## A Call to Re-establish and Expand Toi Te Taiao – The Bioethics Council

When Jeanette Fitzsimons first started her work to raise public awareness of the need for regulation of Genetic Engineering in Aotearoa it was in the knowledge that even then, commercial interests were keen to commercialise these powerful emerging technologies but with scant knowledge of complex natural systems or care for the environment.

Since then our understanding of Nature's complexity has grown. The tools of Gene Editing have also advanced with ethical uses in containment now possible. But the scale of the technology's fundamental challenge to the integrity of natural systems is expanding and the need for precaution remains. Our legislation has allowed us to avoid the negative outcomes of commercialised Genetic Engineering seen overseas where weed resistance and use of pesticides has increased.

I had the honour of supporting Jeanette's mahi in Aotearoa, seeing the establishment of the Royal Commission on Genetic Modification that engaged with all communities and made recommendations for the future.

One of the Royal Commission's recommendations was that farm animals should not be Genetically Engineered as 'bioreactors' for bulk production of pharmaceuticals. This, and the potential for unacceptably cruel outcomes from GE already seen in AgResearch experiments, has been opened up again in the recent call by the Productivity Commission for a rethink towards deregulating GE.

## Another recommendation of the Royal Commission was to establish Toi Te Taiao – The Bioethics Council.

Toi Te Taiao was assigned the task of helping Aotearoa navigate the ethical issues of Genetic Engineering. They engaged around Te Tiriti o Waitangi and respected the importance of appropriate decisions for science and technology informed by values from Te Ao Māori and the wider community. The Council reported on the issue of using human genes in Genetic Engineering but their work ended when Toi Te Taiao was abolished.

## This abolition deprived us of a source of collective wisdom and authentic engagement with tangata whenua and civil society.

Today, the challenges of Science and Technology innovation include 'easy, cheap' Gene Editing, Synthetic Biology, Nanotechnology, Artificial Intelligence and Geo-Engineering.

These require deep and ongoing engagement of the public and guidance for navigating the future.

## To maintain public trust an independent body such as Toi Te Taiao is needed to balance the voices of vested interests in both industry and academia.

Strict liability is also needed to reign in the appetite for risk that is prevalent in the biotechnology and innovation sectors and is driven by Intellectual Property more than by public interest scientific research that is often poorly funded.

Promises for climate action through new technologies must be scrutinised for authenticity and must not be geared to perpetuating unsustainable industrial practices that are dependent on fossil fuel, synthetic chemical inputs and cruel animal treatment. As an organic farmer herself, Jeanette knew that our food production system needs to change to be able to provide wider social benefits and resilience to future climate disruption.

Whatever the path, protection of natural ecosystems, organic and GE-Free production and the integrity of humanity itself must be priorities in how society manages risk while navigating new opportunities and regulation of technologies in the public interest and for future generations.

This must include supporting global community discussion on implications of new technologies such as Gene Drives for species extinction and establishing globally agreed regulation prior to any deployment.

Medical use of GE in humans also shows potential and the NZ Government is currently reviewing settings for regulation in biomedicine. But the prospect of human Genetic Engineering also brings the threat of Eugenics to humanity, including to the LGBTQIA+rainbow and disability communities, which must be addressed.

These are complex and ongoing issues to navigate.

Having an independent and ethical compass to guide us is vital.

Toi Te Taiao – the Bioethics Council – or a similar independent body, should be restablished and extended to include other emerging technologies such as Synthetic biology, Artificial Intelligence, Nano-technology and Geo-engineering.

Please support this kaupapa and vision for an ethical and sustainable future for Aotearoa.

Ngā mihi,

Jon