

2 December 2021

By Email: submissions@foodstandards.gov.au.

Food Standards Australia New Zealand

Dear FSANZ

SUBMISSION RE PROPOSAL P1055 – DEFINITIONS FOR GENE TECHNOLOGY AND NEW BREEDING TECHNIQUES

Sir Frank Macfarlane Burnet, Australia's Nobel Prize winner, was a world leader in microbiology. In his book *Genes, dreams & realities*, Burnett offered piercing insights into the complexity of human biology. After describing the complexity of the action of cortisol in the human body he states (p 213):

That picture of complexity could be elaborated almost *ad infinitum*, but it is perhaps sufficient to suggest the immensely intricate flow of information the body in which patent molecules react with cell receptors, which are protein patterns, whose configurations strictly determined by the cell genome, so that the cell produces other pattern molecules which in their turn react... In what may literally be an endlessly interlinked chain of sequences. ... The almost incredibly complex interwoven network chemical communication at normal physiology and biochemistry has revealed must make pharmacology seem something much less than the science.

Critically, he noted that (p 214):

Every detail of bodily structure has been moulded by evolution to do with things as they are; synthetic drugs have no evolutionary meaning.

While acknowledging the practical utility of pharmaceutical drugs whose mechanism of operation is not fully understood, he stated (p 214-215):

However, one has a nagging certainty that we intrude into the informational network of the body at our peril. ... The functioning human organism is far too complex to allow fully logical and predictable modifications of function of the symptoms of abnormal functions with chemical agents foreign to the body.

Each of the statements apply with at least as much force to the impact of consuming genetically modified foods.

It hardly needs to be stated that our knowledge of human microbiology and genomics has increased over the intervening decades in a staggering fashion and continues to increase at a seeming exponential rate. That much is demonstrated by even a cursory glance over textbooks and review papers published over that time.

However, as the most brilliant scientists across the generations have almost universally acknowledged: **the more we know, the more we realise how little we know**. That proposition applies with particular force in relation human systems, microbiology and genetics.

It is entirely possible that future research and discoveries will reveal that the consumption of genetically modified foods and organisms can cause serious harm (or from the use pesticides

or pharmaceuticals in the growing of GM foods and or animals that genetic modification is aimed at facilitating) to people who consume them.

I submit that the following propositions are not reasonably contestable:

- (a) Any suggestion that our scientific knowledge in these areas of human microbiology and genomics is complete and sufficient to reach a definitive conclusion that the consumption of genetically modified foods carries no health risks is patently preposterous. [And the independence of any scientific expert who contends otherwise should be seriously doubted]
- (b) There is no question of the Commonwealth dispensing completely with labelling requirements for food products.
- (c) Manufacturers will continue to be required to provide labels that contain information about ingredients and additives.
- (d) Requiring food labelling to specify when genetically modified ingredients have been used, or when a product is genetically modified, cannot conceivably be viewed as a material, let alone unreasonable, burden on manufacturers.
- (e) Consumers should be able to make a personal choice to avoid the potential adverse health impacts from consuming genetically modified for or organisms – even if many people are satisfied that they are entirely safe – precisely because those risks may only become apparent as increasing knowledge is gained in the future.

This is manifestly a case where the precautionary principle is applicable.

Every day across this country there are court cases being determined that turn on factual matters that can only be determined by reference to expert evidence. Every day across this country opposing experts give emphatic expert opinions on those contested scientific issues. Almost invariably, those opposing experts are properly qualified and credible – and yet they express diametrically opposed expert opinions.

It would be a gross failure of the public trust for Food Standards Australia New Zealand to be swayed by a group of experts who contend that there is certainly no risk of harm from the consumption of genetically modified foods.

I submit that Food Standards Australia New Zealand should not make any changes to the Food Code that would have the effect of allowing genetically modified foods to be sold without a safety assessment, let alone to be sold without labelling that would allow those citizens who wish to take a cautious approach on this matter of personal health and safety to avoid such foods.

