

## **Finding the Formula for Scotland's First Life Sciences Powerhouse**

### **Glenn Corr, TauRx COO**

Scotland's world-class life sciences sector now finds itself uniquely placed to achieve yet another major breakthrough. The country that gave the world cloning, penicillin, anaesthesia, insulin, beta blockers and the world's first cancer-preventing vaccine, has the potential to build on its impressive reputation as a research hothouse by adopting a game-changing approach to commercialisation.

The life sciences sector is already one of Scotland's greatest success stories with our small country ranking in the world's top three for research impact. Our strong tradition of innovation encompasses everything from the MRI scanner to the hypodermic syringe, currently so crucial to the global vaccine roll-out.

Nearly 800 life science companies, employing 41,000 people, are based in the country. The industry has grown at a stunning 10% a year for the last decade and is well on track to meet and beat its ambitious target of £8bn turnover by 2025.

One of the sector's great strengths is its so-called triple helix – the enviable culture of collaboration between the commercial biotech companies, the NHS and our universities which are at the cutting edge of innovation in life sciences.

All of this is highly impressive, commendable and enviable – we should be proud of our real achievements. When it comes to R&D, Scotland is world-class in research, arguably less successful at development, and when it comes to the third part of the equation, commercialisation, we have often been unable to reap the full rewards of our ingenuity and hard work.

Scotland is rightly renowned for its highly skilled life sciences workforce, attractive corporate tax regime and financial incentives for investing in research. But effective commercialisation, especially for large scale therapeutics, requires huge investment and a global infrastructure, which is why most firms ultimately sell out to a major pharmaceutical group or negotiate a joint venture arrangement which inevitably favours the distributor.

These approaches have their advantages, but some are considering a third way: could Scottish life sciences companies raise the capital to commercialise their own products?

I believe that self-launch is a viable option. By contracting with specialist third parties to launch innovative drugs we retain control of our R&D, ownership of our intellectual property and the expertise of the teams that made it possible, leaving the way open for future developments and breakthroughs to generate greater economic value in the long-run.

The greatest hurdle is funding. So consider a model where the commercialisation partner has skin in the game, putting up a significant portion of the investment capital in return for a share of the future profit stream. Could this turn the tables?

There would be no need to cede control of our science, just to be more innovative and daring about our approach to commercialisation. The pattern so far has been for even the most successful research-based companies to sell out to major international companies before achieving their full potential. The benchmark for success is generally the sell-out value rather than the ongoing contribution to the Scottish economy. The focus has been on the 'low-risk, low-return, early revenue' model.

But adopting the third-party launch strategy would allow us to focus on the long-term impact of securing world-leading positions in new multi-billion-dollar global markets. Scotland already excels at providing targeted funding and support for companies at the research stage. Why can't we apply that networking and sharing of experiences at the commercialisation stage as well?

If we collaborate and invest sufficiently to achieve the successful commercialisation of one major breakthrough treatment, we anchor the research capability while also trailblazing the marketing and distribution route that other Scottish companies can follow. The first deal will be the most expensive, but it then becomes the spearhead and champion for others.

Yet there are no guarantees, as investment is still a key component to opening the door to this opportunity. Our company has been very fortunate to have been well-supported to the tune of \$700 million already by far-sighted and loyal investors, the majority of whom are based in Asia. There remains the prospect of increasing UK investment in Scottish Life Sciences, and we hope to see more of it for all breakthrough companies.

The good news is that Scotland's excellent life sciences sector can leverage its already considerable strengths. There may be a real alternative to selling out or becoming junior joint venture partners. We congratulate the companies that have overcome the hurdles, but as value in their IP grows, so will the interest from larger global organisations hungry to fill their own pipelines.

Our challenge is a global market for one of the world's greatest unmet medical needs in dementia. We estimate that there are about 500 million people globally who are either on their way to or already suffering from dementia. We believe we could establish leadership in this market in the near term. The challenge is to retain value. We have the talent, the knowledge, the networks and the ambition: together, we can build a life sciences powerhouse in Scotland.

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