Global and growing: UK biotech financing in 2019
## Contents

<table>
<thead>
<tr>
<th>Forewords</th>
<th>Overall trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Venture capital</th>
<th>Public markets</th>
<th>M&amp;A and debt financing</th>
<th>Accessing analysts in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>14</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Venture capital funding</td>
<td>UK IPOs</td>
<td>Mergers and acquisitions</td>
<td>List of analysts</td>
</tr>
<tr>
<td>10 Top UK venture rounds</td>
<td>IPOs in Europe, US and China</td>
<td>Debt</td>
<td></td>
</tr>
<tr>
<td>12 Venture capital financing in Europe, US and China</td>
<td>Follow-on financing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Forewords

Steve Bates OBE
CEO, BIA

The UK biotech sector continues to chart an ambitious global path and I am proud to say we are heading into a new decade in a very strong position. We are delighted to present yet another positive report on the state of financing for our sector, demonstrating that investors have great confidence in our science and in our management teams, and that UK companies are successfully competing on the global stage for innovation capital.

A total of £1.3bn was raised by UK-based biotech companies in 2019, the third best year ever. We see many of the trends from previous years continue: larger average deal sizes; increasing interest from, and reliance on, international investors; and a growing diversity of companies in the sector, including a deepening integration of data and artificial intelligence in the drug development landscape.

As we head into a new decade with a new energised Government supportive of our sector, it is great to see the UK companies doing so well. Investment has increased by over 400% since 2012, when the first Strategy for UK Life Sciences was published and the Biomedical Catalyst launched. Recent years show investment maintaining at a stepped-up level to that of a decade ago.

The UK seems to follow the global investment pattern; 2018 was a record breaking across the globe and the drop in funding in 2019 was replicated in almost every region around the world.

There were fewer large, later-stage raises, and a closing window for IPOs, suggesting that the companies that are ready to scale up in the UK will have to work harder to access the finance they need. And although we continue to welcome overseas capital, there’s little sign of domestic investors becoming more numerous or active in supporting this key sector for the future of the UK economy.

UK biotech now also enjoys a greater diversity of investors than it did five years ago. This report shows our sector is resilient, and an investment approach that focuses on the fundamentals of companies is needed. Some listed UK biotech stocks saw stellar share price rises while headlines around Neil Woodford’s funds, and the eventual sale process, created a difficult environment for some companies within that portfolio, overshadowing positive milestones.

Fundamental breakthrough technologies like cell and gene therapies, genomics and digital have been the focus of global investors, who continue to see great value in UK biotech. The impending loss of the European Investment Fund to the UK however is undoubtably suppressing investment, impacting the formation of new UK-focused life science funds in 2019. Policymakers have recognised this, with the British Business Bank establishing the £2.5bn British Patient Capital fund in 2018 to address the UK’s venture capital shortfall. Investments have started to be made but its impact is yet to be felt by the sector and more funding is required.

Other government initiatives, such as the commitment to unlock long-term capital held in the UK’s pension funds to support science commercialisation is also yet to yield fruit and the BIA will remain an active participant in that work. Diversifying the domestic life sciences investor base is critical to the long-term resilience of our sector.

Elsewhere, stepping up our activity in China has paid dividends as it is rapidly developing as the most important growth market for global biotech. The BIA, with the support of key members like AstraZeneca, used 2019 to firmly establish ourselves as a bridge between the UK cluster and the Asian investor base keen to support innovation.

I hope you enjoy reading this report and it serves as a valuable resource for our sector. Thank you to the companies and individuals who have supported its production, and especially to our data partner Informa Pharma Intelligence. We would welcome any feedback you have.
Mike Ward
Head of Content EBD Europe, Informa Pharma Intelligence

Globally, investment into life sciences companies remains fairly robust. While down almost 25% on the sums raised in 2018, which was a record-breaking year for the industry, it is worth noting that in most asset classes, 2019 was still the second or third best year ever. Indeed, in the past five years globally, biotechs have raised more than $140bn in equity. Consequently, companies have the resources to translate ground-breaking science into clinically effective solutions for patients.

A deeper dive into the data, however, reveals a number of interesting trends.

First, across the globe, there was a marked decline in both the number of seed and series A investments and the total amount being put to work in such companies. However, the recent trend in larger series A rounds was maintained. The drop-off in earlier stage rounds might be a result of investors preferring to allocate more funds to existing portfolio companies.

Second, oncology maintained its pre-eminent status as the therapy area attracting the most funds although there was an uptick, especially in earlier-stage financing, for businesses pursuing either rare disease opportunities, platform models or focusing on AI opportunities. The recent surge in approvals and reimbursement of orphan medicines is fuelling this appetite.

On the IPO front, globally, the biotech sector had its second-best year ever. Indeed, the sums raised globally at IPO in 2018 and 2019 combined account for about a third to the total raised by the industry since the turn of the century. The US continued to deliver the most IPOs, followed closely by China, while only ten European companies successfully floated. NASDAQ again was the most popular market to float on, irrespective of the nationality of the biotech, but Hong Kong has shown that it could be a popular destination.

In Europe, the UK has maintained its pre-eminent position – accounting for just over a quarter of total VC funding in 2019. A growing maturity of biotech elsewhere in Europe, however, is underpinning the emergence of a new generation of biotechs that are being led by executives that cut their teeth managing businesses that have either developed into robust and sustainable companies or have been acquired by big pharma.

Healthcare continues to be an attractive target for investors with many new funds being raised. In 2019, 10 investment groups, raising $250m or more) with a global focus, raised almost $6.4bn in new biopharma-focused funds.

Moreover, in the past three years, eight European investment groups have raised in excess of £200m (totalling more than £2.5bn under management) to invest in healthcare opportunities. Clearly, with a mandate to focus on biopharma and healthcare opportunities, the money is available for the most promising opportunities.
Overall trends

UK-based biotech companies raised a total of £1.34bn in 2019.* This was split into £679m in venture capital, £64m in Initial Public Offerings (IPOs), and £596m in all other public financings.

Although investment in 2019 didn’t exceed the record-breaking total of 2018, it did continue the upward trend of the past decade and maintain the £1bn+ annual financing the sector has enjoyed in each of the past five years. This welcome long-term growth has cemented the UK’s position as the third global life sciences cluster. UK companies are becoming more successful in securing the scale of capital required to finance their growth as the sector matures and more companies move their products closer to market.

The reduction in funding compared to 2018 was not limited to the UK; European and US regions also saw flat or reduced investment across public and private sectors.
The dataset in this report covers the period from 1 December 2018 to 30 November 2019. It provides fundraising data based on the headquarters location of the company. Where fundraises weren’t in pound sterling, the following exchange rates were used: GBP 1.00 = USD 1.29; EUR 1.17; CHF 1.28; CNY 9.09; JPY 141.63; KRW 1,527.00. The data is provided by Informa Pharma Intelligence.

Dan Mahony  
Partner,  
Polar Capital

It was always going to be difficult to replicate the success of 2018, nevertheless venture funding in the UK has remained reasonably robust in 2019.

Private companies continue to have access to capital and there is a greater diversity of potential investors compared to five years ago including some new UK-based venture funds. The VC market in the US has again been strong, especially in Boston and the Bay Area, but the UK has retained its status as the third global bio-cluster. In the UK public markets, it has been a much more difficult year with few IPOs and a handful of follow-on offerings. Barring a couple of exceptions, stock performance has in general been disappointing for life sciences companies. Investor appetite for small companies has evaporated given the uncertainty surrounding Brexit. While the well-publicised issues with the Woodford Funds have also had an impact on sentiment, the liquidity in UK markets has been low for some time. For most UK-based biotech companies, the path to NASDAQ has become a well-trodden route to IPO and probably the best access to the capital required to scale-up.

In the US, the demand for biotech stocks was a little more muted for most of 2019. While a flurry of M&A deals at the beginning of the year created some excitement in January, a general decline in risk appetite meant biotech was out of favour for most of the year. Drug pricing has also remained a major political issue in the run-up to the Presidential election. In the last few weeks of the year, biotech on NASDAQ staged a strong recovery that bodes well for 2020. The mid-term outlook looks positive as the pace of innovation in the sector continues to accelerate with some exciting therapeutic candidates making rapid progress in the clinic.
Venture capital

Private investment in UK biotech companies fell by 42% between 2018 and 2019, driven largely by a dearth of large post-B financings. However, investment was equal to 2016 and above 2017 levels.

Our data shows that UK companies remain able to attract significant funds to finance their development, with B-series financings particularly strong.

Seed funding was steady at £27m, which is good news for the pipeline of new companies continuing to come through. At £142m, Series A financings were down on past years, but the £459m raised in Series B financings is a significant record by historical standards.
The investment landscape has been perceived as challenging due to both national and global uncertainty but the amount raised by biotech companies has continued its upward trend in 2019. Companies such as Achilles and Juvanescence show the great potential of our science base to build companies and develop new treatments for patients. But while the UK has one of the most successful life sciences industries, the struggle to access the right sort of finance has not gone unnoticed. The Government’s Patient Capital Review in 2017 introduced welcome improvements to tax-advantaged venture capital schemes to incentivise greater investment in early-stage companies and we are starting to see that bear fruit. Perhaps as a result, we’ve seen raised VCT (Venture Capital Trust) activities. There was an increased flow of money into VCT sector, £713m invested into VCTs in 2018/19. VCT focused investors are now looking to deploy this capital with those firms specialising in healthcare, such as Downing LLP supported by Bioscience Managers, making numerous investments from seed stage and beyond.

Despite the continued uncertainty from the global political arena, there are many who see the opportunity to support life sciences as a worthy investment and these investments should help to underpin growth in the sector in 2020 and beyond.

The UK has recently closed the gap with the US in terms of venture capital deal numbers across all sectors, but UK VC deal sizes continue to be smaller, so that UK companies are less capitalised than their US counterparts.

The British Business Bank established British Patient Capital (BPC) in 2018 to increase the amount of long-term investment available for innovative UK companies wanting to scale up. BPC is already making a difference to the UK life science sector having committed £109m into four life science funds including the Dementia Discovery Fund.

BPC-supported equity funds have invested over £150m into life science companies, with life science forming 11% of the overall BPC portfolio by value. This is set to increase going forward as the Government has announced a new £200 million investment into the British Business Bank to unlock the potential of the UK’s best health and life science innovations. This investment is expected to contribute a further £400m in private sector investment.

The Bank recently published research showing UK VC funds produce similar returns to those of US funds, but the UK outperforms the US for funds of a 2002–2006 vintage. The British Business Bank will use its position as the largest UK-based LP investing in UK VC, to help demonstrate that UK VC can be an attractive asset class for investors.
Top UK venture rounds

We continued to see large rounds in 2019, with three UK biotechs achieving a raise of above £50m, which was almost unheard of prior to 2015. However, there were eight such deals in 2018 and this reduction accounts for the overall disparity in VC investment between the two years.

The large financings of 2019 relied heavily on foreign investors. The largest deal, Syncona-backed Achilles Therapeutics, brought in a new cadre of US investors, lead by RA Capital Management. Juvenescence, which secured the second largest deal, also attracted an international set including Florida-based Explorer Equity Group and Oman-based IDO Investments.

These large deals show that a cohort of scaling biotech companies is forming in the UK, but their number remains low and they are dependent on globally footloose capital. It is also worth noting that the year-on-year series data doesn’t show a consistent shape as would be expected from a fully mature sector. This suggests that there is much room for growth and maturation in the UK.

<table>
<thead>
<tr>
<th>Company</th>
<th>Deal date</th>
<th>Round</th>
<th>Value (£m)</th>
</tr>
</thead>
<tbody>
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<td>B</td>
<td>100</td>
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<td>Juvanescence</td>
<td>19/08/2019</td>
<td>B</td>
<td>82</td>
</tr>
<tr>
<td>Gyroscope Therapeutics</td>
<td>03/09/2019</td>
<td>B</td>
<td>50.4</td>
</tr>
<tr>
<td>Healx</td>
<td>16/10/2019</td>
<td>B</td>
<td>43.4</td>
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<tr>
<td>Inivata</td>
<td>28/03/2019</td>
<td>B</td>
<td>39.8</td>
</tr>
<tr>
<td>Inexia &amp; Orexia</td>
<td>04/02/2019</td>
<td>ND</td>
<td>36</td>
</tr>
<tr>
<td>Quell Therapeutics</td>
<td>20/05/2019</td>
<td>A</td>
<td>35</td>
</tr>
<tr>
<td>Azeria Therapeutics</td>
<td>21/11/2019</td>
<td>B</td>
<td>32</td>
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<tr>
<td>MiroBio</td>
<td>07/10/2019</td>
<td>A</td>
<td>27</td>
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<td>Congenica</td>
<td>30/04/2019</td>
<td>B</td>
<td>23.3</td>
</tr>
<tr>
<td>Exscientia</td>
<td>07/01/2019</td>
<td>B</td>
<td>20.5</td>
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<td>Synthace</td>
<td>12/12/2018</td>
<td>B</td>
<td>20.2</td>
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<tr>
<td>Morphogen-IX</td>
<td>18/12/2018</td>
<td>B</td>
<td>18.4</td>
</tr>
<tr>
<td>Wren Therapeutics</td>
<td>22/10/2019</td>
<td>B</td>
<td>18</td>
</tr>
<tr>
<td>Storm Therapeutics</td>
<td>20/05/2019</td>
<td>A</td>
<td>18</td>
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In line with its strategy to found, build and fund global leaders in life science, Syncona deployed significant capital into UK innovation in 2019, both into existing and new portfolio companies.

In particular, Syncona was the largest investor in Achilles Therapeutics’ significant £100 million Series B financing round, contributing £35.1 million alongside a range of blue-chip global investors. Achilles, run by CEO Iraj Ali, is developing personalised T-cell therapies for solid tumours targeting clonal neoantigens; protein markers unique to each patient that are present on the surface of all cancer cells. Achilles uses DNA sequencing data, together with a proprietary bioinformatics platform, to identify clonal neoantigens specific to the patient. By targeting multiple clonal neoantigens that are present on all cancer cells, but not on healthy cells, Achilles is seeking to deliver individualised treatments to target and destroy tumours without harming healthy tissues. Proceeds from Achilles’ Series B financing will enable the business to progress its first two programmes in non-small cell lung cancer and melanoma, continue building out its manufacturing capabilities and broaden its growing solid tumour pre-clinical product pipeline.

Syncona also committed £34 million in a £35m Series A financing to found Quell Therapeutics, a company led by CEO Iain McGill, which is seeking to develop engineered T regulatory (Treg) cell therapies and one of the first to embark in this exciting field. Tregs are a subset of T cells with the potential to downregulate the immune system, where there is significant opportunity to develop novel therapies to address conditions of immune dysregulation with significant patient burden: to induce tolerance in solid organ transplant, allowing patients to come off life-long immunosuppression, and to treat autoimmune conditions and severe inflammatory diseases.

In addition, Syncona committed £48 million to Gyroscope Therapeutics in a Series B round which will enable the company to complete its phase I/II study, commence its phase II study and expand the use of its surgical delivery platform in the clinic to further establish safe, consistent delivery of gene therapy to the retina. Finally, Syncona committed £29.5 million in a £32.5 million Series B financing in Azeria Therapeutics, a company which is seeking to address a significant unmet need in oestrogen receptor positive breast cancer patients with its lead programme and to build a world class pioneer factor oncology company.

The UK remains a source of world-class science and it is Syncona’s confidence in the quality of the life science and innovation ecosystem in the UK that has enabled it to deploy this significant scale of capital in 2019. We look forward to continuing to support our existing portfolio and found exciting new companies in 2020.

Elisa Petris
Partner, Syncona Investment Management
Venture capital financing in Europe, US and China

Global venture capital deals totalled £14.5bn in 2019, down 12%. Almost all regions experienced a drop.

America continues to attract the lion’s share of global investment but saw 15% less than last year. The clusters of Boston Massachusetts and San Francisco will surprise no-one with their dominance, but they too saw a drop. China raised £2bn, the same as in 2018, but this is likely to be an underestimate due to the rapidly evolving scene in the country.

The amount of venture capital raised in Europe was static at £2.6bn and the UK remains the leading cluster, accounting for a quarter (26%) of the continents total. However, this is a reduction compared to 2018, when it attracted 40% of the total.
UK £0.7bn
* Including Israel

Europe* £2.6bn

China £2.0bn

US £9.5bn

San Diego £0.7bn
Massachusetts £2.3bn
San Francisco £3.75bn

Other

£0–£1bn
£1–£5bn
£5bn+

Germany £0.24bn
France £0.25bn
Switzerland £0.45bn

UK £0.7bn

* Including Israel
Public markets

UK IPOs

With five UK biotech IPOs in both 2017 and 2018, the two of 2019 signals a significant cooling of public market appetite.

Northern Ireland-based Diaceutics raised £21m with an IPO on London’s AIM, following its data and AI-focussed competitors Sensyne Health and Renalytix AI, which both listed in 2018.

NASDAQ remains the preferred destination for drug development companies with Bicycle Therapeutics raising £47m in May. The late-stage clinical company is developing a novel range of cancer medicines for indications of high unmet medical need.

The IPO window appears to be rapidly closing for biotechs around the world. The BIA has noted in previous editions of this report that UK companies are remaining private for longer in response to more abundant VC money and less public market appetite. This looks to be a trend that will continue.

Although not included in this dataset because it is a fund, it is notable that RTW – a New York-based life sciences investment manager – suffered a disappointing IPO on the London Stock Exchange this year, raising only $15m of its $350m target. It is another worrying warning signal for the public market’s risk-on approach, likely in response to global economic headwinds.

<table>
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<tr>
<th>Company name</th>
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<th>Market</th>
<th>Value (£m)</th>
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<td>Bicycle Therapeutics</td>
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<td>NASDAQ</td>
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<td>Diaceutics</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>64</strong></td>
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Diaceutics is a data analytics and implementation services provider which services the global pharmaceutical and laboratory industries.

Through application of a suite of data-driven products and implementation services powered by its proprietary global data lake, the company specialises in optimising the development and launch of precision medicines by streamlining the diagnostic testing process for its clients resulting in more patients getting access to the right medications at the right time.

After flotation on the London Stock Exchange (LSE) in March 2019 with a market capitalisation of £53m, Diaceutics became the fourth Northern Irish company listed on the LSE and has recorded one of its most successful years to date since inception in 2005. Highlights from this year include; significant market growth with the company having supported 38 therapy brands in 16 markets, constituting an increase of 73% from H1 2018, and in the same period, a 35% increase in the number of leading global pharma clients from 20 to 27 as well as an increase in gross profit of 71%. Capital raised has also facilitated the company’s expanded global reach into the Asian market, investment into enhanced proprietary data offering and acceleration of new product innovation with plans to launch a novel industry platform-based solution to stakeholders in 2020.

Given the record-breaking level of capital raised across the sector in 2018, it is not unexpected that capital raising was down in 2019 across public and private markets particularly given the ongoing uncertainty around Brexit.

Nevertheless, the Main Market and AIM remain the listing venues to 115 biotechnology, life sciences and healthcare product or service businesses, with a cumulative valuation of nearly £240bn. Importantly, these companies have also raised £4.2bn in follow-on rounds since 1 January, 2018 – the largest being AstraZeneca’s £2.7bn round in March 2019. Perhaps more indicative of London’s resilience is that, of the total 35 IPOs in 2019, three were from the wider sector: Diaceutics which raised £21m in March; Induction Healthcare Group, which raised £17m in May; and UniPhar, which raised €139m in July.

London remains the world’s most diverse global capital market, with North American institutional investors now representing 31% of the investor base in London-listed companies. This is reflected by a growing number of UK-listed companies attracting significant US institutional investor support directly via London, such as Abcam, Creo Medical Group and Indivior. For UK and international companies, London remains a significant cornerstone of the sector, as evidenced by its continuing outperformance of other market indices.
IPOs in Europe, US and China

The Hong Kong Stock Exchange is taking off as a destination for biotech launches and NASDAQ continues to perform well. European biotech on the other hand saw less IPO activity in 2019 both on home exchanges and across the Atlantic on NASDAQ.

There has been much talk of the NASDAQ IPO window closing but the total raised by US biotechs increased 6%, despite there being seven fewer listings. Public investors also showed they’ve got a strong appetite for Chinese biotech, investing £2.5bn, mostly through Hong Kong and Shanghai exchanges.

European biotechs secured £434m through IPOs in 2019, 45% of that raised in 2018. BioNTech, a German immuno-oncology company, bucked the trend with a $150m (£121m) IPO on Nasdaq. The raise followed a series of private investments throughout the year that netted $325m (£257m) in VC and $480m (£380m) in corporate and philanthropic commitments involving Sanofi, Pfizer, and the Bill and Melinda Gates Foundation.
We have seen a very mixed picture in 2019 for global sector financing.

Only the most robust equity stories have attracted significant capital in Europe. The US continues to exercise a strong gravitational pull for international companies, and continues to dominate financing with its deep pool of expertise. The UK public markets have faced a perfect storm with very little cash raised. Further, two of the UK success stories in BTG and Shire being taken for a combined $66bn has left a hole in the PLC market. In private markets, however, much progress has been made with high quality private companies raising cash and staying private for longer. Syncona sold two companies for a combined $1.4bn and is reinvesting the cash smartly – accounting for 4 of the top 8 private raises in the year.

In Europe, a number of IPOs during the year demonstrate the continued desire for European life science companies to go public. European companies however continue to aspire to list on NASDAQ following past success stories from companies such as GW Pharma which has now raised over $1.5bn in the US. In 2019 several European companies raised significant sums on NASDAQ including BioNTech and Genmab, but just one IPO from the UK, Bicycle Therapeutics. Elsewhere following the change in listing requirements in Hong Kong, Chinese biotech companies have continued to float with mixed share price performances after their initial debuts with 14 in 2019, including Shanghai. Overall, it is a challenging environment but eminently navigable for those with a sound strategy, broad perspective and strong equity story.
Follow-on financing

UK biotechs raised a total of £596m across all public markets in follow-on financing in 2019, only 9% less than 2018.

NASDAQ investors were willing to dig deep for UK biotechs in secondary raises, with almost the same amount raised as in 2018, and much more than in years before that. As in the IPO market, AIM was not a favourable environment for companies looking to raise further capital, nor was the main London market, though it was more active than in the past four years.

However, looking at stock prices, on average, listed biotech on the London market outperformed the FTSE All-Share by 7.6 percentage points over the period covered by this report.*

Notable among the follow-on financings was LSE-listed Oxford Biomedica’s investment from Novo Holdings, which invested £53m in return for new ordinary shares representing up to 10% of the outstanding shares after the capital increase. Over on AIM, Summit Therapeutics raised £19.4m, in January 2019.
Oxford Biomedica is a leading cell and gene therapy group focusing on the development of life-changing treatments for serious diseases.

Oxford Biomedica has built a sector leading lentiviral vector platform, LentiVector®, which is used to develop personalised gene therapies for in vivo and ex-vivo products both in-house and with partners. The platform is widely recognised as market leading, as lentiviral vectors can deliver large therapeutic payloads into target cells and their lack of pre-existing immunity makes them safe to use.

In 2019, Oxford Biomedica continued to make good progress developing our existing and new partnerships. Importantly, we announced that Novo Holdings, a highly regarded and traditionally long-term investor with significant expertise in working with innovative life sciences businesses to unlock their growth potential, invested £53.5 million in the Company for 10.1% of the shares. The proceeds from the transaction were used to fully repay the debt facility of £43.6 million with Oaktree Capital Management. In addition to the simplified and strengthened Group balance sheet, the additional funding is being used to scale up operations both on the platform and on the proprietary product portfolio as well as further exploit the growth opportunities in the gene and cell therapy sector.

* Analysis performed by Radnor Capital Partners with data from FactSet covering the period 1 December 2018 to 30 November 2019.
M&A activity was quiet in 2019, with few deals involving UK companies, either as targets or acquirers. There were two stand-out deals, however, that showed the attractiveness of UK biotech and the potential returns early investors can enjoy.

In June, Biogen announced that it had completed its acquisition of the UK’s Nightstar Therapeutics, a clinical-stage gene therapy company, which is focused on adeno-associated virus (AAV) treatments for inherited retinal disorders. The offer valued Nightstar at $877m, which represented a 4.5x multiple for Syncona, which founded the company, and an internal rate of return (IRR) of 72%.

Boston scientific completed its purchase of UK-based BTG for £4.3bn in August. The deal expands Boston Scientific’s portfolio of devices used in minimally invasive procedures for people with cancer and vascular diseases. BTG traces its history back to the National Research Development Corporation, which was founded by the UK Government in 1948 to commercialise innovation arising from publicly-funded research, later becoming the British Technology Group before being taken private in 1992.
## UK biotech M&As 2019

<table>
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<tr>
<th>Acquirer</th>
<th>Domicile of acquirer</th>
<th>Target</th>
<th>Domicile of target</th>
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<td>BTG</td>
<td>UK</td>
<td>19/08/2019</td>
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<td>Bracco Imaging</td>
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<td>OncoMed Pharmaceuticals (reverse merger)</td>
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21
Debt

Debt continues to be a little-used finance source for UK biotech, and in Europe in general. This largely reflects the maturity of the European sector compared to the US, where there are many more revenue-generating companies with assets on which to secure debt.

Debt financing 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Average (£m)</th>
<th>Debt* total (£m)</th>
</tr>
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<tbody>
<tr>
<td>US</td>
<td>55</td>
<td>179.50</td>
<td>9,872</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>11</td>
<td>448.91</td>
<td>4,938</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>411.82</td>
<td>1,647</td>
</tr>
<tr>
<td>San Francisco</td>
<td>13</td>
<td>86.88</td>
<td>1,129</td>
</tr>
<tr>
<td>San Diego</td>
<td>2</td>
<td>166.67</td>
<td>333</td>
</tr>
<tr>
<td>China</td>
<td>1</td>
<td>310.08</td>
<td>310</td>
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<tr>
<td>France</td>
<td>5</td>
<td>9.52</td>
<td>48</td>
</tr>
<tr>
<td>Israel</td>
<td>3</td>
<td>7.75</td>
<td>23</td>
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<tr>
<td>Switzerland</td>
<td>1</td>
<td>19.38</td>
<td>19</td>
</tr>
<tr>
<td>Belgium</td>
<td>2</td>
<td>1.54</td>
<td>3</td>
</tr>
<tr>
<td>UK</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

* Debt, senior and convertible notes.
Accessing analysts in 2020

The following list of analysts who cover UK biotech has been compiled by Consilium Strategic Communications to help BIA members raise their profile in 2020. Names in brackets are healthcare-specific analysts.

ABG Sundal Collier
Daniel Thorsson
Viktor Sundberg

Alm. Brand Markets
Michael Friis Jørgensen
Julie Mørch Sørensen

AlphaValue
Armelle Moulin
Kamla Singh

Arden Partners
Kartik Swaminathan

Banco de Sabadell, S.A.
Javier Esteban

Bankhaus Lampe KG
Heiko Feber
Volker Braun
Igor Kim

Bank Vontobel AG
Stefan Shneider

Barclays
Emmanuel Papadakis
Gena Wang
(Himanshu Chaturvedi)

Berenberg Bank
Scott Bardo
Michael Healy
Jan Richard
Fraser Donlon
Anna Patrice
Patrick R. Trucchio
Shanshan Xu
Owen Shirley

Bank of America
Merrill Lynch
Sachin Jain
Aspen Mori
Graham Parry
Patrick Wood

Bryan, Garnier & Co
Eric Le Berrigaud
Ross Blair
Hugo Solvet
Jeanjacques Le Fur
Victor Floch
CA Cheuvreux
Arsene Guekam
David Evans
Damien Choplain
Pablo de Renteria Villacoupa

Cantor Fitzgerald
Brian White
Alethia Young

Capital Access Group
Oliver Juggins
Oliver Harris-St John

Carnegie Bank
Niels Granholm
Philip Lagnetoft
Kristofer Liljeberg-Svensson
Lars Topholm
Ulrik Trattner

Cenkos Securities
Chris Donnellan
Simon Strong
James Fletcher

Charles Stanley
Rae Ellingham

Citigroup
Andrew Baum
Peter Verdult
(David Rawley)

CM-CIC Securities
Agnès Blazy
Fanny Meidre

Commerzbank
Volker Braun
Daniel Wendorff

Cowen International
Christine Arnold (US)
Ken Cacciatore
Joshua Jennings
Phil Nadeau
Charles Rhyee
Steve Scala
Doug Schenkel
Eric Schmidt
Boris Peaker
Chris Shibutani
Yaron Werber
Ryan Blicker
Marc Frahm
Joseph Thome
(David Kirkpatrick)

Credit Suisse
Hans Bostrom
Christoph Gretler
Jo Walton
Matthew Weston
Trung Huynh
(Phil Gestrin)

Danske Equities
Thomas Bowers
Martin Parkhøi

Davy Research
Andrew Young

Deutsche Bank
Richard Parkes
Tim Race
Yi-Dan Wang
Rajan Sharma
George Hill (US)

Degroof Petercam
Trevor Hougen
Thomas Guillot
Benoit Louage
DnB NOR
Rune Dahl
Patrik Ling

DZ Bank
Elmar Kraus
Thomas Maul
Peter Spengler

Edison
Susie Jana
Alice Nettleton
John Savin
Andy Smith
Jonas Peciulis
Daniel Wilkinson

Equinet Institutional Services
Edouard Aubery

Equity Development
Emma Ulker

fnnCap
Mark Brewer
Lorne Daniel

Goetz Partners
Brigitte de Lima
Chris Redhead

Goldman Sachs
Krishna-Chaitanya Arikatla
Tina Dimitrova
Veronika Dubajova
Divya Harikesh
Keyur Parekh
Graig Suvannavejh

Handelsbanken Capital Markets
Peter Sehested
Annette Lykke

Hardman and Co
Martin Hall
Dorothea Hill
Gregoire Pave

Baader Helvea
Jorg Schirmacher

HSBC
Steve McGarry
Julie Mead
Lucy Acton
Murielle André-Pinard

ING
David Vagman

Investec
Andrew Whitney
Jimmy Muchechetere
Joanna Tucka

Jefferies
Lucy Codrington
Philippa Gardner
Ian Hilliker
Kit Lee
Lyra Li
Ken Rumph
James Vane-Tempest
Harry Sephton
Peter Welford
(Jan Scherer)
JP Morgan Cazenove
David Adlington
Alex Comer
James Gordon
Richard Vosser
James Quigley
Craig McDowell
(Marjan Daeipour)

Jyske Bank
Peter Andersen

KBC Securities
Sandra Cauwenberghs
Lenny Van Steenhuyse

Kempen & Co
Alexandru Cogut
Suzanne van Voorthuizen
Ingrid Gofanhao
Rene Wouters

Kepler Capital Markets
David Evans
Maja Pataki
Martin Voegtli

Landesbank Baden-Wuerttemberg
Timo Kuerschner
Voler Stoll

Liberum Capital
Alistair Campbell
Graham Doyle
Euan Brown
Anna Barnfather

M.M. Warburg Investment Research
Ulrich Huwald
Jonas Blum
Patrick Schmidt
Michael Heider

Morgan Stanley
Alex Gibson
Michael Jungling

N+1 Singer
Chris Glasper
Edward Thomason
Sahill Shan

Natixis
Philippe Lanone

New Street
Gengyu Li

NIBC
Dylan van Haaften
Anita Ye

Nordea Markets
Michael Novod
Christian Ryom
Jasper Ilsøe
Sten Gustafsson

Nord/LB
Holger Fechner
Thorsten Strauss

Numis
Sally Taylor
Paul Cuddon
Stefan Hamill
(Ceri Morgan)

Oddo Securities
Christophe-Raphael Ganet
Sebastien Malafosse
Martial Descouteres
<table>
<thead>
<tr>
<th>Company</th>
<th>Members</th>
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<tbody>
<tr>
<td>Panmure Gordon</td>
<td>Mike Mitchell, Julie Simmonds, (David Cox)</td>
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<tr>
<td>Pareto Securities</td>
<td>Finlay Heppenstall, Johan Spetz, Johan Unnerus</td>
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<td>Peel Hunt</td>
<td>Miles Dixon, Anchal Verma, Amy Walker</td>
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<tr>
<td>Portzamparc Gestion S.A.</td>
<td>Christophe Dombu</td>
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<tr>
<td>RBC Capital Markets</td>
<td>Zoe Karamanoli, Charles Weston</td>
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<td>Redburn</td>
<td>Matthew Barker, Louise Pearson, Simon Baker, Charles Pitman</td>
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<tr>
<td>Rx Securities</td>
<td>Samir Devani, Joseph Hedden, Michael King</td>
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<tr>
<td>Sanford C Bernstein</td>
<td>Lisa Clive</td>
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<tr>
<td>Santander</td>
<td>Nicholas Midgley</td>
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<td>Shore Capital</td>
<td>Adam Barker, Tara Raveendran, John Moore</td>
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<tr>
<td>Société Générale</td>
<td>Patrick Jousseaume, Delphine Le Louët, Justin Smith</td>
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<td>Stifel</td>
<td>Christian Glennie, Max Herrmann, James Mainwaring, Erland Sternby</td>
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<tr>
<td>Trinity Delta</td>
<td>Mick Cooper, Lala Gregorek, Franc Gregori</td>
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<tr>
<td>UBS</td>
<td>Ian Douglas-Pennant, Michael Leuchten, Jack Scannell, Sebastien Walker</td>
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<tr>
<td>WG Partners</td>
<td>Nigel Barnes</td>
</tr>
<tr>
<td>Zürcher Kantonalbank</td>
<td>Michael Nawrath</td>
</tr>
</tbody>
</table>
About the BIA

Established over 25 years ago at the infancy of biotechnology, the BioIndustry Association (BIA) is the trade association for innovative life sciences in the UK. Our goal is to secure the UK’s position as a global 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.

Our members include:

• Start-ups, biotechnology and innovative life science companies
• Pharmaceutical and technological companies
• Universities, research centres, tech transfer offices, incubators and accelerators
• A wide range of life science service providers: investors, lawyers, IP consultants and IR agencies
We promote an ecosystem that enables innovative life science companies to start and grow successfully and sustainably, and we do this through Influence, Connect, Save.

**Influence**

The BIA represents the interests of its members to a broad section of stakeholders, from government and regulators, to patient groups and the media. We also work with organisations at an international level to ensure that UK biotech is represented on the global stage including Europabio, EFPIA and ICBA. BIA is the key thought leader for the sector – working across a wide range of related issues including policy, finance, science, regulatory, legal and talent.

**Connect**

The BIA provides many varied opportunities for life science leaders to connect with each other – to network, share and learn from experience, to access sector thought leadership and to take key issues forward. From the famed BIA Gala Dinner, to the CEO & Investor Forum, Women in Biotech networking evenings, quarterly committee meetings and our many regional events, to name but a few, the BIA provides access to a highly respected and diverse network. BIA also works to ensure that we provide opportunities and promotion for our members internationally – through panels and networking events at major events overseas, we are raising the profile of the UK as a global hub. We know that promoting what you do as an organisation is important, and we help organisations to raise their profile – at events and through our online presence and communications.

**Save**

For many of our emerging members (and a good number of well-established ones too) the BIA Business Solutions Scheme provides significant savings that are helping them to grow more cost-effectively. We believe this is the most competitive scheme of its kind in the UK.

For more information about the BIA and our finance work, please contact info@bioindustry.org.
Connect
Online and in person with industry leaders

380+ member organisations
51+ events
4,700+ webinar and event delegates

Join the BIA
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