

Enhancing the asset commercialisation process

By Mike Johnson

In my role as Director of Corporate Partnerships at MRC Technology, over the last few years I have witnessed the drug discovery landscape changing almost beyond recognition. Gone are the days when much of early stage drug discovery was carried out by pharmaceutical companies. Instead, all eyes are turning towards universities to carry out and even fund this lynchpin of the drug development process.

However, universities are beginning to feel the pinch as they are increasingly being asked to demonstrate a return on investment or, at the very least, provide evidence that the research was worth carrying out. Although a vital part of commercialising assets that come out of a university's drug discovery process, technology transfer departments are also being reviewed as a cost centre and are having to demonstrate their worth by showing the fruits of their labour in terms of licences and start-ups delivered.

Yet the current model employed by many universities of moving an asset on and out in to the world does not seem to be working. The National Institute for Health Research has recognised that research does not seem to be going through the system as smoothly as it should and is now questioning the technology transfer model. While some university technology transfer offices have got the process down to a tee, many other smaller ones are understandably struggling to offer a consistent service to all the assets they have to manage and, in some cases, have to resort to the less challenging options (e.g. Easy Access IP, discussed later).

Perhaps, therefore, universities now need to assess the model they currently use to commercialise their hot assets; not only when it comes to getting their products moving out of the lab but also how they go about protecting their asset in terms of intellectual property rights and revenue generation.

While many might see these as distinct and sometimes overwhelming tasks, they can be combined into one process by integrating the intellectual property management element with the task of commercialising healthcare science.

Rather than separate out drug discovery, commercialisation and patent protection, another option to move the asset from the laboratory bench to the patient is available – outsourcing the entire process to a third party, such as MRC Technology.

Intellectual Property Management (IPM) sees an external company help universities identify assets with the best prospects, examine their technology transfer models for bottlenecks or reasons why the assets are not progressing as they should, identify the status of that asset (i.e. whether it is ready to be commercialised or if it needs more proof of concept work), locate potential partners, and manage negotiations on rights.

Find the jewels

The first step universities need to take when developing a more commercial approach is to examine all their potential assets with a critical eye to see which of them are honestly likely to yield results and, of those, which are at a stage where they can be moved forward.

However, a technology transfer unit might be working with assets presented by completely different departments from engineering to biotech, so team members evaluating a life science asset may not have the specialist knowledge needed to identify a hot prospect let alone problems in any given process such as the drug discovery pathway.

By working with an IPM company technology transfer departments will get access to experts who have the knowledge to identify the best assets and who can overcome any problems in a university's drug discovery process, even if it means changing the technology transfer model already in use. This approach is more likely to see universities getting a return on their investment, which they can then allocate to new research.

Ready to fly?

The next step is to look at whether the asset is ready for commercialisation or if it still needs proof of concept work doing. This will have an impact on who might be interested in taking an asset on. For example, some companies may be interested in early stage projects but will have set requirements in terms of proof of concept.

Traditionally, there was an overlap between pharmaceutical research and development units and university units. Each were often working in the same areas and were normally very aware of who was working on what. However, with the pharmaceutical industry radically

reshaping its research and development efforts that knowledge has been lost and both parties now need help in identifying potential partners or applicable assets.

While it is hard for many technology transfer offices to develop this knowledge, specialist IPM companies will have been developing pharmaceutical company contacts for years and so will have a vast bank of knowledge when it comes to identifying the right company for any particular asset. This means that instead of potentially having to approach numerous individual contacts themselves, universities will get access to many companies through one contact.

Sometimes, a pharmaceutical company might express an interest in a particular asset but will ask for more data, which will require additional discovery work to be carried out. Rather than going back to the university laboratory, as was traditionally the case, a number of IPM companies actually have the facilities to offer this service. This allows the asset to continue to move forward without the risk of it causing a bottleneck in the university's research.

Once an asset has attracted the interest of a pharmaceutical company, there is always a set complex negotiations to get through. The key to setting up a successful and long-term partnership will be identifying IPM companies that have enough experience in the arena to be able to advise universities of the deals that are out there and the sort of offer they should be seeking.

This knowledge of what sort of assets external companies are looking for will also prove useful to those universities that do not want to undergo the lengthy process of negotiating IP terms and instead choose to use the Easy Access Intellectual Property Model. Using this less complicated option, the universities simply give their asset to a company that will move the product into development and thus potentially benefit society sooner. However, going with the Easy Access Intellectual Property model means that the university may not receive a clearly linked return on investment on its research, which it is often required to demonstrate.

Another benefit of working with an IPM company is that they are mostly looking for a long-term relationship and as such, would rather discuss the option of a revenue share deal than charge directly for every element of the service provided. In most cases, both parties will look at the potential overall cost to commercialise the asset and then examine how any revenue will be shared if it is successful. Of course, this will very much depend on the status of the

asset being discussed. For example, if the patent has already been filed, the IPM company's share would rightly be less. But if the patent has not been filed, and the IPM company takes on responsibility for the costs involved in that, then it should get a greater share of the return. The key to a successful relationship therefore is that the partnership has to be flexible as every situation is different and everyone's needs will vary.

Charities

Many charities are also finding that they can benefit from working with IPM companies, be it because they are facing bottlenecks and problems in developing and protecting their own research or because they are finding that they simply don't have the resources to monitor the progress of the assets whose discovery and development they have funded. After all, like the universities, charities have a responsibility to show what their research spend is achieving.

IPM companies are ideally placed to not only take on the monitoring role but also to help charities strengthen their research and forge strong relationships with universities and companies to get the best out of their science, partnerships and funding.

Future

As the gulf between pharmaceutical company research and development and university research widens, and as costs are constrained and the existing technology transfer model is further scrutinised, the need for an alternative approach such as using an outsourcing partner is only going to grow. By allowing companies such as MRC Technology to act as a buffer between universities and pharmaceutical companies, there should be space made for universities scientists to continue to do 'blue sky' work while still taking on the research and development role left behind by pharmaceutical companies.

For more information please visit www.mrctechnology.org or contact

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About MRC Technology

MRC Technology is a not-for-profit charity that specialises in helping companies, universities and charities carry out drug discovery work and to manage, protect and commercialise their assets.

It has teams dedicated to identifying the assets with the greatest potential, quickly locating bottlenecks in a drug discovery process, adjusting the technology transfer model being used by universities and managing the patent protection process. It also has facilities in place ready to undertake additional laboratory work, freeing up universities to continue important discovery work.

Over the years, MRC Technology has formed strong relationships with a host of contacts across the industry and, as a result, it knows the specific requirements of most companies and can advise universities on the best deals available. Furthermore, having listened to the needs of both industry and academia, MRC Technology is in a unique position to offer a link between the two and so can offer a tailored service to everyone's needs.