Speech By

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GENE TECHNOLOGY (QUEENSLAND) BILL

Dr ROWAN (Moggill—LNP) (4.26 pm): I rise to make a contribution to the debate on the Gene Technology (Queensland) Bill 2016 now before the Queensland parliament. This legislation addresses a Queensland state jurisdictional commitment to a nationally consistent scheme for gene technology regulation under the Intergovernmental Gene Technology Agreement 2001. It provides certainty and consistency for Queensland state government agencies, higher education institutions and sole traders in regard to a gene technology regulatory scheme and also clarity around regulatory compliance.

As a member of the Liberal National Party, I support the proposed legislation. It should be remembered that it originated from an LNP review of the act in 2013-14. In 2013, under the LNP, the Department of Science, Information Technology and Innovation commissioned an independent review of the Queensland act. The purpose of the Commonwealth, states' and territories' gene technology legislation, which gives effect to the nationally consistent scheme, is to protect the health and safety of people and to protect the environment from any risk posed by or as a result of gene technology by identifying those risks and managing them through regulation of certain dealings with genetically modified organisms.

It is important to understand that the need for consistent legislation between the Commonwealth and the states and territories is to ensure that all individuals and entities in Australia are covered in the same way and by the same scheme. There have been great scientific advances through gene technology, and the benefits can include the production of genetically modified organisms for a specific purpose. This is much faster than selective breeding and involves transferring one or a few genes which can come from completely unrelated organisms, even from different kingdoms. The production of specific products—human insulin and human growth hormone—reduces the dependence on products from other less reliable sources.

The potential use of gene technology to treat genetic diseases such as cystic fibrosis and severe combined immune deficiency, as well as various malignancies, is one of the benefits. If we are to highlight the benefits we must also acknowledge the risks. These risks include that genes inserted into bacteria could be transferred into other bacterial species, potentially including antibiotic resistant genes which could result in antibiotic resistance in pathogens or in bacteria that can produce toxic materials or break down useful materials—for example superweeds that are resistant to herbicides and spreading uncontrollably or their genes potentially transferring into other closely related wild species, forming a different kind of superweed.

The government's response to the recommendations of the review of the Gene Technology Act 2001 (Queensland) that was handed down in April 2014 outlined in-principle agreement to the review's recommendation that Queensland invest and adopt a lock-step approach that provides adequate safeguards for Queensland. The review found that the Queensland act was achieving its objectives. However, it also concluded that an approach that balances the administrative efficiencies resulting from

lock step and provides adequate safeguards for Queensland's autonomy is just as important. Consistent with the principles for intergovernmental activities, it is important that any proposed changes to our legislation in Queensland must be carefully considered in terms of the extent to which they align with Queensland's policy priorities and the extent to which they are of benefit to businesses and the broader community in Queensland. Some of our gene technology research produces genetically modified products which provide innovative and unique opportunities for Australian agriculture and consumers.

To understand genetically modified products and what this has meant for Australia, we need to look no further than the cotton industry. Since the CSIRO began developing cotton varieties using genetically modified technologies, enormous improvements have been made. Australia now has the highest cotton yields in the world, exporting cotton worth $2.5 billion each year. The CSIRO has reduced Australian growers' reliance on insecticides and concurrently has also improved their water use efficiency. Currently more than 95 per cent of Australia's cotton crop is grown from CSIRO bred varieties which have reduced pesticide use by up to 85 per cent and herbicide use by about 52 per cent. This is an important and terrific environmental outcome.

This is but one of many genetically modified products that I could use in my speech here today, but time does not permit me to name many others. Currently there are many applications being evaluated that will not only enhance economic activity but also increase our trade opportunities. One that comes to mind is the commercial supply of Dengvaxia, an attenuated genetically modified dengue vaccine. This application was received by the Office of the Gene Technology Regulator on 14 September 2016. A third of the world's population is at risk of contracting dengue fever which, as a flavivirus, is a leading cause of illness and death in the tropics. The vaccine itself is a live virus. It is genetically engineered to include genes that encode for dengue proteins and coax the body's immune system into producing antibodies that fight all forms of dengue. This vaccine was developed by the French pharmaceutical company Sanofi Aventis. This is certainly a significant public health advancement.

I conclude by taking this opportunity to recognise a great leader with respect to supporting medical research here in Queensland. For the last 12 years Dr Luis Prado has been an integral part of fostering a culture of research, education and training as the Director of Medical Services at the Wesley Hospital. Since 2012 Dr Prado as the Chief Medical Officer for UnitingCare Health has had an oversight of clinical outcome data and contributed significantly to clinical service planning, medical education and training, health workforce planning, and the delivery of translational research through his board role initially with the Wesley Research Institute and now with the Wesley Medical Research Institute. I certainly wish Dr Prado all of the best given his recent appointment as Group Director of Medical Services with Epworth HealthCare in Melbourne. I thank him for his contribution to medical research in Queensland. In conclusion, I concur with the parliamentary committee's position that the bill be passed. I commend the bill to the House.