

# Consultation concerning novel biotechnologies: who speaks for Māori?

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## Introduction

Technology involving the transfer of genes from one species (the donor) into the DNA of another (host) species to create a genetically modified organism (GMO) has been taking place in New Zealand since the 1970s, when it was known as recombinant DNA technology. However, in the late 1990s a series of high profile GMO research applications involving human gene transfers into the DNA of sheep and cows erupted into a heated public debate about the ethics of this research. Like most other New Zealanders, Māori (the indigenous people of New Zealand) were unaware of the science and its cultural implications. In addition to attempting to understand the research, Māori were also expected to provide an

informed response to science providers and Crown regulators as to its impacts on their culture. This article discusses the demands placed on traditional tribal structures and processes concerning who speaks on behalf of Māori. It also highlights the difficulties for the non-Māori consultative partner over process and mandate, and for decision-makers needing to weigh individual Māori submissions with submissions by the tribal collective.

Under the "Hazardous substances and new organisms Act" of 1996 (HSNO, New Zealand

Government 1996) scientists in New Zealand are expected to consult with Māori in order to assess the potential risks of GMO research to their culture and traditions, natural resources and *taonga* (valued possessions), as well as any impact on the partnership inherent in the principles of the Treaty of Waitangi; a treaty signed in 1840 between Māori and the British

Crown that is recognised as the founding document of New Zealand. Information gained from this consultation with Māori must then be weighed alongside scientifically based risk-assessment processes conducted by the Environmental Risk Management Authority (ERMA)<sup>1</sup> and a decision to approve or decline the application is then made by an independently appointed group

called the Authority. Depending on the type of research (whether it is scientifically deemed to be low risk or research requiring full public notification), there are various levels of consultation. These can range from the recommendation of a single Māori representative on a research institution's biological safety committee to tribal *hui* (gatherings) of *hapu* (sub-tribes) or *īwi* (tribes) in the vicinity of the site of the proposed research, to a national *hui* involving all tribes.

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Research into Māori views on novel technologies like GMOs and xenotransplantation has illustrated the complexities and tensions concerning with whom and where the rights should lie for decision-making about GMO research and its purported adverse effects or benefits (Roberts and Fairweather 2004; Satterfield *et al.* 2005). Māori interviewees raised questions about the ownership (by the individual or the collective) of body parts including genes, and the right to approve or disapprove GMO research, particularly if it would help save human lives. For some Māori the answers to these questions were framed in terms of rights conferred under the Treaty of Waitangi; namely, collective rights as guaranteed under Article II, which grants full and exclusive rights over all possessions to chiefs and tribes; and individual rights, as guaranteed under Article III, which provided Māori with all the rights and privileges of British subjects (Orange 1987).

Since its signing in 1840, the Treaty of Waitangi has been subjected to many attempts at interpreting not only its actual words but also its intent or spirit. The spirit of the Treaty has been enunciated as a set of principles by various individuals and groups and incorporated as a Treaty clause into various Acts of Parliament, including the HSNO Act, which purports to protect the environment and the health and safety of people and communities by preventing or managing the adverse effects of hazardous substances and new organisms (such as GMOs). Part II, Section 6 (d), of the HSNO says “All persons exercising functions, powers, and duties under this Act shall, to achieve the purpose of this Act, take into account the following matters: The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, *waahi tapu*, valued flora and fauna, and other *taonga*”, while Section 8 says: “All persons exercising powers and functions under this Act shall take into account the principles of the Treaty of Waitangi (*Te Tiriti o Waitangi*)”. Among the principles defined by the Waitangi Tribunal is that of consultation (Parliamentary Commissioner for the Environment 1988). However, as the following case study illustrates, what is involved in consultation is not always clear-cut. Interactions between knowledge systems and the determination of collective rights require negotiation, including negotiation among groups of indigenous people.

## Consultation with Māori concerning GMOs: a case study

Most GMO research involves experimental work in strictly controlled laboratory facilities in universities and Crown Research Institutes, which sometimes proceeds to the field trial stage. Scientists wanting to undertake such research are expected by the ERMA to consult with Māori. An application by AgResearch for approval to create genetically modified cows is presented here as a case study of the many complexities surrounding this seemingly simple process. This GMO research first commenced in the early 1990s with the insertion of copies of a human gene into the DNA of cow cells. The human gene (sourced from a DNA library in the USA) coded for a protein that prior research indicated could be of benefit to patients with multiple sclerosis. Breeding transgenic cows from which commercial quantities of milk could be readily obtained provided a practical alternative to sourcing human milk. The initial research was undertaken before the HSNO Act 1996 came into effect in 1998. Prior to 1998 the regulation of genetic modification was undertaken by an Advisory Committee on Novel Genetic Techniques. At the same time Institutional Biological Safety Committees (IBSCs) were established and given delegated authority to approve low risk experiments (that is, those conducted under strictly controlled conditions in a laboratory).

When AgResearch initiated work on the development of the GM cells in laboratory containment they sought and received permission from their IBSC, which at that time was not required to have Māori representation. In December 1998 they submitted an application (AgResearch 2000) to the newly established ERMA to conduct field tests involving three different genetic modifications, one of which involved the above-mentioned human genes. Because this application now involved a field trial, albeit in strictly contained field conditions, it was publicly notified in March 1999.

As required by the HSNO Act, Sections 6 (d) and 8, AgResearch had to provide an assessment of the risks of this research to Māori. Following earlier precedents the ERMA considered it sufficient for the applicant to undertake

consultation with Māori at a local level, that is with the *hapu* (sub-tribe) or *ivi* (tribe) in the locality of the research institution, rather than requiring national consultation. In their application 11 December 1998 AgResearch (based in Hamilton) noted that discussions had begun with the Tainui Māori Trust Board in 1996 and again in 1998, and that a Board representative, who was also their own institutional *kaumatua* (elder or traditional leader) undertook to discuss the issues raised in these discussions with the Board. AgResearch concluded that “no potentially adverse effects or negative concerns were raised [by the Board] and indeed the potential benefits to the wider farming community and New Zealand were highlighted” (GMF98009, p.18). Minutes of their IBSC committee also record that while there was still no official Māori representative, unofficial involvement came from a member of the Tainui Māori Trust Board on whose land AgResearch’s facilities are located (email comm. from ERMA dated 7 September 2000).

ERMA responded with a request for more details on the consultation process with Tainui. They also advised that the Tainui Māori Trust Board was being disbanded and AgResearch now needed to consult with the environmental group of the Waikato Raupatu Lands Trusts (WRLT) established by Tainui. Following consultation, the WRLT Trust replied to AgResearch (copy to the ERMA) that the use of human genes in animals – and in particular, their consumption – is inappropriate, due to Māori cultural and spiritual beliefs. They concluded however, that “the Waikato-Raupatu Lands Trust on behalf of Waikato-Tainui neither supports nor opposes this application; we reserve our position as neutral until such a time where research information from the application enables us to make a more informed decision” (WRLT 1999).

Shortly before the closing date for public submissions, also in April 1999, a Māori woman academic and member of the Tainui confederation sent in a late submission opposing the application on several grounds. She was also critical of the consultation process followed by both Tainui and AgResearch, saying, “I am perturbed at the lack of consultation that has taken place with people. Discussions with [two people] and the Trust Board do not constitute

consultation”. Furthermore, she noted that no consultation with Ngati Wairere appeared to have occurred, despite this *hapu* having *mana whenua* status (rights and responsibilities) over the ancestral lands on which the proposed genetic transfers would take place (Greensill 1999). She also alerted members of Te Kotuku Whenua consultants, a group acting for Ngati Wairere on environmental issues, who then filed a late submission to the ERMA that requested that the application be declined.

Following the close of submissions, the ERMA Māori policy advisor became aware that the local councils in the Hamilton region had conducted consultations (under the Resource Management Act 1991) with three groups: the WRLT, Te Kotuku Whenua consultants and Nga Mana Toopu o Kirikiriroa (NAMTOK). In a letter to AgResearch NAMTOK (1999) stated that it comprises five of the largest *hapu* in the Waikato region, including Ngati Wairere, and is recognised as the regional *ivi* authority by Hamilton City Council for Article II of the Treaty of Waitangi for the City of Hamilton by the Kauhanganui (which replaced the Tainui Māori Trust Board) through a contractual arrangement. They also noted that the two managers of Te Kotuku Whenua were “not of Ngati Wairere descent” and expressed doubts as to their authority to represent the *hapu*. Furthermore, “the mandate to represent the Ngati Wairere hapu can only be authorized in writing by . . . the senior *kaumatua* of Ngati Wairere, who is also the *kaumatua* of the [AgResearch] complex. We understand that [this person] is in support of the research proposals to ERMA” (Puke 1999).

Concerns raised about the proposed research by the Te Kotuku Whenua consultants, along with those expressed by ERMA’s Māori policy advisor and Nga Kaihautu, its Māori advisory committee, were sufficient for the Authority to recommend that more consultation occur between AgResearch and Ngati Wairere, including the establishment of a *kaitiaki* (or guardianship) group to provide more meaningful assessment of the cultural risks. NAMTOK responded by stating in a letter to AgResearch that the management and facilitation of the *kaitiaki* group was to be determined by the senior *kaumatua* of Ngati Wairere via Nga Mana Toopu (NAMTOK letter 26 November 1999).

In November 1999 two experiments outlined in the application were approved by the Authority, with the exception of those involving human genes, pending further consultation with all three Māori groups (WRLT, Nga Mana Toopu and Ngati Wairere). In March 2000 the ERMA agreed to an extension of the deadline to hear the application pending further *hui* with Ngati Wairere. In May 2000 AgResearch provided a time-line of their consultation process with various Māori individuals and groups mentioned above, and concluded “the *hui* have provided for the continuing development of a relationship between AgResearch and the local *iwi* and *hapu*, but have made little progress on steps to ameliorate the risk to Māori” (L’Huillier 2000). Finally, in July 2002, more than 18 months after filing their application, AgResearch won the right to proceed, but at considerable cost in time and money. Although Ngati Wairere failed in their attempt to halt this research they won the right to be recognised as *mana whenua* (those with customary rights and responsibilities over the land in question) and hence to be consulted on all such research as part of a consultative *kaitiaki* committee in partnership with AgResearch.

This case study reveals not only the difficulties that AgResearch and the ERMA encountered in their attempts to ensure adequate and meaningful consultation with appropriately mandated Māori, but also the complexities of internal processes and politics within this tribal confederation. This included claims and counterclaims for the right to speak on behalf of *hapu*, *iwi* and *mana whenua*. It is important to note that this case and the issues it raised are not unique. Many, if not most consultations between Māori and non-Māori organisations encounter, initially at least, not only cross-cultural barriers but often tribally complex structures and processes that can frustrate efforts on both sides to engage in meaningful consultation.

## Balancing individual and collective rights concerning genes

Recent research investigated the views of Māori individuals, groups and *hapu* (Papatipu Runaka)

of Ngai Tahu, the major South Island *iwi*, concerning novel biotechnologies such as GMOs (Roberts and Fairweather 2004). Significantly, most of those interviewed agreed with the principle of individual choice with respect to the use of these technologies, particularly in circumstances involving medical benefits to an individual. A number of women spoke about the need to set aside their personal apprehension or even opposition to research if it helped save human lives. “If my son needed a human or non-human heart, my son’s life is more important. Humans are more important. *Tikanga* (cultural practice) is flexible and is there to be adapted so it can save human lives” (Roberts and Fairweather 2004, p.49). Regarding genetically modified therapeutic foods, such as golden rice, two others felt that “we can’t decide for others what’s good for them. If it will help save other peoples’ lives they should have the right to choose to eat those things” (Roberts and Fairweather 2004, p.51). More contentious, however, was the right of an individual Māori to agree to participate in research involving genes or to donate a gene for research purposes.

Other research conducted among Māori concerning the potential effects of GMOs (Satterfield *et al.* 2005) also elicited a number of deeply held views concerning genes. Genes were considered *taonga* (highly valued possessions) inherited from *tupuna* (ancestors) and individuals were seen as merely the temporary custodians, guardians, or protectors of these *taonga* for future generations. Of concern, therefore, was the perceived effect on *whakapapa* (the genealogical connections between individuals and generations). Knowledge of *whakapapa* is considered fundamental in understanding of one’s ancestry and identity (Roberts and Wills 1998). Hence a gene, when transferred to another organism, takes with it not simply its chemical constituents but a part of the ancestors, along with the potency of their spiritual forces (Roberts and Fairweather 2004, p.20).

While most individuals expressed this conviction and hence their apprehension at any tampering with their *whakapapa*, there were alternative views. In a discussion on xenotransplantation in which one person rejected the idea of accepting an organ from another animal in the (scientifically) mistaken belief that this would “interfere with the *whakapapa* and be

passed on to my children”, a *kaumatua* responded that *whakapapa* “cannot be changed by (accepting) organs; it is set in your genes and organs cannot change genes. In Māori culture humans are related to pigs because all things are related. We are all descended from the same *atua* (gods/spiritual beings)” (Roberts and Fairweather 2004, p.60).

Another discussion of the effects on *whakapapa* of receiving an organ from other animals prompted one woman to ask “what’s *whakapapa* anyhow? It tells us we are all related. We are part of the bigger picture so they are all our brothers and sisters. The more important cultural issue is *he tangata, he tangata, he tangata* [people, people, people], that is, our survival” (Roberts and Fairweather 2004, p.58). More forthright views arose in an interview with two Māori academics who argued that precedence should be given to the rights of individuals to make decisions about their genes and to judge what research involving genes is and is not acceptable. In their view, the Crown, through various pieces of legislation including the HSNO Act, was redefining who was Māori, which placed pressure on individuals to conform to legislative, media or researchers’ stereotypes. This presumed a generic Māori response to novel biotechnologies such as GMOs, one which closely conformed to traditional perceptions of Māori beliefs and values.

In reaction to this stereotype, one of the academics was determined to exercise her rights as an Article III Māori, which involved individual choice based on her own values. This included the right to determine what happened to her genes (for example, to donate them for medical research) and whether or not to accept a GMO product. In response to the argument that genes are shared by the collective and hence should entail collective decision-making, she replied there is a “creeping form of encroachment through *iwi* politics to control decisions by Māori individuals”. And, further,

who is the collective? *Whanau, hapu, iwi*? Other New Zealanders? And if there are no scientific differences between genes of Māori and anyone else, do all humans have the right of ownership and therefore of [decisions over their] use? Māori like anyone else don’t need *whanau/hapu* approval to marry and have kids, so why do we need it for approving research that might affect our *whakapapa*? What

right does the *iwi* have to make these decisions for all Māori in their area? And by implication, for all non Māori? (Roberts and Fairweather 2004, p.24)

Both the Māori academics participating in this discussion argued that the Crown was also politically defining which organisations had rights to speak on behalf of *iwi*; namely a Tribal Trust Board or Council (*Runanga or Runaka*). This was cemented into legislation from which flowed advice to researchers concerning consultation with Māori, namely, that such organisations and their representatives are the appropriate vehicles for discussion. This ignored the reality (some of which has been highlighted above) that many such organisations do not provide a consensus of the views of all of their people, including *whanau*, *Marae* (traditional community centre) and *hapu*. Such organisations are represented during consultation by an appointed individual *kaumatua* or resource manager, who may not have consulted widely or at all (often because of genuine time constraints) within his/her own *iwi*, yet is mandated by the tribal authority to provide an opinion on its behalf.

Tensions surrounding the issue of tribal mandate in this *iwi* were also raised by several of the *Runaka* who voiced their opposition to the centralised authority of Te Runanga o Ngai Tahu (TRONT). In a discussion about GMOs one member said that only experts in each *whanau* (extended family) knew what was and was not *tika* (right relationships) between species, and how to keep things in balance; it was not for anyone else to decide. The *Runaka* wanted to “stand on their own *mana whenua* status and not be told what to do by TRONT”.

Another *Upoko* (tribal leader) said it was important that “individuals [be] the first to have their say on these technologies, and then the *Runanga* [sic]. It was not for TRONT to decide what biotechnologies were acceptable and why”. (Roberts and Fairweather 2004, p.64) Similar views were voiced more covertly at several interviews with *Runaka*, where some individuals (mostly young men and women) confided that they were always being told what to do and what to think by senior individuals (such as the *Upoko*). Instead, they wanted to know more about the science so that they could make up their own minds.

## Conclusion

The ethical issues raised here concern the rights of the collective versus the individual, as well as the transparency and moral robustness of the process whereby collectives seek to speak on behalf of sets of people. As has been highlighted above, the rights to speak on behalf of an *iwi* are often highly contested. Moreover, collectives can be captured by the most articulate, politically motivated or authoritative individuals, or by a mandated person who may not have consulted widely, or at all within his/her own *iwi*.

Under Article II of the Treaty, the Crown has a clear obligation to consult with *iwi* particularly concerning collectively owned resources such as lands, forests and fisheries that might be adversely impacted by the outcomes of the research. It can similarly be argued that genes, too, are collectively owned *taonga* and therefore also subject to Article II, based on consultation with the appropriate group. But as this research reveals, an increasing number of mostly younger Māori are claiming the right as individuals to make up their own minds, particularly in situations where the genetic research involves individual choice and where any benefits or adverse effects are confined to the individual.

Expression of a range of views among Māori is among the many healthy outcomes of the GMO debate in New Zealand, which has revealed a diversity of opinions drawn from various sources, including the media, research projects, submissions to the ERMA and the Royal Commission on Genetic Modification (2001). While politically active voices of oppositional persuasions have often occupied centre stage, other, equally important and perhaps less biased voices also deserve to be heard. Among *iwi* Māori some of these voices remain muted by what some have referred to as the “tyranny of the tribe”. By this was meant adherence to a collectively owned set of tribal customs, beliefs and values which could also – in certain circumstances at least – come at the cost of suppressing individual views and rights.

In this regard, it is worth noting that a majority of Māori no longer live in their tribal areas; approximately a quarter of all Māori live

in the Auckland region, in or around New Zealand’s largest city, and many of these do not know, or are not affiliated with, their traditional *iwi*. Some of these Māori belong to urban (non-tribal) Marae with no role in consultation with the Crown under HSNO. What voice, then, do these people have? Individual Article III submissions concerning GMO research are possible only for applications that are publicly notified, that is, for field trials, and the conditional or full release of GMOs. Most of all GMO research applications, including those which, potentially at least, might involve risks to Māori, are not notified (usually because they are laboratory-based) but require consultation with *iwi*-mandated Māori individuals on IBSCs. And, as claimed above by some, modern, legislatively driven creations such as centralised Tribal Trust Boards sit above, and thereby risk the marginalisation of, traditional seats of power and authority, such as the *hapu*. At even higher levels of political power, Māori party politicians recently opposed a new law designed to empower an individual to consent to donate their organs after an amendment to give *whanau* the right to veto individual consent was rejected (Trevett 2008).

What is at stake here is a just and fair balancing of individual and collective rights and responsibilities. To achieve this, the Crown partner, be it a science provider or decision-maker, needs to ensure that consultation involves engaging both with individual Māori, perhaps as part of public communication and dialogue and with the appropriate tribal organisation. For Māori, it is worth noting that as relationships between them and non-Māori organisations mature, as appears to be happening between Ngati Wairere and AgResearch, participants move past contested battle lines into a negotiated space in which the Treaty principles are given active expression. But vigilance still needs to be maintained by individual Māori, *hapu* and *iwi* to ensure that those in that space maintain transparent and inclusive consultative processes among their people. The robust argument and debate demonstrated above in two large *iwi*, and which occurs at all levels of Māoridom, from flax roots to Parliament, signals that the Treaty of Waitangi continues to be a meaningful and living document for all Māori.

## Note

1. The Environmental Risk Management Authority (ERMA) is a state agency charged with the implementation of the HSNO Act. Decisions about applications deemed to be high risk are made by an eight-person Authority, a quasi-judicial body appointed by the Minister for the Environment, which also acts as the governing board of the ERMA.

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