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Dr Rod Crawford
Secretariat
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Dear Rod

Re: Patents and Experimental Use - ISSUES PAPER

Thank you for the opportunity to comment on this issue. I provide this response to the Issues Paper from the perspective of a researcher in plant biology and biotechnology, having recently completed a PhD at the Australian National University.

As my project was co-funded by a Cooperative Research Centre (CRC) I developed an interest in Intellectual Property (IP) issues related to my field and took part in several IP training opportunities (workshops, seminars etc) offered through the CRC and other avenues such as the Australian Centre for Intellectual Property in Agriculture symposia.

As a general comment, I note that an interesting model organisation for IP licensing policies in agricultural biotechnology could be the Centre for the Application of Molecular Biology in International Agriculture (CAMBIA), based in Canberra. My understanding is that they are a company that would lean towards freer access to IP while still using IP protection as a tool, and as such they may be a useful contact for consultations of any new policy initiatives.

I provide some general comments on some of the questions posed in the Issues Paper.

Question 1 (a-c).

I had a limited understanding of laws relating to exemptions on experimental use of IPR protected material/processes in Australia (though this has increased after reading the discussion paper). My perception is that there is a general belief that some form of exemption for experimental use of IPR protected material exists, though I did not find people who were clearly aware of the situation.

Question 2.

A situation in which the balance of favour and minimal inhibition lies with parties undertaking basic or fundamental research is certainly preferred to more restrictive regimes. Thus the EU and UK examples appear more favourable than the US system. From my research experience and IP training I feel that promulgation of strict interpretations of IP regulations (in particular through universities) would significantly limit opportunities for fundamental/basic research (i.e. where no specific

outcome is desired and certainly not a commercial outcome). The US approach would be less appropriate in Australia I suspect due to the greater focus of US university research on strategic and commercial outcomes (certainly in the biological sciences).

Question 4.

I have no specific comment on empirical evidence, rather a general comment on my experience. My impression is that IPRs are a growing consideration in day to day academic research in biology. Along the lines noted above, I would strongly expect that the implementation of a cautious internal policy in some research institutes would prevent certain research avenues from being followed due to additional effort required to negotiate an agreement (i.e. materials transfer agreement, MTA).

Question 7 and 8.

Yes, basic, applied and hybrid research would certainly have different requirements from the patent system. In basic research in biology the availability of all manner of tools allows a range of problems to be examined in a number of ways. If a tool such as a plasmid, enzyme or sequence is protected and negotiations have to be undertaken to gain access (e.g. the need for an MTA) this will be a significant disincentive, and will usually result in experiments not being done or less desirable alternatives being used. I have experienced this disincentive in my own research. A researcher in such a situation is faced with a choice: potentially infringe someone's IPRs or pursue an alternative approach. This impacts negatively on discovery and innovation overall as many significant findings are serendipitous.

Applied or hybrid research by definition is concerned with achieving a defined outcome in relation to application of a technology. In many such cases the desire for the defined outcome will be sufficient incentive to negotiate access to protected material (particularly when commercial outcomes are concerned). Moreover the time and dollar implications will be part of the budget and project plan (whereas this would often not be the case in fundamental/basic research).

Even in these outcome driven circumstances (in addition to basic research), smaller or public good projects will have to invest significant time in order to gain access to relevant IPRs (i.e. the 'patent thicket' or 'tragedy of the anti-commons' scenario). My perception is that this is a significant consideration in university research at the moment, but that it is not inhibiting conduct of all research. However I expect it is more that 'net innovation' is reduced due the disincentive to research in certain areas or use certain tools (which may be quicker or lead to unforeseen novel outcomes) and due to the need to spend time negotiating IPR access (even for a simple MTA with minimal dispute, this can take several days of time).

Question 9.

I would answer yes to this question, though having a background in biotechnology this is not surprising. I think the answer to this question is implied by the fact that fundamental questions about the patent and IPR systems have already been provoked by the recent progression of modern biotechnology.

Question 10-12.

As a general comment on these issues, I think a basic principle should be that research that is not commercial in nature or does not significantly and/or directly contribute to

a commercial outcome should be exempt from substantive restriction of IPRs. However I appreciate there are policy problems in determining this as outlined, particularly delineation of what is and isn't commercial and whether the "normal business" of a research institute should be exempt.

Question 15.

Only partially I expect. As the parties who provide funds for research drive licensing practices, and if they have a commercial outcome in mind they will licence (or require researchers to license) technology/material in a specific manner. Additionally, it would be difficult to control the way in which international parties license material.

Question 19 and 20 –open source.

The idea of open source in biological research is an appealing one, though I am not familiar enough with the detailed practical aspects of how this would be achieved. As much of the material in modern biology is really information (i.e. DNA sequences, plasmids etc), I would expect that there are significant parallels with copyright and much might be learned from open source models for software. One might need leading research institutes to take the lead to show how this might be done.

Kind regards

Dr Ryan Wilson