

The BIA's submission to the Autumn Budget

September 2017

About the BIA

Established in 1989, the BioIndustry Association (BIA) is the UK trade association for innovative bioscience enterprises. BIA members include emerging and more established bioscience companies, pharmaceutical companies, academic research and philanthropic organisations, and service providers to the UK bioscience sector.

Our members are responsible for over 90% of biotechnology-derived medicines currently in clinical development in the UK and are at the forefront of innovative scientific developments targeting areas of unmet medical need. This innovation leads to better outcomes for patients, to the development of the knowledge-based economy and to economic growth. Many of our members are small, pre-revenue companies operating at the translation interface between academia and commercialisation.

Our goal is to secure the UK's position as a global bioscience hub and as the best location for innovative research and commercialisation, enabling our world-leading research base to deliver healthcare solutions that can truly make a difference to people's lives.

For additional information or clarification on any of the points raised please contact Dr Martin Turner, Policy and Projects Manager, on 0207 630 2192 or by emailing mturner@bioindustry.org

Autumn 2017 is a crucial moment for the UK life science sector

The sector has outlined a bold and positive blueprint for its future in Professor Sir John Bell's Life Sciences Industrial Strategy¹, and the Treasury's Patient Capital Review is leading an important discussion on the provision of long-term financial support for growing innovative firms.

UK bioscience companies are at the heart of the global sector, commercializing cutting-edge British science. Exciting breakthroughs are happening in cell and gene therapy, genomics and engineering biology, and our companies are scaling to reach their global ambitions.

CAR-T cell therapy is one of the most promising developments in therapeutics at present, and modern UK manufacturing is leading the way. In July of this year, small UK specialist Oxford Biomedica won the \$100 million contract with global pharmaceutical firm Novartis to manufacture the lentivirus technology that lies at the heart of the world's first anti-cancer CAR-T approved therapy, Tisagenlecleucel (CTL019). The deal is supporting 280 manufacturing jobs.

And this month Oxitec, which has grown from an Oxford spinout, announced \$9.5 million plans to build its first centralized Friendly™ Aedes egg production unit in Oxfordshire, with the capacity to generate one billion mosquito eggs per week. The operation is anticipated to create 75 new jobs and allow the company to scale its pioneering technology to stop the spread of tropical diseases like Zika and Dengue Fever.

Also this month, Teeside-based FUJIFILM Diosynth Biotechnologies opened their new 10,000-square foot, state-of-the-art cell culture Process Development Laboratories bringing new sustainable, high tech jobs to the region. The laboratories were realised through a JPY1 billion (\$9 million) investment by the Japanese company and were opened by the Life Sciences Minister Lord Prior.

However, there is uncertainty over the outcome of crucial Brexit negotiations, which will decide the future of the UK's regulatory regime for medicines and our future trading relationship with the European Union.

Now is the moment for the UK government to use the Budget to send a message of reassurance and ambition to global investors who finance our sector to enable us to build on this success to secure in the UK greater economic activity that leads to high value sustainable jobs across the UK.

This submission sets out a series of practical measures that alongside the forthcoming sector deal for life sciences would enable the UK to become the leading place in the world to discover and develop new therapies, and scale globally-relevant businesses to realise their full economic potential.

¹ Sir John Bell (2017), *Life Sciences Industrial Strategy – A report to the Government from the life sciences sector*.
<https://goo.gl/9DJP4F>

Key points

- The UK is globally recognized as a world leader in the life sciences. However, life science R&D is capital and time intensive, typically requiring 12-15 years and potentially over \$1 billion of investment. The patient capital gap is therefore most acute in this sector
- Venture capital funding for UK bioscience has improved in recent years but there is a weakness in follow-on funding and an over-reliance on a small pool of investors
- The introduction of MiFIDII and the loss of EU R&D funding through the EIF and Horizon 2020 represent significant threats to the UK's long-term patient capital supply
- Innovate UK, the British Business Bank, tax-advantaged venture capital schemes and a range of tax reliefs are valuable current government initiatives that support the UK bioscience sector.
- Venture capital schemes (SEIS, EIS and VCT) should be enhanced and targeted using the Knowledge Intensive Company definition, and penalties for accidental infringement reduced to support resource-constrained SMEs.
- Expanding eligibility in the R&D tax credit regime to the following expenditures would increase the incentives for investment and align the scheme with the realities of conducting R&D in the 21st Century:
 - *Expenditure on data*
 - *Staff recruitment and training costs*
 - *IP protection costs*

Additionally, cash credits for Research and Development Allowances (RDAs) would support loss-making SMEs to make greater investments in R&D equipment to increase productivity

- Specialist investors who understand the sector they are investing in and have the skills to support their companies to grow are critical to the life sciences sector and long-term supply of patient capital. The government should increase existing initiatives to support up-and-coming fund managers and introduce new schemes, such as entrepreneurial and business training and MBA loans for PhD and post-doctoral scientists
- The UK government should explore using the National Innovation Fund proposed in the Patient Capital Review, or the Industrial Strategy Challenge Fund to cornerstone one or more life science incubator
- The government should consider requiring users of the Investor Visa route to commit a proportion of their investment in the UK to innovative businesses in support of the government's Industrial Strategy. We estimate this could raise £100 million per annum for sectors like the life sciences
- The government should take an active role in attracting great investment in high-value advanced manufacturing through the provision of grants to companies considering where to establish their manufacturing facilities. Any measure or incentive needs to be significant to compete against the likes of Ireland, Switzerland and Singapore.

Introduction

The UK is globally recognised as a world leader in the life sciences. Beyond the benefits of better health outcomes for patients, improved living standards, and rewarding high-value jobs spread across the UK, this competitive advantage can support long-term sustainable economic growth to the whole country.

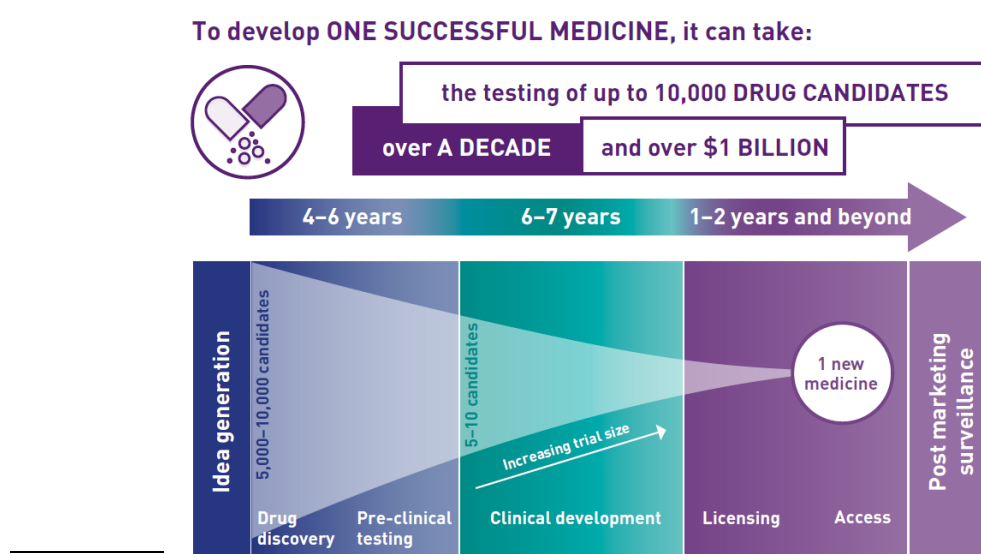
An independent analysis by PwC estimated that the UK life sciences sector contributed £30.4 billion to the economy in 2015 and supported 482,000 jobs². Workforce productivity in the sector is twice the UK average, with Gross Value Added (GVA) per employee equaling £104,000. The activities of life science companies directly contributed £14.5 billion to the economy in 2015, with an additional £15.9 billion provided through the supply chain and employee spending. The sector invests more in R&D than any other in the UK (£4 billion in 2014) and sustains high-quality jobs across the UK, with two-thirds outside London and the South East².

The finance gap for bioscience companies

There are unique challenges in life sciences R&D that set the sector apart from others in the economy, even other R&D-intensive industries. Medical research, development and licensing timelines are long – typically over 12 years – due to the need to extensively test products for human use through phased clinical trials and the cost of development can exceed \$1 billion³ (Figure 1). Long-term investment is therefore a critical feature of life science funding. A key challenge for the sector is finding enough investors willing to lock in their capital to illiquid shares for five to 15 years.

The UK life sciences innovation pipeline is fed by small, entrepreneurial bioscience firms⁴. They are producing the medicines of tomorrow, growing into profitable companies, and feeding innovation into the larger pharmaceutical and healthcare industries. Bioscience SMEs are generally focused on developing a specific technology and often do not have other assets on the market generating profits. This means they must rely on successive fund-raising rounds to

Figure 1: The challenge of drug development



² PwC (2017), commissioned by ABPI, BIA, BIVDA and ABHI, *The economic contribution of the UK life sciences industry*: <https://goo.gl/6sMhrB>

³ ABPI (2012), *Time to flourish – Inside innovation: the medicine development process*: <http://goo.gl/XLQDys>

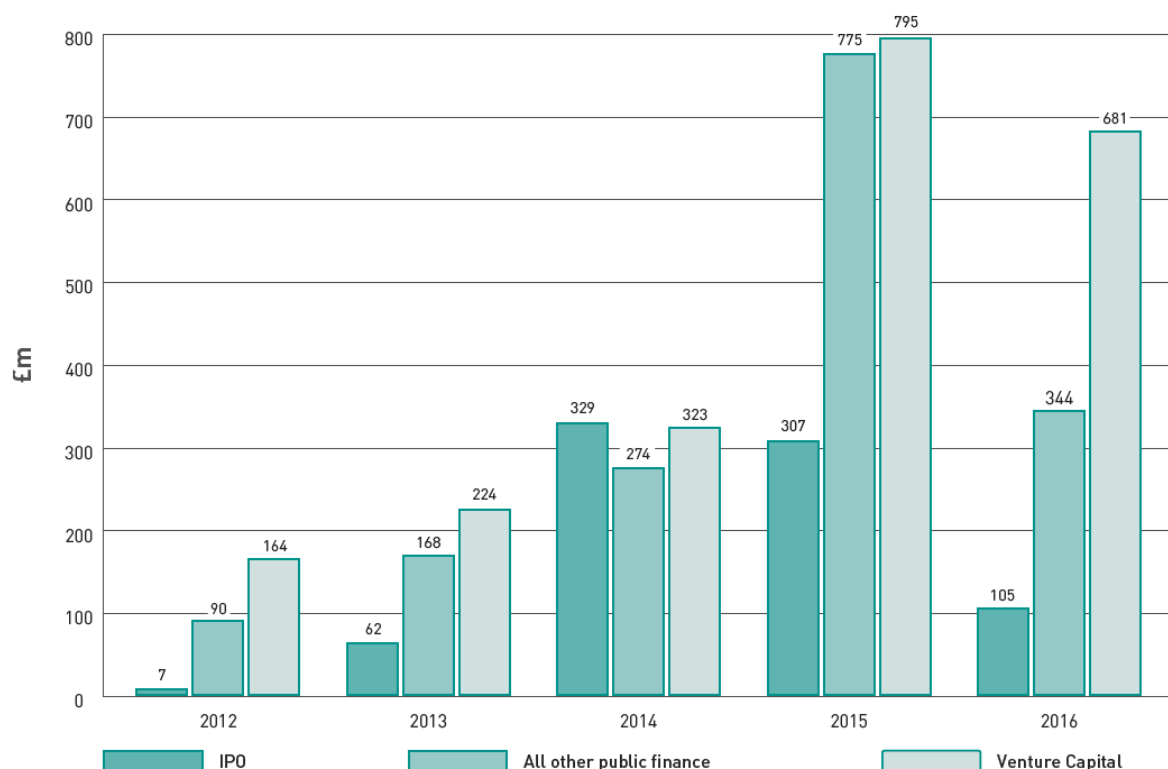
⁴ In this consultation response, “bioscience” is used to refer to early-stage, typically-pre-revenue life science companies.

maintain cash flow. Due to the long-development timelines and the complexity of the science involved in biomedical R&D, the early stages of drug development are considered high risk, which limits sources of finance typically to specialist investors and increases the necessity for government support to address market failures.

Private investment in UK bioscience has increased significantly in recent years⁵ (Figure 2). A total of £1.13 billion was raised by UK-based bioscience companies from private and public market sources in 2016. £681 million venture capital (VC) funding was raised, continuing the strong performance seen in 2015, when £795 million was raised. However, lower IPO activity in 2016 saw only £105 million raised, compared to £307 million in 2015. Finance from other sources was also hit by the challenging climate, with £344 million raised in 2016 compared to £775 million in 2015.

There has also been a maturing of VC funding, with the bumper 2015 series-A fundraising leading to larger post-series B fundraises: £275 million was raised in these later fundraises, up from £110 million in 2015 (Figure 3). There was also an increase in series-B funding, with £184 million raised, up from £136 million in 2015. This increase in follow-on funding is reassuring but these later-stage (B and post-B) funding rounds are still not as large as they need to be to support the growth of medium-sized bioscience companies. Furthermore, as Figure 2 shows, the public markets are not a viable source of funding for many companies.

Figure 2: Bioscience financing, 2012-2016



Source: Informa, Strategic Transactions and Scrip

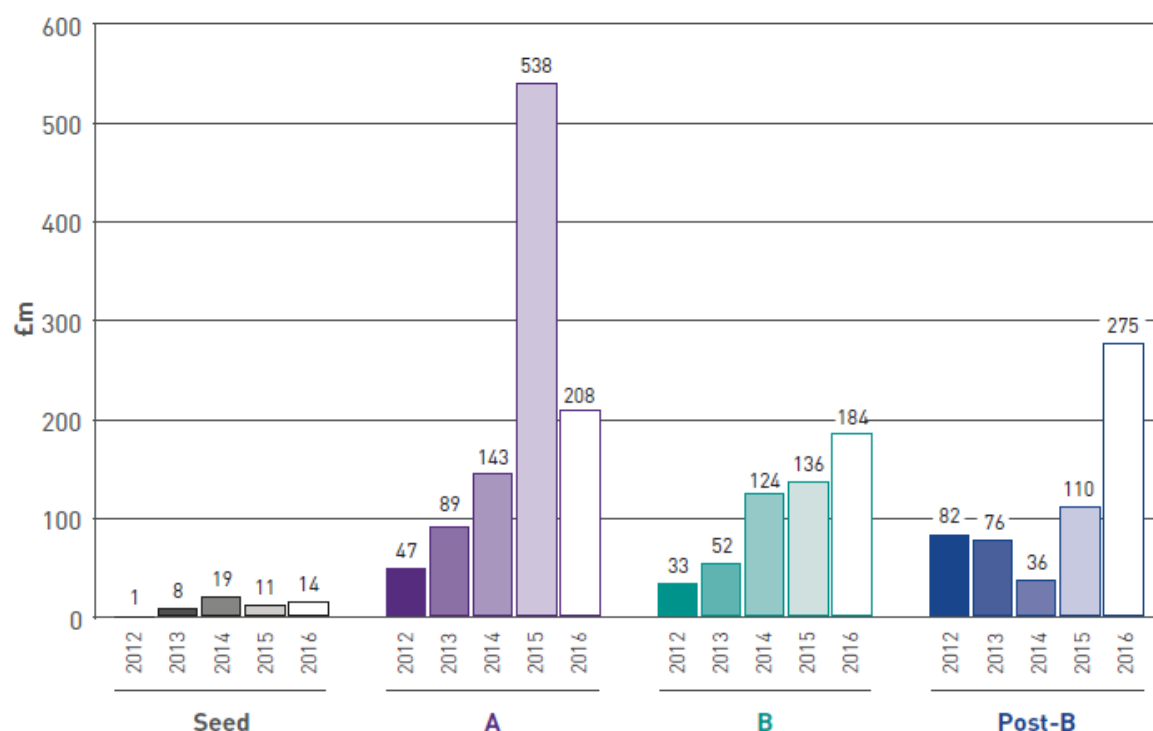
⁵ BIA (2017), *Building something great: UK's Global Bioscience Cluster 2016*: <https://goo.gl/CyQyf6>
BIA Consultation Response

The UK lags significantly behind the US, with the San Francisco Bay Area and Boston Massachusetts bioscience hubs raising £1535 million and £1550 million, respectively, compared to the UK's £680 million. However, the UK performs admirably against the rest of Europe, making up over a third of the continent's total.

The strong performance seen in 2015 and 2016 has been bolstered by the presence of the Patient Capital Trust and related funds managed by Neil Woodford. In 2016, Woodford's funds invested approximately £300 million in venture capital in the UK, around half of the UK's total, and in 2015 they invested approximately £400 million, around two-thirds of the UK's total. Although there are other significant players – Syncona for example – this lack of diversity in funding sources does pose a risk to the long-term future of the sector.

The consultation focusses largely on increasing the supply of long-term patient capital. Whilst this is important, it should not be forgotten that smart capital is potentially more important than patient capital. Technology sectors need investors who understand what they are investing in and have the skills to support a company throughout its growth. Without prudent investing, bubbles can form and burst and harm the long-term viability of the sector. Linked to this, is the importance of diversity in the funding ecosystem, as different types of investors and investment vehicles play different roles throughout the growth of a company. As evidenced above, the UK currently has a more limited ecosystem compared to the US and other competitor countries. The Treasury should therefore focus more on addressing these potential weaknesses in the supply of capital to UK businesses.

Figure 3: Bioscience venture capital financing by funding round, 2012-2016



Source: Informa, Strategic Transactions and Scrip

Risks for financing life sciences and other innovative sectors

MiFIDII

EU regulation scheduled to come into force in January 2018 could have highly detrimental consequences for innovative sectors that are dependent on specialist and informed investors. The UK appears to be gold-plating the second iteration of the Markets in Financial Instruments Directive (MiFID II) and its implementation is a serious concern for our sector. There is a severe lack of investors who feel confident to put their money into science-based companies, and those that do, rely on expert analysts to provide independent research on companies that they may invest in.

MiFID II will reduce analyst coverage of bioscience companies as it prevents the use of trade commissions to pay for the research. This in turn will reduce the pool of investors willing to consider our sector. Crucially, the BIA believes that gold-plating MiFID II will undermine the government's efforts to make it easier and more attractive to invest in science and technology businesses. We understand that there are limits on how flexible the government can be when implementing MiFID II but we would encourage the Financial Conduct Authority (FCA) and the government to consider how the risks described can be mitigated. We further call on the FCA and government to monitor the impact of MiFID II on bioscience and other specialist industries over the coming years.

Brexit and EU funding sources

The consultation document rightly identifies loss of EIF capital as a risk to patient capital provision in the UK. The government has also rightly recognised the risk associated with losing access to the Horizon 2020 research funding programmes, which support academic and SME R&D.

HM Treasury's commitment to underwrite funding for Horizon 2020 projects secured while the UK is an EU member provides important short-term reassurances that the UK science base is a secure partner for EU projects. However, access to EU research funding beyond the Horizon 2020 round of funding is still unknown and this could lead to a weakening of the UK's status as a world-leading location for life sciences investment. While it is not in the remit of this consultation to address this challenge, it is important to recognise it as a risk.

Success of existing schemes and how to build on them

Innovate UK

Innovate UK has a strong reputation with industry and has proven highly effective at delivering government support for strategically important areas of technology. Its investment is also proven to be excellent value use of public funds. Through the Biomedical Catalyst, for example, grants to businesses totaling £130 million leveraged over £100 million of additional private capital for the projects⁶. Beyond the Government investment, post-award funded companies and academics realised in excess of a further £1 billion in the form of additional private finance, grant funding, via licencing or acquisition. This grant funding supports innovative early-stage companies to conduct R&D in order to attract VC funding. Innovate UK has also recently launched the Investor Accelerator pilot, which aims to better link grant recipients with VC investors. The BIA urges the Treasury to make more money available to this scheme if the pilot proves successful.

⁶ BIA (2015), *The Biomedical Catalyst: making the case to continue*: <http://goo.gl/3Mtwao>

British Business Bank

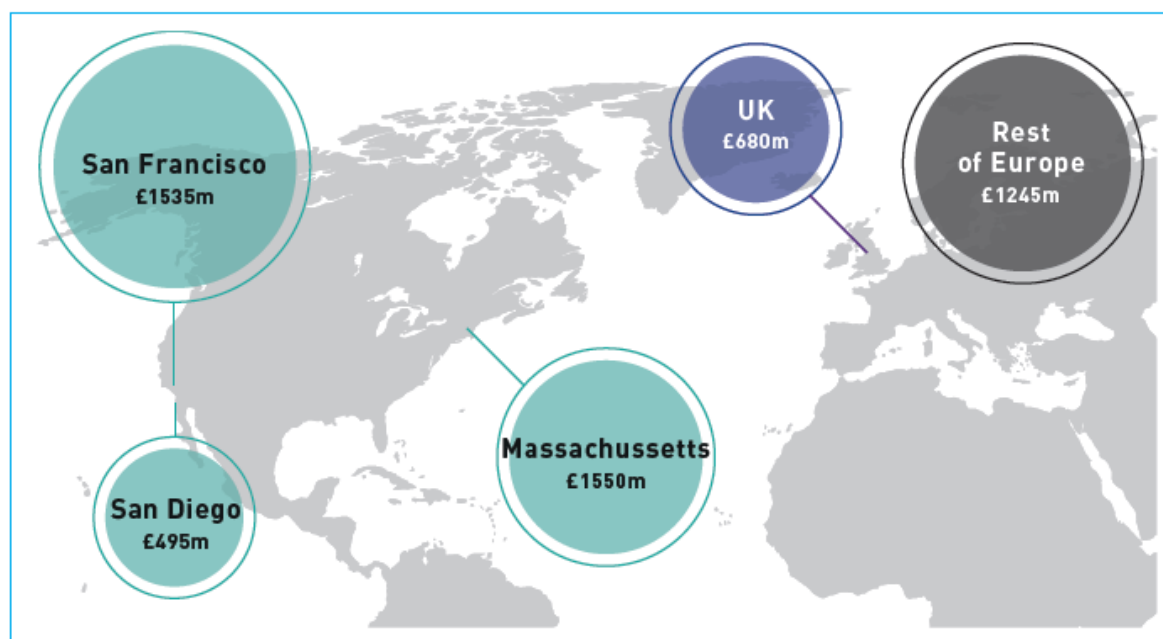
The British Business Bank provides valuable support for the bioscience sector, particularly through the Angel Co-Fund and the Enterprise Capital Fund. The BIA is aware of 60 bioscience companies that are currently supported through BBB equity schemes. The £400 million additional finance committed to BBB at Autumn Statement 2016 was welcome; further investment would help drive greater sums of private money into innovative UK businesses.

Tax-advantaged venture capital schemes

The Enterprise Innovation Scheme (EIS) (and its associated seed scheme, SEIS) incentives have been particularly effective at stimulating investment and are extremely valuable to bioscience companies. Interestingly, the BIA has also seen evidence that EIS is a strong motivating factor in biotech investors using crowdfunding platforms, which is another welcome route for private money to be channelled into the sector⁷. Venture Capital Trusts (VCT) are also valuable for raising money for later-stage companies. All venture capital schemes should be maintained.

The government should seek to utilise these effective schemes to address the scale-up challenge. Small enhancements to the schemes and an expansion in their scope could result in a sea change in fundraising. For example, when VCT Income tax relief changed from 20% to 40% in 2004-05, there was a 643% increase in investment; and when EIS income tax relief changed from 20% to 30% in 2011-12, there was a 32% increase in investment⁸. To avoid abuse of these schemes and ensure any changes are well-targeted to address investment market failures, enhancements should only be applied to Knowledge Intensive Companies.

Figure 4: International bioscience venture capital financing, 2016



Source: Informa; Strategic Transactions, Scrip

⁷ Helen Wise, Imperial College Business School (2016), MBA dissertation: *Will Crowdfunding Become a Viable Source of Funding for the UK's Biotechnology Industry?* (unpublished)

⁸ The data supporting this statement has been provided to the Enterprise Investment team at HM Treasury, please contact us if you require it.

The BIA recognises that State Aid rules restrict the government's ability to enhance these schemes. However, where possible, increasing the flexibility of the schemes and reducing the penalties for accidental non-compliance would help support businesses. In particular, often commercially-driven decisions can trigger forfeiture of EIS status, for example, a reorganisation or change in research project focus, which leads to significant investor dissatisfaction.

The policy intention behind EIS and VCT was to incentivize investment in early-stage companies. As discussed above, they have achieved this to a large extent and the access to capital challenge has been moved along the business timeline to the point of scale-up.

The inherent flaw in EIS and VCT schemes is that investors cannot follow their money in future non-qualifying fundraises. This penalises early investors as they become diluted as a company progresses. To incentivise greater and longer-term investing, EIS and VCT investors should be able to benefit from continued tax relief when investing further in companies they have backed at an early stage, and have preferential access to those further fundraises.

Additionally, the government should reconsider providing relief for replacement capital, which it consulted on in 2016 but did not progress at the Autumn Statement that year. Allowing purchasers of secondary shares to benefit from tax relief, subject to the same conditions as primary investors, would encourage a more active market for life science companies. The scheme should be limited to Knowledge Intensive Company (KIC), as defined in tax law.

The BIA has consulted its membership and concluded that the KIC definition is working well and effectively targets investment to earlier-stage, innovative businesses. We therefore encourage the government to use this definition to target investments.

Whilst the definition works well, one condition is ambiguous and creates uncertainty for businesses, which means they often are forced to seek costly professional advice. The Innovation condition is that, at the time the shares are issued, the issuing company is creating (or is preparing to create) intellectual property that, within ten years, will form the greater part of the issuing company's business. Simplifying the definition by removing this requirement would benefit companies that are often short of capital.

R&D Tax Credits

The small and large business R&D Tax Credit schemes are often cited by BIA members as the most valuable form of innovation support. Tax credits provide a minimal-bureaucracy system that rewards and amplifies companies' own investment in R&D. Continuing and enhancing them is critical to maintaining the UK's attractive fiscal environment for R&D investment.

Governments around the world are keen to attract high-value, R&D intensive industries to their shores. There is little room for complacency. It was therefore disappointing that the recent Treasury review of R&D tax incentives did not propose any significant improvements. The following enhancements would increase the incentives for R&D investment and align the scheme with the realities of conducting R&D in the 21st Century.

1. Expenditure on data

A significant anomaly in the current rules for qualifying expenditure is the purchase of data, and in particular medical data, which is increasingly as important to R&D as chemicals and clinical trial participants (both covered by tax incentives). Data acquisition costs are currently

ineligible for R&D tax relief as these are neither computer software nor consumables. Big data and its analysis is a key 'feedstock' for research in the sector and is central to the future of life sciences R&D.

2. Staff recruitment and training costs

In R&D-intensive businesses, having the right knowledge, experience, and skills in the workforce is essential to success. Although salaries, pensions and National Insurance contributions are qualifying R&D expenditure for tax credits, recruitment and ongoing training costs are not.

A change in the legislation is required to address this discrepancy and create the right incentives for companies to invest in their workforce. The qualifying expenditure should allow tax credits to be claimed for costs incurred as part of the recruitment process, such as recruitment agents and travel for interviews, and training, including but not limited to apprenticeships, Masters courses, and post-graduate training, Continuous Professional Development (CPD), and attendance at scientific conferences. To have maximum impact, the policy should cover the SME tax credit scheme and R&D expenditure credit scheme.

3. IP protection costs

The government is committed to "making the UK the best place in Europe to innovate, patent new ideas and set up and expand a business"⁹. Protecting innovations is a business-critical part of R&D, without which it can be impossible to recoup the investment and re-invest it in further R&D. However, patenting and IP protection is an expensive activity, particularly for SMEs. The government could provide support for patenting costs through grants or loans, or through by making patenting costs eligible for R&D tax credits, which would be a low-bureaucracy, minimal cost approach.

4. Cash credits for Research and Development Allowances (RDAs)

Capital expenditure is currently not covered in the R&D tax relief or cash credit system. This may partly be responsible for the low levels of fixed capital investment noted in the green paper. However, there is an existing regime of research and development allowances (RDAs) for capital equipment. This allows 100% tax relief in the year of acquisition but cannot be surrendered for a tax credit. As many UK SMEs have tax losses already, accelerated tax relief is of little benefit. The system is therefore in need of reform to incentivize SMEs to invest in new buildings and equipment, which will have benefits for UK innovation and productivity.

RDAs should be evolved to reflect the existing enhanced capital allowances for energy efficient assets (ECAs). This provides a cash credit for loss making companies of 19p/£. Such incentives would be hugely beneficial to R&D-intensive SMEs and increase cash availability to support scaling businesses. This measure that would build on the UK's competitive advantage and expertise in the research and development of treatments, helping the UK to benefit from their commercial manufacture and export.

⁹ Baroness Neville-Rolfe, Minister for intellectual property (21 January 2016): <https://goo.gl/kx5B94>

Entrepreneur's Relief and Enterprise Management Initiative

Entrepreneur's Relief is a valuable scheme for rewarding individuals who start and grow a business, and is therefore key to the aims of the Patient Capital Review. However, there is a particular issue for bioscience entrepreneurs when repeated capital raises push their own holding below 5% of the company, at which point they are ineligible for the relief, even though they have built a personal company at risk over several years. This can be a barrier to successful bioscience entrepreneurs exiting companies in a financial position where they are able to reinvest in new ventures. In some circumstances, it can also be a perverse incentive for early, sub-optimal exits to the detriment of the company. A revision of this would be welcome to ensure a fair incentive exists for this level of high risk and personal investment and to encourage a "virtuous cycle" of entrepreneurship. This could be provided to individuals who have held over 5% of shares for a defined period before being diluted. Or, alternatively, the Knowledge Intensive Business definition could be utilised to designate eligibility.

The Enterprise Management Incentive (EMI), which provides tax reliefs on employee-owned shares, is a valuable scheme for companies that do not have the cash-flow to pay market-rate salaries. This is true for cash-burning early-stage bioscience companies. However, there is a risk that some individuals, for example part-time Directors or management, are not able to benefit due to the requirements on working hours (>25/week) and total working time (>75% of the individual's total working week). The government should review this to ensure the scheme is equitable and supporting young businesses to access the talent and skills they need to grow.

Increasing investment opportunities and investor capacity

Nurturing fund managers

As discussed above, the UK bioscience sector relies on a relatively small pool of specialist investors. Many other technology-focused industries face the same challenge, as the consultation document acknowledges. Increasing this pool could help increase the capital flow into these sectors and support their long-term sustainable growth.

Although we do not have evidence of impact, the BIA welcomes the British Business Bank's support of new fund managers raising their first funds through the Enterprise Capital Fund. This should also be a key focus of the NIF, with sector-specific funds established to focus specialist knowledge. A proactive programme to seek out promising fund managers, as suggested in the consultation, would also be welcome, as would targeting such initiatives to sectors afflicted by the greatest dearth of specialists. Supporting young up-and-coming fund managers who have an interest in the long-term health of the sector will support the aims of the Patient Capital Review.

A fellowship programme, modelled on the US Kauffman Foundation initiative would be welcome and should be linked up to science PhD training programmes to increase awareness of such career opportunities to this cohort. Many specialist fund managers in the life sciences sector typically have PhD or post-doctoral research experience combined with MBAs. These courses are expensive (the Imperial College London full-time MBA is £47,000¹⁰), which creates a barrier to accessing a career in finance for scientists who typically have modest salaries. The government could support scientists to become specialist investors by providing interest-free loans to cover MBA fees, or a proportion of it, contingent on the individual working in the UK for a set period of time post-award.

¹⁰ <https://goo.gl/pY2Qw9>

Incubators

Incubators can be a valuable means to increase investment opportunities. In Israel, the government cornerstones investment in the infrastructure (physical labs and onsite management teams) through the incubator network and pharmaceutical companies and VC firms top-up the funding and add their expertise and advice. This provides young companies lab-space, facilities, and management, as well as capital, with associated VC firms to syndicate their Series A rounds. This links the companies with a huge international network of investors, which will potentially support them throughout their growth. The total budget for the Futurx incubator, which is focused on bioscience, over 10 years is \$80 million, of which the government has put in \$30 million and the private sector \$50 million.

There is no comparable single institution in the UK. Incubators in the UK follow a range of models but none have the significant corner-stoning of government money that attracts significant private money and allows the incubator to scale. The UK does however have a number of strong incubators that, with government support, can continue to grow and rival Futurex (see case study box). Around 20% of all UK life science start-ups are based at just a few incubators (BioCity, Stevenage Bioscience Catalyst and the Babraham Institute). These, along with several others provide a highly efficient route to access and support for early stage, high potential life science companies. A national innovation fund targeting businesses based at bioincubators would be an effective and efficient tool for growing these companies. The UK government should explore using the National Innovation Fund proposed in the Patient Capital Review, or the Industrial Strategy Challenge Fund to cornerstone one or more life science incubator.

Trade associations also have an important role to play – the BIA signposts the physical, managerial and investment support available in the UK to bioscience companies in what can be a fragmentary and un-coordinated landscape. Student-led organisations, global corporations, the investment community, science parks and regional development organisations all play a part in this agenda.

An Investor Visa Fund

A currently untapped source of capital is high-net worth individuals coming to live in the UK. The Tier 1 (Investor) visa is available to individuals who are able to invest £2,000,000 in the UK by way of UK Government bonds, share capital or loan capital in active and trading UK registered

Case study box: BioCity

BioCity Group specialises in the creation and development of life science businesses. It provides homes and access to high-end equipment, shared services, training, business support and access to investment for new and growing bioscience businesses.

Over 200 companies are based in the four BioCity Group business incubators across the UK, making the BioCity network one of the largest concentrations of life science businesses in the UK and home to a significant proportion of start-ups in the regions in which it operates.

At the group's main site in Nottingham, such companies have a 91% survival rate over a 13-year period. Since BioCity has been in existence there has been a more than 3-fold increase in the number of R&D focused life science companies in the Nottingham area to 160.

companies¹¹. The nature of this investment means it is highly likely to go into the lowest-risk assets possible.

The BIA proposes a rule determining that 10% of this investment should be in high-risk ventures in UK innovative businesses. This will refine the visa policies to support economic activity in line with the government's industrial strategy approach. It would also introduce investors to sectors they would otherwise not consider, potentially creating a virtuous cycle of investment.

The Australia government has introduced such a rule for its "Special Investor Visa". This has stimulated private financial institutions to establish services to facilitate the investment for individuals, ensuring that the investments are informed by specialist fund managers. With the UK's mature financial services sector, a similar system could easily be established here.

Taking the average combined amount invested by Tier 1 (Investor) visa holders from 2011-2015¹², it is estimated that this policy could raise £100 million annually for investment into innovative businesses (based on the 10% rate proposed). The UK investor visa scheme also allows settlement sooner if users invest greater sums, meaning the policy could raise more than this.

As the government develops a new immigration system in response to Brexit, now is the opportune time to introduce such a scheme.

Supporting manufacturing

High-value advanced manufacturing is a growth opportunity for the UK economy and a key means through which the UK can maximise the return on its investment on R&D.

The fiscal environment is a key issue when making decisions on where to base manufacturing facilities and the BIA is working with the wider life sciences industry through the Medicines Manufacturing Industry Partnership (MMIP) to identify measures that would encourage greater investment in UK facilities. Any measure or incentive needs to be significant to compete against the likes of Ireland, Switzerland and Singapore. The quantum of any incentives needs to be significant (circa 15% of investment cost). Anything below 5% will not be sufficient and so is unlikely to influence decision making unless part of a wider package.

Grants would be the preferred option; these have been proven to be highly effective by other countries and some local UK governments. They can be ring fenced and capped to ensure tax-payers' money is effectively targeted and achieves value for money. The government could target 2-5 major facilities (£200 million), 10 smaller facilities £20-£50 million or a combination of both. Loans, on the right terms, could also be effective in encouraging investment. For major investment (£200 million) these need to be markedly below market rate and the terms need to be simple and the application process straight forward (otherwise SMEs will be put off). Repayment should be linked to output.

¹¹ Home Office (2016), *Tier 1 (investor) visa guidance*,: <https://goo.gl/VAZidT>

¹² Home Office (2016) *Immigration statistics, January to March 2016*: <https://goo.gl/bLxOKx>