in that WA has a thriving early-stage clinical trial ecosystem, with an exceptional reputation for delivering first in-human trial results, and we are also starting to develop deep capabilities in service areas through clinical research organisations.

Next steps should include building capabilities to service global areas where data is the output – that is, we don't need to be physically located in the country of the customer. This idea came through a visit to Ginko Bioworks in Boston, a US$3.7 billion biology service company – their only output is data, while harnessing automation to scale.

Western Australia has an enviable time zone in which to service countries throughout Asia, utilising our highly skilled expertise in both medical research and process automation.

However, to foster and sustainably grow the sector, work is also required to develop a more sophisticated venture capital landscape and educate West Australian investors to back these innovative companies to help diversify our economy.

Committed funding can be used to assist in bolstering research infrastructure, attracting and retaining leading researchers from around the globe, and supporting clinical trials to ensure groundbreaking discoveries make their way from the lab to the patient's bedside.

Investment should also provide crucial support for startups and small-to-medium enterprises (SMEs) by offering grants, funding schemes, and business incubators, through the development of an environment that encourages risk.

Western Australia is also uniquely positioned with a wealth of natural resources that are currently untapped for discovering novel therapeutic agents, but by empowering researchers and scientists to collaborate and explore these, there is the potential for accelerated drug discovery and personalised medicine approaches.

We are on the cusp of transformative change, which could take WA's life sciences sector to new levels.

This would also deliver benefits to the State's economic diversification and growth agenda, and the overall health of the population.

A thriving life sciences sector here is achievable, but it requires a robust ecosystem nurturing entrepreneurship and the commercialisation of scientific breakthroughs, which will in turn create high-skilled job opportunities, reduce brain drain, and lead to increased productivity and prosperity for the region. MF

ED: Dr Dallimore is a neuroscientist, CEO and Managing Director of drug development company Argenica Therapeutics, and co-founder and Executive Chairman of medical device company Inspiring Holdings.