



Confident capital: backing UK biotech



January 2019

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Forewords

Steve Bates OBE
CEO, BIA

2018 was a fantastic year for investment in the UK life science ecosystem. Indeed it was a record year of funding since the BIA has been producing these reports.

The UK life sciences sector has attracted an incredible £2.2bn investment in the past 12 months. It shows the government's industrial strategy is paying dividends as global investors flock to invest in UK innovation, jobs and growth in life sciences.

The UK biotech ecosystem is a key engine of innovation which underpins not just emerging UK "unicorns" but also a significant portion of the future value of some of the largest pharmaceutical companies in the world.

Global investors appreciate the unique science assets we have here in the UK. Our outstanding expertise in genomics, cell and gene therapies, antimicrobial research and engineering biology is exemplified by the companies featured in this report, and it shows there are clearly many people around the world very willing to put their money into these innovative enterprises. Orchard Therapeutics' and Autolus' IPOs show that substantial returns can be generated.

There are some key trends we see through the 2018 data:

1 The sector itself is evolving and producing new types of life science businesses. Through 2018 we have seen companies making the most of AI in healthcare innovation, from improving drug discovery to enabling treatment compliance. This challenges us as a sector to continue to explain to generalist investors not just the innovation but the route to revenue of these novel business models.

2 The number of sources of funding for UK drug discovery is expanding. US private investors are increasingly comfortable and confident in investing

in private British companies, as growing from the UK to IPO later on NASDAQ becomes a recognised, understood and well-trodden path. In 2018, our sector has also received greater interest from other global investors, especially from China, who see and understand the UK opportunity. And at the same time, global pharma corporate venture continues to invest heavily.

3 In the UK public markets, the sector is operating with fewer analysts and fewer IPOs than a generation ago. On the positive side, the London market has established a global niche in supporting IP commercialisation companies, which diversify the risk and provide a portfolio of life sciences innovation. However, AIM doesn't have the depth of drug discovery companies to enable a vibrant market. It has also experienced disappointing clinical trial results in 2018 and hasn't accessed all the opportunity of recent cell and gene therapy plays. This hasn't affected the companies but means the London market hasn't built the positive experience and value it might have.

4 A vibrant and long-term government-led industrial strategy matters. Investor confidence is a direct reflection of the commitment the government has made to the sector throughout 2018 and in previous years. Following the publication of the first Life Sciences Sector Deal in late 2017, the government has continued to listen to our needs and respond positively. The second sector deal was published in November, bringing new commitments for government and industry investment. We must keep this momentum up if we are to continue to attract global money into our young and scaling companies.

5 Finally, exciting things happen when the UK's leadership in fintech and biotech is combined. We continue to innovate in both our science-based companies and our approach to funding them, building on past success with funds like Syncona and the Dementia Discovery Fund. The next part of the government's Patient Capital Review is crucial to unlock mechanisms to enable larger domestic investors, like pension funds, who have little

exposure to our sector currently, to increase their participation in our vibrant and growing ecosystem. The BIA is working with investor relations firm Radnor to help achieve this throughout 2019. I believe the UK will rise to the challenge and unlock significant new funds to fuel our maturing biotech sector. This will be good news for UK investors and those from overseas.

I would like to thank all of the companies that have contributed to this report and Informa for providing the data. The UK's biotech community never ceases to amaze me with its talent, vision and tenacity, and now it has amazed me with this stellar fundraising year. And finally I would like to thank our 340+ members who make this and all our work possible.

Mike Ward Head of Pharma Content, Informa Pharma Intelligence

On all fronts, 2018 was a stellar year for the global biopharma industry. In drug development, the FDA's Center for Drug Evaluation Research (CDER) approved 59 new drugs, while the agency's Center for Biologics Evaluation and Research (CBER) gave the green light to two recombinant therapies. Almost half of them were genuinely innovative medicines. In the capital markets, biotech companies across the globe raised record amounts of money.

UK companies featured prominently in the approvals. AstraZeneca got the green light for both Lumoxiti (moxetumomab pasudotox-tdfk), a CD22-directed cytotoxic antibody targeting hairy cell leukaemia, and Lokelma (sodium zirconium cyclosilicate), a potassium binder to treat hyperkalaemia. GSK, in collaboration with Medicines for Malaria Venture, got approval for the single-dose Krintafel (tafenoquine) for prevention of relapse of *Plasmodium vivax* malaria. GW Pharmaceuticals cemented its position as the global leader in prescription cannabinoid medicines winning approval for Epidiolex (cannabidiol) to treat seizures associated with Lennox-Gastaut syndrome or Dravet syndrome.

While data collated and analysed by Informa Pharma Intelligence, using its Pharmapremia tool, shows that pharma companies are becoming more efficient in drug development – measured by the number of programs that successfully transition

from one clinical phase to the next – biotech's share of FDA approvals continues to grow. The preponderance of drugs targeting rare diseases on the 2018 approvals roster has underpinned biotech's influence.

Not surprisingly, the strong performance of biotechs translating ground breaking science into breakthrough medicines has attracted an upsurge in support from the capital markets. While US biotechs continue to take the lion's share of money being put to work in the sector, UK companies raised record sums. Indeed, in venture and private equity funding, with £1.1bn raised, the UK biotech sector was the fifth most attractive region, bested only by the San Francisco Bay area, Massachusetts, a fast-emerging China, and the San Diego cluster. Indeed, UK biotechs accounted for almost 40% of the total money raised by European companies.

Similarly, in public finances, UK companies had their best ever year for raising money through initial public offerings and the second best year for follow-on financings. Despite the creation in recent years of a number of patient capital vehicles, much of the money flowing into the UK biotech sector is coming from abroad whether from venture or institutional investors. NASDAQ still appears to be the exchange of choice for UK biotechs wanting to go public or raising follow-on financing.

Overall trends

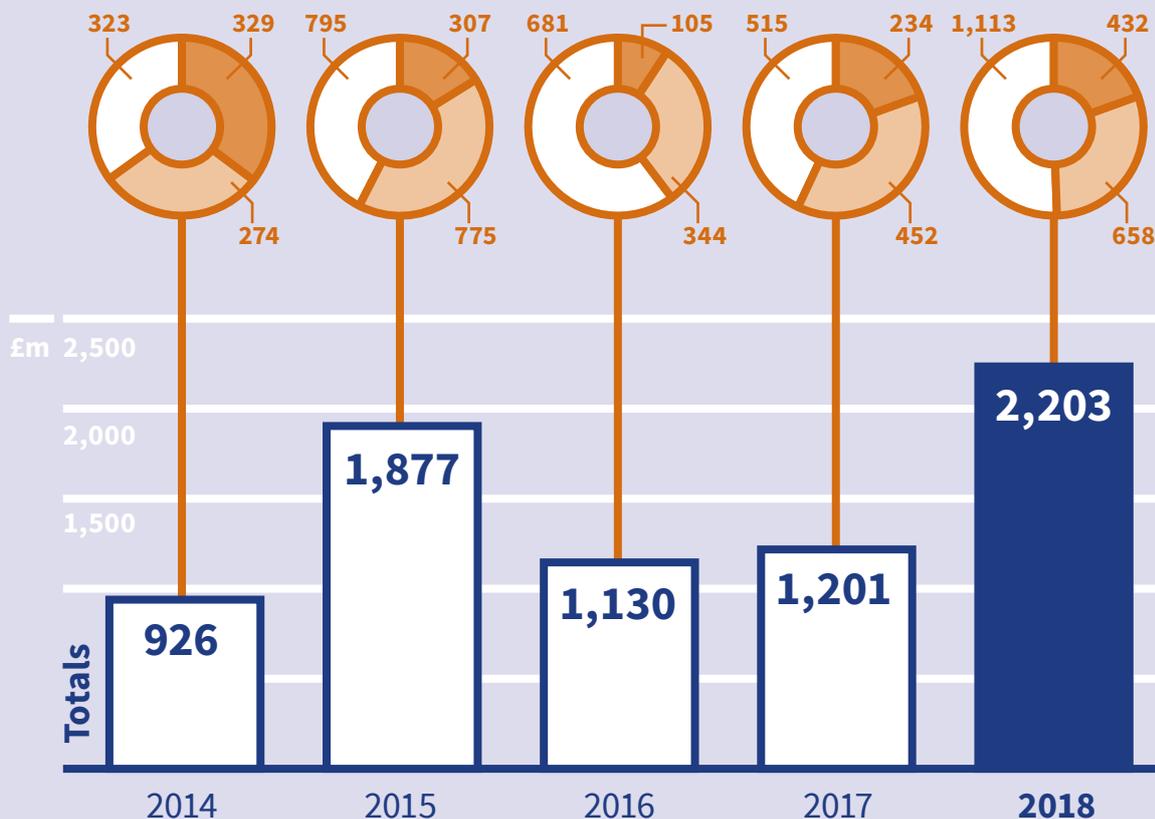
UK biotech financing accelerated in 2018, far exceeding any previous year since the BIA began publishing these reports in 2013. A total of £2.2bn was raised by UK-based biotech companies during the period covered by this report*, £1bn more than the previous year.

UK-based biotech companies raised over £1.1bn in venture capital, £432m in Initial Public Offerings (IPOs), and £658m in all other public financings.

As the data throughout this report shows, 2018 was characterised by more deals and bigger deals, particularly involving private companies.

Finance raised by UK-based biotech companies

● IPO ● All other public financings ● Venture capital



Julie Simmonds
PhD, Executive
Director, Equity
Research,
Panmure Gordon

Overall, UK companies raised £2.2bn in 2018, 85% ahead of 2017.

There was growth across all sources: VC (+116%), IPO (+84%) and secondary fundings (+45%). A high proportion of the funding has been raised from outside of the UK. VC funding has been particularly strong in 2018 with companies raising £1.1bn after a weaker 2017. We believe this strength has partly come from the lackluster IPO market in the UK. An additional round of VC funding prior to IPO allows companies to become better established and await positive market conditions before listing, boosting later stage VC investment.

The UK IPO market has been constrained with only two listings in the UK during 2018, Sensyne Health and Renalytix AI, both data focused businesses rather than biopharma, reflecting the limited appetite for drug discovery risk. This is in direct contrast with the US, which has seen more funds raised through biotech IPOs than in any year since 2014. UK companies with strong platforms have taken advantage of this buoyancy with Autolus and Orchard Therapeutics achieving successful NASDAQ listings in the mid-year.

Despite the success of the IPO market, both the UK biotech sector and NASDAQ Biotech have seen a more challenging end to the year, with markets falling. The strong first quarter of 2018, which followed a year of improving momentum in 2017, was the high point. The sector struggled to generate continued momentum as a swathe of mid and late stage clinical trial disappointments undermined confidence in biopharma in the UK. Secondary fundings have continued with £658m raised in the year (+45%), though as with IPOs and in contrast to 2017, the weight of investment (57%) came from the US. Standout UK transactions were Oxford BioMedica and Alliance Pharma.

We expect these trends to continue into the first half of 2019 as Brexit and other macro factors undermine overall market confidence. However, the UK market now offers value opportunities across the market cap range and we expect interest to return as the healthcare sector demonstrates long term resilience across cycles. On a 5 and 10-year basis the PG healthcare index has outperformed the All Share – 65% vs 8% and 198% vs 81% respectively – showing the significant returns that can be generated. Though trite, an ageing global population coupled with increasing prevalence of chronic conditions is driving a growth in healthcare spending, and this is likely to be sustained even in a recessive environment. As valuations remain depressed, M&A activity also has picked up with companies in the recovery phase being prime targets. We expect this trend to continue into 2019 and this is also likely to rekindle interest from investors.

* The dataset in this report covers the period from 1 December 2017 to 30 November 2018. 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: USD = 0.79, CHF = 0.79, EUR = 0.90, CAD = 0.59, RMB = 0.11. The data is provided by Informa Pharma Intelligence.

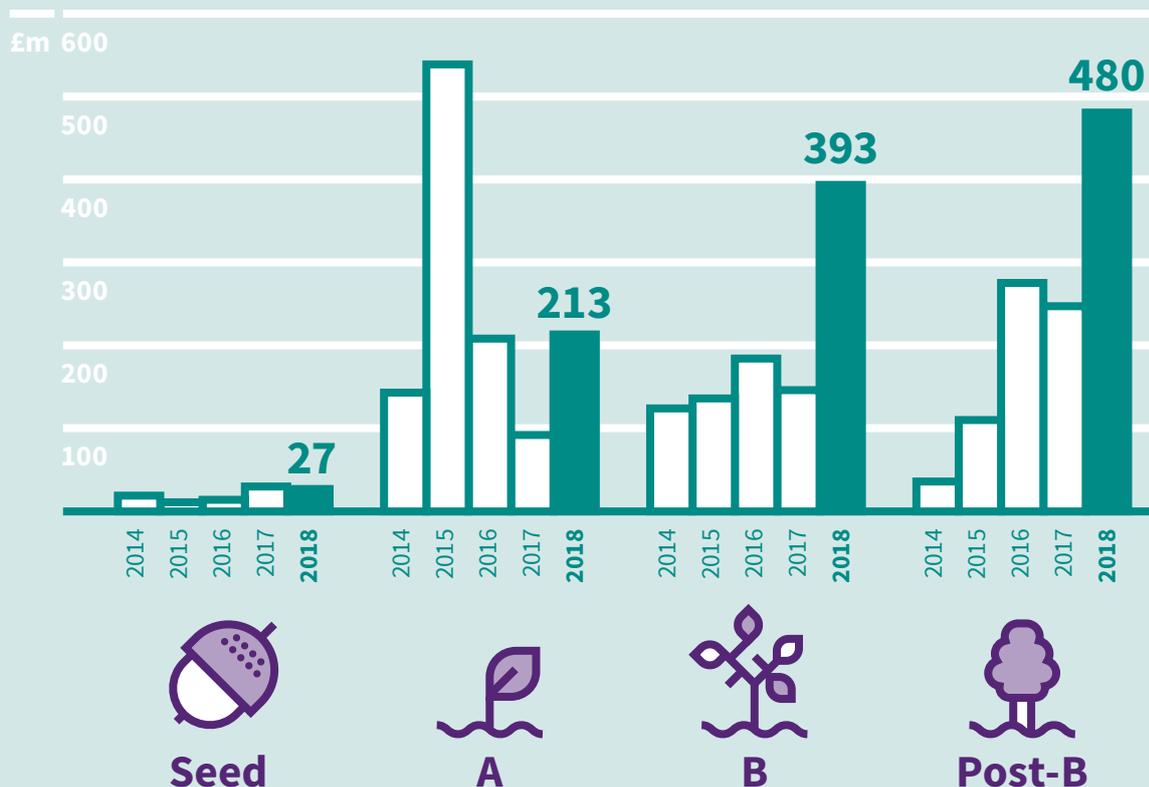
Venture capital

Venture capital funding

Investor appetite for private UK biotech companies soared in 2018, with more than double the 2017 total raised. For the first time VC funding broke through the £1bn mark, signalling a welcome return to a steady increase in performance over time.

A total of £1.1bn was raised. Seed funding at £27m remained level compared to 2017, and round A financing at £213m was positive following an uneven few years for early-stage funding. Even more welcome was B and post-B financings achieving large increases on previous years, with £393m and £480m raised, respectively. The significant increase in mid and late-stage financings shows a continued maturing of the sector and strong interest from investors in UK science. It also reflects the fact that UK companies are choosing to remain private for longer.

UK venture capital funding over the last five years



Kate Bingham
Managing
Director,
SV Health
Investors

2018 has been a great year for UK biotech financings. As is expected, the majority of cash raised is by later-stage private UK companies in Series B and C rounds.

Notable are the significant rounds raised by gene therapy companies Orchard Therapeutics (\$143.47 Series C) and Freeline Therapeutics (£88m Series B) which parallel the increased sizes of financing rounds seen in US biotech companies and general investor excitement in the potential for gene therapy. 2018 also saw Autolus, a clinical stage CAR-T company raise \$150m in the first major IPO for a UK biotech on NASDAQ which is an encouraging trend for UK biotechs, suggesting that US investors are starting to recognise the significant value of UK science and products.

In SV's portfolio, two companies that SV created each raised substantial private rounds in 2018. SV launched cancer company Artios in 2016 to develop inhibitors against second generation DNA Damage Response targets led by Niall Martin (former Kudos). In 2018 Artios attracted £65m Series B from strategic and financial investors at an attractive uplift. Immunometabolism company Sitryx Therapeutics led by industry veteran Neil Weir (former UCB) emerged from stealth mode in 2018 with a £23m Series A round, to develop precision medicine drugs to treat cancer and inflammatory disorders. GSK joined as a Sitryx co-founder contributing assets and cash. Both companies leverage the world-leading scientific expertise of its founders which reinforces the value of UK science.

Top UK venture rounds

UK companies were able to raise sizeable rounds in 2018, with most using the money to continue their growth as private companies, while Orchard Therapeutics used private financings to springboard to an IPO. The larger rounds were welcome in the capital-intensive industry and an improvement on those seen in 2017, when the largest was £60m.

Orchard Therapeutics' private round valued the company at over £450m in August, which was then more than doubled at IPO in October.

Oxford Nanopore's £100m fundraise in March brought in institutional investors from the East, including an Australian pension fund. Combined with American biotech Amgen's £50m investment in October, the company is a prime example of how UK science attracts interest from around the world.

Company	Deal date	Round	Value (£m)
Orchard Therapeutics	13/08/2018	C	118.5
Oxford Nanopore Technologies	20/03/2018	ND	100
BenevolentAI	19/04/2018	ND	90.85
Freeline Therapeutics	19/06/2018	B	88
Orchard Therapeutics	20/12/2017	ND	85
Artios Pharma	10/08/2018	B	65
Crescendo Biologics	30/04/2018	B	55.3
Oxford Nanopore Technologies	18/10/2018	ND	50
ReViral	01/08/2018	B	43.45
Juvenescence	06/07/2018	A	39.5
Evox Therapeutics	03/09/2018	B	35.5
Enterprise Therapeutics	12/04/2018	B	29
NodThera	25/06/2018	A	28
Owlstone Medical Ltd	01/10/2018	ND	27
Genomics plc	30/08/2018	B	25
KaNDY Therapeutics	29/08/2018	C	25

Gordon Sanghera
CEO, Oxford Nanopore

Oxford Nanopore produce a range of real-time, low-cost DNA sequencing devices, from benchtop to pocket-sized.

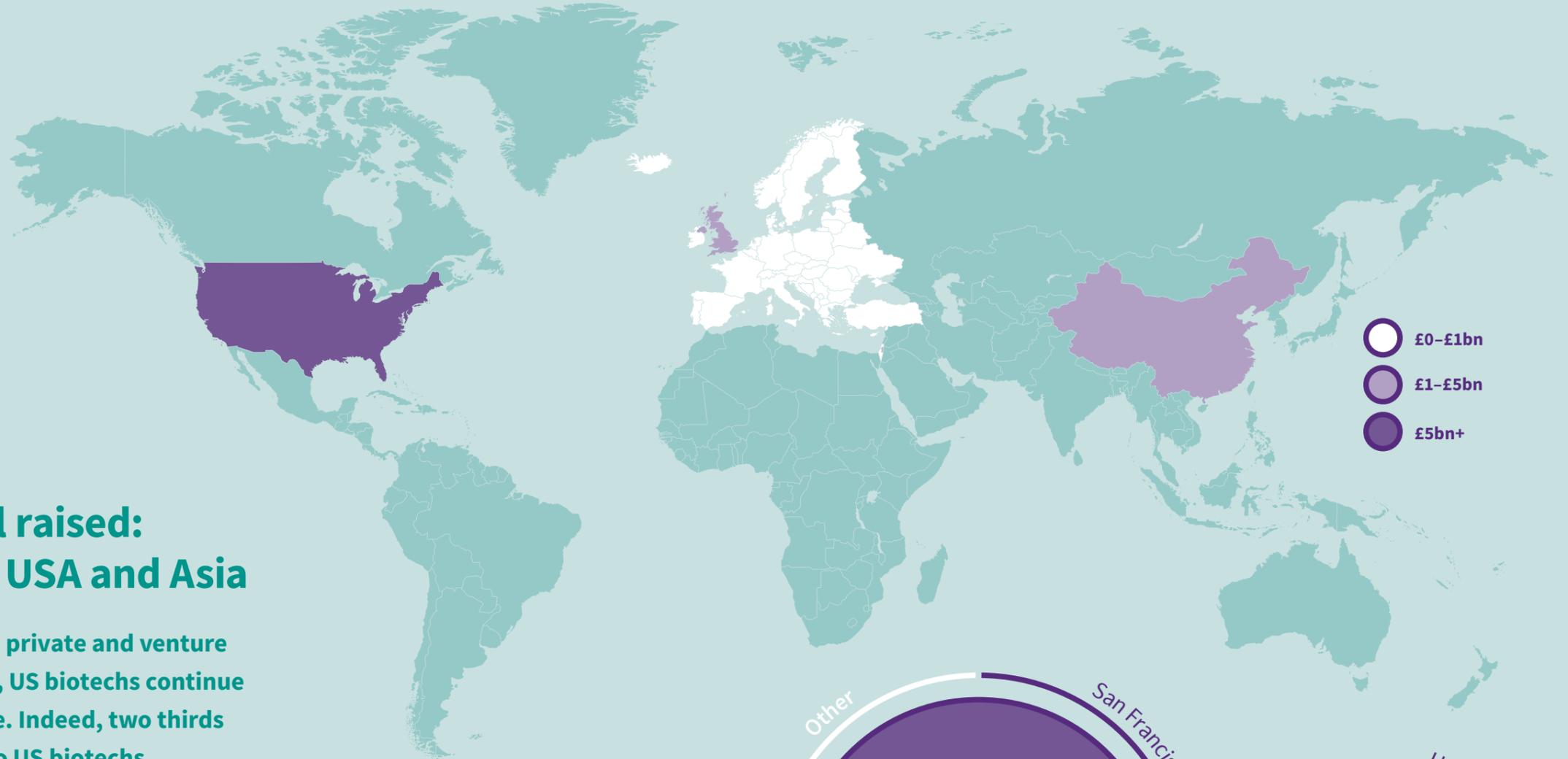
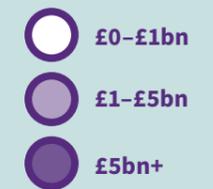
In March 2018, Oxford Nanopore announced a £100m fundraising from long-term global investors GIC (Singapore), CCBI (Hong Kong) and Hostplus (Australia). The company also announced that Amgen had invested £50m in a secondary transaction. The transaction followed the commercial progress of Oxford Nanopore as several thousand scientists continue to use its portable, real-time DNA sequencer, and the company added devices to its portfolio that serve large-scale projects such as human population-scale sequencing and plant genomics .

The smallest sequencer, which weighs less than 100g and plugs into a laptop, has been used to answer biological questions in clinical research, on farms and in food production factories, and even on the International Space Station. The technology involves passing currents through biological nanopores – small holes made by special proteins – and measuring changes as molecules, like DNA or RNA, pass through or close to the nanopore. Oxford Nanopore’s technology is not only about size and convenience; it can also help make research more rapid and efficient. As a sample is analysed, data is streamed in real-time, meaning researchers can stop as soon as they have enough data to answer their question. Such rapid results mean that, for example in infectious diseases, pathogens and their drug resistance properties could be identified from their DNA in minutes or hours, rather than days or weeks. PromethION, launched this year, provides a new model for on-demand sequencing with terabase capacity.

Tim Hames
Director
General, British Private Equity & Venture Capital Association

The revival of venture capital in the UK continued in 2018 despite political complications, not least Brexit.

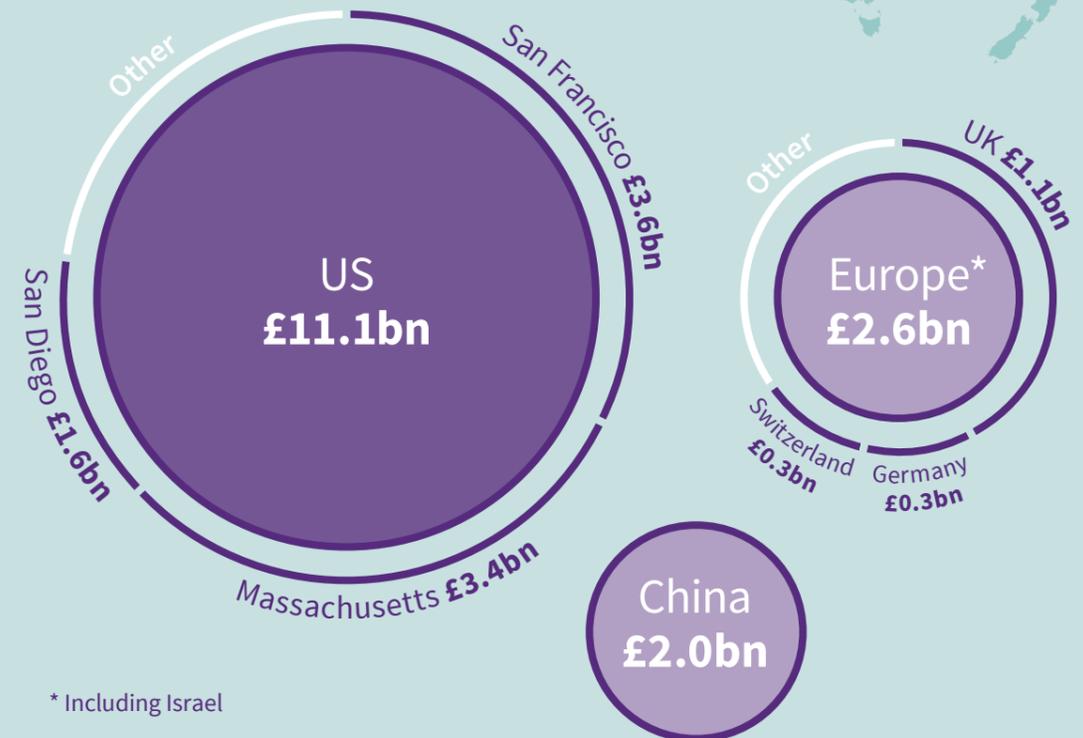
The UK venture capital sector continued to prove attractive to an array of international investors with life sciences and MedTech a significant part of that welcome development. This fundamental shift in sentiment rooted in strong performance was recognised in late 2017 through the Patient Capital Review and in the measures announced by the Chancellor in November of that year. The past twelve months have, inevitably, had an element of transition to them as the British Business Bank put in place the organisational changes that it required to undertake in order to create a distinct British Patient Capital division. Almost all of those initiatives have now occurred and I am confident that 2019 will be a year of significant delivery in terms of investment into the industry. The potential for that support to prove truly transformative at a moment when a number of really exciting technological innovations come to the market is substantial. It is not wild optimism to think of the decade to come as the one in which UK and European venture capital becomes as important a player globally as has long been the case for the United States. The capital will be there. Do we have the patience is the key question.



Venture capital raised: rest of Europe, USA and Asia

With global funding from private and venture sources topping £16.5bn, US biotechs continue to attract the lion's share. Indeed, two thirds of the global take went to US biotechs.

The San Francisco bay area regained pole position as the leading fundraising cluster, securing just over £3.6bn, followed closely by Massachusetts, at just under £3.5bn. China secured the third-place spot at £2.03bn. Combined, European companies raised £2.6bn, with UK firms attracting just under 40% of the total.



* Including Israel

Public markets

UK IPOs

Five UK biotechs launched on the public markets in 2018, the same number as in 2017 but the ticket sizes were larger. As with previous years, UK companies found greater investor appetite in the US than in Europe. Orchard Therapeutics achieved the biggest UK biotech IPO since 2014 with its £177m financing on NASDAQ in November, following Autolus' £136m launch there earlier in the year.

In Europe, clinical AI technology companies Sensyne Health and Renalytix AI raised £82m between them on London's AIM. And Acacia – a company focused on the development and commercialisation of new nausea and vomiting treatments for surgical and cancer patients – raised £36m in Brussels.

Company name	Date	Market	Value (£m)
Orchard Therapeutics	05/11/2018	● NASDAQ	177.75
Autolus Therapeutics	22/06/2018	● NASDAQ	136.28
Sensyne Health	17/08/2018	● AIM	60
Acacia Pharma	02/03/2018	● B Euronext Brussels	36
Renalytix AI	06/11/2018	● AIM	22.25
Total			432.28

**The Rt. Hon.
Lord Drayson**
CEO, Sensyne
Health plc

Sensyne Health is a clinical AI technology company, which works in partnership with NHS trusts to analyse anonymised patient data and decode the complexities of medical practice, accelerating medical research, helping to develop new medicines and improving patient care.

Sensyne acts as a 'docking station' between bio-pharmaceutical companies and NHS trusts providing a sustainable return back to NHS trust partners, through equity ownership and royalties. In August 2018 the company successfully raised approximately £60m in an IPO, listing on AIM. The raise enabled Sensyne to recruit additional clinicians, data scientists and software developers, and stimulated further business development interest in the company's work. In October, Sensyne launched the GDm-Health app, a patient-to-clinician blood glucose monitoring system for gestational diabetes, which allows patients to record and share data with their healthcare team and to create a unique database of information to facilitate medical research in diabetes. Being listed on the London Stock Exchange provides Sensyne with the resources, level of visibility, transparency, and high standards of corporate governance associated with being a UK public company, operating in the fast-growing sector of Clinical AI, at the intersection of medical and computer science.

Dr Arthur Roach
Director of
Research,
Parkinson's UK

Parkinson's UK recognises that the biotech and pharma sectors are critically important partners in our efforts to deliver on our members' passionate desire for innovative, effective treatments for their devastating condition.



**BIA
Charity
of the Year
2018**

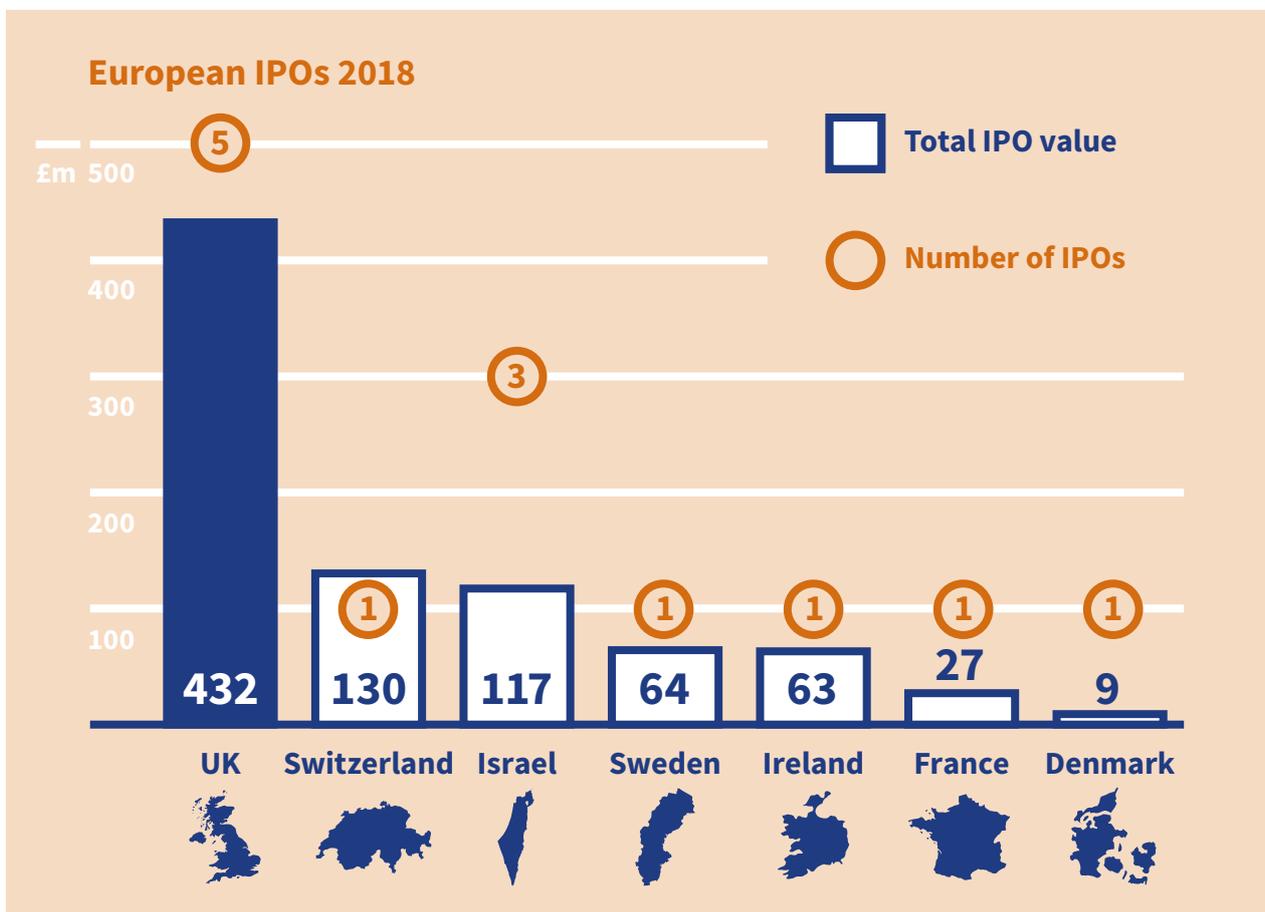
But more than that, we believe that we can play an active part and bring a unique and powerful dynamic to the discovery and development of new treatments. We are fortunate to be able to put £25m into our Virtual Biotech programme over a five-year period, but need to deploy this carefully for maximum return. Fortunately, we are already embedded in the fantastic UK biomedical research sector, with its exceptional combination of world-leading academic research into neurodegenerative diseases including Parkinson's, and a biotech and pharma sector with world-class capabilities at all levels, from single consultants through to highly competent contract research organisations, dynamic biotech companies and global pharma R&D teams for later-stage partnerships. We believe charities like Parkinson's UK can play a valuable role in the UK biotech sector by bringing the strongest possible focus on patient needs to projects, that have been selected and managed to the best industry standards, and provide competitive levels of capital and strategic support to small companies executing the projects. Our BIA partnership has been a valuable piece of this strategy.

European IPOs

A total of £958m was raised through IPOs by Europe-based biotech companies in 2018. The UK was the stand-out performer, accounting for a third of IPOs and 45% of capital raised.

As in the UK, European-based biotech companies looked towards America just as much as they looked to home exchanges for their fundraising needs. Switzerland's Polyphor – a company developing new antibiotics and medicines – raised £130m on the SIX Swiss stock exchange. Conversely, the three Israeli companies that IPO'd in 2018 all raised on NASDAQ.

In last year's finance report, we highlighted the potential risk posed by the introduction of MiFID II. Many predicted the EU regulation would reduce analyst coverage for European biotechs, making it harder to raise money. European IPOs in 2018 raised less than half the £2.2bn secured in 2017. However, Idorsia Pharmaceuticals' stunning £825m IPO in 2017 accounts for much of the difference. The data therefore does not reveal a macro-level impact. However, anecdotal evidence of lower volumes of research on smaller companies is still a cause for concern. We will continue to monitor the impact of the regulation.



Max Hermann
Managing
Director, Stifel
Financial Corp

Despite buoyant capital markets for much of the year, only five UK biotech companies managed to IPO during 2018.

Encouragingly, total capital raised during the year of £432m substantially exceeded the £234m raised in 2017. Once again NASDAQ was the preferred market for raising capital, with Orchard Therapeutics and Autolus Therapeutics raising £178m and £136m, respectively, on NASDAQ. In Europe, Sensyne Health and RenalytixAI, respectively, raised £60m and £22m on AIM and Acacia Pharma raised £36m on Euronext Brussels.

Over the last few years, US biotech investors have become an increasingly important source of funding for biotech globally and UK biotech companies have been significant beneficiaries of this trend. Spearheaded by GW Pharma's listing on NASDAQ in 2013, the trend for UK and European companies to list on NASDAQ is now well established. This appears to have encouraged US VCs to increase their investments in European private companies, comforted in the knowledge that they are likely to seek a NASDAQ listing in the future. In a capital constrained industry, the availability of significant pools of funding should be welcomed.

Follow-on financing

Scaling UK biotechs successfully returned to investors to raise additional finance in 2018, with those listed on NASDAQ securing the largest share of investment. A total of £658m was raised, up from £451m in 2017.

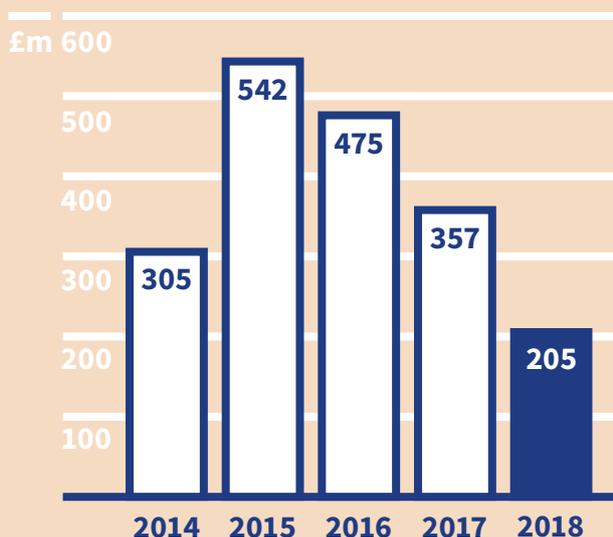
NASDAQ-listed GW Pharmaceuticals accounted for a large proportion of the total US capital raised for UK companies, having secured £272.7m from new and existing investors in a Private Investment in Public Equity (PIPE) placement in October.

London-listed companies saw lower levels of follow-on financing in 2018 compared to previous years, securing £277m. Among those that successfully raised more capital to finance their expansion, Evgen Pharma raised £75m, Oxford Biomedica raised £20m, and Silence Therapeutics raised £15m.

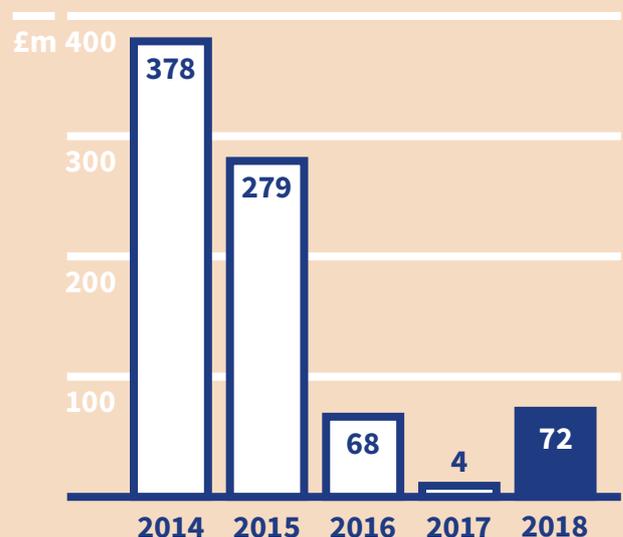
Though not included in the figures presented in this report, London-listed venture capital firm Arix Bioscience received £100m of development capital from Fosun Industrial Holdings, Ipsen Pharma, UCB, Takeda Ventures and LF Woodford Equity Income Fund in February. The new funds raised 2018 will make their way into the UK and international biotech sector in 2019. Arix invested in Autolus' B and C rounds prior to its IPO.

Follow-on financing by market

AIM 2PO



LSE 2PO



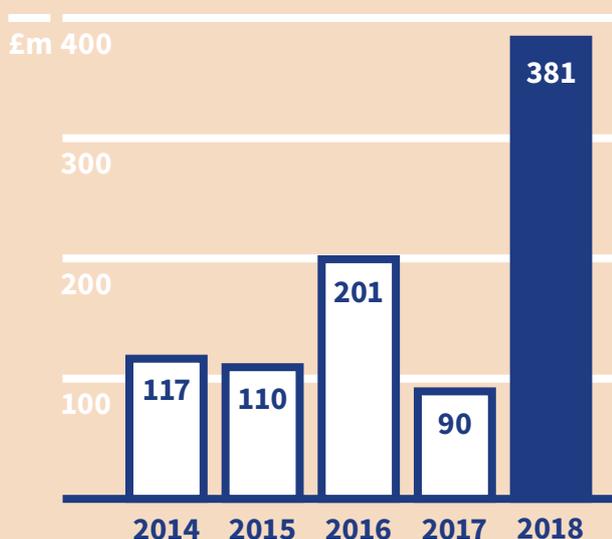
Adam George
UK Managing
Director, GW
Pharmaceuticals

GW Pharmaceuticals is a pioneering UK-based biopharmaceutical company that over the last 20 years has established a world-leading position in cannabinoid science and medicines. The company is focused on discovering, developing and commercialising novel therapeutics from its proprietary cannabinoid product platform.

In October 2018 GW successfully completed an equity fundraising, raising gross proceeds of \$345.2m. Goldman Sachs, Morgan Stanley, J.P. Morgan and Cowen acted as joint book-running managers, achieving a high level of support from existing and new investors, enabling the offering to close successfully following a single day of marketing. The fundraising was launched following confirmation that the US Drug Enforcement Agency (DEA) had completed the controlled drug rescheduling process for Epidiolex, enabling US market launch to proceed. Epidiolex was approved in June 2018 by the US Food and Drug Administration (FDA) for the treatment of seizures associated with Dravet syndrome and Lennox Gastaut syndrome. These are both orphan, childhood onset, severe refractory forms of epilepsy, in which there is a high unmet need.

The funds raised will be used to fund the US commercial launch of Epidiolex, continue the regulatory approval process in Europe for the same product (expected Q1 2019) and complete additional clinical trials using Epidiolex to treat Tuberous Sclerosis and Rett syndrome.

NASDAQ 2PO



Totals 2014-18



M&A and debt financing

Mergers and acquisitions

In 2018, UK companies were as much the acquirer as the acquired in M&A deals. This was despite UK assets being relatively cheaper than in the past due to the low value of the pound.

Clinigen purchased Swiss iQuone for £6.7m, and veterinary company Dechra Pharmaceuticals bought The Netherlands' Le Vet Pharma BV for £306m and New Zealand's Caledonian Holdings for £4.4m.

Looking at foreign takeovers, Abzena was taken private in a £34.4m buy-out by New York-based Welsh, Carson, Anderson & Stowe. And Kanwa Holdings LP, an investment vehicle affiliated with Barings, completed the \$19m buy-out of Midatech Pharma US Inc. from its UK parent company Midatech Pharma plc.

The headlines were gripped by Takeda's £46bn takeover of Shire throughout 2018, with the deal completing in early January 2019. Shire is headquartered in Dublin and so not included in the BIA's UK-based statistics, but the rare-disease specialist was originally a UK biotech.

The other big M&A story of 2018 was Boston Scientific's £3.3bn approach for BTG, which was accepted in November. It will be completed in 2019 so is not included in the table opposite.

UK biotech M&As 2018

Acquirer	Domicile of acquirer	Target	Domicile of target	Date	Value (£m)
Dechra Pharmaceuticals plc	UK	Le Vet Pharma BV	The Netherlands	13-02-2018	306
LivaNova plc	UK	TandemLife	US	04-04-2018	197.5
LivaNova plc	UK	ImThera Medical, Inc	US	23-01-2018	177.8
Huadong Medicine Co Ltd	China	Sinclair Pharma	UK	19-11-2018	175.4
Spectris plc	UK	Concept Life Sciences	UK	26-01-2108	163
MicroPort Scientific Corporation	China	LivaNova plc	UK	30-04-2018	150.1
BTG plc	UK	Novate Medical Ltd	Eire	07-09-2018	118.5
Astellas Pharma Inc	Japan	Quethera Limited	UK	10-08-2018	85
Astro Bidco Ltd (Welsh, Carson, Anderson & Stowe)	US	Abzena plc	UK	11-10-2018	34.4
Ligand Pharmaceuticals Inc	US	Vernalis plc	UK	10-10-2018	33.4
Kanwa Holdings	US	Midatech Pharma US Inc (Midatech Pharma plc)	US (UK)	12-11-2018	15
Charles River Laboratories	US	KWS BioTest Ltd	UK	11-01-2018	15
Summit Therapeutics plc	UK	Discuva Limited	UK	23-12-2017	10
Clinigen Group plc	UK	iQone Healthcare Group	Switzerland	09-10-2018	6.7
Dechra Pharmaceuticals plc	UK	Caledonian Holdings Ltd	New Zealand	08-10-2018	4.4

David Bryant Chief Business Officer, Clinigen Group

2018 has been a busy year at Clinigen, adding new countries, capabilities, products and most importantly growth across the business.

The last 12 months has been focused on bringing cohesion to the Group. The acquisitions of CSM and iQone in September are key to this, not only expanding Clinigen's footprint and infrastructure in the US and the EU, but bringing a range of skills our clients are increasingly demanding. Clinigen is now able to offer services that an increasingly complex market needs to function, from packaging and labelling to specialised Medical Scientific Liaisons.

These acquisitions support products across the pharma lifecycle, helping companies navigate from clinical trial to globally-licensed product, ensuring that healthcare professionals have access to the world's most up-to-date medicines and information. This strategy is already validated by the collaborations with Bristol-Myers Squibb and Eisai, who turned to Clinigen to promote their products in markets where the Group's experience is well recognised.

2018 also saw the addition of two new products to Clinigen's portfolio, with Imukin and Proleukin added from Horizon Pharma and Novartis respectively. These two new, biologic medicines will be marketed across each of Clinigen's divisions, validating Clinigen's integrated model.

2019 will be one of continued integration, with Quantum Pharma (one of Clinigen's 2017 acquisitions) expanding its unlicensed-to-licensed strategy and the Group continuing to deliver an increased range of services that continue to differentiate it from its peers nearly ten years after its formation.

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 2018

Region	Count	Average (£m)	Debt* total (£m)
New Jersey	4	1,008	4,031.1
Israel	3	1,179	3,538.27
California	18	107	1,920
San Diego	5	278	1,390.8
Canada	8	80	640.23
Massachusetts	6	100	598.4
San Francisco	9	52	465
Switzerland	1	160	160
Ireland	1	99	98.75
Denmark	1	63	63.2
UK	4	10	40
Pennsylvania	2	18	36.68
Belgium	2	16	32.38
France	3	5	13.86
Sweden	1	2	2.44
Germany	2	1	2.31

* Debt, senior and convertible notes.

Accessing analysts in 2019

The following list of analysts that cover UK biotech has been compiled by Consilium Strategic Communications to help BIA members raise their profile in 2019. Names in brackets are healthcare-specific sales.

ABG Sundal Collier

Morten Larsen
Daniel Thorsson

ABN AMRO

Mark van der Geest
Rene Verhoeff

Alm. Brand Markets

Michael Friis Jørgensen

AlphaValue

Armelle Moulin
Marion Scherzinger

Arden Partners

Kartik Swaminathan

Banco de Sabadell, S.A.

Javier Esteban

Banco Espirito Santo de Investimento

Luis Navia

Bank am Bellevue

Bruno Eschli
Stephen Leventhal

Bankhaus Lampe KG

Heiko Feber
Frank Neumann

Bank Vontobel AG

Andrew Weiss

Barclays

Israel Akinrinsola
Olivia Capra
Emmanuel Papadakis
(Himanshu Chaturvedi)

Berenberg Bank

Scott Bardo
Alistair Campbell
Klara Fernandes
Joseph Lockey
Tom Jones
Mike Ruzic
Laura Sutcliffe
Charles Weston
(Abigail James)

Bank of America Merrill Lynch

Jamie Clark
Ying Huang
Sachin Jain
Jenny Leeds
Amanda Li
Aspen Mori
Justin Morris
Graham Parry
Qian Weng
(Dan Lundquist)

Bryan, Garnier & Co

Eric Le Berrigaud
Mickael Chane-Du
Marion Levi
Hugo Solvet
Gary Waanders
(Dominic Wilson)

CA Cheuvreux

Marcel Brand
Laurent Flamme
Richard Koch
Oliver Reinberg

Caja Madrid Bolsa

Ana Isabel González García

Cantor Fitzgerald

Paul Taylor

Brian White

Capital Access Group

Nicola Stewart

Carnegie Bank

Niels Granholm

Philip Lagnetoft

Kristofer Liljeberg-Svensson

Carsten Lonborg Madsen

Henrik Sinding

Lars Topholm

Cenkos Securities

Chris Donnellan

Charles Stanley

Jeremy Batstone-Carr

Rae Ellingham

Citigroup

Liav Abraham (US)

Andrew Baum

Alex Glasner

Peter Verdult

Patrick Wood

(David Rawley)

CM-CIC Securities

Agnès Blazy

Arsene Guekam

Commerzbank

Volker Braun

Daniel Wendorff

Cowen International

Christine Arnold (US)

Ken Cacciatore

Joshua Jennings

Phil Nadeau

Anant Padmanabhan

Charles Rhyee

Steve Scala

Doug Schenkel

Eric Schmidt

Simos Simeonidis

(David Kirkpatrick)

Credit Suisse

Hans Bostrom

Christoph Gretler

Jo Walton

Matthew Weston

Trung Huynh

(Phil Gestrin)

Danske Equities

Thomas Bowers

Mattias Häggblom

Hans Jeppsson

Martin Parkhøi

Søren Samsøe

Deutsche Bank

Holger Blum

Jeremy Lai

Richard Parkes

Tim Race

Gunnar Romer

Yi-Dan Wang

Sarah Thomas

(Alex Evans)

Degroof Petercam

Stéphanie Put

DnB NOR

Rune Dahl

DZ Bank

Christa Bähr

Elmar Kraus

Thomas Maul

Peter Spengler

Edison

Susie Jana

Alice Nettleton

John Savin

Juan Pedro Serrate

Andy Smith

Jonas Peculis

Daniel Wilkinson

**Equinet
Institutional Services**

Edouard Aubery

Equity Development

Emma Ulker

Exane BNP Paribas

Simon Baker

Florent Cespedes

Julien Dormois

Nicolas Guyon-Gellin

Luisa Hector

Kerry Holford

Vincent Meunier

Romain Zana

(John Aldersley)

fairesearch GmH & Co

Martin Schnee

finnCap

Mark Brewer

Goetz Partners

Martin Brunniger
 Brigitte de Lima
 Melina Reisenberg
 Chris Redhead

Goldman Sachs

Krishna-Chaitanya Arikatla
 Tina Dimitrova
 Veronika Dubajova
 Divya Harikesh
 Keyur Parekh
 Graig Suvannavejh
 Joanna Tucka
 (Mick Readey)

**Handelsbanken
Capital Markets**

Klaus Madsen
 Björn Olander
 Peter Sehested

Hardman and Co

Martin Hall
 Dorothea Hill
 Gregoire Pave

Helvea

Daniel Jelovcan
 Odile Rundquist
 Olav Zilian

HSBC

Steve McGarry
 Julie Mead
 Lucy Acton
 Murielle André-Pinard

ING

Giel-Jan Triest
 Sjoerd Ummels
 David Vagman

Investec

Cora McCallum
 Andrew Whitney

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
 (Marjan Daeipour)

Jyske Bank

Frank Andersen
 Peter Andersen

KBC Securities

Sandra Cauwenberghs
 Lenny Van Steenhuyse

Kempen & Co

Alexandru Cogut
 Anastasia Karpova
 Suzanne van Voorthuizen

Kepler Capital Markets

Mark Belsey
 Moritz Dullinger
 David Evans
 Maja Pataki
 Martin Voegtli
 Fabian Wenner

**Landesbank
Baden-Wuerttemberg**

Timo Kuerschner

Liberum Capital

Graham Doyle

Merck Finck & Co

Konrad Becker
 Carsten Kunold

**M.M. Warburg
Investment Research**

Ulrich Huwald

Morgan Stanley

Alex Gibson
 Michael Jungling
 Simon Mather

N+1 Singer

Chris Glasper
 Jens Lindqvist
 Edward Thomason
 Sahill Shan
 (Brough Ransom)

Natixis Beatrice

Muzard Grevet
 Philippe Lanone

New Street

Stuart Harris
Steve Putnam
(Richard Goldsborough)

NIBC

Dylan van Haaften
Anita Ye
Pau Vidal Tarruella

Nordea Markets

Patrik Ling
Hans Mahler
Michael Novod
Olle Sjolin

Nord/LB

Holger Fechner
Thorsten Strauss

Numis

Sally Taylor
Paul Cuddon
Stefan Hamill
(Ceri Morgan)

Oddo Securities

Christophe-Raphael Ganet
Sebastien Malafosse

Panmure Gordon

Mike Mitchell
Julie Simmonds
(David Cox)

Pareto Securities

Finlay Heppenstall
Ulrik Trattner

Peel Hunt

Miles Dixon
Anchal Verma
Amy Walker
(Catherine Isted)

**Portzamparc
Gestion S.A.**

Arnaud Guérin

RBC Capital Markets

Zoe Karamanoli
Nick Keher
Sebastian Sauter

Redburn

Frazer Hall
Anita Vasu

Rx Securities

Samir Devani
Joseph Hedden
Michael King

Sanford C Bernstein

Lisa Clive

Santander

Manfred Jakob
Patricia López del Río

SEB Enskilda

Lars Hevrenng
Henrik Simonsen
Peder Strand

Shore Capital

Adam Barker
Tara Raveendran

Société Générale

Patrick Jousseau
Delphine Le Louët
Justin Smith
(Erland Sternby)

Standard & Poors

Sho Matsubara
Jacob Thrane

Stifel

Christian Glennie
Max Herrmann
James Mainwaring
(Chris Eccles)

Swedbank

Johan Unnerus

Trinity Delta

Mick Cooper
Lala Gregorek
Franc Gregori

UBS

Ian Douglas-Pennant
Michael Leuchten
Jack Scannell
Sebastien Walker

**Westend Brokers
Research**

Claudia Lakatos

Zürcher Kantonalbank

Michael Nawrath

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

40+ events across the UK
760+ organisations
2,500+ delegates
5,000+ readership

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