Commentary: Deborah O'Neil

What Scotland's life sciences ambition means in practice

It is indisputable that the life science sector has some very unique features. One of these is the global nature of the science combined with the unique characteristics of ecosystems which provide academic, financial and commercial support to companies with ambitions to grow. These ecosystems are very often regional, or even local, and are spread across many countries.

This article explains how North East Scotland is meeting the challenges of modern science and rising competition in the sector. The ideas were first outlined in the report *Life Sciences Strategy for Scotland 2035 Vision* which was published in November 2025[1]. They are now being put into practice.

The vision is clear: the life sciences are central to Scotland's economic competitiveness, health resilience, and international profile. Rather than a top down directive, the strategy is designed as a framework that empowers Scotland's regions to commercialise innovation more effectively, build globally competitive companies, and attract sustained investment.

This ambition arrives at a critical moment as globally, life science companies and ecosystems are competing more intensely for capital, talent, and manufacturing capability, while investors are increasingly scrutinising commercial readiness and execution risk. In this context, national strategies are judged not by their vision alone, but by their ability to translate scientific expertise into scaled businesses. For Scotland, the question is not whether innovation exists, but whether the system can consistently convert it into economic and societal value.

North East Scotland plays a distinctive role in this national vision. Aberdeen has one of the longest and most continuous traditions in the life sciences in the UK, rooted in the University of Aberdeen's origins in 1495. Formal medical teaching was established by the early 16th century, with a dedicated medical school by the 18th century – one of the oldest in the English-speaking world. There have been landmark discoveries like the role of vitamin and protein metabolism in human and animal health, the discovery of *staphylococcus aureus*, which revolutionised our understanding of surgical infection and of course the development of the first full-body magnetic resonance imaging scanner in 1980 by Professor James Hutchison and his team.

There is more than half a millennium of history behind life sciences in the region, where the ecosystem now includes successful spin-outs like TauRx Pharmaceuticals which is pioneering research into Alzheimer's disease, and Elasmogen Ltd, which is working on next-generation antibody-based therapies. Also, NovaBiotics Ltd, founded in 2004, is developing life-saving treatments for inflammatory-infectious diseases through its pharma division and commercialising novel wellness products internationally through its consumer health arm.

North East Scotland's long established culture of innovation is rooted in advanced engineering, digital capability, and highly regulated, capital intensive sectors which continue to shape its life sciences trajectory. Scotland recognises these regional strengths and positions them as core assets in delivering a more productive, innovation led economy.

A longstanding challenge for the sector has been translating world class research into high growth, investor ready companies. Scotland's strategy directly tackles this scale up gap, acknowledging that economic value is generated not through discovery alone, but also through the consistent commercialisation and expansion of innovation. In North East Scotland, this shift is already visible. We are moving from celebrating great science to systematically building companies which means supporting founders with commercial expertise, and the infrastructure required to turn innovation into viable market propositions. Founders in the north east benefit from structured entrepreneurial education based on the disciplined entrepreneurship framework taught at the Massachusetts Institute of Technology (MIT) in the US and delivered by Opportunity North East, a private sector entity. This is being done with partners like Scottish Enterprise, the Robert Gordon University, and the University of Aberdeen.

Investment is another key pillar. Here, the region offers competitive operating costs, an experienced workforce, and proven capability in scaling complex technologies for global markets. Investors increasingly seek not only strong science but evidence of an ecosystem that can support sustainable growth. The environment emerging around ONE BioHub, a state of the art life science facility in Aberdeen, provides commercial discipline, collaborative culture, and access to partners across industry, academia and the National Health Service.

Place based growth is central to Scotland's approach. The north east region benefits from a mature culture of collaboration across and within sectors and in Aberdeen, ONE BioHub is the focal point for this network.

Skills and leadership development feature prominently in the strategy. Life sciences companies depend on talent that spans science, product development, clinical testing, chemistry, manufacturing and controls, quality, regulation, market access and commercialisation. Again, the region is well placed to deliver this.

Critically, Scotland's integrated NHS presents a substantial opportunity to accelerate innovation to market. For companies in the region, this offers real world access to a test bed and clinical partners who can support product validation and refinement—enhancing credibility with end-users and investors and ensuring innovation benefits patients sooner.

Reference: 1. *Life Sciences Strategy for Scotland 2035 Vision*, November 2025.

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