Patent Proze: From the bench to the boardroom

Tim Stirrup and Katherine Hebditch

Baldwins Intellectual Property, PO Box 5999, Wellesley St, Auckland

The idea of using your organisation's Intellectual Property (IP) as a means to achieve commercial success is often bandied around with little or no explanation about exactly how this can be done. We provide below a brief outline of an IP strategy that can lead you from the bench to the boardroom.

Understanding your current and potential IP assets

The first step in developing a successful IP strategy is finding out exactly what IP you currently have by conducting an IP audit. This systematic review of the IP assets owned, used or acquired by an organisation should include all staff and should provide an element of education in what constitutes existing and potential IP.

Existing IP assets can include patents, trademarks, registered designs, plant variety rights, trade secrets or copyright owned by the organisation, and any IP licensed to or from third parties. Less obvious IP assets include work manuals, databases, methods, publications and product/process know-how.

The IP assets of most relevance to chemists will often be patents that protect inventions. Patents can provide protection for new compounds, compositions, apparatus, methods of production, methods of treatment of diseases, isolated or recombinant nucleic acids/proteins or non-naturally occurring microorganisms and other subject matter. However, an effective IP strategy will also assess and consider using other forms of IP such as registered designs, trade secrets, copyright and trade marks.

Once the IP assets have been identified, the ownership of those assets should be assessed. There will often be IP clauses in funding, collaboration, consultancy or employment contracts that determine who owns any IP developed and attaches conditions to the use of that IP. If it is unclear which party owns a particular asset this should be cleared up as soon as possible to avoid lengthy and costly disputes down the line. As a general rule of thumb, if IP is generated by an employee in the normal course of their employment, then the IP will belong to the employer. This is especially true if the employee is employed as a researcher/innovator whose role is primarily to generate knowledge and IP.

The next step is to determine the extent of use of the asset and to evaluate the importance and value of the IP assets identified. Most organisations are able to evaluate the relative importance of the asset in comparison to other assets held by the organisation. This relative evaluation is likely to take into account factors such as how closely the asset is aligned with the organisation's core goals, the expected longevity of the IP asset, *i.e.* is the patent/trade mark about to expire? and how exclusive/unique the asset is, *i.e.* is it a minor improvement to standard laboratory practice or a ground-breaking new technology?

Dollar valuation of IP assets is an extremely tricky proposition owing to the array of factors that can affect the value, such as market demand, competitor activity, rate of technological change, logistical capability, *etc*. A good place to start is to ask how much it would cost to replace the IP asset if it were lost or how much income the asset is expected to generate in the next few years.

The value of some IP assets relies on external factors over which the organisation may have little or no control. An IP audit should identify where and how these factors could present risks to the organisation's IP position and the value of its assets. For example there may be a risk if the main IP asset of an organisation is a person or team with knowledge of techniques or processes. If the person/team leaves, the IP position/value may be compromised. Similarly, there is a risk if the IP assets of the organisation rely entirely on the provision of a licence by a third party or rely on a single supplier for an essential product. If the licence is not renewed or the supplier ceases trading, it could have a catastrophic effect on the organisation.

Using your IP assets

Once an IP audit has been completed, you should consider how these IP assets align to your organisation's goals and therefore how they can best be used. Businesses generally want to see a financial return for their investment, but increasingly this can also be said for universities, Crown Research Institutes (CRIs) and many university-based institutes. As this transition to a more commercially focused academic sector continues, recognising and understanding IP is becoming a more important part of a researcher's intellectual arsenal.

The commercial use of IP assets can be broadly broken down into three categories – direct use of the IP, licensing and sale. For example, an organisation discovers a new polymer and a method of producing the polymer and obtains patent protection. Direct use of the product would involve the organisation producing and selling the polymer to customers in New Zealand and other countries in which the patent has been granted. Patent rights are territorial therefore the patent is only valid where applications have been made and patents granted. This means that the organisation could not prevent other parties from making and selling the polymer in countries where a patent has not been granted.

Licensing of IP assets can provide revenue to the licensor where manufacture or sale of the product by the licensor alone would have been difficult or expensive. It can also enable smaller players to expand into new markets that would otherwise not have been logistically or economically feasible. Universities have traditionally seen the pat-

ent right as an endpoint in itself. The core business will be to licence to sell the patent right.

Licensing can also be used in more complex arrangements to suit the business purpose and marry different parties' capabilities and expertise. Among these arrangements are cross-licensing (you license technology X to me and I license technology Y to you) and strategic alliances (I license technology X to you and you market/produce technology X for me). Licensing of IP assets is a common outcome with New Zealand based organisations because of the logistical and financial hurdles encountered with commercialising technology in major overseas markets.

Sale of the IP asset is a good way to quickly raise funds and profit from an unused or under-used resource. In contrast, royalties from licensing can take time to accrue and are dependent on the competency of the licensee in utilising the asset.

Freedom to operate

Even if the generation of IP assets for commercial gain is not the goal, an understanding of IP is advantageous so that steps can be taken to avoid infringing the IP of other parties. This is generally termed *freedom to operate* (FTO) and requires an awareness of the rights of other parties and ensuring that your activities do not infringe those rights.

If you do not want to patent an invention it can be advantageous to publish your work. Since a patent is only granted for novel inventions, the invention cannot have been previously published or be otherwise known. Therefore *defensive publication* of your research can block other parties from being granted a valid patent which could block your research.

Using IP analysis to direct your organisation

An understanding of how your organisation's IP assets fit into the IP landscape can guide your future research direction and help understand risks and opportunities for commercialising technologies. A patent landscape analysis identifies patent rights that already exist around a specific concept. The scope and density of patents around particular technologies or disciplines is analysed and compared to an organisation's IP assets and capabilities. Areas of technology or particular disciplines that have sparse IP *vegetation* are identified as opportunities for development. Such an analysis also helps to determine obstacles that may hinder an organisation's commercialisation goals or freedom to operate.

A sustainable IP strategy for tomorrow's world

An integral part of a successful and sustainable IP strategy is the continual re-assessment of IP assets and the promotion of a culture that fosters and rewards the awareness and creation of IP. Promotion of these factors enables organisations to recognise, assess and potentially capitalise on commercial opportunities in a timely and efficient way.

If you have any queries regarding intellectual property related matters (including patents, trademarks, copyright or licensing), please contact:

tim.stirrup@baldwins.com
or katherine.hebditch@baldwins.com

Patent Proze, Baldwins Intellectual Property, PO Box 5999, Wellesley Street, Auckland

Katherine Hebditch and Tim Stirrup of Baldwins Intellectual Property in Auckland specialise in chemistry and biotechnology patents. Katherine obtained her PhD in organic chemistry from the University of Manchester in the UK in 2004. She is currently working towards registration as a patent attorney. Tim obtained his PhD in molecular biology from the University of Southampton in the UK in 2007. He is also working towards registration as a patent attorney.