



## Public Good in an Absurdly Patented World

Richard Jefferson says trite and incorrect dogma concerning ownership and control of IP is stifling innovation.

**A**t an international congress of plant molecular biology in 1986, I was sitting next to a buoyant Jim Peacock, then and now Chief of CSIRO Plant Industry. We had a grand time talking about the agricultural challenges of the dry, old continent of Australia, experiments that could be tried and exciting new technologies in the wings. I don't remember one word about corporate control or patents, or doubting that we could deliver.

We're now on opposite ends of the same campus, wrestling with a Gordian knot of complications in the not-so-brave new world of intellectual property (IP) in agriculture, and I for one am plagued with doubts.

The technologies we were enthusing about, such as the use of *Agrobacterium* for transferring genes to crop plants, are now encumbered by hundreds of patents, mostly controlled by a handful of large corporations, even though most of these techniques were invented by publicly funded scientists.

That's the tip of the iceberg. Genes themselves are being protected wholesale, with one US company, Ceres, smugly claiming patents on 50,000 genes and 10,000 promoters.

During the past decade, in trying to cope with an increasing "commercial" focus in agricultural research in

Australia, nine quasi-private R&D Corporations (RDCs) were created to fund agriculture-related science. With at least \$250 million from grower levies and matching taxpayer dollars, the RDCs have invested many tens of millions in biotechnology-related research.

Much of this funding has been squandered and the research products are undeliverable. The internationalisation of trade and the dramatic increase in the importance of IP have left these institutions in disarray and confusion. Research providers - including universities, CSIRO and state departments - are caught as meat in the sandwich with little guidance or help.

Sticking-plaster solutions of wordsmithing and onerous contracts between funders and researchers only dishearten the truly creative scientists and policy-makers and impose massive transaction barriers. This betrays a huge ignorance of how IP really works and what it's good for - and not so good for.

A trite and incorrect dogma abounds that ownership and control of IP is "what it's all about", means making money and gives the right to use that IP. On the contrary, IP costs lots to develop, to prosecute and to license. Control of IP gives no right to practise that IP. Its benefit as a "bargaining chip" is usually overvalued and rarely used to good effect.

Evidence from great research universities overseas indicates that even exceptional IP portfolios barely pay for themselves and contribute less than a few per cent to the true costs of running these institutions.

The real goal must be to access and leverage all this innovation - Australian or otherwise - for Australian public good and to avoid the catastrophic pitfalls of infringing rights held by others. This is securing "freedom to operate" and requires a comprehensive, dynamic understanding of the ever-growing thickets of patents and technologies around an innovation.

Following a fine report for the RDCs by Cheryl McCaffery 5 years ago, a way forward was charted involving new, shared institutional mechanisms to understand this IP landscape, to master the enormous patent literature, to provide tools for guiding project development, to commission targeted research and to in-license third-party innovations.

Sadly, these sensible ideas - like many unwelcome reality checks - were filed as "too hard" and substituted with amateurish academic exercises.

It's time to reconsider how we work with IP. We must avoid confirming the worst fears of a skeptical public: that our institutions have become ineffective apologists for economic rationalism and not engines of public good.

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