



Above// Harriet Fear

Viewpoint

Harriet Fear, CEO, One Nucleus

One Nucleus was formed in April 2010 from the merger of two of England's regional life science networks – the Eastern Region Biotechnology Initiative (ERBI) and the London Biotechnology Network (LBN).

Many readers of *Catalyst* and tenants of Cambridge Science Park will be familiar with ERBI and the fantastic job it did – it was one of the largest biotech membership organisations of its kind in Europe.

The new organisation was formed in response to feedback from members of ERBI and LBN who stressed the importance of collaboration and de-duplication of efforts among member support groups.

When I joined ERBI I felt it was important that the company shouldn't be limited by geographical region and that it should serve the full breadth of the life science and healthcare community, rather than purely biotech. Tony Jones (now Director of Business Development at One Nucleus) had the same views and the merger of the two organisations to form One Nucleus was a natural next step.

"The UK is a compelling location internationally with a highly skilled workforce"

The merger meant that the combined membership has created the largest membership organisation for life science and healthcare companies in Europe – by some way! We have over 460 members and growing. Whilst most of our members are based in the Cambridge/London area, our membership reflects the global community. We have members from other parts of the UK and as far flung as Australia and Canada.

Our members have access to a wide range of benefits including our Group Purchasing Consortium, which is the longest-running scheme in the UK. It offers the most competitive rates of any membership organisation in the UK. One Nucleus also runs the UK's largest life science and healthcare training programme and offers discounted entry to a range of events around the world (not just our own!) including those run by EBD Group and TVG. But perhaps most importantly of all, we provide a platform for companies, academics, stakeholders and investors to find each other and to discover points of common interest and potential collaboration which we hope will lead to tangible results for them.

Of course it's a challenging economic time for everyone – including the life sciences sector. Against a backdrop of big pharma cuts, scarcity of risk capital and a difficult route to market, there are still many reasons to be optimistic. The UK is a compelling location internationally with a

"Although times are challenging, the sector continues to be incredibly creative. We are seeing new business models emerging that are more collaborative in the earlier stages."

highly skilled workforce; we have exceptional entrepreneurs, researchers, academics and commercial minds, an effective regulatory environment, groundbreaking discovery and expanding research parks.

In terms of the biotech sector, the UK remains a leading global player in many areas, such as stem cell research and personalised medicine. It is home to at least 30% of Europe's public companies in this sector and remains Europe's most popular location for investment, with a strong track record in encouraging start-ups and bringing products to market.

Recognising that this is a global sector, at One Nucleus we have forged strategic (and formal) alliances with the four most significant membership organisations for the sector in the US: MassBIO, MassMedic, BIOCOM and BayBIO.

The benefits of these deals are tangible for our members. They are treated as members of the US organisations and vice versa. This gives our members the opportunity to have discounts on events, speaking opportunities and vital introductions to potential financiers and relevant business contacts who they may not otherwise know about. Perhaps most importantly, these agreements mean that our members are offered a 'soft landing' by the US organisation when they are looking to penetrate that market, and vice versa. This collaborative approach would not be possible if our membership, and the UK life sciences sector, were not a credible critical mass to do business with.

Although times are challenging, the sector continues to be incredibly creative. We are seeing new business models emerging that are more collaborative in the earlier stages. These collaborations are often aimed at lowering the capital requirement to create value, even if this means sharing the benefits later.

More and more, we're seeing companies looking beyond just the commercial sectors and more towards accessing non-dilutive capital from charitable and government sources. It just may be that the set of investors has shifted irreversibly from venture capital funds to NGOs, corporate venture funds and patient demand.

I believe greater collaboration and a global outlook will be key to the wellbeing of the UK life sciences sector into the future. It's a very challenging but also a very exciting time, and here at One Nucleus we're delighted to play a part in contributing to that success.

www.onenucleus.com

Spring 2012



catalyst

Cambridge Science Park Newsletter



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PARKLIFE connections

Cambridge AWiSE (Association for Women in Science & Engineering) is a multidisciplinary membership networking organisation composed of individuals from institutions, businesses, associations and other organisations all of whom share the common goal of advancing the interests of women in science, engineering and technology. Cambridge AWiSE holds regular meetings and events; for details see the website or get in touch.

Web: www.camawise.org.uk
Email: info@camawise.org.uk

Cambridge Network is a membership organisation. We bring people together - from business and academia - to meet each other and share ideas, encouraging collaboration and partnership for shared success. With over 1000 corporate members, including start-ups, SMEs and global corporations, Cambridge Network represents the majority of the technology businesses in Cambridge.

Web: www.cambridgenetwork.co.uk
Email: Claire.Ruskin@cambridgenetwork.co.uk
Tel: 01223 300148

Enterprise Link, a Business Link service for Cambridgeshire, is a membership network providing advice and support for early-stage, entrepreneurial/aspirational businesses. It holds a variety of networking events and seminars at the St John's Innovation Centre in Cambridge, and also sends out regular bulletins to members with information, advice and opportunities. It can also arrange access to sector specialists.

Web: www.enterprise-link.co.uk
Email: info@enterprise-link.co.uk

The Cambridge Science Park is managed by Bidwells on behalf of Trinity College.

Cambridge Science Park tenants can post news, events and jobs free on the Cambridge Science Park website – log in at www.cambridgesciencepark.co.uk to start posting or email info@cambridgesciencepark.co.uk to find out more (and request log-in details).



www.cambridgesciencepark.co.uk

PARKLIFE

Brady anticipates revenue growth of 70%

Brady, the largest European-headquartered provider of energy and commodity trading and risk management software, announced a predicted revenue growth of 70% in 2011, including a recurring revenues increase of 145% for the calendar year.

The results, which will be formally announced in March 2012, were welcomed by Gavin Lavelle, CEO of Brady, who said: “Despite the generally challenging macro-economic conditions in 2011, we’re delighted to predict these fantastic results for Brady last year.

“Our 150-strong team have been providing top quality solutions to more than 150 clients and we’ve enlarged our product offering in line with growing market needs. Following our acquisition of Viz Risk Management AS in December 2010 [subsequently renamed Brady Energy 2010], we’ve integrated the business into our operations and the success of this process has been reflected in our growth. We’re working to build on this great work in 2012.”

www.bradypkc.com



Above// Gavin Lavelle, CEO of Brady plc

Enval secures funding for commercial-scale recycling plant



Above// Mr David Boorman (Business Development Director) and Dr Carlos Ludlow-Palafox (Chief Technology Officer) in front of Enval's microwave-induced pyrolysis pilot plant at its engineering facility in Luton

Enval has secured further funding for the commercialisation of its unique recycling technology for plastic and aluminium laminate packaging. The funding round was completed in January 2012 and will support the opening of Enval's first commercial-scale recycling plant later this year.

The investment was secured from a syndicate of investors including Cambridge Enterprise and business angels from Cambridge Capital Group and Cambridge Angels.

Enval, originally a spin-out from the Department of Chemical Engineering at the University of Cambridge, has developed a patented technology that offers a viable recycling route for plastic/aluminium laminate packaging that, to date, has been unrecyclable. The award-winning technology separates the material into its constituent components, producing clean aluminium ready for introduction into the secondary aluminium supply chain and hydrocarbons that can be used as fuel or chemical feedstock.

www.enval.com

CSR technology to power next generation of wireless interface devices

The next generation of wireless mice, keyboards, remote controls and other devices could operate on a single set of batteries for the life of the product thanks to a new range of Bluetooth Smart® technology launched by CSR at the International CES consumer tradeshow in Las Vegas in January 2012.

The Cambridge Science Park-based company, which celebrated the shipment of two billion Bluetooth devices in 2010, hopes to revolutionise the human interface device industry with a new

suite of solutions aimed at original equipment manufacturers, offering realistic battery life of five years for mice and ten years for keyboards.

“The Bluetooth Smart logo is a clear statement to consumers that they can expect market-leading battery life,” said Paul Williamson, Product Marketing Manager at CSR.

www.csr.com



Above// Bluetooth Smart® technology is used in wireless devices such as keyboards and mice

Chemical reactions

A global perspective at the Royal Society of Chemistry

In the midst of ambitious expansion despite the economic downturn, it's a busy time for the Royal Society of Chemistry team based on Cambridge Science Park. *Catalyst* spoke to Commercial Sales Manager Emma Clements and Editor for *Chemistry World* Bibiana Seijo-Campos to find out more.

For its members ranging from A-Level students to Nobel Prize winners, postgraduate researchers to captains of industry, the Royal Society of Chemistry (RSC) is a focal point for exploring the ever-changing world of chemical sciences. Although its official headquarters is at Burlington House in London, right next door to the Royal Academy of Arts, much of its core work (including publishing, education and event management) is coordinated from the newly renovated Thomas Graham House on Cambridge Science Park.

"We've got around 47,500 members worldwide," explains Emma, "which makes us the largest organisation in Europe for advancing the chemical sciences. Originally we were founded in 1841, so we've got more than 170 years of history in our field. At this point in our evolution, we're becoming more global than ever before. We've now got offices in China, India, the USA and last November we opened our new Japanese office in Tokyo."

One of the RSC's core aims is to engage and inspire young people to look at chemistry in a new light, promoting the science as a source of both intellectual stimulation and diverse professional opportunities. The RSC is in fact the largest non-government supporter of chemistry education in the UK and is involved in a wide range of educational initiatives and programmes.

"It's really important now more than ever that we're promoting chemistry as a subject in schools in the UK," explains Emma. "We start to engage with schoolchildren at age 11, encouraging them to get involved in science and later to take chemistry as an A-Level subject."

"Then for students considering higher education, we go to lots of colleges to talk to students about their degree choices and the huge variety of careers that can follow on from obtaining a degree in chemistry. We show them how it is used in fields such as forensic science, food development, materials science, environmental science, hazardous waste management, to name just a few."

"We hope that members who join us at a young age are going to be with us for the rest of their lives"

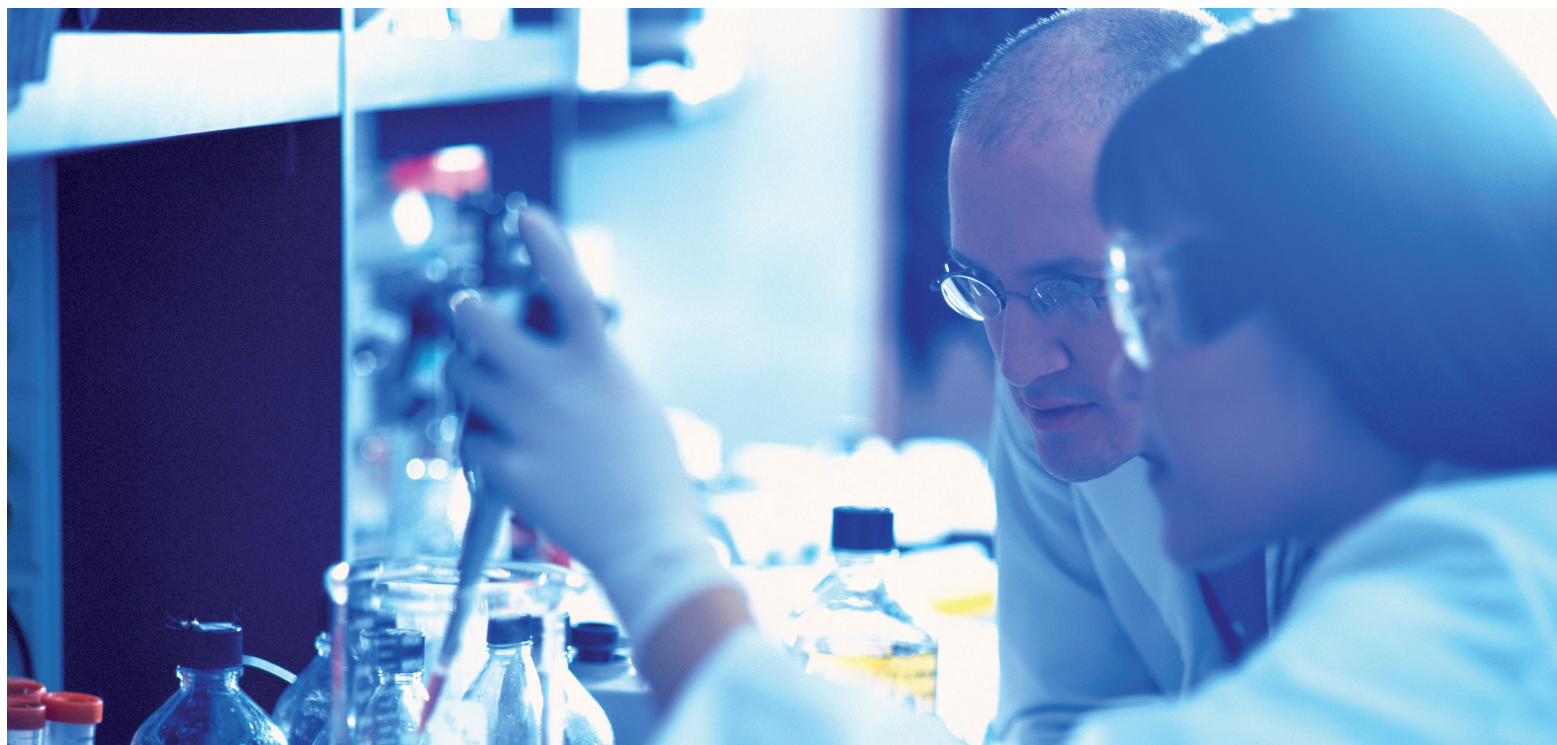
"We try to whet their appetites by running programmes where we introduce students to equipment that they probably wouldn't have access to during pre-university courses. For example, our *Spectroscopy in a Suitcase* programme introduces students to spectroscopy equipment, techniques and applications and is actually delivered by university students, so the younger audience has the chance to ask questions about what degree courses are really like."

"We're trying to engage with future chemists at an early age, which is why we've got a membership option called *ChemNet* aimed at 16- to 18-year-olds and it only costs £20 for two years. Members get online access to our *Chemistry World* magazine and links to lots of other online resources. We're

hoping that members who join us at this young age are going to be with us for the rest of their lives."

Engaging with young people is only one part of a holistic membership strategy which sees the RSC looking to provide chemists at all stages of their professional lives with information, advice and opportunities that they would struggle to find elsewhere.

"We see it as a 'cradle to grave' approach as applied to a chemist's career," explains Emma. "So we're talking to children as young as 11 about choosing chemistry as an option, we're helping graduates to find their first jobs, and we're helping professionals at much more advanced stages of their careers to secure new opportunities."



Below// scientists in the lab

"We relaunched *Chemistry World* Jobs in February 2011, the online official jobs board for the Royal Society of Chemistry, which complements our printed jobs board in *Chemistry World* magazine."

"It's a really powerful tool for people to search for jobs across all sorts of different fields and at all levels, from recent graduates through to very experienced chemists. Candidates can upload their CV to the site and likewise recruiters can search the database to find their ideal employee; we are really pleased at how the site has been received and we've been getting around 11,000 unique users each month."

The economic downturn and budget freeze in science research by the UK Government has had its impact on the sector as a whole and on recruitment prospects in particular. However, there are still new opportunities to be realised, as Emma goes on to explain.

"In 2011 we saw closures of the Pfizer research facility in Kent, GlaxoSmithKline in Harlow and Novartis in Horsham," she says. "Obviously these closures and subsequent job losses are really regrettable, but we're hoping that the sector will come out stronger in the long run."

"In the meantime, it's been interesting to hear from some of the smaller and medium-sized recruiters who use our jobs board telling us that, probably as a result of redundancies, they've never had such a good choice of exceptionally strong candidates applying to them. And here at the RSC, we're working really hard to help ensure that we can match the best candidates with exciting opportunities to keep our sector buoyant during difficult times."

The RSC's diverse publishing activities, which include peer-reviewed journals, membership magazines and books, are coordinated from Cambridge Science Park and reach a growing global audience. Bibiana Seijo-Campos, Editor of flagship member magazine *Chemistry World*, is clear that there has never been a more exciting time to be involved with publishing at the RSC.

"All of our members get *Chemistry World*, so we're distributing to nearly 50,000 people every month, both online and in print," she says. "*Chemistry World* has also got 120,000 followers on Twitter, which we're thrilled about!"

We have a very broad readership of people from students through to professionals and academics; we cover chemistry news, policy, business, education and research, funding and jobs, so there really is something for everyone.

"We're also publishing more than 30 chemistry-related journals each year and launching at least three or four new titles annually. It's really a global business and we're supporting this by employing sales representatives in some of our emerging markets such as China, Taiwan, Hong Kong and North America. Some of the journals are very niche and we might only have 500 subscribers,

but we're also offering bundles such as 'green chemistry' packages where subscribers get four to five titles related to environmental issues."

Although much of the publishing industry is in the midst of upheaval and forced contraction, Bibiana is upbeat about the prospects for the RSC's continued global growth.

"I think we've worked very hard to build up a reputation for the quality of our articles, rather than just aiming for quantity," she says. "Our articles get cited in many different places, which in turn means that we have the best authors and research teams wanting to publish with us rather than anyone else."

"*Chemistry World* has got 120,000 followers on Twitter – we're thrilled!"

"From that position of strength, we've also been able to broaden the range of journals we publish and keep the quality high. It's also been really important that we are flexible and quick to respond to market intelligence. When we see that a new market need has been defined, we move fast and don't just sit on the information to see what happens. That's why, very often, we see our competitors follow us to market with a similar title six months after our own launch."

"And publishing is of course just one aspect of what we do, but it's very exciting to see it building in the way it is. When I applied for my job at the RSC in 2008, at the height of the economic crisis, I asked what the strategy was and was told: growth. It's been great to see that my interviewers really were telling the truth!"

www.rsc.org



Above// the new-look *Chemistry World* for this year

Much more than antibodies

Abcam is on a mission...



Above left// ?

It all started with a simple idea: to build the largest catalogue of the best antibodies in the world. More than 14 years later, Abcam is a bona fide Cambridge hi-tech superstar, listed on the AIM market of the London Stock Exchange and delivering high-performance protein research tools to life science researchers in more than 88 countries worldwide. CEO Jonathan Milner spoke to *Catalyst* about the Abcam story and what lies ahead.

In the beginning, as Abcam folklore has it, there was a young postdoctoral researcher (and a group of like-minded scientists), a Cambridge telecoms entrepreneur and an ice bucket full of antibodies. In 1998, Jonathan Milner had been studying the newly discovered breast cancer protein BRCA2 in Professor Tony Kouzarides' laboratory and was growing increasingly frustrated with the difficulty in finding quality antibody reagents with up-to-date user-focused information.

A conversation with Dr David Cleevly, a Cambridge telecoms entrepreneur, helped to crystallise what they saw as a unique business opportunity – a web-based antibody company with the most comprehensive, honest and up-to-date datasheets, fast delivery, and helpful customer service and technical support.

With David and other investors on board, Jonathan's house remortgaged and a name chosen (by Professor Tony Kouzarides, still a board member),

"It's a really exciting time for Abcam because we are extending our range of products across the broader market of protein research tools"

Abcam was born in 1998. But, in those early days, it certainly wasn't all plain sailing. The initial years were tough and Jonathan ended up taking a back-to-basics approach: he literally went knocking on (laboratory) doors across the University of Cambridge with the aforementioned ice bucket of antibodies in hand.

In the early noughties, with further investment from local business angels and the recruitment of leading scientific talent to the Abcam management team, the company soon began to find its feet. Its powerful eCommerce platform, which includes regional websites for the Chinese and Japanese markets, features a range of more than 85,000 products and has helped to revolutionise the way researchers buy reagents worldwide. But alongside the quality and range of its online catalogue, it is the customer focus that Jonathan says has helped Abcam deliver continued growth.

"Because of our origins and continued strong links with the research community, we've always prided ourselves on understanding what our customers want and putting them first," he says.

"A key differentiator for Abcam is the technical data that supports our products and a focus on adding value through product features. We put our products through a very rigorous testing and characterisation process so that we can provide comprehensive datasheets. These include images and results of how they performed in experiments, the different protocols used and what researchers can expect from them.

"We have also further extended our support offering this year by increasing the length of our product guarantee from 120 days to six months, improving order cut-off times – for most regions this means customers get their products within 24 hours of ordering them – and extending technical support hours in key regions, giving greater flexibility to customers globally.

"Our proactive market research team conducts research that helps us keep in touch with market trends and understand customer needs. We run regular surveys to see what our customers want and how well we are performing –

in our recent survey, 92% of customers rated Abcam's products as good or excellent, so we hope we are doing something right. But of course we still want to improve!"

Abcam's extensive conference programme is another way of interacting with its customers, with 18 conferences focused on Abcam's core research areas (Cancer, Cardiovascular, Epigenetics & Nuclear Signaling, Immunology, Metabolism, Neuroscience and Stem Cells) held in 13 locations and attended by more than 2,000 delegates in the 12 months up to the end of June 2011 alone.

"Researchers tell us our conferences are really useful, they are a forum in which to hear from key opinion leaders and to get together with others in their field to share ideas and discuss relevant issues," says Jonathan.

"In 2011 we also started to complement our events programme with a series of webinars focused on online technical seminars and tutorials. These obviously have a global reach and anyone with internet access can benefit from them. They've been really well received. I think they're particularly useful in these times of research budget cuts when people may not always have the funds to travel to events in person."

A quick glance at Abcam's financial results shows a company in rude health: revenue increased by 17.1% from the end of June 2010 to the beginning of July 2011. It is a long way from the early days of the ice bucket but the team at Abcam are anything but complacent, as Jonathan goes on to explain.

"It's a really exciting time because we are extending our range of products across the broader market of protein research tools. This includes a growing range of non-antibody products, such as proteins, peptides, lysates, immunoassays and other kits and biochemicals. We're working really hard to add more high-quality products to our catalogue based upon what our customers want and to develop the Abcam brand beyond antibodies.

"To allow us to effectively communicate our expansion into new product areas, we have launched a new brand identity with the strapline 'discover

more'. This reflects our commitment to help customers in their research and our drive to continually deliver the quality, support, speed of delivery and reliability that customers have come to expect from Abcam.

"We've also added a further dimension to our product ranges and scientific expertise through the acquisition of two companies that share our quality values. The first was MitoSciences in the US, a leading provider of high-performance mitochondrial research tools that include easy-to-use and sophisticated assay products. The second, Ascent Scientific in the UK, has given us access to a completely new range of high-purity biochemical tools including receptor agonists and antagonists, ion channel modulators and more.

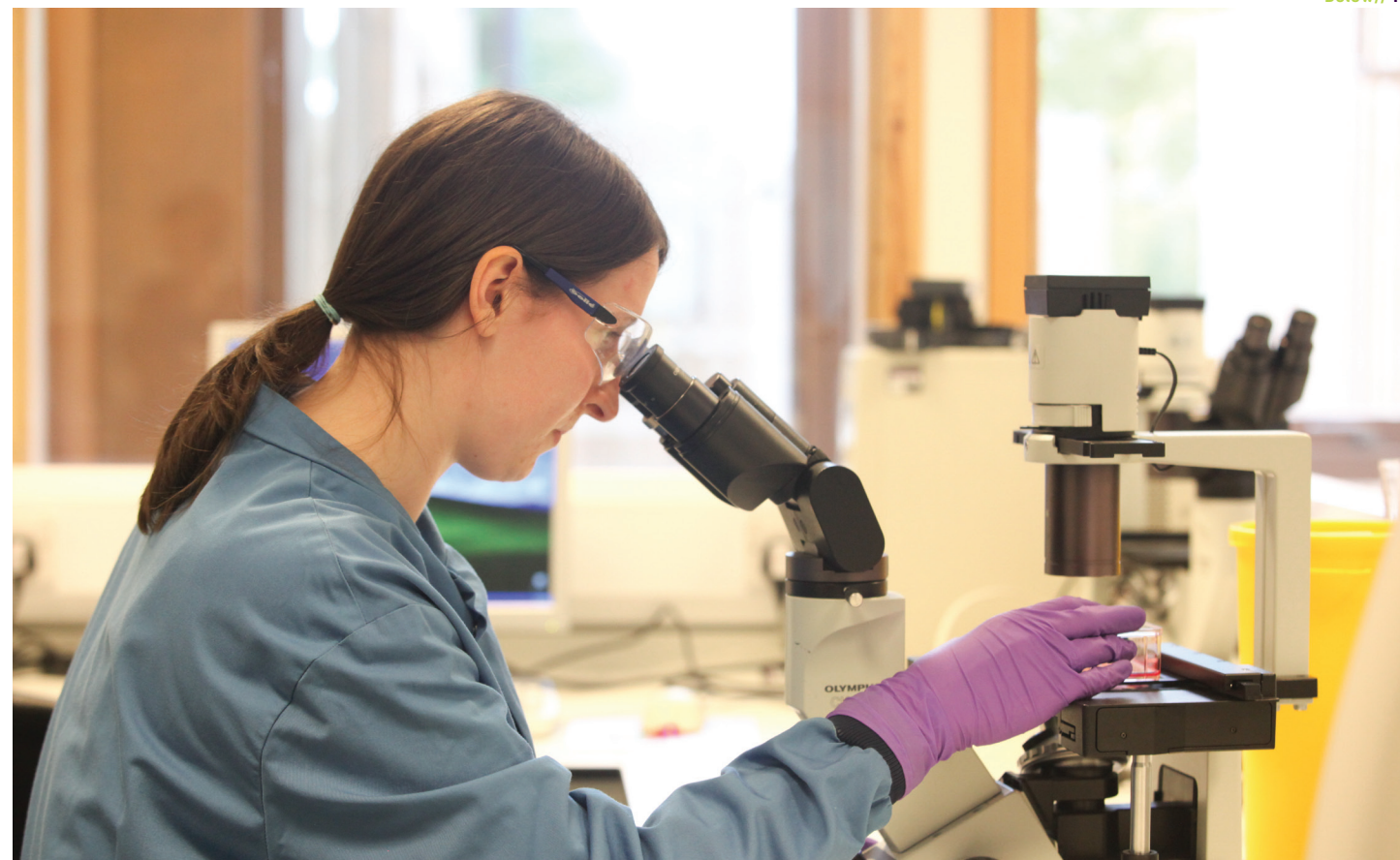
"Through these acquisitions we've added offices in Bristol and Eugene, Oregon, to our network of locations – we've also got teams in Cambridge

"It's a great time to be involved with the company as we grow and evolve. We're proud of our history but I don't think anyone here believes in resting on our laurels"

MA (USA), Tokyo and Hong Kong. Along with our distributor network, this means we have global reach and can provide a localised service.

"We continue to focus on our core markets, but we are also looking at expanding our geographic penetration. Hong Kong and China are really strong emerging markets for life sciences research, so we're building relationships and creating a network of sub-dealers to give us better geographical coverage in the region. It's a great time to be involved with the company as we grow and evolve. We're proud of our history but I don't think anyone here believes in resting on our laurels."

www.abcam.com



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