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CAMBRIDGE SCIENCE PARK NEWSLETTER

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New arrivals



Susan Hamilton Group

Susan Hamilton Group provides high quality recruitment solutions helping clients to meet both temporary and permanent requirements across a range of sectors including scientific, technical and commercial. With operations already in Oxfordshire, Berkshire and Greater London, the opening of a new office at Cambridge Science Park allows the Susan Hamilton Group to bring its expertise and understanding of the recruitment market to the Eastern region.

www.susanhamilton.co.uk



AKN Labs

AKN Labs is a software company which designs and develops advanced web applications and low-cost websites.

www.aknlabs.com

A sound approach to diagnosis

Diagnostic giant sets up on Cambridge Science Park

With the establishment of Cambridge Medical Innovations at the end of 2007, Cambridge Science Park is now home to a part of one of the world's largest diagnostic companies – Inverness Medical Innovations. Catalyst spoke to Managing Director Dr Matt Cooper to find out about the new company and its ambitions.

Building on elements of the technology developed by former Cambridge Science Park tenant Akubio, Cambridge Medical Innovations is focused on advancing and exploiting its acoustic detection systems to diagnose disease and help people manage their health.

"We use very high-frequency sound waves between the megahertz and gigahertz range – that's between a million cycles per second and a billion cycles per second," explains Dr Cooper.

"We're interested in building partnerships with local biotech companies"

"When we pass these sound waves through a sample and look at how it is altered, we're able to directly monitor the presence or absence and the amount of material such as a protein, DNA, a virus or bacteria in the sample.

"There are optical techniques that do the same kind of thing in purified samples, but one of the great advantages of our technology is that it works in non-purified samples and can therefore save time and money. Currently, few technologies offer users the ability to detect real-time kinetic data of this quality across such a broad range of samples, sample purity and sample concentrations.

"High-frequency acoustics is also a label-free technique – we don't have to use a radioactive label or a fluorescent label or a reporter assay on our samples – and because it uses

electronic timing technology that's already in widespread use in items such as mobile phones and computers, the technology has the potential to offer real cost benefits."

In line with its parent company, Cambridge Medical Innovations is focused on diagnostic technology for consumer and professional diagnostics, specifically products to be used by consumers at home or by physicians at their offices rather than the larger platforms required at major testing centres.

RAP*id 4™ instrument for use in the drug discovery and life science markets.

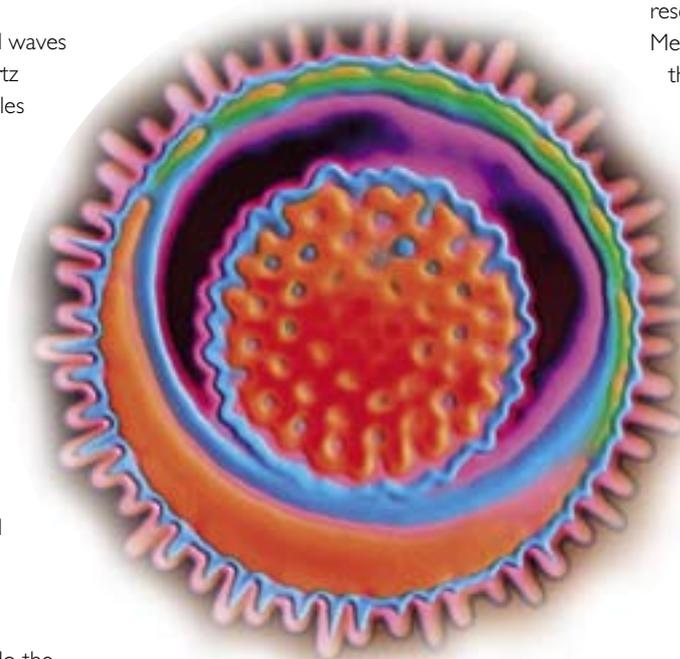
"TTP LabTech has a solid track record in the development and support of novel instrumentation for this industry sector, so we think it's very well positioned to commercialise our RAP*id 4 technology in this area," comments Dr Cooper.

"Meanwhile at Cambridge and Inverness, we continue to pursue our core mission of launching diagnostic products and the management of human health. With the resources of a global player like Inverness Medical Innovations behind us we're confident that this is the start of a very productive journey for our company.

"As our deal with TTP LabTech shows, we're also interested in talking to and building partnerships with local biotech companies. It's not just about what our technology might bring to them, but also how their technology might build on what we are doing. We think we're in the right location to be making these kinds of connections which ultimately can benefit everyone involved."

www.cam-medical.com

Above and below: image illustrates a coloured transmission electron micrograph (TEM) showing a cross-section of a herpes simplex virus (HSV) and an AKT-ivCovalent sensor chip that enables rapid detection of bacterial and viral infections



In an important recent deal, in March 2008, UK-based TTP LabTech (part of the TTP Group plc) was granted a licence for the application of its Resonant Acoustic Profiling™ technology incorporated in the

On the frontier

Exciting games and serious business at Frontier Developmentstst



Catalyst spoke to David Braben, co-inventor of the legendary 80s computer game Elite and founder of Frontier Developments, about the growth of the company and the challenges of producing games for the 21st-century market.

If you were one of the many users of the hugely successful BBC Micro computer in the 80s, chances are you may have also joined the multitudinous ranks of Elite devotees – a game that broke new ground in sophistication through its exciting combination of interstellar battles, galactic trading opportunities and the chance to develop your ship into an ever-more powerful vessel.

Co-inventors Ian Bell and David Braben were the brains behind this gaming phenomenon. The latter went on to establish Frontier Developments, a company which has grown from a handful of people working from a farmhouse outside Cambridge to a team of around 160 employees based at 306 Cambridge Science Park.

“Setting up the company was more of a case of formalising an existing structure – I’d been working for a long time with other people beforehand such as Chris Sawyer,” David explains.

“We’ve been trying to develop more enduring ways of telling stories in our games”

“We were a very small operation when we started. In those days the number of people you’d need to make a game was way fewer than today. With much less powerful machines, obviously the expected complexity of a game wasn’t as high then. So it was quite practical in those days for just one or two people to do a game in a relatively short time.

“When I first started, games weren’t very international – they would sell in one market such as Britain or the US. Even computers that people were using in different countries were quite different – the BBC Micro never took off in America for example. But now we have to

very much think internationally and longer term – not just over the next six months but way beyond that.”

With a host of popular games such as Roller Coaster Tycoon 3, Wallace and Gromit and Thrillville to its credit, Frontier is one of the gaming industry’s leading independent developers and has certainly adapted and evolved to meet the challenges of this fast-moving market over the last 14 years. Nevertheless, David sounds a word of caution for one of the UK’s most successful industry sectors.

“Until last year, Britain was number three in the world for producing games in terms of most measures, behind the US and Japan. That changed last year when Canada overtook Britain. I think there’s a really serious problem: the exodus of games development talent from Britain is becoming a stampede, particularly, but not exclusively, to Canada.

"Partly it's because education standards in this country have slipped dramatically over the last few years, and so the people who've come through the higher education system with the new regime are coming out of the other end with nowhere near as good skills as they were three or four years ago. That is a problem.

"The second problem is in the cost of basing a company here. In Canada, for example, they are actively enticing software companies to go and locate there where there is a salary subsidy of 39% of the cost of the salary, plus there are tax holidays, plus they'll find offices for you. So Canada is very attractive to our sector. There is also the strength of the pound against the dollar which is making us more expensive here, compared to companies based in the US.

"For us it hasn't been completely negative as we've benefited from recruiting people who don't want to relocate when their company may have moved. We're in what's basically quite a high-risk business, but fortunately from the point of view of our track record, the risk has paid off really well. But long term it is a real concern that I hope the Government will address in some way."

Frontier is certainly not standing still and is actively recruiting at present to expand the company's growing portfolio of games on all major platforms. "We are on the advisory boards of a number of major universities, and recently held an open day (which was oversubscribed by a factor of six!) to give people a chance to come in and see what it's like to work here," says David. "We also don't just recruit from within the games industry – we're always interested in meeting very

talented programmers and software engineers, in addition to artists, animators and designers."

With Managing Director David Walsh focused on the business elements of running the company, David Braben has remained free to concentrate on keeping the creative work at a consistently high standard.

"Both the problem and advantage of an industry like ours is that it changes very, very quickly"

"What we've been doing is trying to work out more enduring ways of telling stories. The trouble with a lot of games is that the story



can go in very different directions from there, and this is one of the unique things about the game. You can take the route of taking revenge on the people who've set you up, or you can try to prevent them achieving what they're trying to achieve – two diametrically opposed paths.

"This clearly means you have a lot of choices, so that's a lot of development work for us. We also employ script writers to make sure our dialogue is convincing and credible. It's a very exciting project to be working on."

Alongside helping to recreate the intrigue that could follow a presidential assassination, David and the team at Frontier are hard at work trying, quite literally, to stay ahead of the game.

"Both the problem and the advantage of an industry like ours is that it changes very, very quickly. If you don't plan for it to change then you'll get left behind. The obvious current trend is the move towards digital distribution, something we're also involved in, with our recently announced 'Lost Winds' project on Nintendo Wii, which changes the traditional publishing model very significantly. So we've got to make sure that we've got the skills to deliver in both worlds. That change is starting to happen now.

"There are fewer and fewer big games coming out, but those games tend to be a lot more successful. So we're working hard at managing relationships with top publishers and also gaining the expertise as things gradually change towards an electronic distribution approach, to make sure that we're well set up for that – so that we're not just optimising from where we're at today, but also planning ahead for where things will be in three or four years' time."

www.frontier.co.uk



is strictly linear – it's a case of getting past the next bit of gameplay to unlock the next part of the story," explains David.

"It's annoying, for me anyway, if you don't agree with what the character is trying to do in the game you're playing. It's great fun to think 'what if I did this with him?' – work with the bad guy, for example. One of the things with game plots to date is that most of the characters are astonishingly black and white – in real life, so-called bad guys may have some quite complex motives, but it is a huge challenge to realise this in a game.

"We're working on a game called The Outsider which is coming out in late 2009. In this, you are a CIA agent and you have been falsely accused of shooting down Air Force One. The intrigue and action that follows from that is what the game is based upon. The story



Above: imagery from Lost Winds and Thrillville
Left: imagery from The Outsider

Expanding the domain

Domainex redraws its business model in drug discovery services

Domainex is helping the drug discovery industry to overcome some of its major bottlenecks through its innovative biology and chemistry services – and is in the process of developing its own pipeline of novel targets. Catalyst spoke to Chief Executive Officer Dr Eddy Littler about the recently expanded company and its operations on Cambridge Science Park.

Featured in Catalyst back in 2004, NCE Discovery was founded by Chris Sharman, Dave Madge and Dave Selwood as a spin-out from University College, London in 2001 to provide tailored chemistry services to early stage drug-discovery companies.

Having moved onto Cambridge Science Park in late 2003, NCE Discovery successfully carved out its own niche in outsourced services for the biotech industry in the UK and beyond. Meanwhile Domainex, another UCL spin-out founded in 2001 was developing its own value-added services in gene cloning and expression and the provision of challenging proteins for the drug discovery process.

The acquisition of NCE Discovery by Domainex in May 2007 brought together these two complementary centres of expertise to create a provider of integrated services with a strong track record of success to draw on.

“Both companies had developed some impressive technologies which were producing exciting results for their clients,” explains Dr Littler. “Domainex was using some cutting-edge molecular biology and a patented technology called Combinatorial Domain Hunting to help companies refocus on targets that had somehow stalled and couldn’t be progressed despite their initial attractiveness. Using this technology, we’re able to analyse a problem gene and go back to our clients within three months with a number of clones that are highly expressed and enable them to get their programme back on track – it’s been very successful to date.

“The idea with the acquisition was to take this technology and combine it with the chemistry capabilities of NCE Discovery which apart from medicinal chemistry includes LeadBuilder, a lead generation platform which can offer

compound collection design and selection, protein modelling and virtual screening. In the last few runs we’ve completed with LeadBuilder, around 6% of the compounds in the libraries we’ve selected have actually worked – that’s an extremely high hit rate in this field. In addition these hit compounds are small and drug-like, providing an excellent starting point for a programme.”

“We think our package of services will help remove some of the key problems and bottlenecks clients can experience during the drug discovery process”

Alongside its offering of chemistry and biology services to companies looking to advance their drug discovery programmes, the newly integrated Domainex is also beginning to develop its own library of targets which it hopes to market to the pharmaceutical industry.

“We’ve recently raised some cash which will be used to grow the company and in essence shift the business model which we’ve been working with,” says Dr Littler. “Rather than just waiting for clients to come to us to solve their problem genes or the like, we’re looking to identify gene targets that are known to the industry as being both attractive and problematic and to work on these on our own.

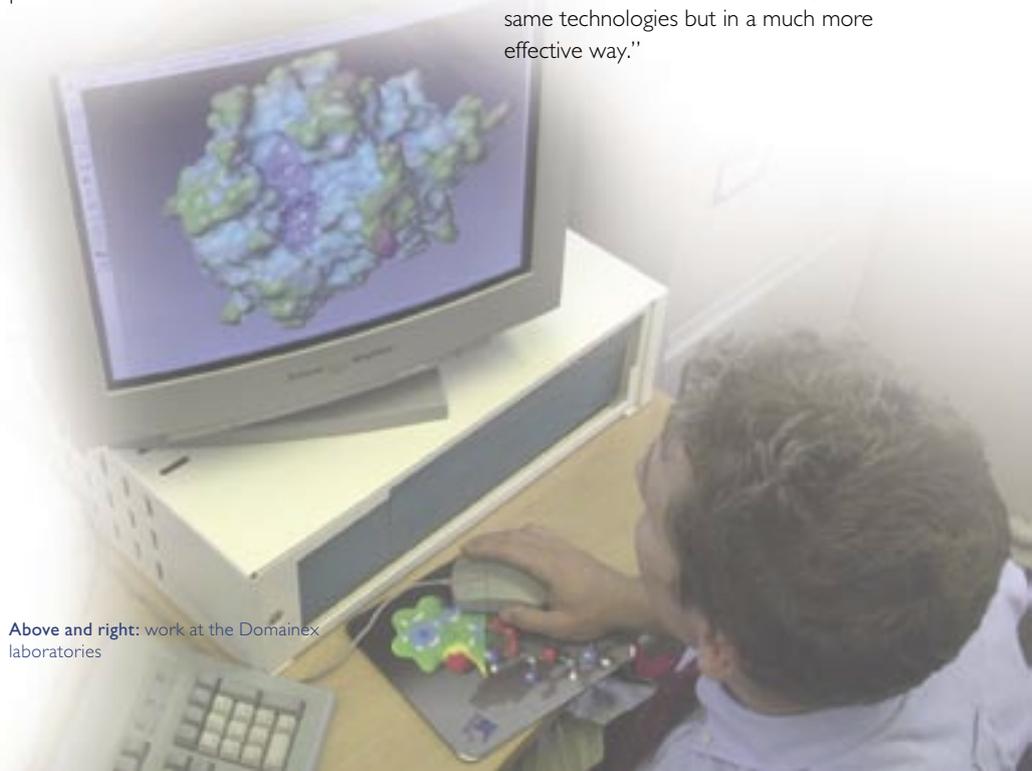
“We can then offer our solution to a client for a licence fee – it makes for a much more effective business model. We’ll be able to offer our solutions on an exclusive or non-exclusive basis depending on the terms of the deal, and it means we’ll benefit from continuous revenue on work we’ve already completed. We’ve actually started this work already and hope to have our first products coming to fruition within 12 to 18 months.

“The next stepping stone on from this will be to take these targets and develop them to the next stage. So rather than simply saying ‘here’s a reagent you can bring into your company and use for drug discovery’, we’ll move on to apply the technologies that originated at NCE Discovery and find some chemical starting points and good chemical leads.

“That whole process will take a bit longer of course, but when it’s completed we’ll be able to offer a package that will consist of a well-known gene with some technical problems that we’ve solved, as well as some intellectual property around the crystal structure of that protein and series of mid-chemical leads.

“We think this is going to be a very attractive package for potential clients because we’ll have removed some of the key problems and bottlenecks that can occur during the drug discovery process. For us, it means we can move up the value chain by using the same technologies but in a much more effective way.”

Above and right: work at the Domainex laboratories



Despite this ambitious new business model that Domainex is developing, there are no plans to increase its activities still further along the drug discovery pipeline. "The next possible step could be to take a project into the clinic, but we don't have any intention of moving into that area," explains Dr Littler. "We'll be very happy to take our projects to the drug candidate stage, more likely to mid to late lead optimisation, and then seek to find a partner to take those projects further on."

Previously sub-leasing facilities within the Takeda building, Domainex moved into number 324 Cambridge Science Park in November 2007. "One of the great advantages of Cambridge Science Park is that it has a whole range of different offerings, so we were able to find exactly what we were looking for," comments Dr Littler.

"Once we'd identified that we were going to move out of the Takeda building, we wanted to find somewhere that could house our high-density chemistry services and also that would suit a company of our size. We didn't want to pay for a huge amount of office space, but we still wanted room to expand – this meets our requirements exactly.

"It's also great to be part of a critical mass of biotech companies clustered together here. We've had interactions with at least four companies on the Park and it's really attractive to have potential clients and collaborations right on your doorstep."

In spite of the impact that the downturn in the global economy continues to exert on the biotech sector among others, Dr Littler is optimistic about the prospects for this newly merged company.

"It's great to be part of a critical mass of biotech companies clustered together here"

"The fact that big pharma is downsizing so much is both a challenge – because it does have a negative, depressing effect on the biotech sector – but it also offers opportunities as they change their models and look much more to in-licensing to fill their pipelines. This is something that they will have to do, and as such there will be opportunities for companies like Domainex and many others on Cambridge Science Park to take advantage of.

"Because we generate cash for our services, our company doesn't have a very high burn rate and financially we're fairly well grounded. Because we can continue to work like this, it doesn't take a huge amount of investment to make the transition from a fee-for-service model to one where we're offering end products as a packaged service for licence. It's a strong position to be in and we're looking forward to completing the next phase in our development."

www.domainex.ltd.uk





A solid future

Cambridge start-up Pharmorphix® has opened a new chapter as part of life sciences giant Sigma-Aldrich

A Cambridge start-up that became part of the Sigma-Aldrich® Group late in 2006 now operates within the company's SAFC Pharma™ custom drug development and manufacturing services business sector and continues to thrive in the competitive world of outsourced pharmaceutical services. SAFC Pharma™'s Pharmorphix® brand solid-state chemistry services are now being offered to global customers to enhance the value of the materials manufactured at its API production facilities in the US and Europe. Catalyst spoke to Chief Scientific Officer, Professor Chris Frampton about the journey so far.

"When we first arrived at this site in 2004 we had some office space upstairs and our lab downstairs," says Professor Frampton looking around 250 Cambridge Science Park. "Now we've gone right the way round the building, and there is only a single unit left that we don't occupy!"

It's a clear physical indication of the success the company has achieved in five short years providing solid-form research services to pharmaceutical companies which help get their drugs to market quicker, more efficiently and more cost-effectively.

"Finding the best solid form for a particular drug is an essential part of the drug discovery process," he explains. "You may have an active compound which you know is effective, but you are very limited in turning it into a product until you've found the optimum solid form.

"That's where our services come in – we provide polymorphism screening, salt selection screening, co-crystal screening and physico-chemical property determination so that our clients can find the best solution to getting their drug into a solid form."

"We always strive to provide the extra value we would want to receive if we were clients"

The selection of a suitable polymorph of the API – that is, one of the crystal lattices which are formed as molecules of the drug substance crystallise – is crucial to the way in which a drug functions in the solid form. Different polymorphic forms of the same drug can have widely varying properties such as solubility, stability, hygroscopicity, melting point, compressibility and flow properties which in turn can affect the efficacy, safety and suitability of a drug for production.

SAFC Pharma™'s menu of Pharmorphix® services includes the use of a wide range of analytical techniques to find solutions to solid-form issues, including X-ray powder diffraction, single crystal diffraction, NMR, thermal techniques such as DSC and TGA, and spectroscopy techniques such as infra-red and Raman. However, the collection of this accurate data is only the starting point for what the company can achieve for its clients.

"I believe one of the main reasons for the company's success is that we've always provided our clients with real insight into what the data means, and offered them clear recommendations as to the best way to take their drug forward as a result," says Professor Frampton.

"We've always seen this element as crucial to our work – our key strength is not just in generating data but also in analysing it to provide practical solutions. This can add value at all stages in the drug development process, from medicinal chemistry and discovery, through to pre-clinical. We also do a lot of work on products after they have been launched, when companies want to 'evergreen' their product by extending its patent life



Left and above: work at the Pharmorphix® laboratories on Cambridge Science Park

through the use of an innovative solid form that demonstrates enhanced utility in a particular area.

“The acquisition has enabled us to put lots of plans into action that we might otherwise not have been able to”

“The founding team of Pharmorphix® had many years of experience in big pharmaceutical companies, so we all knew what kind of solid-form services such organisations really needed, and we always strive to provide the extra value that we would want to receive if we were the clients. We’re very passionate about the area in which we work and I think that translates into the quality of our work – and the amount of repeat business we achieve.”

Originally privately funded, Pharmorphix® was acquired on 9 August 2006 by Sigma-Aldrich Corporation, with the intent to add the specific technical services that could grow and support the development and API manufacturing services already offered within SAFC Pharma™. The acquisition was a natural progression in the evolution of this ambitious young company, as Professor Frampton explains.

“In the beginning we grew very rapidly – however, you quickly reach a stage where you have to decide where you want to go next. After a few years, there were a number of ideas and areas that we really wanted to develop.

“We believed that the acquisition by Sigma-Aldrich and our inclusion in its SAFC Pharma™ suite of technologies offered us the best route to achieving these goals, and I’m pleased to say that we still believe it was the right decision for us. We’ve continued to grow and are a great team, now numbering 35 people since the acquisition; we’ve invested in new state-of-the-art equipment; we’ve expanded into new fields; and we now have an X-ray facility at one of the SAFC Pharma™ US sites in Madison, Wisconsin, which means that our clients don’t have to incur the expense of sending materials overseas for analysis, although, in these cases, we still evaluate and provide recommendations on data from the Cambridge location.

“Because SAFC® is an outsourced drug manufacturer, we’ve been able to help them with some of the problems they can encounter during the manufacturing process. So for us it’s a fantastic relationship because we start seeing our clients’ materials much earlier than we

might have done otherwise. If they encounter solid-form issues, we can come in and begin looking at the problems right away.

“Another benefit for us has been the ability to draw on the really strong business development network of SAFC Pharma™. Originally the bulk of our clients were based in Europe and the US, but since the acquisition we’ve been able to move into exciting new markets such as Singapore, Japan, Australia and Israel – it’s really opened up a new window for us.

“The acquisition has been very, very positive and everyone in the company has recognised this. We have a great relationship with Sigma-Aldrich and of course it’s a secure future for us, enabling us to put a lot of plans into action that we might otherwise not have been able to.”

www.safcpharma.com

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SAFC Pharma™ is a trademark of Sigma-Aldrich Biotechnology L.P. and Sigma-Aldrich Co.

Building the pipeline

Multiple product development at Serentis

Serentis is a new kind of biotech company focused on product development across a number of fields. Catalyst spoke to co-founder and Chief Executive Officer Tim Sharpington to get the story so far.

"The key to this company is creating a viable product pipeline," explains Tim. "When we set up Serentis, we saw that there were a lot of other early-stage companies out there with good ideas but that didn't have either the infrastructure or the finance in place to push them through later stage clinical development. So our idea was to identify some of these exciting ideas and to put them into our own pipeline – products that individually might not sustain a whole company but as a portfolio could create a really valuable set of assets.

"What we were looking at was very much a product-based biopharmaceutical company. Our model is to establish a clinical-stage pipeline of products very early in the company's evolution. We wanted to do that by two means – one is our internal innovation, taking existing drugs and reprofiling them for new uses, and the second is to acquire products already at the clinical stage of development. It's an approach that means we can get into the clinic pretty quickly and hopefully see a return on our investments within a relatively short amount of time."

Tim Sharpington set up the company in late 2006 along with R&D Director Andy Baxter (a medicinal chemist) and Chief Scientific Officer Alan Russell (a pharmacologist). The three had worked together at Arakis, a Cambridgeshire-based pharmaceutical company focused on inflammatory diseases, oncology adjunctive therapy and pain. After Arakis was acquired by the Japanese company Sosei in 2005, the three colleagues saw an opportunity to pool their

expertise and create a unique start-up that could focus across a range of different fields.

"Our core expertise is in product development," explains Tim. "Our initial focus has been in dermatology after we identified and acquired a company called Surface Therapeutics, which was a spin-out from Oxford University. The company was looking at some of the common genetic links between children who develop eczema and asthma.

"Our model is to establish a clinical-stage pipeline of products very early in the company's evolution"

"The company did some great early-stage research in identifying some targets and the molecules to hit them, but didn't have the momentum to take it through to the next stage of development. Now we've acquired the company, the whole team has relocated to Cambridge and we're looking to move forward quickly with what is an exciting new mechanism of action for the treatment of eczema.

"At the moment most eczema patients are treated by steroids, but this is not always ideal, especially for children, who make up a lot of those suffering from eczema. We're developing a new method of non-steroidal topical treatment which we hope will provide a very safe and effective alternative. It interacts with both the internal inflammatory drivers and also the atopic external drivers. This dual mechanism offers the potential to control the number of eczema flares as well as treat the acute condition.

"It's great science and exactly the type of thing we wanted to take – some good ideas that didn't have sufficient backing, so we were able to put them into our pipeline and we can apply our development skills and also our financing to them. We'll be pushing this through with the intention of starting clinical trials later this year and establishing if this is a viable commercial product."

Serentis also has another product in development which is focused on treating the itch associated with eczema and other dermatological conditions. "Itching from eczema really can exacerbate the condition – if patients scratch their skin they can create more tissue damage and thereby cause more inflammation and more discomfort. So we're working on a cream formulation that can be applied before going to bed at night and will prevent itching during the night, hopefully providing a great deal of comfort to sufferers from this condition. This product is also going into clinical trials later this year."

Alongside these two key products for eczema, Serentis is also developing its portfolio in different areas, as Tim goes on to explain. "Our other lead clinical interest is in wound care. We're working on a novel approach to produce a product that would both promote wound healing, making wounds heal faster, but also be analgesic and combat wound pain.

"It's potentially got a lot of applications for use in acute and surgical wounds, biopsies, skin grafts and burns. In time we think it could also be used for the more challenging chronic wounds, things like pressure ulcers and venous leg ulcers, which can be very painful and difficult to heal.



Above: The management team at Serentis

"We're quite excited because our first trial is just about to start and this product has such a variety of potential uses – it might be used in a dressing for surgical wounds, a spray for burns, or perhaps a gel or a cream for the more chronic wounds."

It's an ambitious pipeline for this young company which can nevertheless draw on a wealth of experience to help turn these promising leads into commercial successes. "We have a mixture of research, development and commercial expertise here," Tim adds.

"We're very focused on ensuring that our products can find a place in the market and will be required by patients and doctors"

"Our core competence is product development; we've got the ability to innovate our own products but our research team is small and mainly external. We don't have any labs here, so we design a lot of experiments, both pharmacology and chemistry, but those are performed externally.

"The largest group is our development group. There are three or four other opportunities that we are evaluating at the moment – two external which we may buy in, and a couple of internal ones which are just about ready to be put into full development. Within the next couple of months we're likely to have five clinical development programmes, which is quite a lot for a small company.

"We're also building up our commercial group because the positioning and commercial evaluation of our products is very important to us. We're very concerned that all our development should be very commercially focused; we need to understand the markets we're working in very well, really understanding what doctors and patients need.

"We're looking first at proof of principle – establishing that our products have a clinically meaningful effect. But we're also very focused on ensuring that our products can find a place in the market and will be required by patients and doctors. So we try to set pretty high hurdles for all of our products, and we understand that means that not all of them are going to make it, which is why we're looking to have five or six programmes."

With £10 million of financing behind Serentis, the company is on the way to realising its ambitions. "We've got a range of products, some that may be taken on by a larger company in time and others which are more niche and that we could potentially take to market ourselves. We've almost completed our first stage which is to create a pipeline of products. The next stage is to deliver on what we've invested in and to push these products through clinical trials – it's going to be exciting to see their progress."

www.serentis-pharma.com

PARKLIFE

Award-winning imagery created with ARTVPS technology

Technology created by ARTVPS Ltd, developers of advanced visual rendering systems and expertise, has been used to create a winning entry at the recent Escape Awards celebrating UK talent in computer graphics.

At a ceremony held at the Tate Modern in March, the 3D team at client Burrows Nvisage were winners of the Design Visualisation – Still Image category with their render of the Land Rover LRX in Piccadilly Circus.

Brian Tyler, CTO at ARTVPS, said: "Burrows have been using ARTVPS technology for six years and were one of the pioneers in the adoption of CGI in print. It is great to see that they are still producing award-winning imagery with our technology."

www.artvps.com



Above: the award-winning image created using ARTVPS technology

Astex scientists recognised by Royal Society of Chemistry

Two scientists from Astex Therapeutics Ltd, the pioneering fragment-based drug discovery company, were honoured with prestigious awards in April from the Royal Society of Chemistry, Europe's largest organisation for advancing the chemical sciences.

Founder and CEO Dr Harren Jhoti was named as Chemistry World Entrepreneur of the Year 2007, an accolade which recognises his role in starting and building Astex into one of the leading biotechnology companies in the sector. Dr David Rees, VP Medicinal Chemistry,

was a co-recipient of the Malcolm Campbell Memorial Prize 2007 for groundbreaking work on the anaesthesia drug sugammadex, undertaken during his time at Organon Research Scotland.

"I'm delighted to receive this award on behalf of the whole Astex team. This achievement confirms the talent and commitment of our staff and underlines our position as one of the true pioneers in the pharmaceutical and biotechnology industry," stated Dr Jhoti.

www.astex-therapeutics.com



Above: Dr Harren Jhoti, CEO Astex Therapeutics Ltd, and his award from the Royal Society of Chemistry

CSR ships one billionth Bluetooth chip

CSR announced in April that it had shipped its billionth Bluetooth chip, confirming its position as the leading global provider of personal wireless technology.

CSR's BlueCore silicon is used in mobile phones from every leading mobile handset maker and in products from customers including Apple, Dell, NEC, Panasonic, Sony, TomTom and Toshiba.

Joep van Beurden, Chief Executive Officer of CSR commented: "This is a huge milestone for us and not only highlights the volume that CSR is delivering but also confirms our position and dominance as the leading Bluetooth provider. And this is only the beginning: Bluetooth is at the heart of connectivity in mobile phones, one of the largest areas of growth for semiconductors over the coming years. Our leading position allows us to ship many more, highly differentiated connectivity products."

www.csr.com



Above: CSR ships one billionth Bluetooth chip

PARKLIFE

Velocix announces the world's first free online content delivery network

Velocix, formerly known as CacheLogic, has announced the availability of a free new digital content delivery service aimed at entrepreneurs and start-up ventures as well as larger organisations looking to distribute rich media such as video, music, games and software online.

The Velocix Accelerator provides 500GB free monthly digital delivery allowance (worth \$8,000 per year) for file download,

video progressive streaming and website acceleration services.

"Velocix Accelerator is already helping the brightest and most innovative get their online rich media offerings off the ground," said Phill Robinson, CEO at Velocix. "With our help, these new ventures are able to offer high-performance rich media destinations to their growing audiences around the world, for free." www.velocix.com



Acquisition expands Lab21's diagnostic capabilities

Lab21, a leading provider of health and environmental diagnostics, has acquired NPTEch Ltd, an independent clinical laboratory company providing diagnostic testing services for the NHS and private healthcare providers in the UK and parts of Europe.

The acquisition of NPTEch in March 2008 significantly broadens Lab21's range of diagnostic tests. NPTEch brings food intolerance testing; chemical and mould sensitivity testing; blood tests for a range of

conditions; basic clinical chemistry; and salivary hormone testing.

Graham Mullis, CEO of Lab21, said: "This is an excellent acquisition for Lab21. NPTEch's range of services complement those already offered by Lab21, and will significantly enhance the range of tests we can offer. I am also delighted that NPTEch is the first of what will be a number of acquisitions during 2008."

www.lab21.com

Below: diagnostic testing at Lab21



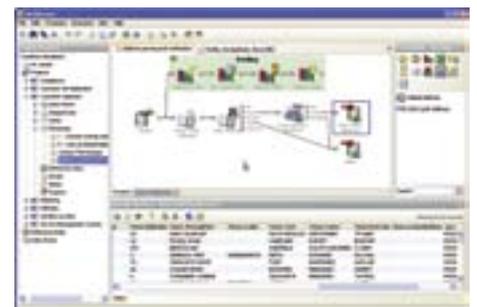
Datanomic solution chosen for major healthcare record migration project

An application by data quality specialists Datanomic Ltd has been chosen by BT Global Services for use in a major healthcare patient record migration project.

BT Global Services is using the dn:Director data quality management application developed by Datanomic to cleanse, de-duplicate, validate and structure patient data in a project dealing with hundreds of thousands of detailed records spanning over two decades.

"What has impressed us most about dn:Director is its ease of use," commented Nick Pope, Data Migration Lead, BT Global Services. "New users become effective within just a few days because the product is so visual and intuitive. But Datanomic has not compromised on the functionality in order to deliver a great user experience."

www.datanomic.com



Above: user interface for Datanomic's dn:Director

First tenants for 101 Cambridge

101 Cambridge – the biggest speculative building project in the city for 15 years and the first speculatively built building on Cambridge Science Park for eight years – has secured its first tenants prior to completion and is set to open for business in July.

Royal Philips Electronic has taken 15,000 sq ft on a ten-year lease. The £17-million building has been developed by Hermes Real Estate and Exemplar Properties, with lettings managed by Bidwells, the largest independent property consultant outside of London.

Terry Doyle, Senior Vice President, Philips Research, commented: "2008 marks an exciting year for Philips Research UK. We pride ourselves in being at the forefront of innovation and research. Ensuring we maintain this position drives our need to provide our talented scientists and technology experts with the best possible environment. We believe Cambridge offers this – an ecosystem where our work can really flourish".

Alex Turner, Investment Manager at Hermes Real Estate, said: "We are delighted that Philips Research has chosen 101 Cambridge for such a major relocation. The selection of this building speaks volumes for the quality of our development and the strength of Cambridge as a location for hi-tech businesses. This pre-completion letting to Philips Research UK brings an important new R&D name to the city."

Cambridge is recognised as one of the top global innovation centres and is the R&D hub for several multinational technology companies. The Cambridge Science Park location will enhance Philips' portfolio of research centres which span the globe employing approximately 1,800 people at seven sites including the Netherlands, China, India and the United States.

Philips Research was founded in 1914 and is one of the world's major private research organisations. The new laboratory on Cambridge Science Park will support Philips' new sector organisation of Healthcare, Consumer Lifestyle and Lighting, building relationships with both private and publicly funded innovation activities in and around the city.

"We believe Cambridge provides an ecosystem where our work can really flourish"
Terry Doyle, Senior Vice President, Philips Research UK

Active in the development of many exciting new applications, Philips Research scientists have expertise in many domains. Current project work includes developing easy-to-use, rapid diagnostic tests. The devices will be suitable for use at 'points of care' such as local medical practices, and could mean that the waiting time between diagnosis and treatment is cut from days to minutes.

The tests involve the identification of specific biomarkers of disease in patient samples such as blood, urine or saliva. These new detection systems are

based on electronics and microfluidics on glass and promise to be more compact and much faster than traditional diagnostic techniques.

Other project work includes developing ultra-low-power-radio-solutions which, for example, could enable "Body Area Networks" in a number of healthcare applications. Deploying these novel short-range wireless systems will revolutionise the future care environment in hospitals and homes.

Existing areas of highly regarded contribution will continue to be promoted: the Cambridge Laboratory will continue work in the standardisation of wireless communications and will explore licensing and alternative collaborations that build on its electronics systems expertise, as well as building on its proprietary "EPLaR" flexible electronics technology.

www.research.philips.com



Background: the lobby of the new 101 Cambridge
Above: computer-generated image of the new 101 Cambridge

PARKLIFE connections

Biology in Business (BiB) is a Cambridge-based non-profit organisation with more than 1,700 members that bridges academic and commercial life science to promote career development and technology transfer through events, online resources and networking opportunities.

Email: info@biologyinbusiness.org
Web: www.biologyinbusiness.org

The Eastern Region Biotechnology Initiative (ERBI)
ERBI's objective is to facilitate and accelerate the growth of biotech in Cambridge and the East of England. Its core activities include: hosting networking events, special interest groups, training, partnering and member promotion, publications, regional and national initiatives.

Email: info@erbi.co.uk
Web: www.erbi.co.uk

Research Services Division (RSD) helps to identify, secure and manage research funding for the University from regional, national and international sponsors. It encourages collaboration between the University and industry, and fosters long-term research partnerships between companies and academics for mutual benefit. RSD also organises Horizon, the leading seminar series, which provides participants with a first look at new developments in the most exciting areas of science and technology at Cambridge University.

Contact: Jo Ryan
Email: jo.ryan@rsd.cam.ac.uk
Web: www.rsd.cam.ac.uk

The Great Eastern Investment Forum (GEIF) is a leading UK business angel network located in Cambridge which exists to introduce ambitious, innovative companies seeking funding to business angels and other early-stage funders seeking quality investment opportunities.

Web: www.geif.co.uk

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

Email: camawisemeetings@yahoo.co.uk
Web: www.camawise.org.uk

The Cambridge Network is a membership organisation with the mission to link like-minded people from business, finance and academia to each other and to global partners for the benefit of the Cambridge region. It helps Cambridge raise its game by delivering over 40 networking, partnering and special interest group events per year (mostly in Cambridge, but also in London, Boston and Shanghai) and a high-profile website where its 1,300 corporate members publish profiles, news, jobs and events every day.

Web: www.cambridgenetwork.co.uk
Tel: 01223 422362

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.

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

i10 provides large and small businesses with easy access to the expertise, resources and innovation within universities and higher education institutions in the East of England.

Contact: Catherine Atkins
Email: c.atkins@i10.org.uk
Tel: 07738 455166

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

Catalyst is a forum for companies on the Cambridge Science Park.

The next issue will be published in Winter 2008. If you have any comments or suggestions for stories to be included in the next issue, please get in touch with Julie Bushell or Joanne Uttley (see right).



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David Cleevly

Viewpoint

David Cleevly

David Cleevly, founder and former Chairman of telecoms consultancy Analysys (acquired by Datalec International in 2004), is a co-founder and Chairman of Abcam, a prime mover behind Cambridge Network and a co-founder of Cambridge Wireless. David also holds a number of other positions on company boards. He is a member of the Ofcom Spectrum Advisory Board, the Expert Panel for the Department of Media, Culture and Sport.

Despite the recent concerns of a global economic downturn, I think the “Cambridge Phenomenon” is in a pretty healthy state right now.

“At the moment you can find more good quality ideas here in Cambridge than ever before”

You can find statistics that are coming out at the moment that suggest a plateau or a slowdown in funding for start-up companies, but it doesn't square with what I'm actually seeing.

At the moment you can find more good quality ideas than ever, more people interested in starting up companies and more companies actually getting off the ground and doing it in a way that's better and more professional than I've ever seen at any point in Cambridge.

It helps that there's a lot more expertise around to help start-ups, and some of these new companies are much better at presenting

these days and pushing their ideas forward than they used to be. And there's also a lot more money available for funding start-ups. Cambridge Angels is putting £2–3 million a year into start-ups and that's just one source – the companies we're investing in probably double that from other funders.

I think that one of the key reasons why we're in a healthy place right now and why I think we'll continue to be so is that we've built up a really strong network of expertise across a range of areas.

It wasn't always that way. In the 1990s, Cambridge started to expand and one of the things that became obvious was that there were lots and lots of different people in Cambridge who didn't really talk to each other.

It was the driving reason behind setting up the Cambridge Network, which was founded by myself, Herman Hauser, Alec Broers, Fred Halsworth from Andersons, Anthony Ross from 3i and Nigel Brown from NW Brown.

Really it was the first large-scale initiative aimed at bringing people together so they could help new ideas get off the ground and share some of the expertise that was so obviously here in the city. If you look at Cambridge now in terms of that ecosystem, it's actually working very well. There's enough money flowing in and critically there are enough individuals who are interested in investing and giving their time, who themselves are really well networked.

That networking is really really important – I can't overemphasise it. What it enables you to do is to put together very quickly and

efficiently the resources you need if it's going to be successful, or have the insight to reject it if it's not.

So do I worry about Cambridge continuing to be a thriving place to do business? Absolutely not. But I do worry about whether we are creating the social environment and infrastructure that can support the increased number of inhabitants that a growing economy demands.

“Effective networking is really important to our ongoing success – it enables you to put together quickly and efficiently the resources you need to be successful”

We are building more houses in the area, but people don't just live in houses, they live in communities. If you build structures that don't encourage those communities to form, that don't encourage people to live properly as human beings, then I think you're asking for disaster. You've only got to look at how the bold experiments of the 1960s turned into sink estates and real trouble later on.

I'm concerned about the way in which plans get approved and moved forward without getting the input from local communities which they really ought to have. We have lots of regulations and processes associated with planning acceptances and rejections, but we don't have reliable ways in which proposals can be changed as a result of the involvement of the local community. Business-wise, I think we're moving forward to an exciting future, but we need to make sure we're really creating the infrastructure – both physical and social – that can support it.