Issue 4 | January 2015

A Biotech and Money Publication

Drugs&Dealers magazine

Industry insight, foresight and hindsight for life science executives

Leaders of the pack

The deal making issue

THE DRIVE BEHIND ASSET CENTRIC VEHICLES

How are trends towards asset focused drug development and financial de-risking helping develop an altogether healthier environment for early stage R&D?

WHAT PHARMA WANT (AND WHAT BIOTECH CAN OFFER)

Is there a disconnect between biotechs, VCs and Pharma in the current environment? What role can R&D externalisation play? How are companies positioning themselves for deals?

IS 2015 THE YEAR OF THE CROWD?

Hot on the heels of a record breaking £600k+ equity raise, we talk to Cell Therapy Ltd., Crowdcube and KPMG on how biotech can embrace all that equity crowdfunding offers.

CONTENTS

Click the headlines to go straight to that article

Address
Biotech and Money Ltd.,
40 Melton St.,
London, NW1 2FD
Tel: 0203 574 4619
Email: editorial or advertorial @biotechandmoney.com

NEW YEAR, NEW PROMISE. 2015: AN EXCITING PROPOSITION FOR LIFE SCIENCES.

Happy New Year and here's wishing you a prosperous start to your 2015.

Welcome to the January issue of Biotech and Money's Drugs & Dealers Magazine.

We're excited to bring you the first of this year's 6 bi-monthly issues. We've taken some time over the Christmas break to do some redesign on the Magazine and we hope you like the new look, the new formats and the new editorial elements that we'll be bringing to you in 2015.

We're excited to be delving into a brand new year of funding, investment, partnering and deal making and pulling out the greatest examples of success, determination and innovation from dozens of life science industry executives over the course of the next 12 months.

In this issue we tackle the topic of deal making and specifically focus in on asset centric deals, R&D externalisation and build to buy models, licencing, partnerships and exits. Plus we take a look at crowd funding at a time when 2015 may just be the year that biotech start to see it as a viable mainstream alternative to VC.

We've also brought in some key 'Save the Date' elements relating to up and coming funding and grant award competitions incase they weren't already in your diary.

In the coming editions we'll look to be adding regular features to featured editorial including polls and surveys. However if you'd like to see something specific in a future edition get in touch and let us know.

Regards
The Biotech and Money Team

ROUND 8 - BIOMEDICAL CATALYST

Early Stage Award:
Grants to evaluate the technical feasibility of an idea and establish proof of concept in a model system.

Registration closes 21/01/2015
Submission deadline 28/01/2015

Feasibility Study Award:
Grants enable the exploration and evaluation of the commercial potential of an early-stage scientific idea.

Registration closes 18/03/2015
Submission deadline 21/03/2015

MRC AND INDUSTRY ASSET SHARING INITIATIVE

Categories: Molecular & cellular medicine, Infections & immunity, Population & systems medicine, Neuroscience, mental and global health.

Open date: 07/01/2015
Closing date: 26/02/2015

Source: www.longitudeprize.org

LONGITUDE PRIZE REGISTRATION OPENS FOR ENTRANTS

Longitude Prize 2014 is a challenge with a £10 million prize fund to help solve the problem of global antibiotic resistance. It is being run by Nesta, supported by Innovate UK, the new name for the Technology Strategy Board, as funding partner.

The challenge for Longitude Prize 2014 is to create a cheap, accurate, rapid and easy-to-use point of care test kit for bacterial infections.

The Longitude Prize will reward a competitor that can develop a transformative point-of-care diagnostic test that will conserve antibiotics for future generations and revolutionise the delivery of global healthcare. The test must be accurate, rapid, affordable, easy-to-use and available to anyone, anywhere in the world. It will identify when antibiotics are needed and, if they are, which ones to use.

Registration opened 18 November 2014 and the first entry deadline will close 31 May 2015.

For full details visit the Longtitude Prize website at **www.longitudeprize.org**

AUTUMN STATEMENT

On 3rd December, the **Chancellor of the Exchequer** gave his annual Autumn Statement to Parliament. This contained a number of measures relevant to UK life sciences. He announced continued investment of nearly £6bn in the UK's science research infrastructure - including £20m for an Innovation Hub for Ageing Sciences in Newcastle and £28m for a Formulation Centre. The 'above the line' R&D tax credit rates were also increased from 10% to 11% and for the SME scheme, rates increased from 225% to 230%.

INNOVATIVE MEDICINES & MEDTECH REVIEW

On the 20th November, **George Freeman MP**, announced the Innovative Medicines and Medtech Review to consider future pathways for the development, assessment, and adoption of innovative medicines and medical technology. The review will examine how precision medicine and digital health technology could enable 21st Century products to be brought from the lab to patients and their families as quickly and safely as possible and used within the NHS. The review will start early 2015.

UK'S APPROACH TO LIFE SCIENCE STRATEGY HELPS FUNDS FLOW

During the same speech on November 20th, George Freeman MP announced that the UK has attracted over £3.5 billion of private sector investment in life sciences sector since the Strategy for UK Life Sciences was launched in 2011. It demonstrates the UK's global appeal as an investment destination has been transformed over these past three years.

BD (Becton, Dickinson and Company), a global medical technology company, is investing £21 million to build a next generation blood separation tube production line in Plymouth. The investment is being supported by a Regional Growth Fund grant of £2.48 million.

Merck & Co. unveils plans to spend a minimum of £42m in UK life sciences over the next three years. The US major Pharma has chosen London as the location for a new licencing hub whilst also expanding research at its Hertfordshire headquarters and funding research in oncology and dementia.

BIOMEDICAL CATALYST

In November, a further £31m of support for innovative companies and academic led projects in the life sciences sector was awarded to Round 5 and 6 early and late stage projects by the **Biomedical Catalyst (BMC).**

29 companies and universities from London to Edinburgh now have funding to tackle healthcare challenges ranging from cancer to childbirth complications. It brings total investment via the Biomedical Catalyst to over £200m since it was launched in 2012. It has leveraged a further £100 million in industry co-commitment and supported innovation from some 250 SME companies and universities.

IPSOS MORI

Innovate UK (formerly the Technology Strategy Board) and the **Medical Research Council** have appointed Ipsos MORI to conduct an independent study to evaluate the extent to which the goals of the Biomedical Catalyst have been achieved, including the economic and broader societal impacts that accrue from the projects that have been awarded funding under the scheme.

Findings from applicants (both successful and unsuccessful) will be made available in mid-2015.

MRC FUNDING AVAILABLE FOR WORLD'S LARGEST COLLECTION OF DEPRIORITISED PHARMA COMPOUNDS

As of December, UK scientists can now apply for MRC funding to use in conjunction with any of the 68 deprioritised pharma compounds made available to academic researchers through a partnership first announced in July, between the **Medical Research Council (MRC)** and seven global drug companies.

Both clinical and preclinical compounds feature in the extensive collection, which includes molecules developed initially for a wide range of diseases.

The funding can be used in medical research studies to investigate the underlying mechanics of disease, which may lead to the development of more effective treatments for a range of conditions.

AstraZeneca, GlaxoSmithKline, Janssen Research & Development LLC, Lilly, Pfizer, Takeda and **UCB** have each offered up a number of their deprioritised molecules as part of the partnership.

Researchers can apply to use the compounds via the MRC's normal response-mode funding mechanism. The MRC will independently judge the scientific quality of the applications and award funding accordingly.

As the scheme progresses it's hoped more companies and compounds will be added.

The full details of the **MRC-Industry Asset Sharing initiative** can be found by visiting http://www.mrc.ac.uk/funding/browse/mrc-industry-asset-sharing-initiative/

David Pinniger, Fund Manager, Polar Capital Biotechnology Fund

David joined Polar Capital in August 2013 as a Fund Manager within the healthcare team. He has over 14 years' investment experience in the healthcare sector. Prior to joining Polar Capital, for five years David was Portfolio Manager of the International Biotechnology Trust at SV Life Sciences.

@davidpinniger

POLAR CAPITAL

Polar Capital is a specialist investment management company offering professional and institutional investors a range of fundamentally research-driven funds diversified by asset class, geographical and sectoral specialisation. Since its foundation in 2001, the Firm has steadily grown and currently supports 11 investment teams managing 22 funds and six managed accounts across a range of long-only and alternative products, with combined AUM of US$13.4 billion.

GLOBAL BIOTECH AND THE NEW INNOVATION CYCLE

B&M: David, talk me through the healthcare team? What sets it apart?

DP: The healthcare team consists of 3 fund managers and 2 analysts. Between us we run 4 funds. The flagship fund that we run here in the healthcare team is called the Healthcare Opportunities Fund that was set up in 2007 by Daniel Mahony and Gareth Powell who were the founders of the healthcare franchise here at Polar. That fund is now over US$900 million in size, is a long-only portfolio investing throughout the global healthcare eco-system and it's got a real growth bias. The fund I'm responsible for is the Biotechnology Fund and we launched this just over a year ago. Again, it's a long-only fund and focuses on investing in publically listed biotech companies globally.

B&M: So the biotech fund was launched about a year ago. What was the driving force behind that?

DP: The fundamental reason for doing it is that we believe the biotech industry is undergoing a phenomenal renaissance at the moment. We talk a lot here about a major new product cycle that's beginning to emerge based on the proliferation of new tools and technologies, and that finally the sector is beginning to deliver on the great promise that was offered back in 1999-2000. We have great conviction in the durability of this new product cycle, so we felt it was a good time to launch the fund. We thought that we could do something a little bit different versus some of the other funds out there, thinking differently about portfolio construction, about how you actively manage risk within portfolios.

B&M: How is your approach different to other biotech funds?

DP: With this fund, we're going to keep it relatively small, dynamic and nimble. If you look at some of the very large funds out there they are beginning to experience challenges with respect of liquidity and getting in and out of the some of the smaller biotechnology companies where we think as specialists you should be looking in order to extract as much value as possible. So we're going to cap this fund below $500 million so that we have the liquidity going after the smaller cap names. We'll keep it a reasonably concentrated portfolio as well.

B&M: What do you think are the key trends in biotech that you see currently being played out?

DP: We feel we're commencing this

R&D productivity is going up and the progress that we're making in areas where there's a real medical need just creates huge commercial opportunity. We're beginning to see the creation of new therapeutic mega-categories.

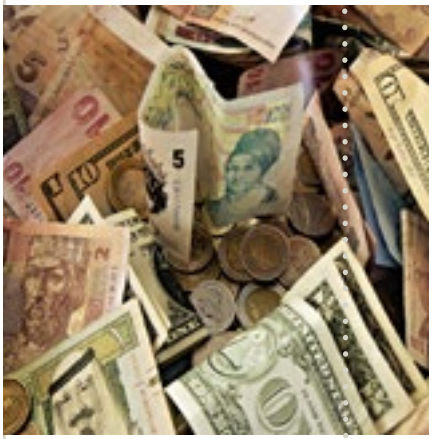
new product cycle that's being driven by the proliferation of tools and technologies that we've seen over the past few years. For most of the drug discovery and development industry's history, just three technology platforms have been generating all the drugs out there: small molecule chemistry, protein engineering technology and then antibody technology which has come of age commercially over the past 10 to 15 years. However, also over the past 10 or 15 years we've seen this proliferation of new technology platforms that are effectively enabling new ways to modulate biology and tweak it and hopefully to improve health outcomes in a variety of different diseases. You've got next generation antibody technology, antibody drug conjugates, you've got specific T-cell engagers, and of course cancer immunotherapy is a hot area right now. We are seeing big progress being made in the field of gene therapy and stem cell technology and there's a definite sense that these technologies are beginning to come of age.

B&M: What do you think the implications of that are?

DP: R&D productivity is going up and the progress that we're making in areas where there's a real medical need just creates huge commercial opportunity for some of these companies, particularly in cancer immunotherapy and gene therapies. We're beginning to see the creation of new therapeutic mega-categories. For example, in recent years we've seen big progress being made with hepatitis C infection, and Gilead's drug Sovaldi has become perhaps the biggest drug of all time within just 12 months of launch. Industry is making great progress in the fields of cancer immunotherapy, liver disease, multiple sclerosis, and relatively rare genetic diseases such as hemophilia, cystic fibrosis and the range of lysosomal storage diseases. There's real progress being made in all of these areas of medicine.

B&M: Let's talk about M&A. We know that this year it's been a major theme in the healthcare sector. What conclusions can you draw from that?

DP: If you wind the clock back to 1999-2000 there was this general sense among Big Pharma that you could industrialise the process of invention and innovation in drug discovery and development and that would result in an avalanche of new drugs coming through. That just didn't happen, and the whole approach just failed to deliver. What very large pharmaceutical companies came to realise through the last decade is that innovation works best in small scale environments where you've got motivated entrepreneurial individuals who are really incentivised to be smart, to work hard and to think differently, and importantly, to use capital efficiently. Whilst Big Pharma was still working this out, Biotech companies were already there – and beginning to deliver on phenomenal new science and ultimately new product opportunities, particularly in areas of specialty medicine where they could command pricing power and become profitable very quickly. As Big Pharma realised that its industrialised approach wasn't working at the same time it was grappling with its weight of patent expirations, it began to move to more of an outsourced business model for innovation – more "search and development" instead of "research and development" – accessing the innovation of smaller more nimble biotech companies via a big increase in deal-making activity – whether licencing technology rights, partnering on developing new drugs or outright acquisitions. Companies also began to refocus their efforts in areas where they had relative competitive strength. This move to more of an "externalised"


Valuation, just like cash, is King.

model of R&D has driven M&A and that's a theme that is now probably entrenched.

B&M: Do you think it's a good time to be a small cap in biotech?

DP: Definitely. Big Pharma is still hungry for innovation and the capital markets are healthy in terms of getting access to funding for the development of early stage technologies and pushing forward exciting new drug candidates. These technology platforms are coming of age. Being a small cap company and being an investor in a small cap biotech company is a good place to be right now.

B&M: There was talk of a biotech bubble some time ago. Are valuations of biotech a concern?

DP: Earlier this year the biotech cynics were saying that with the strong returns seen for the sector recently that we're back in bubble territory again. But that's just not supported by valuations, which ultimately is what you have to look at when you're looking at bubbles. You can divide the sector into two groups, the profitable late stage companies and the unprofitable early stage companies. For the profitable stage companies, price earnings multiples compressed from 1999-2000 to late 2011, there's been a bit of a rebound since but nowhere near back to the levels we saw in 1999-2000. The phenomenal share price performance of the larger cap companies, really is just reflecting the market catching up with the profound change in fundamentals that we've seen in terms of reenergised growth prospects for these companies. If you look at PE multiples, 1 year forward at a slight premium to the broader market and if you roll it forward 2 or 3 years they are at a discount. There's absolutely no sense amongst the larger leaders that we are in a bubble, it is just nonsense. If you look at the smaller cap companies, the IPO window has clearly opened which to some external commentators suggests that investors may be overly excited about these early stage companies. However, if you look at the valuations these companies came to market at, they were pretty reasonable versus history. The amount of capital these companies have been raising is not outrageous and the performance of the stocks in the aftermarket actually over the course of 2014 has been pretty poor - small caps as a group haven't really performed – reflecting a broader stock market trend.

B&M: Of all of the trends we are witnessing, what do you think is the greatest opportunity for biotechs?

DP: Biotechs are in a great position right now. For the past few years we've had a very constructive regulatory environment. Regulators are working with industry to expedite the process of drug discovery and development and to bring through really great new drugs in an efficient way. There's a real commitment from the regulatory agencies to look at what industry is producing in terms of new drug candidates and to commit the resources to analyse those and to hopefully bring new drugs to market and ultimately to patients. Biotech companies need to play their part as well by running well designed clinical studies using high quality drug candidates, but I think that is what has happened over the past couple of years. The whole environment for developing drugs has improved and become much more positive in character and nature with all the constituents playing their part.

B&M: Is that true on both sides of the Atlantic?

DP: To a certain extent, the industry in Europe is really only just hamstrung by a capital markets

Biotechs are in a great position right now. For the past few years we've had a very constructive regulatory environment. Regulators are working with industry to expedite the process of drug discovery and development and to bring through really great new drugs in an efficient way.

environment that doesn't quite have the same structure or risk tolerant mind-set as its US counterpart.

B&M: What is the greatest concern for biotechs in your opinion?

DP: For me, there are a few things. Although the biotech sector has come a long way in the past couple of years in terms of its ability to self-sustain itself, early stage biotech companies are still dependent on serial injections of equity capital, and the past few years the capital markets have been relatively accommodating. If we get some kind of reversal of market risk appetite and if we have a big market shock like we did with the global financial crisis that well of risk capital will dry up. The second risk I see is the regulators, I mentioned they've become more constructive over the past few years. If for any reason that approach reverses that's a problem for the industry. The third thing that people focus on is that biotech drugs on the whole are relatively expensive and we know there are big pressures on healthcare systems throughout the world to deliver better healthcare in more constrained economic circumstances.

B&M: Do you mean from a public concern point of view?

DP: Yes, it's remarkable how bad the image of the pharmaceutical industry is in public consciousness and you can argue that the tobacco industry has got a better image than the pharmaceutical industry, which is just crazy! That rubs off slightly on biotech companies and when you have biotech companies like Alexion with their drug Soliris which is priced at US$500,000 per patient per year, and Vertex with their cystic fibrosis drug at US$300,000 per patient per year, that price point pricks people's sense of fair play. What's interesting is that in both these cases the value of these medicines to patients and healthcare providers more than justifies the high price – that's the point that critics of the industry might miss, or perhaps just choose to ignore.

B&M: What is your key message to investors and how are you convincing them to invest?

DP: The big thing potential investors have to overcome is how well the sector has performed over the past couple of years. They look at a chart of the returns of the sector indices and get vertigo - after more than a decade of trading sideways the sector appears to have gone vertical. Investors look at that and the knee-jerk response is to believe the sector is in a bubble of irrational exuberance. But then you take a step back and explain to them exactly what is going on with the fundamentals for the sector and what actually that performance of the index is reflecting, and it all makes much more sense. You show them the valuations are still very reasonable compared to what's available elsewhere in the market and then the conversation moves onto thinking about how much is still to come. Then you move the dialogue onto the improvements in R&D productivity that we're seeing as a result of this proliferation of tools and technologies that tease apart the complexities of health and disease. If you accept there's some sustainability to this, that it's a multi-year technology cycle that's underway, then the conversation turns to how best to invest in this. For us as professional fund managers it's about running a properly diversified and actively risk managed portfolio in biotechnology companies at all stages of development and across a broad range of research areas. Absolutely key is to avoid the fads and the failures that tend to characterise investment in companies pursuing medical technologies with large potential, but also relatively high risk.

WHAT'S THE FUTURE?

We've now got 4 healthcare fund products that offer a nice spread of different strategies, but they're not going to be the only 4 we ever do. The priority in the near-term is getting the Biotech Fund up and running, up to scale and generating the strong returns that our investors expect, and then we'll see where we go from there. ■

Dr Sam Williams,
Chief Executive Officer,
Modern Biosciences

Sam has been CEO of Modern Biosciences since 2007, prior to which he was a top-ranked equity analyst at Lehman Brothers. He is a non-executive director of C4X Discovery Holdings plc, a board member of the UK BioIndustry Association (BIA) and oversees IP Group plc's biotech portfolio.

@biotech_CEO
@modernbio

modern biosciences

Modern Biosciences is a drug development company that sources late-stage discovery projects from academia and spin-out companies, conducts early proof-of-principle clinical studies and subsequently out-licences the resulting programs to the pharmaceutical and biotechnology industries.

R&D ALLIANCE, OPTION & LICENCE AGREEMENTS AND BMC FUNDING

On the 27th November, Modern Biosciences (MBS) announced a £176 million option and licencing deal with Janssen Biotech, a division of Johnson and Johnson, relating to its novel rheumatoid arthritis (RA) drugs. This was a watershed moment for MBS in terms of securing the funding required to take its lead programme into the clinic as well as finding the right collaborator to take it to market.

RA is a severe, crippling inflammatory disease which causes progressive joint and bone erosion and eventual disability.

B&M: Sam, are you able to give me some background to origins of your company and your company elevator pitch. What are the main activities that Modern Biosciences carries out?

SW: MBS is a two-man company that runs a virtual model of drug development, with all experimental work outsourced to contractors. Our programmes largely originate from academia, such as the programme that is the subject of the collaboration we just announced with Johnson & Johnson Innovation and Janssen. In recent years, this programme has been our main focus, though we continuously review new IP from academia. The compounds work by reducing inflammation, much as the current crop of branded drugs do (such as the biologic anti-TNFs like Enbrel and Humira) but they also have a directly protective effect on bone, which is unique. Therefore, whereas the current drugs can prevent further damage to the joints, ours may be able to reverse damage. This would have a profound impact in RA, where joint destruction is one of the most debilitating facets of the disease and over 70% of patients suffer from some degree of osteoporosis.

B&M: What is the market potential of these compounds in terms of the wider RA market?

SW: As always, it's hard to predict, but if you look at Humira, for example, it's doing about $10bn per annum. A small-molecule, once-daily pill with a superior impact on bone might be expected to have a decent share of those sales. However, there's a long way to go and true market potential depends on what the late-stage clinical data look like. At the pre-clinical stage, you're always talking in theoretical, 'what-if', terms. All we can really say is that, at the moment, we have some very interesting signs.

Sam Williams, CEO, and Lisa Patel, CSO at the desk in London that represents MBS' laboratories, facilities and headquarters.

When you think you're going to close a deal in 6 months, even with the best intentions in the world, add another 3 and then double the overall time for good measure!

B&M: If we come onto the R&D alliance and global option and licence agreement with Janssen Biotech Inc. First of all congratulations. Could you briefly explain how this arrangement came about and the key terms of this deal?

SW: Thanks. We met the people from the JNJ Innovation Centre in 2013. At that stage, we didn't know the precise molecular target for our compounds and, therefore, the programme didn't represent the easiest sell when it came to talking to pharma. However, in the JNJ team, we found a group of people who were driven by the science rather than a BD box-ticking process. We spent over a year getting familiar with each other until they decided they were comfortable with the programme and we got comfortable that they were the right people to help us take it forward. We couldn't ask for a better partner than Janssen/JNJ, given the company's proven expertise in inflammation and rheumatology. Under the terms of the exclusive agreement, MBS will receive an up-front payment and is eligible to receive development, regulatory and commercialisation milestone payments up to a potential total of £176 million. In addition, MBS will receive royalties on future sales of any products that may result. I can't go into any more detail on the terms of the deal beyond what's in the press release, but it is a good deal for a pre-clinical programme.

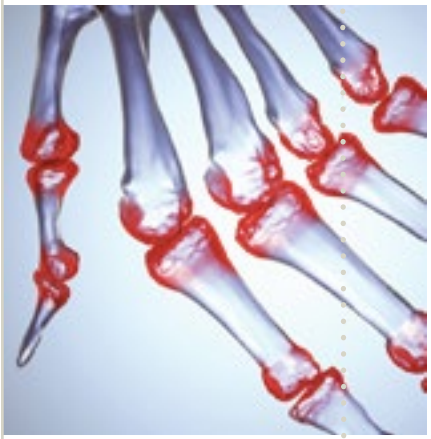
B&M: Could you sum up what were the success factors to securing this R&D alliance and global option and licence agreement? What were Janssen looking for in this arrangement? What did they need to see from you and vice-versa?

SW: I think I've covered that above but I think it helped that the JNJ Innovation Centre had been set up to look for exactly this sort of opportunity i.e. relatively early with innovative and, possibly, slightly unusual science.

B&M: What lessons have been learned from this process?

SW: When you think you're going to close a deal in 6 months, even with the best intentions in the world, add another 3 and then double the overall time for good measure! But seriously, if I learned anything, it is to get your data lined up. We meet a lot of companies who claim they have a candidate drug when in fact they have nothing like that and possibly more a lead or even a hit. Pharma

Lisa Patel, CSO, Modern Biosciences



An autoimmune disorder, rheumatoid arthritis occurs when your immune system mistakenly attacks your own body's tissues.

has high standards, particularly a company like JNJ, and we learned to always aim higher when trying to engage these people.

B&M: What are your upcoming critical milestones or timescales in relation to the Janssen collaboration?

SW: The acceptance of our Phase 1 filing next year and proof of acceptable safety and pharmacokinetics in man. Some people may think that's a trivial thing, but it's a major milestone given the high clinical failure rate of drugs based on tolerability alone.

B&M: What are the challenges that you foresee to achieving the milestones or goals that you want to see in immediate the future?

SW: We are going after a new target, so there's always additional risk associated with a programme like ours compared to, say, the 7th or 8th TNF inhibitor.

B&M: You also recently secured a £2.4m grant from Innovate UK's Biomedical Catalyst, the 2nd of such awards. Are you able to briefly summarise where you see this recent award being allocated?

SW: The award to MBS will help fund the clinical development of a candidate molecule through Phase 1 clinical studies and provide evidence from patients for the drug's efficacy and safety. It will make a vital contribution to the Phase 1 programme which remains very much in our hands. This is our second BMC award for this programme and we are incredibly grateful to Innovate UK, the government's innovation agency. Our first Biomedical Catalyst award allowed us to take our rheumatoid arthritis programme to a point at which we can enter clinical studies, and this further award will now enable us to demonstrate the utility of the drugs in patients. Without this funding, our programme would never have progressed to this critical stage. Without the BMC, the programme would never have got this far.

Without this funding, our programme would never have progressed to this critical stage. Without the BMC, the programme would never have got this far.

B&M: What does the future look like for Modern Biosciences? What can we expect to see beyond the existing compounds? How does IP Group play a role in this?

SW: IP Group has been our backer since inception, both financially and in terms of back-office and strategic support, and so has been critical to us getting here. We are grateful for that. We are now able to look more seriously at licencing opportunities from a range of sources, not only because we have the additional resources, but we now have a track record too. After all, I'm not aware of many other academic projects that have been taken on by a single-asset development company to the point of clinical studies and a partnership deal with pharma, at least not in the UK. So we aim to expand the effort and build from this one out.

B&M: To finish on, as the CEO what really excites you about the potential of Modern Biosciences and its approach to drug development?

SW: The fact that we were able to do what we did in RA with one full-time employee working from a desk in London on a shoestring budget is very satisfying. When people from industry see what we've done, they're astounded. That's largely down to our CSO, Lisa Patel, who I don't think has had a holiday in four years. However, we're not getting carried away – this is just the first step in getting a product into the clinic and eventually, we hope, onto the market and into patients. The true mark of success will be if a drug from this programme ends up benefitting patients and we've a long way to go yet. ■

CRT'S STATESIDE LICENCING AND PARTNERING ACTIVITY

Dr Larry Steranka, Managing Director, **CRT Inc.**

Dr Steranka established CRT Inc. in 2006. He was previously the Executive Director of Brandeis University's Office of Technology Licencing and prior to that, an Associate Director for Licencing at Harvard University's Office of Technology and Trademark Licencing. Dr Steranka has also held senior positions within major pharmaceutical and biotechnology companies.

B&M: What is CRT Inc.? Why was it set up, what are your goals?

LS: A brief overview of our parent organisations will help to answer that question. Cancer Research Technology (CRT) is the development and commercialisation arm of the charity Cancer Research UK. CRT aims to develop new discoveries in cancer research for the benefit of cancer patients and we have exclusive rights to IP derived from Cancer Research UK funded science.

CRT's role is to induce commercial investment by protecting and licencing this IP and, when discoveries are too early-stage to attract commercial investment, to advance their development to the point where biopharmaceutical companies will take on the product.

Cancer Research Technology Inc. (CRT Inc.) is the US extension of CRT's Business Development team. Having feet on the ground in the US helps us to more effectively engage with pharmaceutical and biotech companies in the USA. We're based in Cambridge, Massachusetts, a major hub for life-science organisations and a centre of academic excellence; the Boston/Cambridge area has arguably the densest concentration of biopharma companies in the world. This location facilitates interacting with companies across the US, including up and down the east coast, the mid-west, and of course the west coast.

There are three of us at CRT Inc., myself as MD along with a senior business development professional and an office manager.

Our goals are two-fold: to make US companies aware of Cancer Research UK and CRT, and to allow us to understand companies' licencing and partnering interests in oncology. We achieve these goals by forming personal relationships and ongoing dialogue with counterparts in companies, whether in BD or research. We're responsible for building relationships and brokering discussions with US companies and we endeavour to know what sort of opportunities each might be interested in seeing. We don't thoughtlessly send marketing flyers to BD inboxes – we try to know what to send to whom.

CRT has expanded this approach outside of the US through the formation of a team we call the Key Account team. Key Accounts are companies that are either existing or prospective partners, if the right overlap of interests and partnership opportunities arise. The personal aspect is key here. We aim to get to know a person(s) within the company, someone with whom a trust-based relationship is developed. The basic premise is that people do business with people they know and trust.

> ***We've significantly increased the number of companies we're interacting with and, more importantly, our level of strategic understanding around these companies.***

B&M: How does CRT Inc. fit in the broader biotech landscape in the US?

LS: We're one of many NFPs looking to partner with biopharma companies. As an ex-US academic technology transfer professional, I am comfortable saying that we all – meaning the TT functions of all universities and other non-profit

Dr Larry Steranka,
Managing Director, **CRT Inc.**

research organisations – have basically the same remit, which is to induce commercial investment in the development of products for patients through licencing and partnering.

B&M: To what extent do you feel you have achieved your goals so far? Can you point to any key success stories?

LS: Since CRT Inc. was established we've significantly increased the number of companies we're interacting with and, more importantly, our level of strategic understanding around these companies. For all of the big pharma companies, as well as a significant number of small and medium sized companies, we've successfully engaged with the appropriate decision makers and understand the type of opportunities they are looking for.

A particularly illustrative success story is CRT's relationship with Boston-based FORMA Therapeutics. Back in July 2013, we announced a research initiative which pairs FORMA's drug discovery capabilities with our expertise in translating academic discoveries through our Discovery Laboratories (CRT-DL) and principal investigators from the Cancer Research UK academic network, to discover tools, technologies and therapeutic drug candidates against a variety of protein homeostasis regulators called deubiquitinating enzymes (DUBs).

CRT Inc. initially built a relationship with FORMA's CEO which developed over several years and numerous interactions – made possible by CRT Inc.'s location in the Boston area. During this time, together with CRT's CSO, we were able to demonstrate that Cancer Research UK was the best academic organisation to enable FORMA to deliver on its strategy of creating a package of multiple novel targets in an area/pathway. As we got deeper into discussions, we identified DUBs as an area of mutual interest and started exploring options for working together which ultimately led to the agreement now in place.

B&M: What is your primary area of focus now? What are your core objectives in the short and medium term?

LS: Cancer Research UK has set out ambitious targets, under its new research strategy, to see 3 in 4 patients surviving their cancer within the next 20 years. In addition to increasing overall spend – including further investment in biotherapeutics, translational research, personalised medicine and cancers of unmet need – Cancer Research UK is seeking to develop effective partnerships, to encourage collaborative approaches and foster more efficient development of products for cancer patients. Our primary focus is to support Cancer Research UK in the implementation of this strategy.

B&M: What are the principle obstacles that stand in the way of you achieving your objectives?

LS: Cancer Research UK is a complex organisation

and funds an extremely broad spectrum of science. We work on all cancers, unlike specific cancer-focused charities. There are therefore challenges in communicating this to new audiences – particularly in the US where there isn't a like-for-like organisation.

We also have to deal with the pace of change within the biopharma industry. There is much organisational change going on, as companies try to improve R&D efficiency and streamline their activities and portfolios. Keeping track of these changes, which often including personnel changes, and adapting accordingly is a challenge.

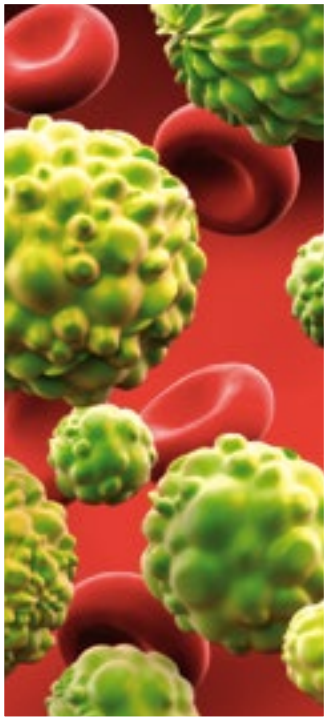
Finally, there is what I refer to as the 'Kendall Square Challenge' – we're promoting Cancer Research UK funded science and investigators against a backdrop of Harvard, MIT, the Broad Institute etc. One way of characterising what CRT Inc. does is to say that we stand in the middle of Kendall Square and wave the Union Jack.

B&M: What is CRT's approach to licencing and partnering in the US? Is the approach different in the US to the UK? If so, how?

LS: There are several noticeable differences between US technology transfer offices and CRT. Firstly, all of CRT's Business Development Managers have a scientific background, qualified to PhD level, and many have industry experience. This creates a level of specialisation that isn't generally possible to achieve.

Through Cancer Research UK's network of Drug Discovery Units, as well as CRT-DL, we have the ability to do translational research. Therefore our offering is more like a biotech partner.

And, as previously mentioned, we understand our customers.



B&M: What comparisons can be drawn between partnering in the US versus the UK and Europe? What can UK biotech learn from your experiences in the US?

LS: I think we need to stop asking this question. Large biopharma companies operate on a multinational level so it is difficult to make any particular differentiations. There is more of a notable difference between US vs. UK start-up companies; in the US high profile start-up companies can command $40-70m, significantly more than you see in the UK.

B&M: What makes you an attractive partner?

LS: It's our reach into academic labs. CRT provides access to the whole of the Cancer Research UK scientific network, and the $500m of science it funds annually, through a single portal. As previously mentioned, we also have the infrastructure in place to undertake translational research and early-phase drug development through the Cancer Research UK Centre for Drug Development (CDD). This capability means we can offer initiatives such as our Clinical Development Partnerships (CDP) scheme, where we sponsor, manage and fund early-stage clinical trials of companies' de-prioritised or under-resourced anti-cancer agents

CRT is unique in having the ability to bring together groups of academics from across the Cancer Research UK network and consolidate IP. We have established relationships with each of the universities at which the PIs are funded, with Business Development Managers already interacting with the technology transfer offices. This all makes it easier for industry partners to 'hit the ground running' when they work with us.

B&M: Are there any issues that concern you at the moment?

LS: For the industry, patients, and third-party payers, I think it is the pricing of drugs, which can be very high and sometimes possibly not in line withthe benefit they deliver. There is also the complexity of the disease. We now know that tumours carry a large number of genomic changes, with genomic variation even within individual tumours.

Against that background, it's a challenge to know which direction to go in, in terms of drug discovery research and treatment. Also, cancers are very good at finding ways around targeted therapies; resistance development is the rule not the exception.

B&M: What are you most excited about right now?

LS: On the flip side of my previous answer, we now understand much more about the disease, which carries the very real promise of more specific, targeted, even personalised drug treatments. And recent advances suggest that altering the immune system's reaction to cancer may lead to treatments for a wide range of cancer types. ■

Kevin Johnson,
Partner,
Index Ventures

Kevin has been working with Index since 2003. He focuses on life sciences, especially drug development companies, and including Acutus Inc., B3NGF, Levicept Ltd and PanGenetics (acquired by Abbott). Prior to joining Index, Kevin was CEO of PanGenetics, a Netherlands-based antibody development company and Index investment.

@kevinATindex

Index Ventures

We back the best and most ambitious entrepreneurs and help them make their ideas real and lasting. The entrepreneurs we team up with were born to build their businesses - it is their life's mission. Working side-by-side with these visionaries makes us incredibly optimistic about the future.

One asset to rule them all

KILLER EXPERIMENTS AND KEYS TO A SUCCESSFUL DEAL

B&M: Kevin, could you tell me what is Index Ventures, what makes it different and what is you particular role here?

KJ: Index is one of the handful of genuinely early stage VCs in Europe. A USP is that we're pretty experimental; we don't assume that what we're doing now is best and we're always looking for where we can change the game. One of the things we're known for is pioneering an asset centric approach, where skeleton crews and outsourcing as much as possible is the norm, almost 10 years ago.

B&M: What do you think is so special about the asset centric approach?

KJ: There are a number of things that make it a good answer for some firms. Having a very small mobile entity with everything outsourced means that delays don't cost you a fortune. If you have to pivot then the consequences aren't as bad. Most of the cash is variable rather than fixed and that means that you have considerable choice. You can go to the best in the world at doing a particular procedure rather than having to explain why you're not using your own internal resource, for example, and you can probably do so more cheaply. It's also much easier to make a kill decision with this approach, as the consequences are less heavy. The programme has to be awesome. If you're selling a project into a pharmaceutical company or a big biotech, the burden of proof is much higher. There's less given on trust if it's come from the outside so the hallmark of projects that you can transact on is that they've got to be awesome in some way. If there's a handful of you, you know this project has to be and continue to look awesome and if it doesn't then I'd rather not waste any more time on it. By following an asset centric approach, it's easier to be ruthless about the project because to be frank, there is a vastly greater number of projects we could work on than those we're physically able to work on. It's an evergreen source. The limiting factor for us is not cash; it's experienced hands to turn over these projects. So I would much rather kill the thing early than struggle on with it in the hopes you might be able to resuscitate it. If you're starting to think like that it's time to cut the rope. There are a whole host of reasons why. Another reason is that it is simply more fun! When working with large numbers of people it tends to be quite difficult to get things done because everybody's got an opinion but if there's only a couple of you, you can resolve issues quite quickly.

If you look at what the big companies do, they tend to be much better at taking on something that's got a little bit of development behind it and then moving that forward simply because it's a much clearer investment case.

B&M: What advantages or disadvantages do you think the asset centric approach has in terms of the exit strategy?

KJ: If it works, all stakeholders stand to make a lot of money out of it! From an exit perspective, I believe, as said by my partner Francesco here some time ago, that pharma wants projects - they don't want people as such. Generally the one thing pharma has is people and infrastructure. What it's more likely to be lacking are good projects to exploit those people and infrastructure. That's our job and it's the early stage stuff where we can add some value. The problem, my other partner David Grainger highlights, is that we're working in a 'low validity' environment. What you don't know vastly outweighs what you do know and so you have to come to a judgement call on these things. In reality you can get the best brains in the world but they're still working on the same data set and it's still an insufficiently complex data set that you can actually start to make something of it. The chances are you know nothing when you start one of these projects and you've got to take it on trust that there is something worth working on here. We can do that because it's a very small number of people convinced that this is worth a punt. If you're in a big organisation you've got a lot more people to convince and so it is inevitably much harder. We can pick up and recognise these early stage programmes, take away a lot of the early stage risk, trying to clarify what the product actually is, what it could be and what it could look like and at that point you've got a much easier case to convince a large number of people that this project is worth investing in and so it's more palatable. If you look at what the big companies do, they tend to be much better at taking on something that's got a little bit of development behind it and then moving that forward simply because it's a much clearer investment case. We're quite used to investment cases where it isn't clear that there is anything here but we're willing to give it a go.

B&M: We're seeing trends where exits are now looking a lot more like licencing deals. What do you think are the problems that are associated with that?

KJ: It depends on what is the quantum of the upfront and what is the quantum of any earn outs that are involved. You can moan about it but it's our job to adapt to the environment. If that's the sort of deal that's on offer then we've got to make a judgement call on whether that makes a good case. Would the upfront on its own make it worth doing that deal? That's the first question you'd ask. The big problem with earn outs for a VC, less so for founders and management, is the time to trigger those milestones because most VCs have 10 year funds so there is a time limit for how long our holding period can be. Having said that, there are other organisations out there that can take these things so we can sell on our interest to third parties in return for a capital sum and that's probably how we would deal with it. The upfront itself would make it a worthwhile return on our investment and then any earn outs if they're really far out and then basically we'd look to trade those on. For founders and management it's generally not a problem, they think of it a bit like a stock that's sitting there that might come good some time.

B&M: What is your impression of the current market for M&A at the moment? Who is best placed to take advantage?

KJ: I think the M&A environment has taken a little bit of a back seat. If you look there's actually quite a lot of M&A that's going on, but it's been overshadowed by the IPO activity. Fundamentally the needs are still

strong. The word that's coming out all the time now is innovation; it never used to emerge in any conversation 10 years ago and now all of sudden it's in every conversation so there's clearly a trend there. That's largely come from a squeeze on reimbursement so the bar ratchets up all the time regardless of what anybody has. There are occasionally new dawns but generally the bar goes up. That's taken out a lot of the activity in marginal improvements. You've really got to swing for the fences now and the challenge for those who can adapt to it is how to make that pay. Effectively we're doing a lot of mad stuff now that we'd never have done 10 years ago because we didn't need to. There's some really fairly whacky ideas that we're backing now, but that fits well with our being able to kill it environment. We've adapted to that environment quite well.

B&M: Do you think the industry as a whole is making that adaption?

KJ: It's a harder business to make money in the high innovation side because innovation generally means a bit whacky and that then implies that it's got quite a lot of risk in it and the chances are it won't work. This is where we came up with the notion of the killer experiment, where the default is to kill the thing, not to continue with them. We run serial killer experiments where if we can't kill them at the first experiment, and it still looks good then we'll arrange another set of trials and if we can't kill it there, we keep doing it. That's all we can do with these early stage, highly innovative projects where what you know is dwarfed by what you don't know.

We run serial killer experiments where if we can't kill them at the first experiment, and it still looks good then we'll arrange another set of trials and if we can't kill it there, we keep doing it.

B&M: Is this an approach that really is unique to Index or are there other VCs that do this?

KJ: I'm sure there are other VCs that do it. I know others won't call it that, but they'll embrace the notion of that culture of killing off the losers if you can come up with a good set of criteria.

B&M: Focusing back on M&A again and transactions, what in your view are the key success factors to a deal?

KJ: You've done the right experiments and they've given you something that if you had a larger budget you would develop yourself. One of the things we've seen many times is if you're trying to do a deal, momentum is your friend because it involves a large team of people. Even a small deal seems to require a large team of people and they can only keep the energy up for so long. It's a lot of work and the hardest bit of the whole business. The science itself is pretty easy it's not the real challenge, the challenge is the transaction. It's far more complex and nuanced than anything else up to that point. The key is to keep the positive energy going but you cannot keep that up indefinitely. The barriers to momentum are you haven't done the right experiments as a rule. The worst thing that can happen in a deal is that we can't move forward because you have to go back and reproduce or produce a missing piece of data; the momentum is lost, you're almost certainly not going to get anywhere with it and that's a potential acquirer off the list. It diminishes your probability of actually transacting at all. One of the things we try and do is to socialise these projects amongst the broader community. Just so they haven't heard it for the first time when you're getting to the point that you really do need to partner this, this is what we've got, this is what we're going to do, is there anything there you think we're not doing or we're not doing right or something like that, we'll throw it back. Generally people are very open about saying we would need to see this; we've got scar tissue around this sort of

programme so we basically need to be comfortable on this particular aspect. We'll then build that into the project.

B&M: What are the most common pitfalls that companies or VCs make when doing the deal?

KJ: It's usually because we've underestimated the perceived difficulty of the programme in the eyes of a third party. If I try and draw it down to base reasons: we've underestimated it or we've not done the right experiments; they've been done on the cheap; and even though the data looked good, the provider of that data don't give the necessary comfort. You just see the price crash at that point. We have to as an industry tap into the pharma brain trust. They are much more open these days. If I look at one of the trends it is we're all becoming more aligned to a 'we're all in this together' mentality. We are just different parts of the organism that is the life science industry and we each have our own specific functions and it makes sense if we are a little bit more integrated than we have been before.

B&M: We've all seen a trend where pharma is now going in earlier and working more closely with academia. Is there a case for pharma to bypass VCs altogether?

KJ: It's nothing new, there have been these sorts of things going on for as long as I've been in this business. Historically, you could make the point that you could bypass VCs but that hasn't happened so I'd like to know really what's different now from what's happened in the past. If you were to look at a company who was doing it really well it would be J&J. They are out there with their innovation centres which are effectively collection centres so it's collecting what's going on, people can wander in and out and they're doing it really well. That's a challenge to VCs because I see the J&J folks out on the road all the time which is to my mind the hallmark that they're out there doing the same things as us. if they really want to challenge VCs all together I don't see the point of it to be honest. It's unlikely to happen - they've actually got to run these things as separate businesses, because you've got to be prepared to embrace these trimmed down, focused projects and not try to export the pharma way of doing them. The problem is you tend to find there are too many people who need to agree, that's the fundamental difference. The more people you need to agree the less chance you have to do anything whacky.

B&M: What do you think the challenge is for VCs in the industry at the moment?

KJ: It isn't money, it's finding the right people to work with, which is glib but true. We are limited by people who we trust and can work with and who've got the experience. The second is probably our ability to source interesting projects. Historically if you look at what's in the Index portfolio, I think we've done pretty well and I know what's coming through deal flow and that's going to look pretty interesting too. We seem to be doing okay at it, but you just get the annoying doubt that you're doing it properly. You always feel like you're missing stuff, not that comes through in the VC community, it's not did we see that deal, virtually everything that gets done we've seen it, it's more that people are doing interesting things and we don't find out about it until late in the game. It's a lost opportunity, we would have picked that up and really made it fly. The reason that's important is that everything that we're working on has a shelf life. We see things that 10 years ago would have been amazing, now they're not, they're not even investible.

A WORD TO THE WISE

All I would say is you can't make a transaction happen - that's what's so hard about it. You can enable it but you can't make it happen, and this is entirely beyond your control really. What that means is that everything that you do as a company, you should look at it through the lens of somebody who is going to inherit this programme down the line. Put yourself in the position of the acquirer and say what would I want. Make the data digestible, make it easier for people to find out what's being done. ■

ASSETS, EXITS AND EXTERNALISATION

Jean-François Formela, Partner, **Atlas Ventures**

In January 2014, the Atlas Venture Development Corp., formed and led by Jean-François, successfully exited Arteaus Therapeutics to Eli Lilly. Arteaus was the first "built-to-buy" single-asset structure that had been successfully exited in the biotech venture business. For Atlas, it was validation of their AVDC approach and a great example of R&D externalisation and a win–win for all parties. Here we talk to Jean-François to distill the elements of the model and how this fits into Atlas Venture's overall approach to investments.

B&M: You led the formation of what is now the Atlas Venture Development Corporation Initiative but can you briefly summarise a little bit about its unique approach and the concept behind how it came about?

JF: The context is Eli Lilly had been experimenting with different ways to think about externalisation and part of it was driven by P&L consideration even though it was more implicit than explicit. A lot of large pharma companies won't necessarily like to be explicit about the fact that they'd like to manage a P&L or to maximise the management of a P&L with resource structures but it's a component whether implicit or explicit. The other one which is certainly more strategic is how do we diversify the R&D channels and can we actually try to work with a dedicated structure where perhaps they could benefit from the lack of less overheads and bureaucracy in the process which was very forward thinking. In some ways they should get some credit that they were one of the early ones who tried to look at that and they put in place that entity organisation and was trying to expedite the development process with less bureaucracy and less process than they would in the normal channel. That really was looking for partners and one of the steps in doing that was to look at whether there was some capital available to externalise the financing of some of those assets and what were the right venture organisations that could actually operationalize, so essentially take over or drive a project outside of the leading organisation itself.

That's the rationale on the Lilly side which is the first part of your question. The rationale on our side was that we foresaw the fact that there would be higher needs and awareness of our externalisation option in pharma and not so much that there will be some assets there that could be prioritised and could be of interest because frankly out licencing has been a bit of a disappointment overall and a bit of an illusion. We had very few molecules that were historically out-licenced. We were aware of the qualities that were needed for an open market financing and so it was very important that those programmes would not be part of the old out-licencing model where essentially the internal arm of the organisation or marketing organisation passed on them. It was more about assets where the organisation was having a tough time to adjudicate how the research should be a priority or not and how it should be developed and where there wasn't enough of a budget envelope to make clear choices. One of the benefits of going to the open market is to get a fresh view and to get an independent assessment of some of those assets which is essentially an underestimated value approach of going to the open market to externalise the potential development of assets.

> ***Here we were talking about a very few programmes and for all of them there was a very clear mandate and desire on the part of Lilly to be able to re-internalise those programmes.***

For whatever reason we ended up being one of the organisations that Lilly talked to about that and they showed us a small number of molecules that was a good sign that it was not a big dumping ground where you see dozens of programmes that have not been funded.

ATLASVENTURE

Atlas Venture is an early stage venture capital firm that invests in the earliest stages of technology and life sciences innovation. They take pride in partnering with entrepreneurs solving difficult problems in new markets.

@atlasventures

Jean François Formela,
Partner, **Atlas Venture**

Here we were talking about very few programmes and for all of them there was a very clear mandate and desire on the part of Lilly to be able to re-internalise those programmes which of course was giving it some credibility in terms of attractiveness for them internally. At Atlas like most good Venture firms we make our own independent decision regardless of what pharma thinks and we liked most of them, I think it was four, they all look reasonably interesting, two of them were clearly very interesting.

We actually did the work on both and interestingly enough, which is actually the proof of the concept, they ended up re-internalising one of them through that exercise, saying you know what, it's a good point we're actually going to keep that. Which is great, because that's a proof of concept for externalisation. Then we ended up doing the deal around CGRP which is the migraine prevention antibody and I wouldn't say the rest is history, that's a big arrogant but arguably it was a very good thing for everybody. We were able to take that from Phase II in 2½ years and give them very good data and essentially they reacquired the programme and everybody is very happy.

The rationale was not only that there would be an opportunity to work with pharma on externalisation but there was an investment rationale at the end of the venture, whether they liked it or not but we're an investment manager. We work for institutions who put money with us like they would put money in any other investment and they are expecting a return on investment, that's a basic talent of financial markets. From that pure investor standpoint we showed that having a part of a portfolio that would not be relying entirely on the classic biotech model and capital markets which as we know are very cyclical and essentially we felt that part of our portfolio could be uncorrelated to the public market which is a very interesting proposition. Venture returns historically have been quite correlated with the public market for obvious reasons because when you have a small IPO market you have more exits.

In the case of pharma, the pharma cash flows are quite independent from the cyclicality of the IPO market and it does provide an opportunity for an investment manager to have the component of the portfolio which is the build to buy which essentially is not correlated to the IPO market. The flip side of that is that some critics of the model say well, you're giving up the upside because if there is an IPO market then maybe you could do better on the IPO market. It's an academic argument, it's very hard to compare apples with apples. Certainly if we look at the internal rate of return of our build to buy deals so far, we certainly have not given up upside.

B&M: Am I right in stating there is another company Annovation that is sitting within a similar build to buy concept?

JF: It's exactly the same concept except the assets instead of being sourced from the pharma partner were sourced externally and then we did the matching ourselves which is instead of Lilly coming to us and wanting to externalise the development of

some of the programme with the option to reacquire them. In that particular case we did an option deal on an asset that was very versatile, very specialised. Annovation was essentially the same as Arteaus except in that case it's a tweak on the model where the assets were sourced externally.

B&M: If an asset has been left on a shelf by a traditional pharma or other organisation, what are the characteristics you look for to actually make you and your fund take a punt on something which has already been shelved by another company. Are there certain things that you see opportunity in or does it come down to the fit with what you're already doing?

JF: As far as assets that have already been shelved, I would go back to the point I made already about traditional out-licencing. Most of the things that have been explicitly shelved, the yield on when you review your portfolio like that, historically it's very low. Obviously as you know there have been lots of mergers over the years and pharma has been consolidating for quite some time when you look at the list of the top 20 pharma 15 years ago it's actually striking the names that are no longer there where they have been absorbed by the current offerings. What you see typically in those mergers, you then get contacted by the unfortunate BD person who inherited that assignment because everybody hates it in pharma, you look at outlicencing. I remember one merger which was quite a large merger, we got literally dozens of assets. We actually never got to the confidential version because we basically thought 90% of that stuff we would never touch so that gives you a bit of an idea of what the yield is on some of those out licencing assets.

B&M: You've had success with the exit of Arteaus to Lilly and it sounds like Annovation is going the same way as well. How important is this asset centric build to buy model for you and your fund? How many deals do you expect to do in this model with regards to traditional venture investment?

JF: 50% of the portfolio is build to buy. It doesn't have to be, what we say is we believe there is an opportunity there so we will see some, but at the end of the day it comes down to investment criteria and the margin, whether it's a classic big platform IPO type model or whether it's a build to buy or a single asset virtual entity. You go with what makes the most sense to maximise the return on investment and the value. Going back to your question on how important it is, that was part of my answer on your previous question, it was important because there is an opportunity for those investments to offer some nice differentiation in your eventual portfolio ie. lack of correlation which is very important. I mentioned the IR before, what we found which is totally logical is that build to buy most typically have a much shorter holding period than an IPO company that you have to build and take it public then wait for the stock to be stable and the liquidity. Obviously if you can exit an investment in 2½ years you just have to look at the industry statistics and the average holding period in venture capital particularly in life sciences is probably about 7 years in a normal cycle. Sometimes it goes up and down with a good and bad IPO cycle. If the average holding period for build to buy is 2½ to 3½ years if you divide the holding period by 2 obviously the internal return is going to benefit.

> ***R&D externalisation is absolutely going to be part of the mix because it's very hard to be flexible and to try to be creative when you have too much fixed costs.***

B&M: Do you see R&D externalisation becoming more prevalent between the pharma and VCs going forward or do you think there's still caution there?

JF: I personally absolutely believe it's going to be more prevalent. It's a trend that is cyclical, it's here to stay. The big challenge in pharma right now, and the topic has been beaten to death, is the R&D productivity, which has been a challenge because we are tackling ever more complicated biological problem with ever more complicated modality and technologies. We're actually much better at what we do now than 10 years ago but when people say how can you be much better if your productivity has been flat or even declined. It's because it's much harder than it was 20 years ago.

R&D externalisation is absolutely going to be part of the mix because it's very hard to be flexible and to try to be creative when you have too much fixed costs. The problem is that a lot of those organisations have over capacity and also fixed costs and you don't have enough of a valuable budget to be more opportunistic.

Within your areas of expertise you need to be able to jump on innovation and programmes, whether they're inside or outside, very quickly. You should have the ability to be opportunistic within your area of expertise where presumably you have the most leverage because people will see you as potentially

An asset-centric biotech company (ACC) is essentially a single-purpose entity focused on just one product candidate.

the partner of choice. You want to move away from the old model and again we all know from some pharma companies that everything there had to be known in one domain, which is of course is an incredibly short-sighted and flawed assumption. Now they understand that you have to be able to very flexible and you have to be fully aware of everything that's going on outside your organisation and be able to integrate the two in a very valuable and flexible way.

B&M: I'm keen to understand what the biggest opportunity is for Atlas Venture over the next 12 to 18 months.

JF: Atlas is not about build to buy and asset centric solely. The fact that we did innovate in that and we were one of the first ones to move got a lot of visibility, but this is less than half of our portfolio. The mission of Atlas is to do early stage capital and to back innovation. If you look at the portfolio over the past 12 months, there are 5 big stories in our portfolio that are very classic biotech platform innovation companies. We have a next generation immuno-oncology company that is a big platform, we've got a new cancer metabolic approach with world famous founders that we're going to build as a standalone company.

Those are really not single asset build to buy companies. On the contrary they are big vision platforms so culturally in our DNA we're really more about innovation but as I said we're investment managers so as an investment manager I don't think it would be wise to only rely on platform companies that by definition will probably be more correlated with the public markets even though they don't have to be because we suspect some of those platforms.

Pharma is very eager to partner with these companies so you can actually diversify your source of financing so you are not as correlated. The point I am trying to make is that build to buy is only one component and it's only a tool in the toolbox.
To summarise, thinking about the venture industry's story. The vision from the beginning was to be first in class in the innovative space. The strategy is to find the next frontier in drug discover technology, but also in biology.

> ***Today in some ways you could say the build to buy in model might be a reflection on the maturation of the industry and in our field.***

Today in some ways you could say the build to buy in model might be a reflection on the maturation of the industry and in our field. Today you have the luxury that you can look at innovations that are already embodied into assets because we're in a much more mature industry so now you have a lot of different components that you can integrate into your portfolio.

So we're putting together a portfolio of opportunity but it's all about innovation. ■

'BIOTECHS AND THE CITY' LICENCING & PARTNERSHIPS

Beverley Carr, VPead of Investments, **GSK**
David Colpman, Former Global Head of Business Development, **Shire**
Jane Dancer, Chief Business Officer, **F-Star**
Neill Mackenzie, CEO, **Trimunocor** and CBO, **Biotechnol**
Ajan Reginald, Executive Director and Co-Founder, **Cell Therapy Ltd.**

'Biotechs and the City – Licencing and Partnerships' was the latest in a series of evening panel and networking receptions for UK biopharma executives held in November. The following is the exclusive transcript from it's panelists. Topics included What does big pharma want from biotech and vice versa? Are asset-centric vehicles more attractive to dealmakers? How can you mitigate risk and maximise mutual benefit in partnerships? and what are the most innovative deal making structures that are working?

B&M: What does big pharma want from biotech and vice versa? Is it changing, and if so, how?

AR: If you've got something that's a new class of drug or a new type of invalidated target or you think you're going to be first in class or best in class then you have to be really careful about which pharma you go to. People give you advice like go and see a couple of pharma companies, get some advice, that will help you for your next pitch but actually it kills the confidence of your poor scientist who is destroyed after they've been to see 2 or 3 pharma companies who don't understand anything about what you're talking about and ask you all the wrong questions. So I think it is very important to ask the question which is what big pharma wants depends on where they are on the innovation curve and then where they want to do a deal.

JD: What biotech want is to hear what each pharma want. Some Pharma companies are much better at telling you what they want, but if a company doesn't know what they want you can have two conversations with the same company, one goes nowhere and the other one leads to something.

NM: It can be totally unclear what they really want because you turn up with what is apparently what they do want and then turn around and say no we're not in that area. There's a timeliness so when you rock up to a pharma, where are they on the innovation side because that will change. Right now it's really risky early stage stuff. It's cheap that's why they're doing it whereas a few years ago it was all 'have you got any phase III assets.

"There's a timeliness so when you rock up to a pharma, where are they on the innovation side, because that will change."

DC: Sometimes pharma's don't know what they want until its presented to them and one thing I guess is true is that at Shire we would say we're not interested in this therapeutic area but if a company came up for sale in one of those areas we'd take that very seriously if we knew there was an auction going on and it was a one-off opportunity so you could change your mind, you could be opportunistic. You need validated targets, you need all the surrounding data but what pharma really likes is clean deals.

NM: I think there's even more to that. the number of deals I've walked away from because there's an IP red flag or there were stacked royalties from a university that thought they should get 10% of everything forever with reach through royalties and then inventors or founders that wanted to have a premium on their shares. The cleaner you can make that because it's a public company has to work.

Beverley Carr, VP Business Development, Immunoinflammation Therapy Area, **GSK**

B&M: If we pick up on deals that is the subject of today's panel. If I could ask the panel the most common mistakes that are currently being made in a transaction and if you could perhaps give any examples you might have come across?

BC: I would say, looking back at some of the deals GSK might have done if you negotiate too hard and you don't pay enough at the right time, if you're in a collaboration then there is no point in being tough in the negotiation and ending up in a collaboration with a biotech which isn't able to function or delivery what it needs to deliver.

NM: What we're thinking about at the moment is do we actually want to do a partnership with a pharma company and the answer to that is 'no' because we're not capable of doing it. But when we go to pharma companies some want to do partnerships. For me, as a biotech company, just be really realistic, do you really want to go back into pharma with committees to do everything

B&M: That's a good Segway to the next focus which is the conversation success and what does make for a successful deal. Jane perhaps you could start us off?

JD: Some of it has just been touched on where you've got alignment and there's a real motive to get it done and you get the momentum and you can do these things really quickly. We just did this deal with BMS and that was 45 days from signing the letter to signing the contract. It was a complicated deal but the circumstances that allowed us to do that was competition, exclusivity and they had a threat so they were well motivated to move on. Just something else to throw in there, what's helpful is when you contract, as biotech, with people in pharma who understand what it is I like to be in biotech. Sometimes when you're dealing with people who don't know what it's like in our world, and the same again if you've ever worked in pharma, you can understand why it takes a month to get sign off as they go through those seven different committees to try and get all their stakeholders rounded up and herd the cats. So I think that helps as well if there was a lot more of fluidity, people moving backwards and forwards between the two. Perhaps empathy, understanding and mutual respect.

David Colpman, Former Global Head of Business Development, **Shire**

Jane Dancer, Chief Business Officer, **F-Star**

B&M: How does one go about achieving that? Is it about finding the right people to work with in the first place?

JD: You don't always have a choice as to who is going to be around the table, so you get what you're given.

AR: I think a really simple rule is find out who can actually sign off on the deal. It sounds like a really crazy thing, but actually it varies in every company. So find out, you can find it out from, this is actually what VC's are very good at and very helpful with. They can tell you roughly who can sign off within a company and at what level. Because with my understanding that varies enormously.

B&M: I interviewed Kevin Johnson, who many of you know from Index Ventures the other day. Something he said which was interesting was this idea of momentum. Momentum is your friend in order to make a deal happen, and the key is to keep the positive energy going. Does anyone want to comment on that?

DC: Sometimes I'm advising people who are out-licencing, they're already talking to one party and that party is very interested in their product, and I always say if you find the second, third, fourth party, not only will you get something done faster and a better deal financially, but you'll get it done quicker, if you've got competition.

So I'm really a big proponent of running competitive processes. Having said that, I think if you're out-licencing, it's really tough to get everyone on the same timeline and really tough to run a proper auction, which you could do if you had a marketed product and people could see the value. It's really tough to achieve but that's the key to getting a good deal.

Certainly at Shire, if we felt that people were seriously talking to other people and they could be our competitors, absolutely it spurs attention, focuses attention, at Shire. At the end of the day we're willing to pay whatever it took to get leading technologies, and we did that.

B&M: So pointing to the competitive threat sharpens focus.

NM: It's fear and fashion. Pharma are run by fear and fashion. There is innovation cycle, but you cut across that if there's a fear of losing it, because that goes up

Neill Mackenzie, Chief Executive Officer, **Trimunocor** and CBO, **Biotechnol**

Ajan Reginald, Executive Director and Co-Founder, **Cell Therapy Ltd.**

to the CEO. The CEO will ask the leading guy why did you lose that deal? That would come straight down from the CEO, why did you lose that deal? They'll be out of money, they'll be asked, why did you lose that deal.

Then the fashion bit. I can tell you the different fashions over the years because I've been around a long time, but there's fashion areas where everyone wants to jump into, everyone wants to part of, and they cut across the strategic and tactical stuff. If there's something that becomes fashionable and everyone is after it, you're on a quick timeline.

DC: Let me mention one other thing that might not be obvious, and it can play either way, and that's the time of year. You get to this time of year, and one or two things is either going to happen, the pharma company wants to close a deal fast because they have the money available this year but haven't got it next year. I'm talking about R&D budgets underspent to make sure it's fully committed. But for all sorts of reasons people can be very keen to close deals at this time of year.

But conversely the R&D money is spent, you've already got your bonus, you want to put it into next year. Funny things can happen in November and December.

BC: At the other times they don't know what news they're going to put out. So JP Morgan, if they're doing that, that can also focus their minds.

B&M: Some say there's a huge disconnect between biotech, VC's and pharma, do you agree with that? If so what is the nature of that disconnect and beyond that how can it be addressed? David?

DC: They've each got their own goals about what they want to do, sometimes they coincide and sometimes they don't. But there's no way that for me there's anything that says, 'VC's don't understand us'. They don't have to understand us, they have to make a return on what they're doing. You know for the big pharma company again, they have to deliver returns to their shareholders and they have to do it in the best way they can. That doesn't always mean that every company gets the strategy right. But they live in their own environments, they live in their own worlds, and I don't think there's any reason for them to be disconnected.

AR: I think you're right. There's no point in a biotech company complaining about VC's when you let them in, because that's what they are. That's not negative. You as a biotech company, whatever your goal is, if your goal is to change the world with a revolutionary medicine, if you want to exit with a lot of money, you know what your goal is.

> ***There's fashion areas where everyone wants to jump into, everyone wants to part of, and they cut across the strategic and tactical stuff.***

A VC as you quite rightly point out has a goal, and is measured quantitatively and transparently so you shouldn't complain about it. So if you can do it, then don't have any VC's, which is what we've done.

We started our company backwards, we're always ready for diligence, and we don't have any venture capital and continue to not have any venture capital. So I think I agree with what you're

saying, but it's to understand in an ideal world what the motivations are of your financing partner. As you rightly pointed out you don't get to choose that too often. If you're short of money and have a great innovation and want to go forward, you have to take money from a VC, which means you have to live with the consequences of your decision.

NM: No you don't have to take from a VC. I mean it's a brilliant model, it's exactly what I did with Oxford Biomedica, but we took it straight on, we listed onto AIM from day ome. Never mind the right experiments, we hadn't done any experiments. We had 5 patents out of Oxford University, it was the good old days. VC's said we can't do it Neill, I said why can't we do it? You haven't got our financial acumen. I said what exactly is that I'm missing.

Eventually we've raised £80 million off market, and it never saw a VC ever. Now, it's still going 20 years later.

AR: I think VC's can add huge amount of value. I think the problem is that at some level biotechs have one intrinsic advantage, speed. So you've got to be able to make decisions fast and execute them faster. If you change your seven pharma committees for a VC committee instead, you've lost speed, you've lost direction, and you've lost your ability to make rational decisions. I think it's just working out where you need the value added.

Audience Question: Isn't licencing and partnership an alternative to VC?

NM: There could be a model there, in one of the companies I'm trying to do it that way. Not talking to VC's but just talking to pharma about partnering and trying to partner my way into cash.

JD: So one of the issues of course we all know about is VC's have to make their exit, their cash back, it's their timing things. Biotech can be quick. But maybe not quick enough when it comes to drug discovery, it's quite a challenge to get a decent value inflection in one year.

So again going to corporates, going to the markets, is one way. That's where you all start out and it's hunky dory, they put the money in to begin with and it takes a bit longer, the funds are at all different stages, it all gets a bit messy. That's when it can get a bit difficult.

BC: I guess you know we're in it to make medicines. VC's are in it to make money. They're not always aligned. So there is a disconnect, yes.

Biotech can be quick. But maybe not quick enough when it comes to drug discovery, it's quite a challenge to get a decent value inflection in one year.

B&M: What do you think about the idea of pharma getting closer and closer to academia, and should they cut out the VC middle man?

BC: Yes, I mean we've done that in some of our deal structures. We've done it in a number of different ways. We also work with VC's as well. I do think that there is a lot of interest a VC change. In America and a number of the other pharma's we looked at how to reach out to academics and work with them in a different way, and part of that is cutting out the VC. The requirement for a large return on capital is very challenging. There's probably a place for all of these models.

DC: I'm out of date, but does anyone know of a deal where a pharma company worked directly with an academic and produced anything? By the time I left they hadn't.

Lawrence Barker: At GSK we have one that's currently in phase 1, phase 1a and phase 1b. Looking at someone we worked with across the table at a London university to do that, what six years ago now? Jane: We worked with UCL for many years and they, yes they've definitely done deals with have eventually taken products onto the market. It tends to be a series of transactions that have happened over the years. So rather than the university doing one deal with one company that then goes through the full clinical programme and launches the product isn't so common. But as we all know the technology eventually comes to the market. So it is good, but it might not necessarily do so in one deal.

B&M: What is attractive about asset centric vehicles? If we start with Jane, because at F-star you do take this approach.

JD: So for those of you who didn't see the deal we did, we're a platform company that has programmes and that can be difficult particularly when you think about the timeline you need to exit, you're under pressure to get a return to your investors. You've got a bundle of disparate assets, you've got some companies out there, pharma, who are interested in the platform but not the assets and the programmes if you like but not the platform.

What often happens, it happened at

the last company I was in and I've heard of many other cases, you end up having to sell one and discounting the other. So you can't get someone that loves them all as much, they like one a bit and not the other. You end up spitting the other bit out. It's not unusual. So what we did was said ok what we'll do rather than try and keep it all bundled up, we'll turn our company into an asset centric model. So we'll keep the platform in one company and we'll set up separate companies that we'll put the programmes in. These are separate arm's length companies, not subsidiaries. Set the companies up as corporate, then licence the IP that was needed for the programmes into those companies and support them through the service agreement. Because all the people and the infrastructure, all the stuff, the dirty stuff that pharma doesn't want to buy because as David say they want nice clean deals.

So we set up a separate company. We're called F-star, it was called F-star Alpha. Also one of the other advantages was we were struggling at the time to get any of the investments into the company, because again the investors like the pharma have different wants. Some were interested in the lead programme, some weren't, so by putting it in a separate vehicle we could get the investors from those who wanted to invest in it and those who didn't, didn't have to participate.

The next step was to sell it. So we did a deal with BMS where they paid £50 million up front for an option to acquire Alpha and the lead programme. The advantage there of course is you're selling equity not an asset, so it's a much more tax efficient way of disposing of an asset, it gets the cash back to the shareholders. So it worked very well for us.

AR: Can I ask a quick question? What if the key success criteria for the deal are the people you've got, who know how to develop the product? Do they go with it?

JD: No they don't, so the way the deal works is the programme is transferred across to BMS. It picks up on the point that they have a much bigger drug development operation than we have, and we believe that BMS know how to develop drugs and oncology. So they've taken it on lock stock and barrel.

The way we work is that our core competence is in the platform of drug discovery as we move into IND enabling studies we're actually virtual. So that makes it easier for us to then transfer it across with very little pain.

It was set up in a way, it's like how you have your due diligence model ready, ours was setup to transfer so everything could be moved across very easily. ■

The **'Biotechs and the City'** series of events will be continuing from March 2015. For updates visit www.biotechandmoney.com/events for updates of future planned evening events.

Shaun Grady,
VP, BD Operations,
AstraZeneca

Shaun is responsible for broadening AstraZeneca's access to scientific innovation outside their own laboratories. Including in-licencing, acquisition and partnering activities from early stage Discovery through to on-market commercial opportunities.

AstraZeneca

AstraZeneca is one of only a handful of pure-play biopharmaceutical companies to span the entire value chain of a medicine from discovery, early- and late-stage development to manufacturing and distribution, and the commercialisation of primary care, specialty care-led and specialty care medicines that transform lives. Primary focus is on the areas of Cardiovascular and Metabolic disease; Oncology; and Respiratory, Inflammation and Autoimmunity, Infection, Neuroscience and Gastrointestinal diseases.

PRESENTING SCIENTIFIC LEADERSHIP AND A CLEAR FOCUS

B&M: Shaun, can you expand upon what your role entails? What are your roles and responsibilities within AstraZeneca and where you do spend the bulk of your energy?

SG: We split our business development activities broadly into two; the first being strategy, search and evaluation, and the second transaction execution (due diligence, negotiation of deals and then increasingly importantly integration and the alliance management of projects that have been completed). I'm responsible for that second area.

I've got a group of about 35 or so people fitting broadly into those three segments of due diligence directors, transaction leadership (people who actually head up the deals) and finally the alliance and integration management people who ensure that smooth transition of the partnership or acquisitions from their prior ownership to the AstraZeneca group or contractual relationship.

B&M: And within your remit what would you say are your key priorities for the coming year?

SG: Put simply the BD priority is to use acquisition and partnering to further our strategic intention in three core therapy areas: oncology, cardiovascular and metabolic disease, and finally respiratory, inflammation and autoimmune disease.

B&M: How has the strategic review, with its stated priorities of re-establishing scientific leadership and a return to growth, impacted the BD strategy?

SG: From the strategic review, we developed focused and clear target initiatives, which have been our aide memoire as we have pursued business development opportunities over the last 18 months.

B&M: What trends do you see happening across big pharma in terms of how business development is being conducted in this day and age?

SG: I think people generally are being much clearer on the areas they are focusing on and the areas that they are setting out their stall to win in. I think we can see that from the sort of TA (therapy area) swap-type transactions that have taken place earlier this year, most notably between Novartis and GSK and Lilly and that sort of triangulation of assets. Whereas before I think we were all a bit more open minded and agnostic as to the therapy areas that we looked to do BD in as we sought to leverage our commercial footprint

If you look at companies like ours experiencing the so-called patent expiry stage, it's only naturally to be expected that companies with that business shape would look at later stage projects because they deliver short term revenues to try and mitigate those lost revenues.

and sales and marketing capability around the world. Clearly in our case, and broadly true across the sector, people are now much more focused on areas where they think they've got scientific leadership and are putting their internal resources, their deal dollars and deal buying power, into those prioritised areas.

B&M: Where do you see that going in terms of the future? Do you think that trend will be exacerbated?

SG: I don't know about exacerbations, but we've set out our stall and we're pleased at the progress that we've made in terms of the pipeline and on-market portfolio. Business development played a critical role in that because of some of the deals that we've done, most notably strengthening our respiratory franchise, including the recent acquisition of Almirall's respiratory business. This has made a really strong contribution to increasing the strength of the pipeline in respiratory and also bringing some immediate revenues.

B&M: Okay, so just a last question on the strategic review. Would you say you are on the way to achieving those objectives or is there still a lot of ground to be covered?

SG: We're a long way from declaring victory, but we're pretty pleased with the business development we've done and overall progress that we've made. Business development has played a role in that but of course it's not singularly business development; we've made a huge amount of progress with quite a significant number of programmes in our organic pipeline, beating expectations in terms of data delivery.

B&M: We are witnessing a general tendency of pharma doing deals earlier, and entering into collaborations at a much earlier stage. What do you think are the fundamental drivers of this trend?

SG: Personally I think it is a clear trend. Secondly it's a trend we're participating in and cultivating. I think there are two things. If you look at companies like ours experiencing the so-called patent expiry stage, it's only naturally to be expected that companies with that business shape would look at later stage projects because they deliver short term revenues to try and mitigate those lost revenues. Hence if you look at AstraZeneca's deal sheet over the last two to four years, there's a lot of later stage business development activity. But of course the closer you get to your patent expiries and when you're in the midst of it, there is less impact that you can make by doing very late stage deals.

The second thing is if you have a strategic goal of re-establishing your scientific leadership, it follows quite naturally that you'd be looking to bring really creative break-throughs and high science into your organisation. You do that in part by doing earlier business development. That brings with it a number of different aspects such as it being clearly higher risk. You might say it's less costly to do business development earlier because you've got that risk. The third driver that we subscribe to is if you do your business development earlier, you've got longer to spend with your partner bringing AstraZeneca's skills and capabilities to bear on the programme for longer, rather than, say, buying a phase 3 ready programme where really all the thinking and all the science has been done and everybody is just waiting to see what the data read-out is from phase 3.

B&M: So you clearly see the trend as a positive one and one that is a force for good? What do you think the implications are for the industry as a whole for this trend?

SG: I think it can only be good. I think

people that have got good science are doing a good job of making that clear to prospective partners and purchasers, like AstraZeneca. People talk periodically about it being a buyers' market in biotech business development. I'm not sure I agree with that when people have got really exciting break-through science, they tend to make sure they attract all the key big players to the table. It's a fairly competitive process usually. And I think with the relaxation of the public markets towards biotech, particularly in the US, I think smaller biotech companies with exciting technologies have also not got the alternative of a more organic growth and independent route if that's the track they want to go down.

B&M: Let's turn to peer collaborations at the moment. How do you think peer collaborations can be finessed to get mutually beneficial outcomes and what do you think are the key success factors of these collaborations?

SG: That's a great question, and peer collaborations are an area where we feel that we've got some relevant experience, particularly from our collaboration with Bristol-Myers Squibb. People talk a lot in business development about creative deal making and putting innovative transactions together, and I think personally speaking we apply that label a little too liberally and freely sometimes, but making a 7 billion dollar joint acquisition of a biotech company that we and Bristol-Myers Squibb did was extremely innovative, creative and something that nobody has replicated in healthcare before or since. What we're trying to do is take the learning and experience we have developed from the Bristol-Myers Squibb peer partnership and factor it into subsequent partnerships, such as the one we've put in place with Amgen around inflammation assets.

B&M: If you could distil some of those success factors from the Bristol partnership, what do you think those would be? What were the key learnings?

SG: I think the key learning that we've all come to terms with is the need to have confidence in your partner. When we first put the partnership together we felt that we had to do everything in two's like Noah's ark syndrome. In every country we both had marketing people, we both had commercial directors, we both had patient safety people which of course if you multiply that across many geographies and many different functions, could potentially lead to a lot of inefficiency. So the thing that we've learnt is the need to have confidence in your partner that you can actually give up particular activities or maybe particular geographies.

So the thing that we've learnt is the need to have confidence in your partner that you can actually give up particular activities or maybe particular geographies.

B&M: So it comes to down to trust?

SG: That mutual trust means that actually you don't need to put one of your own in to keep an eye on what the other guy is doing and vice versa. You really should be impartial as to who does what, and be motivated by getting the most capable people who can do what is necessary most effectively rather than feeling that you need to have some form of man-marking approach which is a little bit how we thought about it back in 2006/2007.

B&M: All pharma companies would like to be considered to be the partner of choice. So I wondered what you think AstraZeneca's USP is? How do you differentiate yourself as a prospective partner?

SG: I do think we differentiate ourselves, and I would say that wouldn't I! But we spent quite a bit of time a couple of years ago thinking about how we look from the outside from a partnering perspective. We even went to the trouble of putting together an advisory board, about a dozen people, VC's and private equity, law firms and biotech and we held the mirror up on how we behaved and what we did. The message we got then was actually there was a real opportunity to differentiate ourselves, and that nobody really stood out from the pharma peer group. What was surprising was that the feedback on things that make a difference were really quite straight forward, deliverable and common sense, in terms of responsiveness to enquiries, speed of response, and quality of feedback. In essence we foster a peer-peer relationship and interaction with prospective partners rather than an arrogant approach from big pharma. We set ourselves targets in terms of response times, turnaround times, and quality of feedback and the like. We underwent something of a culture change internally about prioritising people approaching us from the outside, and you can follow that change of approach and mentality to quite a striking improvement in AstraZeneca's ratings in the various partnering surveys that take place from time to time.

So that would be the first thing. And I think the second thing that differentiates us and has become even more so under Pascal's leadership is the speed in which we can do deals and execute on deals. I think we're as good as anyone in a foot race, which is often the case if people have really high-quality science that they're looking to partner on a competitive basis. We have created a governance and decision-making climate within AstraZeneca such that we can move very quickly. ■

We underwent something of a culture change internally about prioritising people approaching us from the outside, and you can follow that change of approach and mentality to quite a striking improvement in AstraZeneca's ratings in the various partnering surveys.

ATTENDEES INCLUDE

Abbvie
ABCrowdFunding Advisors
Ablynx
Abzena
Albion Ventures
Apposite Capital
AstraZeneca
BioInvent
Biomoti
Biotechgate
BIS
Bloomberg
BMS
Cambridge Enterprise
Cambridge Innovation Capital
Cancer Research Technology
Cancer Research UK
Cell Therapy Catapult
Cell Therapy Ltd.
Cibagen
Circassia
Clinigen
Consilium Communications
Coulter Partners
Creabilis
Crescendo Biologics
Critical Pharmaceuticals
D Health
Department of Health
DFJ Espirit
Digital Life Sciences
Domainex
Dynasty Biotechnology and the Dynasty Fund
Edinburgh BioQuarter
Edison Investment Research
Epidarex
Epistem
Excalibur Group
F-Star
F2G
Financial Times
Gabather
GE Healthcare Life Sciences
Genomics England
Glide Pharma
GlobalAcorn
Hadean Ventures
Harbert Managment Corporation
HAS
HiQ-Nano
Horizon Discovery
Imanova Limited
ImmunID
Imperial College Health Partners
Imperial Innovations
Index Ventures
Innovate UK

BIOTECH AND MONEY LONDON '15 3-4 FEBRUARY 2015

Biotech and Money London 2015 is a two-day congress providing the education, strategies and solutions you need to enable more effective funding, investment, business planning and partnering within your business.

It's 2-days that will change your company's funding, investment and partnering outlook in 2015.

Where Life Science meets money. Investors uncover innovation. Pharma seek partners.

I am excited to be supporting and speaking at this terrific event. It is a real opportunity to build partnerships, share insight and highlight vibrancy in the UK Life Science sector, with over £700m investment in early stage ventures in the first half of this year.

George Freeman, Minister for Science, Department of Health, UK

Biotech and Money is a brilliant initiative that is helping support finance, funding and partnerships for the biotech industry. Their February event is going to be an incredible gathering of the finest minds in the sector and I am delighted to be speaking at it.

Dr Zahid Latif, Head of Healthcare, Innovate UK

Instinctif Partners
Isis Innovation
James Cowper
Johnson & Johnson Innovation London
Karus Therapeutics
King's College London
KTN-UK
Lilly
LundbeckFond Ventures
Magnus Life Science
MedImmune
MiNA Therapeutics
MS Ventures
National Institute for Health and Care Excellence
NIHR Diagnostic Evidence Co-Operative
Novartis Venture Fund
Novo Nordisk
Novogen
Numis Securities
OAHSN
Oxford Pharmascience
Panmure Gordon
Peel Hunt
Polar Capital
Prodra Health
ProFacta Pharma
Prosensa
QuantuMDx
ReNeuron
Retroscreen
Roche Venture Fund
Royal Holloway University of London
Ryboquin Company Ltd
Sareum
Scancell Holdings
SCRIP Intelligence
Shares
Shore Capital
Silicon Valley Bank
Sixth Element Capital
SkyePharma
Sofinnova Partners
SR-One
Stratagem IPM
Sympronics
Synairgen
SynbiCITE
Syncona Partners
The Francis Crick Institute
Tigenix
Trimunocor
Triscribe Ltd.
uMotif
Ventac Partners
Verona Pharma
Wilmer Hale

Visit www.biotechandmoney.com/london/attendeelist for updates.

7 REASONS TO ATTEND

1. A congress that is as big on knowledge sharing as it is on partnering and deal making.
2. Sessions matched to your company funding, investment and partnering requirements.
3. Meet active investors and pharma representatives looking for their next deal.
4. Meet entrepreneurs and the next generation of innovative life science executives.
5. Leave with new ideas and best practice from peer-2-peer conference formats.
6. Real market insight: What's driving UK life sciences? Where does the real potential lie?
7. High level networking, partnering and business development.

Download the brochure for the full speaker listing, agenda and how you and your company can benefit from attending.

GOLD SPONSOR

Lilly

SILVER SPONSORS

Oxford Academic Health Science Network
STRATAGEM
jamescowper
WILMERHALE
m&c Marks&Clerk

ASSOCIATE SPONSORS

Coulter Partners

Chris Stirling
Global Head of Life Sciences, KPMG

Chris has held the role of Global Head of the Life Sciences division with KPMG since 2012. Chris was previously European Head of Chemicals and Pharmaceuticals at KPMG.

@ChrisStirling6

KPMG's global Life Sciences practice is dedicated to assisting businesses of all sizes from biotechnology start-ups to large multinational pharmaceutical companies. KPMG's industry-focused professionals have experience in the pharmaceutical sector; they continuously strive to keep abreast of industry trends, drivers and issues through knowledge sharing and industry insights programs.

KEEPING PACE WITH A CHANGING HEALTHCARE LANDSCAPE

B&M: Chris, you're the global Head of Life Sciences at KPMG, but can we start by understanding what that really equates to on a day to day basis and where you feel you add the greatest value in that role?

CS: I suppose my main job is to link up all our teams around the world to make sure that we are able to provide a consistent service to the life sciences industry globally. It's about trying to innovate around what the issues of the day are and how that is evolving. If we're looking at life sciences from a KPMG perspective, the principle focus is on the really big pharma companies, although we also cover biotech, medtech, animal health, vaccines and crop science businesses.

B&M: You'll have seen many trends come and go. What is it that is really striking a chord with you at the moment in terms of the pharmaceutical industry?

CS: Clearly one of the biggest issues is trying to get a return on investment from the vast R&D expenditure. If you look at the trend in returns, they've definitely reduced over the last 20 years from somewhere around over 20% to somewhere around about 10% now, which is pretty much roughly what the average weighted average cost of capital is for companies. That's clearly not great, and is why the industry is under so much pressure to transform itself to try and improve the metrics for investors. I think one of the reasons why we're seeing so much M&A in the sector is because clients really need to focus on improving ROI, which means that they've actually got to find areas where they can win and get out of areas where there is no long term prospect of them winning. Which is why you see deals such as between Novartis and GSK where they're doing these asset swaps and joint ventures. It's trying to find areas where you can win and really place your resources. If you look at what Pfizer is trying to do, it's clearly wanting to find deals that can improve their position. And eventually improve the return they can get for their investors. And I think we're going to see a lot more consolidation or asset swaps that will essentially enable companies to improve their performance.

B&M: Do you see that as the major focus for those companies? To improve on ROI?

CS: I don't know, there are so many different aspects to this. Clearly, as you will know, science has moved on rapidly. The advances in science are just huge and the fact that the

I think there's been a big government drive to invest in early science and keep IP in Britain to generate UK PLC. Having said that, having just spent a bit of time on the west coast of the US, the whole infrastructure and the weight of money that there is available over there sort of dwarfs what we have here in Europe, and particularly here in the UK.

genome was sequenced about 10 years ago means that now we're starting to see the benefits of that. It means that the sorts of therapies that can be brought to bear now are completely different to what was envisaged this time 10 years ago. I suppose the issue is that because we know so much more about disease areas, the target market for therapies are much smaller in terms of the number, the populations of patients, that you can hope to be able to treat. But the therapies are a lot more effective than they've ever been in the past. So there's a sort of equation there and we believe at KPMG that there's got to be a thought for companies around how can you make that work commercially. Because if the amount of dollars that it takes to bring products to market continues to be the same, and you're actually producing great therapies but at smallervolume because you're only attacking smaller populations, then that doesn't necessarily work. Thinking about what the business model looks like in the future is really important and I think that's something the industry is really struggling with. That really derives from the issues that healthcare systems - the end customers - are grappling with. Healthcare systems are under massive pressure to get better outcomes at lower costs. Clearly pharmaceutical companies, biotech companies, can help with that. But they've got to be part of the solution and our view is very much that it has to actually be more of a solution as opposed to just providing newer and better products. The specialisation into therapy areas and really providing a solution rather than just a product is the way in which the industry has to move; like all other industries moving from product to solution.

B&M: What role do you see KPMG playing in that evolving solution?

CS: The great thing about KPMG is we have a massive healthcare practice, which is global in nature. We have a really good understanding of how healthcare systems are changing, lots of healthcare redesign projects across the world and what we're seeking to do is bring that knowledge we have of how healthcare systems are evolving to the benefit of life science companies. I think that's a real differentiator because it is clear to us that life science companies need to get much closer to the problems that healthcare systems have in order to be able to provide those solutions. So that's what we're doing, we're bringing lots of people with very strong healthcare backgrounds and bringing those to the benefit of our life sciences companies.

B&M: What is most exciting you at the moment about the industry?

CS: Some of the developments in science recently are really, really exciting. There's a lot more excitement around the opportunities for bringing new therapies than there has been for a very long time. And clearly there is massive need. Those companies that really focus on areas that they have real expertise in have got massive opportunity. Because there is increasing need around the world and the fact that in the emerging economies there is clearly more significant growth means that the industry is in great shape to be able to exploit these opportunities.

B&M: And if you look at the UK, what is it in your view that is making it a buoyant market?

CS: I think it's just that we've got some great scientists here and continue to attract them. That's really underpinning everything. There's been a lot of government investment as well into incubating biotech. Historically we've seen IPO leakage, so we've seen science leaving the UK to IPO on other stock

exchanges like in the US because of the lack of investment and fear of risk in our investors in the UK. But I think there's been a big government drive to invest in early science and keep IP in Britain to generate UK PLC. Having said that, having just spent a bit of time on the west coast of the US, the whole infrastructure and the weight of money that there is available over there sort of dwarfs what we have here in Europe, and particularly here in the UK. So some of the best ideas generated here still seem to make their way over to the west coast of the US. We have a long way to go basically, in terms of that sort of early stage funding for biotech.

B&M: Do you think it is just a case of having the success stories, and enough of them to stop that flow over the water? Or is there much more to it than that?

CS: I think there has to be more support for the guys at the leading edge. And there has to be more involvement with industry. Industry needs to get more involved in those leading guys, who are at the cutting edge and I'm not convinced that industry, or industry in the UK, have necessarily done as much as they could have done to really help. I know it's difficult because very early stage investment is very risky, but certainly for the larger companies, a little bit of money goes a long way. And I think more could be done to encourage companies to support the really exciting science that is going on in this country.

B&M: And you think the US has that balance right?

CS: I suppose they have the advantage of a massive market. They've got much more of a culture of venture capital investment. And that's something that is very difficult for the UK to match. The commercialisation to the market access proposition is also more attractive in the states. The EU is a fragmented market, multiple access points. I think that's one of the reasons why a small country who doesn't have a huge sales force would move to the US. But it's also to do with the infrastructure and the appetite for risk in VC. On the positive side, there is really momentum here. I think there's a real sense of excitement. You wouldn't have said there was that level of excitement 5 years ago. Things have really turned round so I think that is really, really encouraging and there is definitely something to be built on.

FUTURE FOCUS

I think it's fantastic. We're probably growing our life sciences business faster than any other sector in the world at the moment. And given the fact that the business models are evolving in the industry, it plays very much to KPMG's strength in terms of the broad offering of services that we can bring to bear. I think that combined with what I said earlier about our health care expertise and really understanding their customers, we think we're really well placed to help the industry move to the next stage. ■

Drugs & Dealers Magazine affords companys looking to get noticed by their target market suitable paid advertisement and selected advertorial opportunities.

If you'd like to find out how to make the best impression with our Executive readership contact Enrique Schindelheim, VP, Business Development
enrique@biotechandmoney.com

21ST CENTURY FUNDING FOR 21ST CENTURY MEDICINES

Michael Wilkinson, Head of Investments, **Crowdcube**
Ajan Reginald, Co-Founder and Executive Director, **Cell Therapy Ltd.**
Mark Beards, DIrector, Healthcare and Life Sciences, **KPMG**

At our recent November 'Biotechs and the City' event, Biotech and Money got talking to Ajan Reginald, Executive Director of Cell Therapy Ltd. We discovered his venture had raised private funds to get all the way to Phase II – without any need for VC money. His approach was crowd funding – and he swears by it. Crowdfunding faces many skeptics in the industry – can it really work? If so, in what circumstances would it be successful? What follows is the transcript from our recent webinar held with Ajan, Crowdcube and KPMG.

B&M: If we're talking about crossing the valley of death of funding, one of the strategies being looked at more and more, as a viable alternative, is Crowd funding. Michael, as the Head of Investment of Crowdcube, could you perhaps explain to us how does crowd funding work.

MW: In essence the whole idea of crowd funding is based around a crowd of people coming together, pledging smaller amounts to achieve the financial goals or aims of a company. The majority of our investment opportunities that have been completed are based on an equity model.

So we enable entrepreneurs to raise investment by offering shares or equity to that crowd of investors. To highlight, it's very simple, we have an online platform, a website. Entrepreneurs will come to us, they work with my team to ensure they are investment ready. So doing due diligence on their business plan and their financials, preparing a video and pitch text, as and when they are ready and deemed to be investment ready they go up on our website. They get put in front of our crowd of about 120,000 investors now, it's a success based platform so as and when you hit 100% of your target you will be successful and you will receive that investment. I'm glad to say the guys, and congratulations again, that the guys at Cell Therapy have done that in what I believe is record time for a biotech firm.

In December, Cell Therapy Ltd. raised over £690,000 on Crowdcube from over 300 individual investors against an original target of £250,000.

B&M: Perhaps Michael you could touch upon what you feel the chief benefits for biotech companies that are actually using it at the moment or considering using crowd funding?

MW: I suppose you would consider it an atypical venture for a biotech firm. It's really difficult for a biotech at such an early stage without giving away significant portions of equity and diluting the founders down to a point where they're actually not able to progress that business with effectiveness and efficiency.

With Cell Therapy, the amount they raised and the equity they relinquished has generated a £70m pound valuation. That's not in keeping with the rest of the businesses on Crowdcube, certainly I think it was the highest valuation. But they've received their finance and they played on the other angles of the funding that were really important to our investors, the emotional connection and understanding and bringing this product to market. That's something that all of the people are really keen on enabling. Everyone who has invested in Cell Therapy truly believes, albeit speculatively, that this is a really great business and product and also an opportunity that they would like to see furthered. I think that's one of the beautiful things that this platform and a crowd of individuals can bring to this.

B&M: Ajan perhaps you could comment why you chose to go down the crowd funding route in the first place and what

Crowdcube is the world's leading investment crowdfunding platform. They enable anyone to invest alongside professional investors in start-up, early stage and growth businesses through equity, debt and investment fund options.

Michael Wilkinson, Head of Investments, **Crowdcube**
@MW_Crowdcube

benefits you see deriving from it?

AR: I think for us there are 2 or 3 enormous benefits. I think the first one for us is we wanted to make people aware that there is a new therapy and it's not a million miles away. There is a new way to regenerate the heart. We finished a clinical trial and we wanted to start that process of letting clinicians and patients know that we hoped this was going to be on market soon.

The second thing is we have developed this company in the UK. We are very keen for people in the UK to be able to invest in it, and we were going to have an IPO. We wanted to give people an opportunity to invest prior to that IPO. And when we met the Crowdcube guys we kind of bought into their philosophy, which I think is very interesting, around the democratisation of investment.

And then I guess we thought it would be an interesting proxy for what a big flotation might look like. At the peak of the raise we raised £635,000 in 14 days. So we wondered whether that is an interesting way of seeing how you might do if you were listing on AIM or FTSE or as we plan to do on NASDAQ.

B&M: Mark, what do you think? Can crowd funding be used as a proxy for IPO, a listing?

MB: Firstly I think it's little bit early to definitely say that, but it's interesting that the Cell Therapy Crowdcube listing has overfunded in fact. It's about 2½ half times the original funding that was targeted [it closed at 2.77 multiple]. So that does show there is demand for access to this type of investment at this early stage. I think that is the critical thing.

Obviously taking the leap and saying that we should be able to list at this valuation and this time is something that is down to management to decide. But actually seeing this demand at this early stage, across a very broad spectrum of investors, is I think probably a very positive sign. But it would be interesting to see when we have more examples of this, whether biotech is seen as a regular part of a portfolio for the average investor sitting at home looking at opportunities.

MW: Sorry just to jump in there, I would echo that, I think what we promote here at Crowdcube is diversification across yes, equity and bonds and some of our other products, but also amongst different sectors and different markets. And I think there is certainly scope for these type of business, as is evidenced by the huge success that the guys of Cell Therapy have had and the take up they've had on the platform for these type of opportunities moving forward.

B&M: I'd like to touch upon the question of whether or not crowd funding indeed should be used as a funding mechanism. There are a number of VC's said that perhaps crowd funding is a bridge too far for crowds to fund biotech. Also is there a quality control issue, when the funders cannot be

Cell Therapy Ltd. has developed a breakthrough stem cell medicine, Heartcel, which regenerates heart muscle damaged as a result of heart attack or heart failure. One of the company's founders is Prof. Sir Martin Evans, winner of the Nobel Prize for Medicine and Physiology in 2007 for his pioneering work in discovering stem cells. Heartcel is scheduled to launch in 2016 in the $50bn global heart failure market.

Ajan Reginald, Executive Director, **Cell Therapy Ltd.**
@ajanreginald

expected to understand the details of the project they are being asked to fund?

AR: I've been thinking about this quite a lot. We're spending a lot of time talking to investors today, and I've got to say, the 32 questions that we've had to answer on the Crowdcube page have actually been really good preparation. I think we've got about 6,000 people have looked at our pitch. So I think this plays on the original power of the crowd. Crowds are used to consider complex problems. Crowds are pretty good actually, most integral research will tell you that crowds are good at solving very complicated problems.

Certainly if you look at our forum, if you look at the quality of the questions we're getting asked, I think they answer, certainly for me, they answer that question. Which is perhaps 6,000 people don't have the level of expertise, but there is a minority in there. We're got retired oncologists who have worked at the cutting edge of medicine for the last 30 years asking questions. We've got PhD students doing research now asking questions. We've got a number of investment bankers who have invested. We've got people who do life science investment at much higher scale making investment.

So I think actually complexity is something that is attractive. As long as you get enough people looking at a pitch and asking questions, I think the crowd actually asks all those questions and allows people to make a decision. Again I would just compare it in investing in public limited companies. You are relying on an analyst's opinion, and analysts are obviously extremely well researched, but typically you don't get 50 or 100 opinions on a very small company. Small cap companies typically have 1 or 2 analyst opinions.

B&M: Do you think maybe there might be a danger that crowd funding could actually be damaging in some respects? Because what you will have is people following fashions. Do you think crowd funding might exacerbate that tendency?

MW: I think you could say that about any business and any type of business funding on Crowdcube. Anything at this early stage investment is pretty speculative and pretty risky. But just to jump back a second and talk on what Ajan was highlighting a minute ago.

There is such a broad investor demographic on Crowdcube, that is one off the best elements, the most promising elements, about what we have got going on. The combined due diligence of these 120,000 people, of which actually about 20,000 of those guys are high net worth. When you think of it like that what you've got is a very vibrant and engaged angel community with a whole array of other investors from diverse walks of life added in as well. Just to kind of echo what Ajan was discussing a minute ago, the due diligence done through that crowd forum and questioning has been known very regularly to kill a pitch. If questions aren't able to be answered, or a subject matter not available in the pitch text that then comes out and is discussed in that

Mark Beards has 20 years of experience in the life sciences and financial sectors. His specialties include commercialisation, R&D, licencing and commercial due diligence, and setting corporate and business unit strategy. He has significant experience in strategy consulting and in capital markets.

Mark Beards, Director, Healthcare & Life Sciences, **KPMG**
@MarkGBeards

open forum, it will often reduce the likelihood of that pitch funding.

B&M: Mark, do you think crowd funding is an efficient way to allocate capital in the life science industry versus other ways? Do you think it's the right way or indeed an efficient way to do so?

MB: I think the interesting thing about Crowdcube and other crowd sourcing environments is any individual investor is able to ask any question they want directly to management. That isn't available in the open stock exchanges and you have to rely heavily on analysts. So anyone who is looking to invest in crowd sourcing, just make sure you're the type of investor who is able to take risk. The high risk and reward balance that is offered by these types of companies, but secondly that the way you're interacting with the investment is very different. You're able to ask questions and interact directly and openly with management, so everyone can see and read and partake in that discussion. I think that increase potentially the efficiency of capital allocation because of the sheer openness.

I think when you look at the main exchanges, obviously companies have to go through a very vigorous process to get there, but the availability of management to talk to individual investors is much lower. So I think that's one big positive in terms of crowd sourcing of early stage technology, is the openness and availability of management.

B&M: Ajan you had a comment?

AR: Just to say, is crowd sourcing a digital way, or should we think of it as a digital mechanism where huge numbers of angels can look at a company. It's not dissimilar to how 10 or 15 years ago we had something we were interested in we would go and ask someone or go to a library. And now we wouldn't think about doing anything else first but looking for it on Google. So isn't crowd sourcing just a mechanism that brings these sorts of opportunities into the 21st century in terms of how we assess them?

And on top of that as Mark pointed out, I think it's a particular type of investor with a particular risk profile and particular interest in looking at early companies. Hopefully biotech should be part of anyone's portfolio, not in terms of what they invest in but what they look at, because it's an important part of the economy in the UK so it should be represented across all the platforms of how we look at early investment.

B&M: How does a biotech balance the need for key information necessary for potential investment on a public platform like Crowdcube, with the need to maintain confidential information that is commercially sensitive.

MW: It's an interesting question and actually one we get asked by a number of our business that come and fund with us, not just biotech businesses. So what we have is the open forum and the public pitch page, which has almost has the exec summary style

information. It has a video on there and those financial forecasts.

Now behind what is an essence a firewall, you're able to click on a business plan and make contact with that entrepreneur, with that business owner. Now typically what would happen is those businesses and entrepreneurs that have more sensitive data will do a bit of due diligence on the potential investor at that point, they may ask them questions, they may set up a call, they may even ask them to sign an NDA. And behind that they will then decide whether they want to send that business plan to that investor.

So what you can see there it's no different really to the same kind of checks and balances you might do with an angel investor if you were going to talk to them about something that was commercially sensitive.

B&M: Ajan, perhaps you could comment about your experience with this? How did you go about doing it?

AR: Crowdcube do a fair amount of diligence. We had to share a lot of information with them in confidentiality. What they did that I thought was really positive was that every claim we put on a pitch, we had to then justify, you have to reference it, you have to provide third party objective information to support that claim.

So I think that was intensive and took quite a long time to get that fine balance. You've got to be able to give people enough information that they can make a balanced judgement. That isn't that you can't only give them the good information, you have to give them enough information that they understand the risk. But you can't as a biotech company disclose your confidential data to this large number of investors.

In completing the raise it was confirmed by Crowdcube that this was the highest valuation in the UK across all sectors in addition to being the most money raised for a Biotech company.

B&M: Michael, perhaps you can comment on what you see as some of the most common mistakes that companies make when they use your platform? Can you point to anything you think is a very common misunderstanding or mistake about the platform?

MW: Absolutely. So we have to admit we haven't had a significant number of biotech firms come and raise on the platform. That being said, one of the biggest difficulties, I suppose not just biotechs but more technical products and businesses, is actually maintaining that balance between explaining what you do so an array of people can understand it, the angels and those more sophisticated investors.

That being said, if the pitch text is filled with complicated language that is industry or sector specific, quite often that can put off some of the smaller investors, and the smaller investors are quite often the guys who help gain and maintain that momentum. They keep the interest peaking for the rest of the investors, even if they're only investing £10/£50/£100 because they want to see your business come to market. Those investments really do count, and if you put yourself in a position where only 5% of our audience actually understand the subject matter, you get those bigger investors coming in but you won't specifically get the smaller guys, and actually that reduces that democratisation.

One of the other biggest elements, and biggest difficulties I suppose for businesses particularly more technically savvy businesses, is the marketing side of it. So actually putting in place a formal marketing strategy to go out and speak to industry specific investors, but also stakeholders, people who might just work in the industry not specifically the angel investors in the industry, but like you say PHD students and those type of people, the masses that do understand the product and the business and if you were to put an opportunity in front of them would be interested to come back to the site, sign up through our processes', and actually invest at that point.

B&M: Ajan, what about the approach that Cell Therapy Ltd took, what was your marketing strategy? Are there any lessons you can point to?

AR: We did really think about whether we should go out and do marketing or buy advertising, but by the nature of Crowdcube itself, when we started it was 110,000 people, so it's amazing that you've increased the number 10,000 in the last 2 weeks. There's the group you're marketing to. So I think you need to know a little about your demographic, and as Michael pointed out, there is a pretty broad demographic on Crowdcube.

B&M: If you had to sum them up Ajan, what has been the key success factors for you in making it work?

AR: I think the key thing is being able to explain what your product does in a way that everyone understands it. So if you can't get that simple one line at the beginning, you can't appeal to a broad group.

So it's about having layers, you've got to have a simple message to explain what it is you do. Then depending on people's level of technical expertise or how deeply they want to go into the science, through the pitch they can then work out more and more about the technology. And then if they're engaged they can ask questions on the forum.

You've got to have a great product. You've got to have great people, you have to be tackling a problem that is really important.

B&M: Mark do you agree, is it pitch, product, people and problem? Is that the key to success?

MB: I think you need all of them together to be very successful. I think there are a lot of examples of biotechnology that have sounded great, had great people behind it, but actually didn't really address a significant unmet need within the clinical environment. And I think if you can address an unmet need that people can really relate to, I think that's a good point of Ajan's. You can get as technical as you want but if people can't relate to what you're trying to do then it's going to be much more difficult to raise funds.

MW: Absolutely, and I would say just to add onto that, some of the analysis we did alongside the LSE on why our investors invest, they looked at some of the more technically focussed pitches. And a lot of it, on the pitches that were technically focussed, all of them had the capacity to create this emotional connection alongside this great business and genuine market need. And coupled with that they had fantastic people behind them.

B&M: Before we close, I wanted to ask each of you for some key takeaways for biotechs. I wondered if you could answer the question, if a biotech is currently considering crowd funding as an option, what advice would you give them? So perhaps Michael you could start from the point of view of Crowdcube?

MW: The first thing I would say is have a think about that value proposition. Is your business able, and we've touched upon this a few times, it is really important that your business is able to be explained in a way that could be understood by all demographics of investors? That's absolutely key to me, that's one of the most important factors.

And secondly do you, as a business, have the time and the capacity to market your business? Be that on the platform to our investors, or externally to a whole array of different stakeholders, by they PHD students or people that work in the industry? Because Crowdcube and crowd funding, is a really pro-active method of fund raising. All fundraising is tough, Crowdcube is equally the same.

MB: I think I have to restate what we're hearing, which is you have to be able to articulate the value you're bringing to investors, but also the broader society, in a way that is accessible to the general investor. This is very different to how biotechs have in the past raised funds, where they have been dealing with specialist venture capitalists, and they have had to deal to a very detailed degree on what is the science behind their innovation and how they're going to move that forward to commercialisation. It's very different with a more generalist investor base that is looking to invest a much smaller amount, but there are many more of them. You have to capture their imagination but you also have to back that up with facts and evidence.

AR: I think it is another tool, so as a biotech company you have to look at all the options and decide what is best for you. For a lot of companies venture capital adds a huge amount of value. You've got really experienced people that have looked at lots of different companies and have lots of experience.

Crowd funding is also right, because you get that democratisation of investment. You get to bring in a whole different range of investors who are going to be your advocates in the general public. So I think you've got to look at a company and ask what do you need to get your medicine to market and how do you want to do it. We're interested in developing break through therapies and getting them to market. If crowd funding can help you do that, then that's a great fit. ■

To learn how Cell Therapy Ltd produces Regenerative Medicines using adult stem cells to treat heart failure visit www.celltherapyltd.com for more details.

Equally, to learn more about Crowd funding and the Crowdcube platform, visit www.crowdcube.com

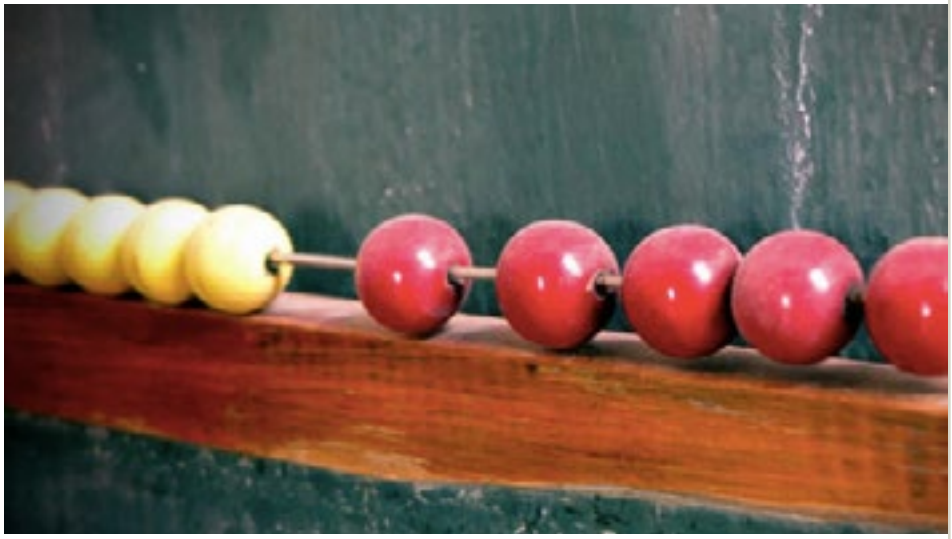
Sue Staunton,
Partner,
James Cowper

Sue Staunton is a business services partner. She also has a particular interest in working with technology businesses and their owners and, as such, heads their technology team.

@jamescowper

As a leading firm of accountants and business advisers, James Cowper's aim is simple - to draw on our experience and expertise to help you achieve real success. Fresh thinking, diverse skills and a sharp eye for the broader picture mean that together, we can really make things happen.

Whatever your requirement – be it starting out with a new business venture, flotation or tax planning for the private client – we have the breadth of expertise to help you achieve your goals.



COUNTING ON BIOTECH

B&M: Sue, tell us a little about James Cowper. What is your firm's positioning within the global life science industry?

SS: James Cowper is a leading medium sized firm of accountants and business advisers in London, the Thames Valley and South of England. We have a particular specialism in working with and advising technology based businesses especially those in the Life Science industry at all stages of their development from early stage and spin out to listed plc's. With the majority of our partners having come from the top international practices at a senior level we have the technical ability to take these companies "all the way" whilst having the size that enables us to be genuinely proactive and to offer a partner led service. Many of our clients have an international dimension (as would be expected in the sector) and we are able to provide them with a seamless international offering through our international network – Kreston (the 13th largest global network of accountants and business advisers)

B&M: Who are your clients in the biotech / medtech / pharma space? Where do you feel you add the most value?

SS: Our clients range in size and stage of development as outlined above. They include spinouts from research institutions including Imperial, Royal Holloway, Kings College and the University of Oxford as well as from the research councils. Our more mature clients include the recently floated Abzena and Bioventix. We act for companies working in all areas of life science – encompassing drug development, drug delivery platforms and medical devices which may be implantable or external. We also have clients working in cross-over technologies underpinning telemedicine.

B&M: How would you assess the current market for M&A? Where are the opportunities, and who is best placed to take advantage?

SS: The current market for M&A in the sector is still strong. The market is dominated by the US where the vast majority of deals are happening, but UK activity is also strong. In reality of course the sector is a global one and the more significant deals will have an inevitably global dimension. The IPO market – an extension of M&A – has been very buoyant for the sector throughout 2014, but there is a sense that the "window" for Life Science IPO's in the UK is closing - in part because of the relatively small number of

institutions in the UK that have an appetite for the sector. In contrast the US markets appear very open for trade and there is an increasing trend for "foreign filers" utilising the US markets as a platform to access the more mature funding market in the States. Companies that are best placed to take advantage of the market are those which are lean and flexible and whose technology is complementary to that of a larger player if looking for a sale – potentially where it enables the purchaser to use the technology to build more value within its existing portfolio; from a buyer side the opportunities are in building value at a lower level of risk than having in-house resource.

B&M: What are your views on licencing, deal making and corporate transactions? What makes for a successful transaction and deal in the life sciences industry?

SS: Licencing is becoming an increasing feature of the market. The definition of a successful deal or transaction clearly may vary according to the perspective of the participant. From the point of view of the broader market however a successful deal is marked by a deal that results in - 1) the technology getting out into or continuing within the destined market 2) a sensible price being achieved – from the market perspective unless vendors are realizing sufficient returns for their investment, new investors into the sector will be discouraged.

B&M: What are the most common challenges life science companies approach you with? How are they best addressed?

SS: The most common challenges for the earlier stage companies are centred inevitably on managing and raising cash; for the larger ones it is about successfully managing their transactions – ensuring that they are DD ready and that the transaction runs smoothly and is effectively structured.

B&M: If you had to narrow it down, what do you think would be the 2 or 3 most important pieces of strategic business advice a life science company could benefit from?

SS: Be prepared to be flexible in terms of your plan and take opportunities as they are presented providing they make commercial sense. There are many successful life science companies that started work in one area and found a different route.

Whilst service companies can build value – the significant growth tends only to be seen in those that have their own technology platform. It can be easy to get diverted from the R&D whilst carrying out services for others to bring in funding.

B&M: What worries you most at the moment about the UK life science industry, as it stands currently.

SS: The constraints on the NICE guidelines which make it difficult for new drugs to be adopted and prescribed. Without the UK market the returns for UK based drug companies will become limited. On the positive side it is good to see the Academic Health Science Networks working with companies and clinicians to introduce new technologies into the NHS.

Be prepared to be flexible in terms of your plan and take opportunities as they are presented providing they make commercial sense.

YOUR 5 YEAR VIEW

Cautiously optimistic from a technological perspective as many therapeutic areas are experiencing significant advances. But pessimistic from a funding perspective particularly in the UK which seems to blow hot and cold about life sciences. With a lot of money being invested in other countries in life science at the moment we run the risk of losing our position in the global market and increasingly face the prospect of UK derived IP being owned and exploited elsewhere. ■

Drugs&Dealers magazine

A Biotech and Money Ltd. Publication