



## Reform comment

The life sciences sector is one of the UK's most successful industries. It generates turnover of over £50 billion and employs 167,500 people, most in highly skilled jobs. The industry works closely with the NHS and universities to generate innovation in healthcare products and delivery, accounting for over 28 per cent of all business research and development in the UK. Enhancing collaboration between the industry, Government, and academia will be crucial to the future of life sciences in the UK.

The Government announced the Strategy for UK Life Sciences in 2011 to ensure that the UK remains a leader in life science research. It is therefore

concerning that members of the industry do not believe the UK's business environment stands out among the competition. That feeling was raised in the UK Life Sciences' Leaders Survey 2011 and continues to be mentioned in our articles, despite the Government's efforts.

The Strategy calls for a world-class life sciences ecosystem that attracts and nurtures the best talent. A highly skilled workforce is particularly important but, as the Government reported in the *Plan for Growth*, the life sciences industry in the UK draws a third of its workforce from overseas. To ensure the UK life sciences continue to flourish, policy must address tight immigration restrictions and

strengthen domestic skills in biosciences.

The UK has great universities, a world-leading health system, and a flourishing biomedical industry. Supporting collaboration between them will be crucial to reinforcing the UK's position as a leader in life sciences.



James Zuccollo  
Senior Economist, Reform

## Dr Neil Weir Science as a catalyst for growth



Science is central to plans for the economy and has been a headline generator for the Treasury at every Budget and Autumn Statement since 2010. Science has seen strong investment in tough times and should be a priority going into the next election. However, beyond the question about how much to spend, should we also be asking about the effectiveness of current levels of spending?

Increasing costs of development, complex regulatory requirements, and healthcare cost controls have all challenged the life sciences' research sector. In comparison to major competitors, although the UK's landscape is broadly similar in terms of fiscal incentives, the UK does not stand out in terms of the support available and investment made.

As a Belgian biopharmaceutical company operating in the UK, UCB is one of the top five investors in life sciences. The focus of their research is immunology, particularly in relation to identifying mechanisms behind rheumatoid arthritis, lupus and osteoporosis and developing novel monoclonal antibody based treatments for these conditions. With over 40 per cent of their global research budget being spent in the UK, UCB has a high stake in the future of its Research and Development (R&D) environment.

An open innovation approach can be seen emerging as a strategic mechanism to leverage investment and modernise the way in which the biopharmaceutical industry conducts research. Most companies have adopted open innovation, with less being done in house and more being done in open collaboration between various biopharma companies working together in conjunction with academia. UCB, for the last five years, has been pioneering open innovation through the EU's Innovative Medicines Initiative, the largest public private partnership in healthcare in the world.

Committed to working in partnership with UK policy makers, UCB has commissioned the independent economic consultants TBR to review the support environment for life sciences R&D in the

UK. The findings show that in order to adapt to this new environment the UK Government developed a long term, cross departmental strategy to help support industry through major changes. Despite efforts, it is not always clear how investment into the area supports different strategies, making it difficult for foreign investors to understand how they access funding for novel research. This strategy also allocates the majority of funding towards SMEs ultimately discouraging medium or larger companies to share the assets and expertise necessary to improve the rate at which research is commercialised. Finally, while the Government has made significant investment into, and actively encourages, translational infrastructure, there continues to be limited practical help for industry to access it.

*Dr Neil Weir, Senior Vice President, Global Research, UCB*

## George Freeman MP How UK life sciences can help us win in the global race



There is one fundamental question facing our generation: how do we unlock a sustainable UK economic recovery which tackles both the need for growth

and public service productivity? The old ways have failed. We can't spend our way out of our debt crisis. We must trade our way out by selling things the rest of the world needs. We have to tackle the productivity crisis in public service like health. The NHS is both a major public spending liability and a potentially enormous catalyst for medical innovation. I believe our life science sector has a fundamental role to play.

The Life Sciences Strategy announced by the Prime Minister in December 2011 makes us serious contenders in the global race for biomedical innovation. We have numerous competitive advantages: world class universities, unique NHS health data and a vibrant venture capital sector. Connections are starting to be made. Our expertise and data – on cancer, diabetes and dementia – are urgently needed by the rising economies of the East. We have an

opportunity to attract billions of pounds of research and development investment into our life science research sector. Through the Government's activist Life Science Industrial Strategy, we have unlocked over £1 billion in five new early stage venture funds, helped secure AstraZeneca's new £300 million global research headquarters in Cambridge, and through the Catalyst Co-investment Fund secured over 50 new medical research projects in the UK. The £100 million Genomic Medicines project has the potential to make Britain the global hub of a whole new era of medicine, and the industries that are driving it. And to reduce the billions we spend on giving the wrong drugs to the wrong people by better targeting drugs to the people we know from genomics will respond. Medical life sciences drive innovation in both the NHS and industry, to mutual benefit.

Ultimately, the life sciences are about the appliance of science to solve the biggest problems facing society in the key markets of medicine, agriculture and energy. Today's developing nations need all three. The speed of their development is our opportunity. Today they need the basics of public health, food security and basic energy grids. They will rapidly develop Western style demands for food, clean energy and biomedicine. By better gearing our export and trade towards the fastest growing emerging nations of the world – the BRIC+11 – we use our knowledge base to help drive the next cycle of sustainable economic growth.

*George Freeman MP, Parliamentary Private Secretary to Gregory Barker MP and Adviser on Life Sciences to David Willetts MP*