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Impact through innovation

Quarterly Journal—issue 7

NEWS COMMENT and ANALYSIS on SPINOUTS from UK HEIs

The funding process

It can take large amounts of money to take promising technologies all the way from the research laboratory to a prominent position in a global market.

We have mentioned in previous issues of the Quarterly Journal a trend towards a small number of companies securing very large investments. This trend is emphasised by the investment patterns of the specialist investors in this sector such as IP Group, Imperial Innovations, and Fusion IP.

There are fortunately many other investors interested in supporting companies with high growth potential (often technology companies) with smaller investments at an early stage, and our reports show unabated activity at this level.

Young companies are often tempted to look at what funding is available rather than to assess their total funding needs over the whole journey from start-up to self-sufficiency, and they often take whatever is on offer. When funding can seem so difficult to secure, this response is understandable, but sometimes the decisions taken at this early stage can have an adverse effect upon future funding rounds.

It is interesting to see that several university spinouts (Oxford Catalysts, e-Therapeutics, and Ceres Power), having achieved IPOs on AIM, have used this as simply a stepping stone in the funding process, and have gone on to raise substantial further funding by way of placements and open offers.

Two other recurring themes in this Quarterly Journal, which run parallel to and strongly influence the overall funding process, are the ability to forge partnerships with large global industry specialists (as exemplified by Nexeon's partnership with WACKER), and the ability to attract top level directors and senior management—we have included details of recent appointment in many of the reports in this issue.

If you know of recent spinouts, start-ups, exits, or significant investment deals that we have missed, please let us know (research@ycf.co.uk) - - we are currently preparing this year's Annual Report, and intend it to be as complete as possible.

Jonathan Harris, Editor

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New spinouts

The following companies have come to our notice since the previous Quarterly Journal. Although most of them were incorporated some time ago, they started trading more recently, usually upon the securing of initial funding or the appointment of key team members.

company	university	sector	incorp	started trading	web
Brainomix	Oxford	healthcare products & services	02-Nov-10	04-Feb-13	www.brainomix.com
Anacail	Glasgow	manufacturing & materials	03-Nov-10	26-Nov-12	www.anacail.com
Keracol	Leeds	healthcare products & services	16-Aug-11		www.keracol.co.uk
Impression Technologies	ICL	manufacturing & materials	30-Mar-12	20-Sep-12	www.impression-technologies.com
CYP Design	De Montfort	drug discovery & diagnostics, therapeutics	01-Jun-12		

Brainomix

The latest start-up from the Isis Software Incubator puts the expertise of a stroke assessment team into the hands of any doctor in an emergency department.

Brainomix is led by managing director Dr Michalis Papadakis, along with co-founders Professor Iris Grunwald and Professor Alastair Buchan, Professor of Stroke Medicine and Head of the Medical Sciences Division at the University of Oxford.

e-ASPECTS automates the Alberta Stroke Program Early CT Score (ASPECTS) pioneered by Prof Buchan. Over the last 12 years ASPECTS has been adopted worldwide. The original ASPECTS system relies on a scoring system to assess CT (X-ray computed tomography) scans but requires a stroke expert to gauge the images. The automated e-ASPECTS encapsulates the expertise of Prof Buchan and his team in software that processes CT images. The software gives a score that can be used by any doctor to assist in deciding on an intervention where there is only a four and a half hour window for treatment from the onset of the stroke.

Brainomix was set up by Isis Innovation, the technology transfer arm of the University of Oxford, and developed with the support of the National Institute for Health Research Oxford Biomedical Research Centre.

Anacail

Anacail was formed to commercialise technology developed by Dr Declan Diver and Dr Hugh Potts of Glasgow University's School of Physics and Astronomy. The technology can rapidly and safely turn some of the oxygen inside packaged food into ozone, a very effective germicide.

Plasma generated by a retractable device held briefly against the surface of plastic or glass packaging splits the bonds between oxygen molecules (O₂) inside the packaging which then reform

as ozone (or O₃). The ozone naturally returns to its original state after just a couple of hours – more than enough time for any mould, fungi or bacteria on the packaging's contents to be destroyed without adversely affecting its taste.

The product's effectiveness as a germ-killer also extends food's shelf-life by at least one extra day, and has been proven at UK labs including Campden BRI in Gloucestershire, where tests have shown an increase in shelf-life for products including bread and muffins, and a significant reduction of many pathogens in poultry including campylobacter, pseudomonas, and E.coli.

The name Anacail means 'shield', 'preserve' or 'protect' in Gaelic.

Keracol

Keracol –strap line 'functional, natural, sustainable cosmetics' – is a spin-out company from the University of Leeds, producing cosmetic products for hair coloration, hair care and skin care using novel approaches to the extraction, fractionation and purification of natural active molecules in the cleanest, most energy efficient way.

The company was founded by Dr Richard Blackburn, Senior Lecturer in Coloration Technology, and Prof Christopher Rayner, Head of Organic Chemistry, at the University of Leeds. Prof Rayner previously founded C-Capture, and he and Dr Blackburn together founded DyeCat, both spinouts from Leeds.

Impression Technologies

Impression Technologies is an aluminium forming technology business based on intellectual property developed at Imperial College London.

The world's automotive and transport industries will have to make a step change in their use of aluminium if they are to meet

the environmental challenges of reducing energy consumption and carbon emission targets. Aluminium is difficult to form into complex shapes due to its limited ductility. Current technologies cannot meet the challenges faced in producing sophisticated shapes and structures for high volume applications cost effectively.

Professor Lin of Imperial College London and Professor Dean of the University of Birmingham have developed the Hot Form Quench (HFQ) technology, which provides a cost-competitive means of producing lightweight, complex and structured aluminium components for the automotive, aerospace and rail industries.

In the patented HFQ process, an aluminium sheet is heated above its Solution Heat Treatment temperature, formed while hot, and quenched in the press. This process allows pressings to be formed which are lighter, deeper and with tighter radii than has been possible to date. The process is quicker and more cost-effective than current methods, results in superior metallurgical properties, and allows stronger and lighter structures to be formed.

Impression Technologies is headed by CEO George Adam, an experienced automotive manager with over 30 years' experience at GKN plc and ESAB China, and chairman Mike Foster, formerly CEO of Charter International plc, which he headed for five years following a career at GKN plc and Kvaener.

CYP Design

De Montfort University (DMU) has joined forces with Ithaka Life Sciences to market new technology invented by Professor Bob Chaudhuri, which will provide new products and services based on a set of proteins, named cytochrome P450s (CYPs).

CYPs are found in the human liver and are mostly responsible for the metabolism of drugs in people. These proteins are commercially available for use by companies involved in the discovery of new drugs, but are inconvenient to use as they must be transported and stored at temperatures as low as minus 80 degrees Celsius.

The new technology from DMU allows CYPs to be shipped and handled at room temperature, eliminating the need for a cold chain. This will reduce the cost and make their use in testing new drugs much quicker and easier.

DMU and Ithaka have established a new company called CYP Design Ltd (CDL). DMU has licensed the new technology to CDL which will now bring the new products to market. Ithaka has worked closely with Professor Chaudhuri to set up CDL and is leading the implementation of the business strategy through Dr Bill Primrose as CEO and Dr Paul Rodgers as chairman.

Recent exits

exit date	company	type	incorp	university	value	acquirer
01-Nov-12	Midaz Lasers	trade sale	01-Nov-12	ICL	n/d	Coherent Inc
25-Feb-13	Edinburgh Instruments	trade sale	19-Sep-69	Heriot-Watt	£2.9m	Techcomp Group

MiDAZ Lasers

On 31st October last year Coherent Inc announced its acquisition of MiDAZ Lasers, a spinout from Imperial College London started in 2006, at the same time acquiring Innolight Innovative Laser and Systemtechnik GmbH. Coherent believes that together these companies provide core technology building blocks for an emerging class of commercial, low cost, sub-nanosecond pulsed lasers for micro-electronics manufacturing.

The patented MiDAZ technology enables simple amplifiers to be incorporated in a broad range of laser products delivering power scaling and long lasting performance in electrically efficient designs.

Innolight manufactures low power, short pulse lasers for industrial applications like silicon processing, and ultra-stable continuous wave lasers used in demanding scientific applications like atom trapping.

Founded in 1966, Coherent Inc (Nasdaq:COHR www.Coherent.com) provides photonics based solutions to the commercial and scientific research markets.

Edinburgh Instruments

Edinburgh Instruments (www.edinst.com) the first spinout from Heriot Watt University started in 1971, announced on 25th February the acquisition by Techcomp (Group) of a majority (66%) holding in the company. The price is understood to have been £1.9 million, valuing EI at £2.9 million. Techcomp (www.techcomp.com.hk), quoted on the Hong Kong stock market, designs, develops, manufactures and distributes analytical instruments, life science equipment and laboratory instruments for a broad range of chemical analysis and life science applications.

EI manufactures lifetime fluorescence spectrometers, lasers and gas sensors for scientific research and industrial markets. The business is based in Livingston, Scotland and was an early pioneer of Time Correlated Single Photon Counting (TCSPC) laser and gas sensing technologies.

Chairman Dr Derek Shepherd commented “Edinburgh Instruments has prospered under strong leadership, a motivated team of highly qualified employees and with investment from Scottish

Enterprise and Hamamatsu Photonics KK in the early years. Our products provide research institutes world-wide with the most advanced photonic analytical capabilities available today. EI is now ready to start a new phase of development. Tech-comp’s knowledge and global presence in our high-end analytical markets position them as the perfect partner to help release the full potential of our technologies.”

Recent investments

The following reports cover a selection of the investments listed in the table on p7. Unusually, three companies which have already floated on AIM raised a further £80 million between them, using an IPO as just one step in the overall funding process.

Oxford Catalysts raises £30.6 million in share issue

Oxford University spin-out company Oxford Catalysts (www.oxfordcatalysts.com) was spun-out by Isis Innovation in 2005 to produce catalysts for the generation of clean fuels.

Oxford Catalysts enables modular Gas-to-Liquids (GTL) plants to convert unconventional, remote and problem gas into valuable liquid fuels. Systems based on the Group’s technology (marketed under the brand name Velocys) are significantly smaller than those using conventional technology, enabling modular plants that can be deployed cost effectively in remote locations and on smaller fields than is possible with competing systems.

As Oxford Catalysts Group plc, the company floated on AIM on 26 April 2006, valued at £65 million. In March 2011 it raised a further £21 million to progress from operating as a research and development company to a commercial product company.

The latest round was supported by existing investors and (according to media reports) by Roman Abramovich, the Russian billionaire and Chelsea football club owner.

Oxford Catalysts is now valued at approximately £130 million.

PathXL closes significant investment round

PathXL (www.pathxl.com), a spin-out from Queen's University Belfast established in 2005, is a pioneer in the use of web-based solutions for digital pathology, mainly in regard to cancer. Its PathXL™ Manager product provides a web-based platform to enable digital pathology users across all fields to manage, view and collaborate around virtual slides easily and efficiently. In addition, PathXL provides a range of applications and workflows to deliver specific solutions to pathologists, scientists and students in education, research, clinical and biobanking settings. PathXL also provides a full range of supporting services, including scanning, hosting, image analysis and consultancy.

In January the company secured a new “seven figure” investment into the further development of its digital pathology software.

The new funding has come from a variety of sources, including Par Equity of Edinburgh and Clarendon Co-Investment Fund, both new investors, as well as increased support from existing investors Crescent Capital, QUBIS and E-Synergy. Tristan Brittain-Dissont, fund manager for E-Synergy’s Northern Ireland Spin-Out Funds, has joined the company’s board.

PathXL CEO Des Speed commented “Alongside the investment funds from QUBIS and Crescent Capital, our largest shareholder, this enables the company to continue its expansion into North America, Europe and beyond; and to further strengthen the product focus in stratified medicine as well as support to clinical workflows, and our leading position in education.”

Oxford Photovoltaics to construct own product development and test facilities

Oxford Photovoltaics (OPV, www.oxfordpv.com) was spun-out from the University of Oxford by Isis Innovation Ltd, the University’s technology transfer office, to commercialise solid-state dye sensitised solar cells for the Building Integrated Photovoltaic (BIPV) sector.

These new, transparent solar cells can be produced from inexpensive, abundant, nontoxic and non-corrosive materials and be scaled to any volume. They can be printed directly onto glass in a range of colours, making them ideally suited to use in glazing panels and facades.

In February cleantech investment specialists MTI Partners announced the completion of a £2 million investment round through its UMIP Premier Fund alongside investment from the University of Oxford and a number of private investors.

This latest investment round allows OPV to build on its technical and commercial teams and construct its own product devel-

opment and test facilities at the Begbroke Science Park near Oxford.

e-Therapeutics completes £40m placing

e-Therapeutics plc (AIM: ETX, www.etherapeutics.co.uk), a spinout from Newcastle University, is a drug discovery and development company which is pioneering network pharmacology, a new approach to the discovery of medicines.

On 1st March, e-Therapeutics announced the completion of two share placings that raised £40 million in new equity (approximately £39 million net).

The new shares were priced at 32p, a premium of 4% to the price on previous dealing day. Following the funding, the company has net cash and liquid resources of approximately £48 million, which together with expected receipts from R&D tax credits and interest, are intended to support all of its currently planned discovery and development activities into 2017, by which time an outlicensing deal for the company's lead cancer drug ETS2101 should be in place.

As a result of the latest investment, Invesco Asset Management now holds 45.9% of the company's shares, together with Henderson Global Investors (12.1%), Octopus Group (6.3%), Newcastle University (4.9%), and founder Professor Malcolm Young (14.9%), in all accounting for 84.1% of the company.

Ceres Power funds engagement with OEMs

Ceres Power (AIM:CWR, www.cerespower.com) is a developer of intermediate temperature solid oxide fuel cell technology.

On 12th March the company announced its intention of raising £9.7 million net through a placing to raise £8.7m and open offer to raise £1m, at 8 pence per share.

The proceeds of the fundraise are intended provide sufficient capital to take Ceres through the next stage of OEM engagements. Following the deployment of these funds, the Ceres core cell and FCM technology platform will be proven to be suitable for product development programmes with several OEMs in multiple geographies.

IP Group will invest £2 million in this round, and will thereafter hold 24.8% of Ceres' enlarged issued share capital. Other investors in the round include existing shareholders ORA (Guernsey) Limited and Sarasin & Partners LLP, and new investor Henderson Global Investors Limited.

The fund raising is conditional, amongst other things, upon approval at a general meeting on 28 March 2013.

Nexeon secures strategic investment from WACKER

Nexeon (www.nexeon.co.uk), the battery materials and licensing company, has signed a strategic partnership agreement with German chemical company WACKER Chemie AG, and WACKER has taken a strategic stake in Nexeon.

Nexeon is developing silicon materials to replace carbon as the anode of lithium ion (Li-ion) batteries. This will lead to the production of rechargeable batteries with higher charge density, enabling consumers to use devices such as laptops and smart phones for longer before needing to recharge them. Stronger battery performance is also key to the wider adoption of electric and hybrid vehicles.

The partnership with Wacker will involve the two companies working together to scale-up the production of Nexeon's silicon anode technology to commercial volumes. WACKER has strong research and chemical process capabilities as well as extensive production expertise in speciality materials and will be able to leverage its engineering and manufacturing expertise to accelerate Nexeon's scale-up plans.

Imperial Innovations was the lead investor when Nexeon raised £40 million in 2011 to establish a high tech manufacturing facility in order to scale-up the production of its materials to a commercial supply level of around 250 tonnes per annum, and Nexeon is Innovations' second largest investment to date.

Asalus raises funds to take Ultravision to market

Asalus Medical Instruments (www.asalus.com) has completed a £1.25m funding round, to complete the manufacture and CE marking of its Ultravision technology, prior to its planned launch in the second half of 2013.

Laparoscopic surgery is a modern surgical technique in which operations in the abdomen are performed through small incisions, as compared to the larger incisions needed in traditional surgical procedures. Asalus is developing three laparoscopic surgery devices: Ultravision™, a smoke clearance device in which electrosurgical smoke is cleared from both minimal access and open surgical procedures; Surehold™, a multi-functional device for the atraumatic manipulation of tissues and organs; and Snugport™, a laparoscopic access port that will provide significant benefits over those currently on the market.

The £1.25m funding includes investments from existing investors, namely Fusion IP, Finance Wales, and IP Group plc. As a result of the funding Fusion owns a 44% undiluted shareholding in Asalus.

As part of the funding round David Frederick has assumed the role of non-executive chairman. David has over 17 years of medical device sales, marketing, business development and general management experience, having previously been Vice President of Sales at Covidien where he had responsibility for a sales force of over 700 people, generating \$1 billion in sales.

Ecus Ltd looks to national expansion

Environmental consultancy Ecus (www.ecusltd.co.uk) is looking to expand staff numbers, regional offices and its national capabilities, following an investment from Finance Yorkshire. A

spin-out company from the University of Sheffield, Ecus currently employs more than 20 staff and has a turnover of £1.5m. After diversifying into different markets and following a board reshuffle, Ecus is looking to broaden its national capabilities with the backing of an equity linked investment from Finance Yorkshire.

Established in 1986, Ecus offers a range of services assisting clients through the planning process including Environmental Impact Assessment (EIA), ecology, landscape, geosciences and environmental management services. Now the consultancy is looking to double staff numbers at its Sheffield base, boost turnover and create new regional offices thanks to the investment.

Sphere Fluidics accelerates growth

Cambridge based life science company Sphere Fluidics (www.spherefluidics.eu) has closed a £1.6 million funding round to support its expansion.

The investment syndicate was led by 24Haymarket and included the Royal Society, Cambridge Enterprise, Providence Investment Company, University of Cambridge Enterprise Fund, and business angels from Cambridge and London, including a £133k investment by a syndicate of London Business Angels and its EIS Approved Roundtable Syndicate Fund 2012.

The company is commercialising a single cell analysis technology which can accelerate new bio-pharmaceutical discovery, generate stem cell therapies, and enable novel studies on single cell diseases such as cancer. This picodroplet technology, using a microfluidic chip, can perform up to eight million single cell tests per day and has already been used by a number of blue chip clients. This new round of substantial funding will enable the company to expand its management resources, relocate to a new facility and accelerate sales growth.

Frank Craig, Sphere Fluidics' CEO, commented "We are very pleased to close this round as it gives us the resources to further develop our business. There was strong interest in the company and we were pleased to welcome 24Haymarket into an impressive syndicate of investors."

Semetric develops Musicmetric brand

Semetric, the technology firm behind global music analytics specialist Musicmetric (www.musicmetric.com), has completed a £3m funding round with Imperial Innovations and existing investor Pentech Ventures, a VC fund focused on technology businesses.

Semetric's software platform aggregates and analyses data from thousands of online sources. Musicmetric, the first of Semetric's products to be launched, has risen to prominence through its work supporting insight and analysis across the global music industry. Customers already include EMI and MTV.

Musicmetric enables record labels and music marketers to analyse, benchmark and compare artist performance, aggregat-

ing online data alongside conventional sales information. Using information derived from social media platforms, music streaming and video sites, as well as BitTorrent consumption, Musicmetric produces a real-time chart ranking artist popularity.

Real-time data analysis allows the impact of marketing activities to be tracked against consumption, discussion or mentions of artists' music. Through a customisable interface, popular trends amongst consumers can be identified, enabling record labels to develop new talent in a particular area or allowing consumer brands to select an appropriate artist to support a marketing campaign.

Semetric was co-founded in 2008 by Imperial College London student Gregory Mead, who is CEO, Marie-Alicia Chang, and Matthew Jeffrey. Its executive chairman is Jeremy Silver, formerly global VP for new media at EMI and director of media affairs at Virgin Records; he was also CEO of Sibelius Software, which produces music composition software. Jon Edington, director of investments at Imperial Innovations, joins the board as a non-executive director.

Smarter Grid Solutions targets Europe and North America

Smarter Grid Solutions' Active Network Management uses software, automation and control to monitor the electricity grid in real time.

It allows power companies to operate electricity grids closer to their operating limits, without compromising safety and security. This approach can create up to two or three times more capacity in the existing grid, and enables power companies and utilities to use their existing assets to connect more renewable energy to the grid, and respond to an increase in demand for electricity.

Founded in 2008, Smarter Grid Solutions (www.smartergrid.com) now employs more than 30 people and has ambitious recruitment plans over the next three years. The company originated from a commercial partnership between the University of Strathclyde and SSE plc. Professor Graham Ault from the University recently took up the post of development director, rejoining fellow founders Alan Gooding, managing director and Bob Currie, technical director.

Smarter Grid Solutions has secured £3 million of investment in a deal led by Scottish Equity Partners from its Environmental Energies Fund (EEF), together with the Scottish Investment Bank and the University of Strathclyde.

The funding allows Smarter Grid Solutions to position itself to meet substantial international demand for smart grid technology. The investment will enable the company to take advantage of emerging opportunities in the UK, Europe and North America. To do this the company will also grow its Glasgow base; expand its London office; and open an office in New York to take the technology to the North American market.

Xeros to roll out commercial laundry system

Xeros (www.xeroscleaning.com), a spin-out company from the University of Leeds that has developed an entirely new clothes cleaning process, has completed a £10 million fundraising.

The funding will be used to accelerate the roll-out of the Xeros commercial laundry cleaning system and finalise the development of a household system to replace conventional washing machines.

Invesco Perpetual managed funds led the round, investing £6 million. Directors and existing investors including IP Group, Entrepreneurs Fund, Enterprise Ventures' RisingStars II Fund, Finance Yorkshire, and Parkwalk Advisors, invested £4 million.

Xeros cleans clothes with very little water and Xeros polymer beads. The patented cleaning system comprises a special washing machine designed to release the beads into the drum for cleaning, and remove the beads from the clothes once the cleaning is complete. Up to 80% less water, 50% less energy

Recent investments

date	company	university	amount (million)	investors
26-Nov-12	Anacail	Glasgow	£0.75	IP Group, Scottish Co-investment Fund
04-Dec-12	Path XL	QUBIS	£1.00+	Par Equity, Clarendon Co-Investment Fund, Crescent Capital, QUBIS, e-Synergy
14-Dec-12	Isis Forensics	Lancaster	n/d	North West Fund for Venture Capital, Lancashire County Council Rosebud Fund
24-Dec-12	PureVLC	Edinburgh	£1.20	Par Equity, SIB (SCF), grant
04-Jan-13	Oxford Catalysts	Oxford	£30.00	share issue
15-Jan-13	Recycling Technologies	Warwick	n/d	Wroxall Investors (WIG)
16-Jan-13	Smarter Grid Solutions	Strathclyde	£3.00	SEP, SIB ,University
20-Jan-13	i2eye Diagnostics	Edinburgh	£0.60	Kelvin Capital, Scottish Enterprise Co-Investment Fund, Old College Capital, Founders
22-Jan-13	Asalus Medical Instruments	Cardiff	£1.25	Fusion IP, Finance Wales, IP Group
23-Jan-13	Semetric	ICL	£3.00	Imperial Innovations, Pentech Ventures
01-Feb-13	Cytox	Birmingham	£3.50	Spark Impact, Esperante, Wren Capital, Alta Innovations, individual (Jim Mellon)
05-Feb-13	LUX Assure	Edinburgh	£3.25	ConocoPhillips, Statoil Technology Invest AS, Archangel Informal Investment, SIB (SVF)
07-Feb-13	Ecus	Sheffield	n/d	Finance Yorkshire
13-Feb-13	Oxford Photovoltaics	Oxford	£2.00	MTI Partners (UMIP Premier Fund), Sustainable Technology Investors Limited (STIL), Park Walk Advisors, others
14-Feb-13	Impression Technologies	ICL	£0.50	Imperial Innovations
19-Feb-13	Sphere Fluidics	Cambridge	£1.60	London Business Angels, Roundtable Syndicate Fund, Royal Society Enterprise Fund
22-Feb-13	Nexeon	ICL	n/d	WACKER Chemie AG
27-Feb-13	Domainex	UCL Inst Cancer Research, Birbeck College	£1.50	UCLB, UCL,Longbow Capital, Bury
01-Mar-13	e-Therapeutics	Newcastle	£40.00	new share issue (existing & new institutional shareholders)
11-Mar-13	Xeros	Leeds	£10.00	Invesco Perpetual, IP Group. Entrepreneurs Fund, Enterprise Rising StarsII Fund, Finance Yorkshire, Parkwalk Advisors
12-Mar-13	Ceres Power	ICL	£9.70	placing (IP Group, ORA Guernsey, Sarasin & Partners, Henderson Global Investors) & open offer
12-Mar-13	Inquisitive Systems	Edinburgh Napier	£0.50	Archangels, TRI Cap, SIB (SCF)

and 50% less detergent is used in the Xeros system versus conventional washing, yet Xeros delivers superior cleaning results.

The technology was launched into the commercial laundry market in late 2012 with successful affirmation sites at Jeeves of

Belgravia (London) and Watford launderers + cleaners, followed by installations in North America at Sterling Linen Services (New Hampshire), Hyatt Regency Reston (Virginia) and Crest Dry Cleaners (Virginia).

Investor news

Manchester and IP Group sign commercialisation agreement

IP Group plc (www.ipgroupplc.com) and The University of Manchester (via its technology transfer company UMI3, www.umi3.com) have signed a commercialisation agreement under which IP Group will create a Proof of Principle funding facility for the identification and formation of new spin-out companies.

IP Group will make available an initial facility of up to £5 million to provide capital to new proof of principle projects intended for commercialisation through spin-out companies. In return, IP Group will receive equity stakes in such spin-out companies on pre-agreed terms. IP Group has the right to invest further in these companies as they progress. In addition, IP Group will provide access to its relevant experts, business building expertise, mentoring, coaching and co-investing networks, recruitment and business support.

The agreement, which is for a minimum term of four years, or five years subject to certain conditions, covers the majority of the areas of materials and clean technology, electronics and communications and all non-therapeutic life, medical and human sciences and information technology.

Clive Rowland, CEO of the University of Manchester Innovation Group, said "IP Group offers excellent access to public market funding and expertise in university technology transfer developed over many years, and at a significant scale, which will be very valuable to the University in continuing to expand its spin-out activities. A far horizon of proof-of-principle and connected follow-on funding is critical to the success of university propositions, as is a deep understanding of early stage technology investing which makes IP Group an ideal partner for us. Therefore we are very pleased to see IP Group as part of the University's enterprise community. I'm sure that this arrangement will be successful in improving the scale, quality and speed of companies spinning out from the University."

Rock Spring Ventures launches life sciences VC fund

Rock Spring Ventures (www.rockspringventures.com) has launched a £50 million venture capital fund in partnership

with three Scottish universities – Aberdeen, Edinburgh, and Glasgow.

With its UK base in Edinburgh, the fund will invest in young companies developing novel approaches to unmet needs in the study and treatment of major diseases and technologies designed to advance better healthcare delivery. Rock Spring Ventures EU LP (RSV-EU) is led by managing partners Sinclair Dunlop and Kyp Sirinakis, who have managed three US-based venture funds during the last fifteen years. Dunlop recently returned from the US to his native Scotland to launch the new fund.

The fund has secured early commitments for more than half of its £50 million target from the European Investment Fund (EIF); Scottish Enterprise through the Scottish Investment Bank; Strathclyde Pension Fund; Rock Spring Ventures LP (RSV-US); and the three universities.

Arthurian Life Sciences

Arthurian Life Sciences (www.arthurianlifesciences.co.uk) was established by biotech entrepreneur Professor Sir Chris Evans OBE, and provides discretionary fund management services to the £100 million Wales Life Sciences Investment Fund.

According to Sir Chris Evans "The Arthurian team currently manages, advises and consults to billions of pounds of assets in private equity and traditional investments. In particular for life sciences, the total of investments raised individually by members of the team exceeds £7 billion, co-investment in transactions executed by the team exceeds £6 billion, and exits of over £10 billion have been secured."

The Fund intends to focus on a small number of companies, growing and building up the most promising existing companies and new start-ups. It aims to attract non-Welsh companies and entrepreneurs and corporate venture spin-outs to Wales, and to encourage international partnerships.

Fusion IP plc (www.fusionip.co.uk) recently announced the appointments of David Baynes to the Arthurian board, and Peter Grant to the investment committee, as representatives of Fusion. Through its exclusive commercialisation agreement with Cardiff University, Fusion sees itself as a key generator of start-up companies in Cardiff, and believes that its portfolio of life science companies are ideally placed to benefit from access to this fund.

more on p10

PraxisUnico.

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PraxisUnico Spinouts UK Survey Annual Report 2013

PraxisUnico is delighted to confirm that it will be launching the third Annual Report of the PraxisUnico Spinouts UK Survey at its conference in Nottingham on Thursday, 13 June. The PraxisUnico Annual Conference is a highlight in the research commercialisation's calendar. The theme this year - **Inspiring Futures** - reflects the rapid and far-reaching change being experienced by the higher education sector and the opportunities that these changes bring for those working in, and with, the technology/knowledge transfer sector.

To find out more visit www.praxisunico.org.uk/conference/forthcoming-conference.asp

The Impact Awards

Also featuring during the conference are The Impact Awards, which are organised by PraxisUnico and aim to recognise the impact of intellectual assets from research. Since 2009, The Impact Awards have seen close to 350 entries from the men and women driving some of the most exciting business relationships

and entrepreneurial businesses of tomorrow.

To find out more and to enter www.impactawards.org.uk

THE
**IMPACT
AWARDS**

What Industry Wants

7-8 May, GSK, Stevenage

This PraxisUnico workshop is a must for all those working within technology transfer, knowledge transfer and research support.

Nearly 40 speakers from high profile companies, from a range of sectors, will describe their R&D efforts and how academic research fits into this. Delegates will leave with a more rounded understanding of how their university or research institution should engage with industry, who to work with, and why.

Register for both this workshop and the 2013 PraxisUnico Annual Conference and receive a £100 discount on the conference fee.

Key note speakers include:

- **Iain Gray** (Chief Executive, Technology Strategy Board)
- **Professor Sir John O'Reilly** (incoming Director General of Knowledge and Innovation at the Department for Business, Innovation and Skills)
- **David Docherty** (Chief Executive, Council for Industry and Higher Education and National Centre for Universities and Business)
- **Rosa Wilkinson** (Director of Innovation, Intellectual Property Office)

To find out more visit www.praxisunico.org.uk/event-bookings/detail/2

Inspiring Futures

PraxisUnico Annual Conference

13-14 June 2013, East Midlands Conference Centre, Nottingham

Join us for this vibrant event focusing on social, economic or cultural impact beyond academia.

Inspiring Futures will bring together speakers and delegates from across academia, public sector research establishments, business and government – nationally and internationally. If you work in, or with, the research commercialisation sector this event is for you.

Two thought provoking days of workshops, discussions, networking and special interest groups to inspire. Plus, **Question Time** chaired by William Cullerne Bown, Chairman & Founder of Research Fortnight & Research Europe. Panellists will include influential leaders from business and industry.

PraxisUnico.

PraxisUnico is the UK's leading organisation for commercialisation professionals.

www.praxisunico.org.uk

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Cambridge Enterprise Annual Review 2011-2012

Cambridge Enterprise is responsible for the commercialisation of University of Cambridge research, including licensing, consultancy, and equity transactions. Highlights from its recently published Annual Review (which can be downloaded from its website www.enterprise.cam.ac.uk) include:

- 66 companies in the Cambridge Enterprise portfolio, of which 48% are currently selling products
- 80% survival rate for investee companies after three years, compared with the national average of 58%
- £1 billion in follow-on funding raised by portfolio companies since 1995

IP Group annual results

In the year ended 31st December 2012, IP Group reported an increase of just under 50% in the fair value of its investment portfolio, from £123.8m in 2011 to £181.8m.

Other highlights from the report include (2011 figures in brackets):

- Increase in capital provided to portfolio companies to £26.3m (£14.3m)
- Portfolio realisations £16.7m (£3.7m) – this included the acquisition of Proximagen by Upsher-Smith, and the flotations on AIM of Retroscreen Virology and Revolymer
- Portfolio companies raised over £110m new capital (£90m)
- Oxford Nanopore Technologies completed £31.4m private financing

Other news

SSAC report: Making the most of our Scientific Excellence

The Innovation Subgroup of the Scottish Science Advisory Council has issued a report under this title. Working from the premise that “It would seem that our excellence in scientific and other research is not generating the economic benefits that might be expected”, the report gives a detailed analysis and a number of recommendations for action, including “Commercial skills should be embedded in all Science, Technology, Engineering and Mathematics (STEM) courses”, and on the subject of licensing technology from universities, “We recommend that a more consistent approach towards IP licensing, spin-out formation and investment and neonatal support be developed across the sector in Scotland”. The full report is available on the SSAC website www.scottishscience.org.uk.

New international university ranking initiated by the European Commission

In our previous Quarterly Journal we reported the performance of UK universities in the Times Higher Education World University Rankings 2012-2013, but commented that the results give a weighting of only 2.5% for knowledge transfer. The EU has also considered this issue, and has now launched U-Multirank (www.umultirank.org) which will differ from existing rankings by rating universities according to a broader range of performance factors, aimed at providing a more realistic and user-friendly guide to what they offer. The new 'multi-dimensional' ranking will rate universities in five separate areas:

reputation for research, quality of teaching and learning, international orientation, success in knowledge transfer (eg partnerships with business and start-ups), and regional engagement. Universities are being invited to sign up for the new ranking in the first half of 2013, and the first results are due in early 2014. U-Multirank will be based on objective criteria and data, with an independent consortium having been selected to carry out the ranking. The consortium consists of the Centre for Higher Education in Germany; the Center for Higher Education Policy Studies in the Netherlands; and other partners including academic publishers Elsevier, the Bertelsmann Foundation and software firm Folge 3. The consortium will also work with other national and European organisations in order to compile accurate data.

THE has criticised the proposed rankings as a waste of taxpayers' money, and has alleged that LERU, the League of European Research Universities representing 21 of Europe's best research-intensive universities, had "pulled out" of U-Multirank. This is contested by Jordi Curell, director of higher education and international affairs in the European Commission's Directorate General for Education and Culture, who adds “We need universities and colleges that deliver results across the whole spectrum of the university mission – not only research, which is the focus of traditional rankings, but also teaching and learning, regional outreach, international profile, and knowledge transfer. U-Multirank, as a European ranking and transparency tool, will cater for this diversity and will tell us how our systems are performing – so that we can improve them.”

Practical Support For High Growth



Winning Pitch

There is increasing interest in the role that fast growing businesses play in economic development. Quite rightly so! Gazelles, as they are also known, are few and far between, they represent only 5% of business stock in the UK, but they create up to 60 to 70% of new jobs, they bring with them innovation, creativity and graduate jobs, and many are international players. Gazelles are pivotal to the future growth of the UK and our regions, they become the regionally significant employers of tomorrow.

It is important to remember that it is the fast growing companies that will pull us out of recession - we must nurture and grow the next generation of ambitious entrepreneurs because they make such a difference.

It is important to recognise that these entrepreneurs are a rare breed and the support needed is quite unique. They regularly have a strong sales focus, which is fundamental to any business, but they often lack the disciplines that go with growing a team, developing structure and delegating responsibility. Management and organisational support is critical to many of these entrepreneurs - without it, they won't grow and, at the extreme, the wheels come off and they go out of business. Without a strong team of thinkers, doers, controllers and sellers, accessing finance for example becomes a major challenge, the financial community always need to be convinced of a strong supportive structure. In the long term, these entrepreneurs will repay the economy back many times over. A stimulus for change and thinking big needs to be the key message for those with latent, untapped potential. They need to be shown how to:

- Create the right mindset for growth by giving them the tools to cascade a vision into a plan
- Lead and motivate a team to move in the same direction
- Get everyone singing from the same hymn-sheet with values and behaviours that guide staff - "this is how we do things around here"
- Take action: success results from 20% thinking and 80% doing
- Release their passion to live fulfilled and meaningful lives
- Embed innovation in their organisations - from the front door through to staff and the market place
- Recognise that staff are the most important asset of any business - they are more important than customers; if staff are happy so are the customers!
- Do away with the fear of selling - so many have this!
- Focus on the 'customer world' and deliver outstanding service
- Unlock the potential of their intellectual property - the hot investment topic of the decade
- Build strong partnerships and alliances to reach scale more quickly
- Embed systems and processes that become the dials on the business dash board

Encouraging a philosophy of disciplined entrepreneurship is what makes businesses enjoy long-term sustainable futures. Keen to grow? Call John Leach, business growth & acceleration expert.

John Leach, Chairman & Founder of Winning Pitch Ltd

For more information about Winning Pitch go to www.winning-pitch.co.uk

Project partners

We are very grateful to the following organisations for their support

Lead partner

PraxisUnico.
Impact through innovation

PraxisUnico is the UK's leading research commercialisation association. It is a not-for-profit educational organisation set up to support innovation and commercialisation of public sector and charity research for social and economic impact. PraxisUnico encourages innovation and acts as a voice for the research commercialisation profession, facilitating the interaction between the public sector research base, business and government. PraxisUnico provides a forum for best practice exchange, underpinned by first-class training and development programmes. www.praxisunico.org.uk



BBSRC invests in world-class bioscience research and training on behalf of the UK public. Our aim is to further scientific knowledge and to support the successful translation of ideas, knowledge, skills and technology arising from research into practical applications for the benefit of the UK economy and society.

www.bbsrc.ac.uk



Finance Wales is one of the UK's largest SME investment companies and provides growth capital to help businesses realise their potential for innovation and growth.

www.financewales.co.uk/earlystage

Marks&Clerk

Intellectual Property Services

Marks & Clerk is the UK's largest firm of patent and trade mark attorneys and advises companies on their intellectual property across a full range of sectors worldwide.

www.marks-clerk.com



MFL Science & Technology is a specialist insurance broker risk management adviser to many of the UK's leading 'spin out' businesses. www.m-fl.co.uk

Nesta

The UK's foremost independent expert on how innovation can solve some of the country's major economic and social challenges. www.nesta.org.uk



Scottish Enterprise

Helping translate ideas and research into more spin-out and start-up companies, and encouraging Scottish companies to make use of technology and research being developed.

www.scottish-enterprise.com



Winning Pitch®

Winning Pitch plc specialises in delivering practical coaching solutions to high growth potential companies.

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