Cambridge Science Park
Founded by Trinity College
in 1970

Spring 2003

catalyst

CAMBRIDGE SCIENCE PARK NEWSLETTER

New companies at the Cambridge Science Park
Astex Technology - One of Europe's 50 Hottest Companies
Akubio - Sound detection technology
Lord Sainsbury opens new photonics centre
Cambridge University moves to the Science Park
ART VPS - Creating virtual reality
Abcam - Small business winner
Cambridge University - Summer placement programme
Parklife
Napp's 20 years at the Science Park - Michael Healey's Viewpoint

New arrivals

alphamosaic

alphamosaic is a semiconductor company specialising in low-power, high-performance video processing for use in handheld and other video devices. Its hardware and software products include the first generic low-power video processor which can be used in handheld computers, security cameras, personal video products and mobile videophones.

www.alphamosaic.com

CMMPE

The Centre of Molecular Materials for Photonics and Electronics is a research offshoot of the Department of Engineering at the University of Cambridge. It brings together expertise from its own research staff as well as the Departments of Physics, Chemistry and Materials Science, a range of other universities and a number of key industry partners to conduct research in this area with the aim of developing technology for commercial application.

www.cambridgesciencepark.co.uk

Editorial

We hope you enjoy the Spring 2003 issue of Catalyst, the newsletter of Cambridge Science Park. In this issue we feature some of the companies on the Park and recent developments that keep Cambridge Science Park at the very forefront of research and development. For more information on the stories and events, please look at the Cambridge Science Park website: www.cambridgesciencepark.co.uk .

Catalyst is a forum for companies on the Cambridge Science Park. The next issue will be published in the Autumn. If you have any comments, or any suggestions for stories to be included for the next issue, please don't hesitate to get in touch with us.

Please contact the editor: Dr Sarah J Tasker email: stasker@bidwells.co.uk
Tel: +44 (0) 1223 559186 Fax: +44 (0) 1223 840294

Front cover: A protein crystal mounted in a beam of X-rays at Astex's facility on the Cambridge Science Park. The diffraction pattern produced allows Astex to determine the three dimensional structure of the protein which it uses to guide precisely the design of novel therapeutic drugs.

Cryptomathic

Cryptomathic is a world-leading provider of e-Security software products, complete security solutions and hardware enhancements – as well as advanced consulting and education – for telecommunication companies, banks and banking organisations, software vendors, system integrators and others.

www.cryptomathic.com

Domantis

Domantis is a biotechnology company engaged in the discovery and development of a new generation of proprietary protein products that incorporate the biological benefits and commercial advantages of both large proteins and small molecules.

www.domantis.com

Vectura

Vectura is a speciality pharmaceuticals company with expertise in particle science, device engineering and product development. It produces innovative formulation and device systems for pulmonary, oral, and dermal drug delivery.

www.vectura.com

The Astex factor

A different approach to drug discovery

One of 'Europe's 50 Hottest Tech Firms' of 2002 as voted by ***Time*** *magazine, Astex Technology is a company making a real name for itself in the competitive field of drug discovery. With a new collaboration with pharmaceutical giant AstraZeneca recently announced, at Astex the temperature just keeps on rising.*

The structural approach

The company's elevation to a position of international recognition has been a swift one. Back in December 1999, Professor Tom Blundell and Professor Chris Abell of the University of Cambridge and Dr Harren Jhoti, formerly Head of Structural Biology and UK Bioinformatics at GlaxoWellcome, founded the new company. World-leading names in their fields, they hoped to promote a new and improved structure-based approach to drug discovery that would reduce timelines, attrition rates and ultimately costs in this complex and often lengthy process.

In the three and a half years since its inception, Astex has developed an impressive array of techniques and systems to help achieve these aims, integrating X-ray crystallography technologies with its fragment-based discovery platform to discover and develop new drug candidates.

Using X-ray crystallography

A central pillar in Astex's innovative approach, X-ray crystallography is the process whereby X-ray beams are fired at a crystal (an ordered array) of the protein which has been identified as a target for the drug discovery process (see our insert "Picking nature's lock"). The X-ray beams are scattered by the protein crystal to form a specific pattern – the diffraction pattern – which is collected on a sensitive screen. Computational analysis of this pattern (the X-ray data) reveals how the atoms in the protein are arranged, and thus what its overall structure looks like. With computational software creating an accurate 3-D picture of the structure from this data, the technique allows the user to select only the subset of chemical compounds that are compatible with the particular protein for use in the ongoing screening process. Furthermore, by using X-ray crystallography during the screening process itself, 'hits' can be successfully ascertained as the 3-D structure of the protein-ligand complexes is revealed.

The Astex advantage

Astex's HTX® technology provides a suite of tools that applies innovation and automation to the various stages of this process. It facilitates everything from the production of the target protein from its DNA, through the creation of crystals to be analysed, to the collection of X-ray data and the subsequent determination of the 3-D structure.

Meanwhile the company's breakthrough Autosolve® software provides further time and efficiency savings, and signals a major advance in its field. The software can generate 3-D images of protein-ligand complexes by automated processing of X-ray data at an unprecedented rate – reducing the time taken for this process from days to just minutes.

Astex's new chemistry building at the Cambridge Science Park

Finding the key

Used together, Astex's HTX® technology and AutoSolve® software are helping to revolutionise the role of X-ray crystallography in the search for novel drug leads. However, Astex is also emerging as a pioneer in the use of small-molecule fragments as a part of its comprehensive drug discovery platform, where HTX® and AutoSolve® are combined in the company's Pyramid™ approach.

In this process, a small chemical compound – or fragment – is identified that can be developed into a larger drug candidate. The advantage of using fragments – rather than screening large, drug-sized compounds – is that even though they bind to the target protein weakly, they are able to uncover novel interactions with the protein that would be missed by conventional screening techniques. A fragment that has bound in this way can be built up chemically into a larger compound representing a novel drug candidate.

The analogy of a lock and key proves useful in describing this process. Imagine a key doesn't properly fit into a lock. However, when you look at the key carefully, it has a small tooth that, if it were broken away from the rest of the key, would actually fit very well into part of the lock – by using different teeth, you could eventually build the whole key. In this way, fragments are similar to the small teeth of the key.

Working in partnership

Astex's Pyramid™ drug discovery platform involves the screening of many thousands of these fragments using X-ray crystallography. It is an integrated approach which, combined with Astex's other innovative technologies, has been gathering increased momentum and attracted the interest of major industry partners.

Most recently, a collaboration agreement with AstraZeneca will play an important role in the search for anti-Alzheimer's drugs, striving to combat the disease which already affects approximately 17 million people worldwide. Working with Mitsubishi Pharma, Astex is searching for new drugs to treat diabetes, while it also has structure-based collaborations with Johnson & Johnson.

Looking forward

If confidence from investors is anything to go by, the $45m of venture capital financing secured in 2001 suggests that the future could yield exciting breakthroughs for Astex and its collaborators. Having recently moved into new premises on Cambridge Science Park – 36,000 sq. ft. of purpose-built laboratories, offices and computational facilities capable of housing up to 150 research scientists, with the possibility of an additional 30,000 sq. ft. for further expansion – the company seems ready to embrace the variety of opportunities that will present themselves in the years ahead.

The site houses a young and dynamic team that blends industry expertise, management experience and academic excellence from many of the world's most respected pharmaceutical and healthcare companies and educational institutions. The diversity of experience is complemented by clarity of purpose: to advance the drug discovery process in the pursuit of improved human healthcare.
www.astex-technology.com

Picking nature's lock:

A brief guide to the drug discovery process

Where does it start?
The process starts with the identification of proteins implicated in a disease state as targets for drug discovery. Proteins are the major constituents in cells, and their activities affect how cells function in the body. In disease states, the incorrect functioning of cells may be due to a protein, or a number of proteins, acting incorrectly. Drugs can be designed to act against a protein, preventing or altering the way it acts.

What happens next?
The next stage is known as the screening process – searching for the chemical compound which will act effectively on the target protein.

Drugs act upon proteins by binding to them, and changing the way they function. It is similar to a lock and a key: a drug 'key' with an exact fit must be found to change the state of the protein 'lock'. Screening is the process whereby large numbers of different 'keys' are assessed for their ability to fit the 'lock'.

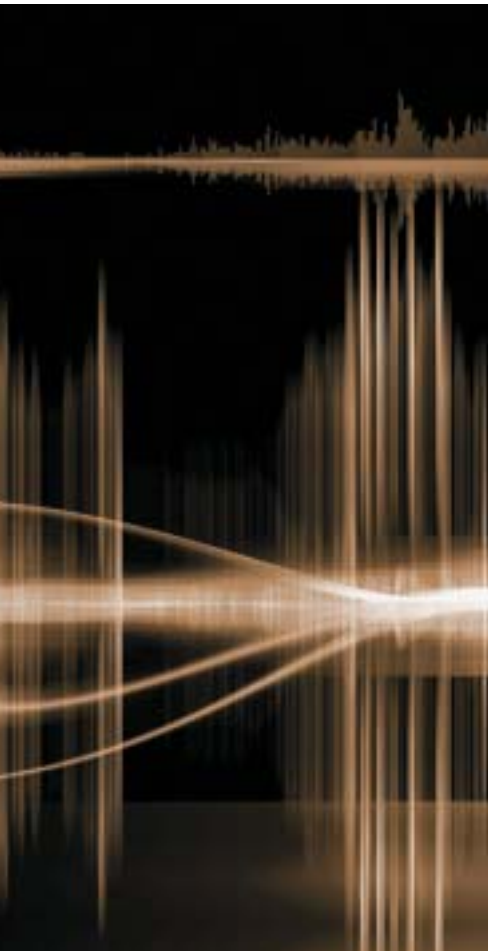
How is screening carried out?
There are many ways of screening – using bioassays (mixing the protein with different chemical compounds and looking to see if the activity of the protein is altered); studying the fit of the 'key' into the 'lock' using in silico (computational) models of the chemical compounds and proteins; using biophysics-based methods such as nuclear magnetic resonance (NMR) or X-ray crystallography to visualise the image of a protein and chemical compound bound together and examine the fit.

What are the different stages in the development of new drugs?
Drugs on the market have undergone clinical trials to show their efficacy and safety; thus compounds that are produced as a result of drug discovery efforts are not yet 'drugs'. However, a number of different terms are used to describe the different stages in the development towards new drugs.

- **Hit:** A chemical compound that is identified at an early stage of the process as being potentially useful as a drug. It may affect the activity of the protein in some way, or may bind to the protein in the right place.
- **Lead compound:** The next stage on from a hit – when a hit has been chemically altered so that it has a stronger effect on the protein's activity, or fits more accurately to the protein.
- **Drug candidates:** This is usually the next stage on from a lead compound. A lead may be improved and tested further to show its potential as a drug.

The sound detectives

Akubio



A Cambridge University spin-out is breaking new ground in the field of acoustic detection technology. Akubio analyses the tiny sounds emitted when the bonds between molecules are broken, with potential applications in fields ranging from clinical diagnostics to environmental testing.

Joining the Cambridge Science Park just last August, Akubio was formed in response to the pioneering research being carried out across the Departments of Chemistry and Pathology at the University of Cambridge. Led by Matthew Cooper, now Chief Scientific Officer at Akubio, the cross-disciplinary team was convinced that its new technology had real commercial potential, and set about securing the capital investment needed to launch the company.

Acoustic detection technology is not in itself a new technique. What makes Akubio's approach unique is its successful use of quartz crystal resonators – as found in mobile phones, televisions and radios – as a means of both instigating the molecular disruption necessary to create the sound and listening to the results.

Dr John Pritchard, CEO of Akubio, explains: 'We're essentially interrogating a bond between molecules – when this breaks, like an elastic band, some of the energy is released in the form of a sound.

'We use quartz crystal resonators coated with a receptor to which particles of the pathogen, molecule or cell in question become attached. An alternating current is then passed through the crystal, causing it to vibrate until the pathogen or molecule is dislodged. What is fantastic about using a quartz crystal is that when this happens, we can then use it as a very sensitive microphone to pick up the sound emitted – in fact, it acts as both the interrogator and the detector.'

By looking at the magnitude and type of sound emitted, a lot can be learned about the molecule or pathogen in question. The technique is both highly specific and extremely sensitive – for example, it can detect a single virus particle in just one microlitre of fluid. As such, it has a wide range of potential applications in different fields, including clinical diagnostics, food diagnostics, life sciences research, environmental testing and even detecting bioterrorism threats.

For the moment, Akubio is still in the early stages of product development. The 20 - strong team is focusing on applications for use in human diagnostics and life science research, including drug discovery.

Dr Pritchard is looking forward to the challenges ahead. 'We're hoping that we'll be able to offer a method of conducting assays which is cheaper, simpler and more accurate than existing techniques,' he says. 'However, we're also very aware of the wider applications of this technology, and we'll remain open to further product development as and when the time is right.'

Looking to provide a profitable return to investors within five years, the Cambridge Science Park provides a solid base in which Akubio can grow. 'Being here on the Science Park allows us to learn from the experiences and knowledge of other similar companies – in that respect the CEO network is very useful,' says Dr Pritchard.

There appears to be an exciting future for this young, multicultural company. 'As well as our lead technology, we have other technologies following behind,' adds Dr Pritchard. So if early promise reaches its commercial fruition, it seems that Akubio will certainly be a name to listen out for.

www.akubio.com

Lord Sainsbury opens Cambridge University's new Photonics and Electronics Centre at the Cambridge Science Park

Lord Sainsbury

In February, the Cambridge Science Park welcomed the Science Minister, Lord Sainsbury, at the opening of Cambridge University's new Centre of Molecular Materials for Photonics and Electronics (CMMPE). In his address to over 60 specialists in the field, Lord Sainsbury emphasised his commitment to this work, saying that "Photonics will be to the next 20 years what electronics has been to the past 20."

One of the reasons Cambridge University's new Centre has been located on the Cambridge Science Park is the close proximity of industrial collaborators. Talks have already begun with potential partners.

"This is a major investment, and if the UK is to maintain its international reputation in this field, the importance of conducting fundamental research can't be over estimated," the Science Minister said. "Research into photonics at Cambridge has always been of a very high standard and of benefit to the UK economy," he continued." In the past it has not always resulted in commercial success, but this has changed."

Lord Sainsbury went on to mention the "far-sighted venture capitalists" in Cambridge who were supporting Cambridge Photonics, the new company associated with the Centre.

The new Centre is being led by Prof Harry Coles who, with his team, was head-hunted from Southampton University, where he had gained a reputation as a leader in the photonics field.

The aim is to provide a forum for collaboration allowing other university research groups, especially those headed by Prof Ian White, Dr Eugene Terentjev, Prof Richard Friend, Prof Bill Milne and Prof Andrew Holmes, to work together.

Prof Coles said "The launch of the CMMPE puts Cambridge at the cutting edge of photonics research. Through collaboration between the departments and industry, the centre will enable significant advances that will filter down into the marketplace with the emergence of 3-D TV displays and telecoms devices, such as mobile phones and palmtops."

CMMPE will specifically look at the application of polymers, nanostructures and liquid crystals to display, telecoms and light-emitting devices.

Lord Sainsbury said the photonics market was already worth £15bn worldwide, taking over from the cathode ray tubes market.

He also mentioned that, leaving out MIT (Massachusetts Institute of Technology), the UK was doing as well now as the US in terms of technology transfer from universities to industry.

Cambridge is playing a major role, not least in becoming the centre of excellence for the display and telecoms industries, with plans underway for a further new centre for advanced photonics and electronics.

"It is important and very valuable," Lord Sainsbury said, "enhancing our competitiveness and increasing the quality of life for people in this country."

From left to right Prof Harry Coles; Sir Alec Broers; Dr Jeremy Fairbrother; Prof Bill Milne; Lord Sainsbury; Prof Bill Crossland

The UK's new centre for photonics and electronics research

Leading the light-speed revolution

In February 2003, the new Centre of Molecular Materials for Photonics and Electronics (CMMPE) as opened by Lord Sainsbury at the Cambridge Science Park. The new Centre represents another major milestone in the symbiotic relationship between commerce and academia that has been at the heart of the Cambridge Phenomenon, and seems destined to play a leading role in the development of a new generation of photonics-based devices. ***Catalyst*** *talked to the Director of CMMPE, Professor Harry Coles, about what he believes the new Centre will achieve.*

Why has CMMPE been set up?

It's been an evolution of about five or six years of different approaches to set up a centre the likes of which hasn't been seen in the UK and in Europe before. The issue we were dealing with was this: if you had an idea or a need for a new piece of photonics technology, how would you bring all the key players together in one place? The creation of CMMPE is a way of solving that problem.

What's special about CMMPE?

Well, to start with, it's unique in the way it has been set up. Although CMMPE is still a part of the Department of Engineering at the University of Cambridge, it is steered by a mixture of academics and commercial partners. There's a real focus on developing practical commercial applications as a result of the research carried out here, and we're definitely expecting to produce our own spin-off companies.

The other main feature is the breadth of expertise we bring together here. Not only do we have researchers from across different departments of the University of Cambridge, but we are also a magnet for specialists from other UK and European universities, as well as those working in the commercial sector. It's a huge step forward for the UK and for Europe in the field of photonics research.

What kind of work is CMMPE involved in?

We'll be looking to try and solve any problem related to new developments in optics, photonics or electronics, including telecommunications.

We want to act as a focal point for the new science and engineering of lightweight plastic polymer-based displays, printed circuits and light-emitting systems, which are key to the next generation of photonic devices. Specifically, we'll be looking at the application of organic materials to photonics and electronics.

Can you explain what you mean by 'the application of organic materials to photonics and electronics'?

The concept we are used to in electronics and computing is that of electrons moving down a piece of copper wire or across circuit boards as a means of carrying information. However, there are limitations involved in this process – it is significantly slower than the speed of light, due to atomic structure, interactions and collisions.

If you want to make faster electronic devices, then the ultimate limit is the speed of light. What we're looking at is using photon wave particles to carry information at this speed, and the whole new range of devices that could result from the application of this technology.

The reason that we are interested in organic structures is that they can act as extremely good conductors for photon energy transfer, processing information at very close to the speed of light. A large part of our work here is involved in creating new organic structures for this purpose, testing them, and creating devices in which they can be used with a practical application. In essence, what we are trying to do is encourage the technology step from traditional electronics to photonics.

So what are some of the practical applications of this technology?

One potential application is the optical-based computer – in fact, this seems the only way we will be able to get round current limitations. You will notice that when you buy a laptop these days they are working at ever-faster clock speeds – up to something like 3 gigahertz. That's very close to the limit of those materials and those systems using electrons. Using photons, fibre-optic wave-guides and optical transistors, you could see a real step-change in computer processing capacity. Other applications include things like 3-D televisions, optical local area networks for houses and offices, or using holographic techniques to reduce the cost of display screens. But really that's just the tip of the iceberg – there's a lot more out there waiting to be done.

Why was the Cambridge Science Park chosen as the site for CMMPE?

The space that we have got here is superb for what we are trying to do – it allows us to accommodate our current work and also to expand where and when we need to.

Of course, there's also the huge potential for interaction with industry. We have only just arrived here, but we are already in discussion with several companies on the Science Park about potential partnerships.

We are in the business of taking academic research into the frenetic world of commercial application, so with the range of activity that's going on here, we really are at the dynamic centre of things.

How do you see the future of the Centre?

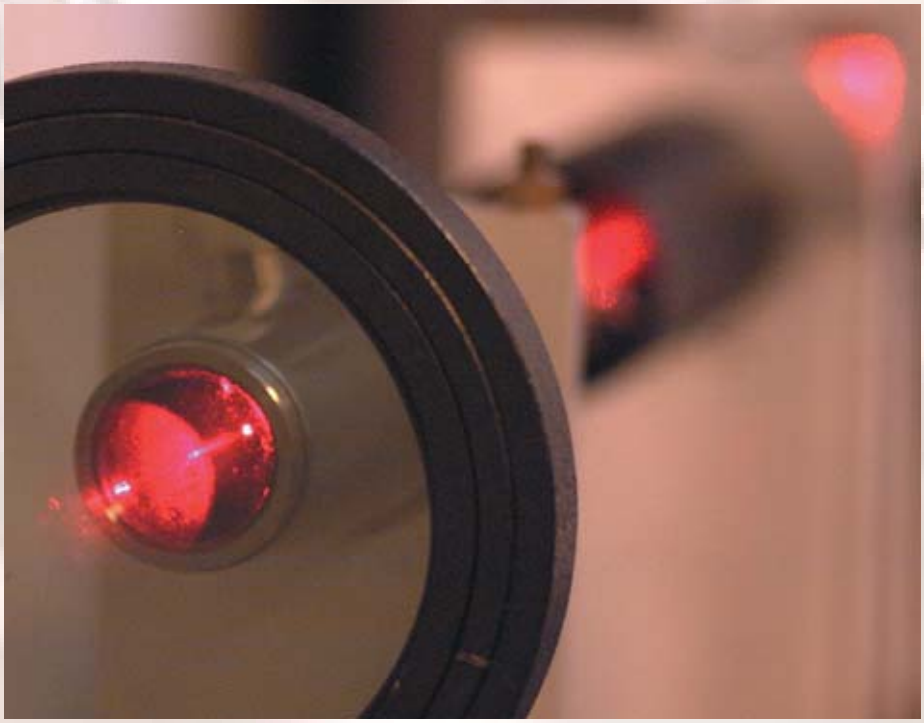
We have already made something of a flying start – we have two major projects running with corporate partners where we are actually undertaking a part of their corporate research. As an ever-larger number of large companies are unable to afford to run their own corporate research labs, I expect to see a range of organisations asking us to collaborate as a key part of their corporate research profiles.

The potential of CMMPE is huge. We have got 40 to 50 people involved at the moment, but I also would like to see our project base expand – I could easily imagine up to 100 people working in this environment within a couple of years. I'd also be very surprised if we didn't have spin-off companies – and several of them – within the same time frame.

What's more, CMMPE is just part of a bigger framework that we're looking to develop. Within three years, the Engineering Department is hoping to establish a sister organisation – the Centre for Advanced Photonics and Electronics – which will focus additionally on areas such as power engineering and the new nanotechnology scene. Added to this, I'm currently involved in setting up a body with the lovely acronym SOAP – Structured Organics for Applied Photonics – which will provide a pan-European network for research, and I also direct the COMIT Faraday Partnership which has chosen the Science Park to house its administrative hub. COMIT is a new pan-university/industry venture in communications and mobile information technology.

There is no doubt in my mind that this is a hugely exciting and challenging field to work in right now – I am sure that CMMPE and its partners will be at the very centre of it.

www.cambridgesciencepark.co.uk



Picture perfect

Turning vision into virtual reality with ART VPS

Examples of ART VPS's virtual-reality 3D images clockwise from above: vacuum cleaner; car chassis; jet interior; office furniture; Jaguar engine

Every great company has a vision. ART VPS is helping organisations as diverse as Ford, Procter & Gamble and Aardman Animations turn their visions – quite literally – into virtual reality.

A relative newcomer to the Cambridge Science Park, this ambitious company is setting new standards in the world of virtual photography, using a combination of hardware and software to transform data supplied by 3-D computer-aided design (CAD) packages into highly realistic visual representations.

So when Ford were looking to launch their new range of Transit vans, it was the virtual photography generated by ART VPS systems that allowed them to show the van in action in a variety of settings across their promotional materials before a single model had ever rolled off the production line.

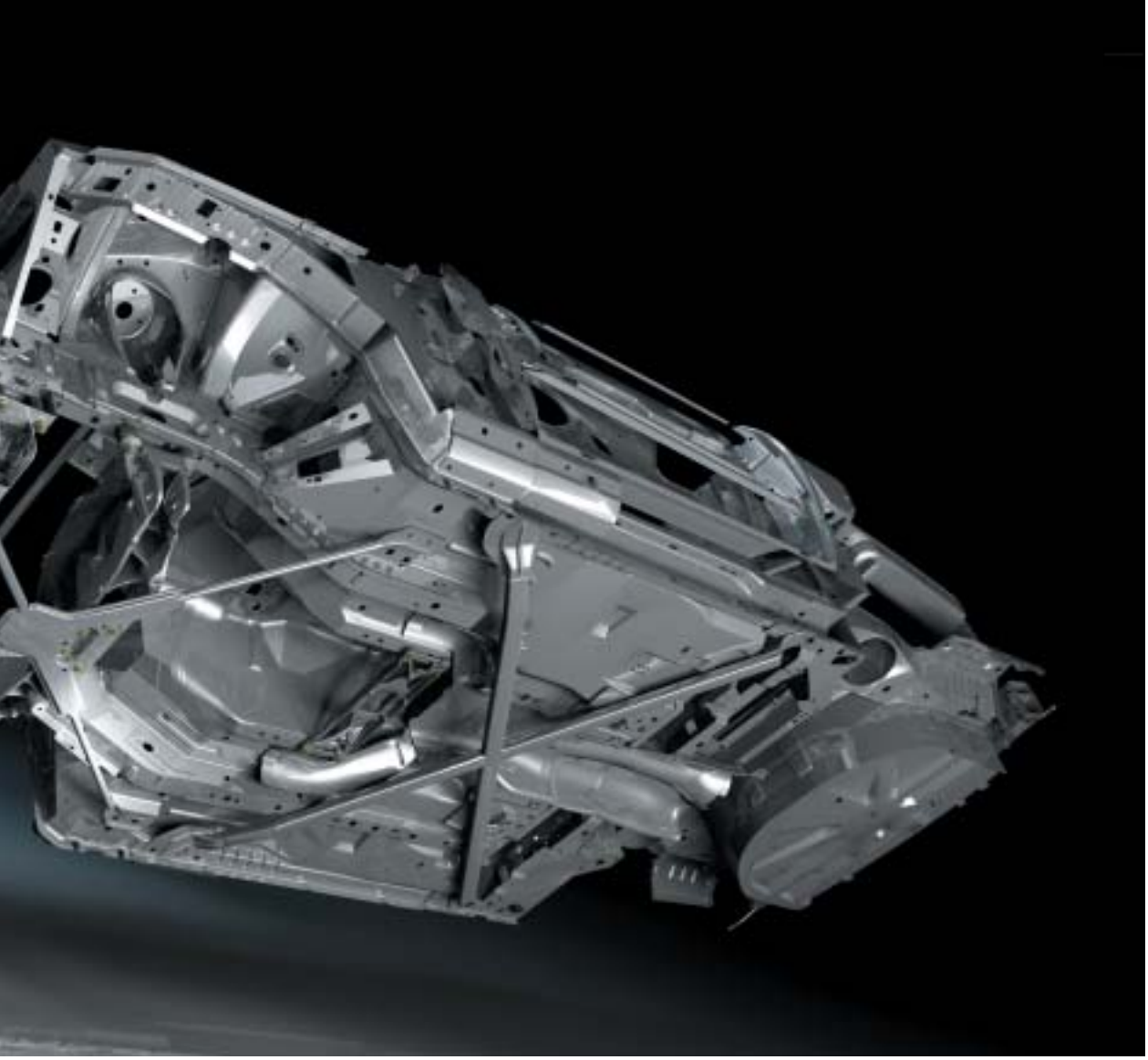
The degree of realism captured in the images is breathtaking, and you'd be hard pushed to spot the occasional traditional photograph which can be found in this particular collection of marketing literature. Nevertheless, the question should be asked: why use virtual photography when you could potentially go out and take a picture of the real thing? Craig Wareham, VP Marketing at ART VPS, explains.

'Our systems allow our clients to produce photographic quality images of their products while they are still at the design stage. Crucially, this helps manufacturers reduce the time to market, offering cost savings and the opportunity to achieve revenue much earlier in the life cycle of the product.

'In the case of Ford, the time and cost involved in producing a full range of prototypes of their new vans would be enormous. The fundamental benefit our products are offering is the ability to replace the need for traditional photography without compromising quality standards.'

It's a technology that has applications across a variety of industries, from their core sector of industrial design, through to more diverse clients in sectors such as architecture, engineering, construction and professional animation. As well as helping cut time to market, effective visualisation can also play a vital role in market testing and client approval processes, as Wareham describes.

'Imagine you're designing a label for a new range of soft drinks. With ART VPS systems, you can visualise not only exactly how your design will look on the bottle, but also how it will appear on the shelf next to competitor products. And we're not talking about an artist's impression – we mean a true-to-life representation.'



ART VPS is the phoenix which has arisen from the ashes of its predecessor, Advanced Rendering Technology (ART), and joined the Cambridge Science Park in August 2002. As well as representing a fresh start for the 13-strong team, the change of location offers additional benefits. 'Being on the Cambridge Science Park has a certain cachet and brand value with some of our overseas clients,' says Wareham. 'It certainly is the location in Cambridge that people in the US and Japan know most about.'

Leaner, more compact, and more customer-focused, the new company is already seeing the fruits of its efforts in strong sales, repeat purchases and the development of a network of sales channels across Europe, Asia and North America. But while the technology may be cutting-edge, the results are easy for anyone to understand. 'In the end says Wareham, we think the pictures speak for themselves.'

www.artvps.com

Abcam Voted Small Business of the Year

Abcam, the specialist supplier of antibodies and reagents, has received the 'Small Business of the Year' award at the 10th Annual ***Cambridge Evening News*** *Business Excellence Awards.*

Abcam demonstrated the imagination, innovation, product quality, service, marketing and management skills required to make it stand out from the eleven other thriving companies nominated in the same category.

Picking up the award at the gala dinner held at King's College, Cambridge in March, Dr Jonathan Milner, CEO and founder of Abcam, said 'Listening to our customers and giving them the cutting-edge research products and unique web-based services they need, rather than what we think they might need, is our priority. This award is symbolic of our team's continued dedication, energy and enthusiasm and we are delighted to have our hard work recognised in this way.'

This award is a further acknowledgement of Abcam's success. It comes hot on the heels of the Deloitte Touche Fast 50 awards when it was identified as the third fastest growing company in the eastern region having demonstrated 1450% turnover growth between 1999 and 2001.

Abcam started with an ice bucket and a lot of trudging between university laboratories. Jonathan Milner had experienced difficulties getting hold of the right antibodies for his research work, so decided to set up his own supply business. The bucket full of antibodies and the knocking on laboratory doors has long since been superseded by a business model that is a classic dotcom – but a successful one. Dr Milner now heads a team numbering nearly 30 who have just moved from the company's first building on the Cambridge Science Park to a much larger one.

Dr Jonathan Milner, CEO Abcam

Abcam takes orders for its antibodies from scientists throughout the world via the internet and is a splendid example of finding an unfilled niche in a highly competitive sector.

When Dr Milner set up the company in 1998 he said he wanted to be to antibodies what Amazon has been to books, and he has succeeded – with a business that is now approaching a weekly turnover of £100,000 and growing at around 5-10% month on month.

Latest annual turnover was £4.3m with around a 20% profit-to-sales ratio and reasonable expectations of reaching £30m a year before long.

Yet all might have been lost without Abcam's ability to be flexible when the dotcom bubble burst.

Although the company was doing well, it needed more funding. However, it found that because of its business model no one was prepared to invest. Abcam started taking orders by whatever means it could – rather than just via its website – and as a result weathered the storm, coming through without any additional venture capital investment and going into profit last year.

www.abcam.com

Cambridge University student placement programme

Would you like an enterprising student for the summer?

Would your R&D company benefit from a talented student to develop your business plan, product, technology or marketing strategy, or to do some competitor analysis or market research?

The 'Enterprising Students' programme can introduce you to a highly motivated Cambridge University student (undergraduate or postgraduate) who will join your company for the summer. Students on this programme already have a wide range of knowledge and skills, including both technical and business, that can make a real difference to your business.

'Enterprising Students' is run by the University of Cambridge Entrepreneurship Centre (CEC) and jointly designed by CEC and the Massachusetts Institute of Technology (MIT). The aim is for talented Cambridge University students to undertake projects in local R&D firms to make a difference to the business and to develop crucial skills required in setting up a venture.

How does it work?
Describe the project(s) and the skills and experience required. We will then place a summary on our website, keeping your company name and detailed description strictly confidential and forward to you CVs of appropriate students.

Alternatively, visit the CEC website and check our student profiles on the 'meet the students' web page; tick the box that corresponds to the student(s) in whom you are interested and submit the online form to CEC. We will then forward you CVs of appropriate students.

Either way, you choose which student to interview and employ. The right student for you will work at your company on your project, helping to solve the problems you are facing.

Project lengths can be flexible depending on the nature of the project and the commitments of the student, but generally last four to ten weeks. Students receive training and support from the CEC and are to be paid a minimum of £250 per week by the host company.

What support will be available to Science Park companies and their Enterprising Students?
CEC will provide students with a series of seminars and workshops, and nominate a personal supervisor for each project. The supervisors are experienced entrepreneurs. Through experienced advice and objective opinions, the supervisor will assist the student to fulfil the objectives of your project, so that your company can get maximum value from the programme.

For more information, visit:
www.cec.cam.ac.uk

PARKLIFE

Launch of new Cambridge Science Park website

A brand-new website for the Cambridge Science Park will be launched in May, helping Science Park companies communicate with each other and with the wider world better than ever.

Amongst the services the website offers is the ability for Science Park companies to post events, news and advertise job vacancies. The new database-driven system makes it easy for those visiting the website to get all company information – from its location on the Science Park to its latest job vacancies – from the company's dedicated page which also links through to the company's own website.

The new website design incorporates many Science Park images to give virtual visitors a visual experience of the Park. This is accompanied by a much-enhanced historical and educational focus. For example, a new time-line uses historical maps and aerial photographs to trace the Park's evolving evolution from farmland in the 15th Century, through its use by the US Army in the Second World War, to its development as a science park over the last 30 years. Other information is designed specifically for the many researchers and journalists that contact us and as a resource for schools in relation to the science park topics that are now studied as a part of the National Curriculum.

For more information, visit:
www.cambridgesciencepark.co.uk

The Cambridge Network:
working for Science Park companies

The Cambridge Network brings together more than one thousand members from both business and academia to create and support a community that promotes the city's commercial and high-tech scene.

Formed in 1998 as a limited company, Cambridge Network now includes many members from the Cambridge Science Park who benefit from its wide range of services. It acts as a corporate gateway for investors, journalists and other companies, introducing its members to a global audience and building on extensive international links.

In addition, Cambridge Network holds regular events – many at the Cambridge Science Park – and provides a web portal through which companies can post news, advertise jobs and communicate with each other. With a variety of membership plans for small and large organisations, it's one way to ensure that members keep their fingers firmly on the Cambridge pulse.

For more information, visit:
www.cambridgenetwork.co.uk

CEC: Training for the Future

'NETWORKING IS THE WAY TO SUCCESS' SAYS GURU

… was the headline in the **Cambridge Evening News** Business Section following a breakfast seminar held by Cambridge University's Entrepreneurship Centre at the Cambridge Science Park.

Over 20 Science Park and visiting companies attended to hear Dr Shai Vayakarnam's hard-hitting message to bin their business plans in favour of active networking. The event, entitled 'Re-igniting the Spirit of Enterprise', heard how corporate strategic planning can get in the way of the messy human endeavours such as connecting, networking and team-building that define entrepreneurial activity and underwrite creativity. Dr Vayakarnam pointed out that industry clusters most often emerge around inspirational and well-connected individuals; in the case of Cambridge these include Hermann Hauser, Andy Hopper and Alan Goodman.

Cambridge University's Entrepreneurship Centre provides teaching and training for entrepreneurs, advice and active support for the creation of knowledge-based ventures, and research on how knowledge-based ventures grow from conception into maturity. The breakfast is the first of a series of joint events planned between the CEC and the Cambridge Science Park including masterclasses and a student summer placement programme.

For more information, visit:
www.cec.cam.ac.uk

Shai Vayakarnam, CEC Breakfast speaker at the Cambridge Science Park

PARKLIFE
connections

The Science Park HR Group, a support network for HR managers/representatives, provides a forum for sharing of common issues/problems, discussion of best practice, updates on legislation, and the opportunity to offer support to each other in what can often be a solitary role. We meet every other month over lunch.
Contact: Wendy Hepburn
Email: whepburn@xaar.co.uk

A Facilities Managers' Forum is proposed for the Science Park as an opportunity for networking, sharing experiences, a consultation and pressure group and an educational forum. The Forum plans to meet four times a year. If you are interested in taking this idea forward please contact:
Contact: Martin Scutt or Tim Burrows
Email: martin.scutt@camcon.co.uk
tim_burrows@xenova.co.uk

Biology in Business (BiB) is a Park-wide and University-wide organisation focusing on career development and the exploitation of novel technologies applicable to the life sciences. BiB organises formal and informal events, including the region's only careers fair for life scientists (CoiLS).
Contact: Charlie Bailey
Email: cbailey@cantab.net

The European Chapter of the Lab Robotics Interest Group is a forum for the exchange of ideas on robotics and programmable automation in the field of high throughput screening, assay development, proteomics, genomics and general lab automation. Regular meetings bring together scientists, engineers, users and vendors of equipment and instruments.
Website: www.lab-robotics.org

The Eastern Region Biotechnology Initiative (ERBI) offers members substantial discounts on supplies through its Purchasing Consortium. Membership also gives access to ERBI's special interest groups that include human resources, finance and business development.
Contact: Jeanette Walker
Email: jeanettewalker@erbi.co.uk.

Napp celebrates 20 years at the Cambridge Science Park

Viewpoint

Michael Healey,
Personnel and Facilities Director,
Napp Pharmaceuticals

'In summer of this year, it will be 20 years since Napp became fully established on the Cambridge Science Park, a milestone of which we are all very proud. Back in 1983, we engaged 125 new employees as part of the transition, and I am pleased to say that many of those who were with us at that exciting time are also celebrating their own 20-year anniversaries with the Company.

'Our move to the Napp Complex was a classic centralisation exercise – bringing together under one roof the talent and expertise which, at the time, were spread across different sites around the country. But it was far from being a risk-free decision. Building the Napp Complex involved an investment of £20m, and it represented a significant act of faith on the part of our owners. I am pleased to say that their faith has proven to be well founded.

'Twenty years on, the Napp Complex is still perceived as a remarkable and outstanding building. For us, not only was it a most prestigious location in which to be situated, but it also represented a quantum leap forward in terms of the standard of the facilities available to us.

'Napp has achieved a great deal in this time. The 225 employees we had back then have grown to 570. These numbers do not include the further 180 people in our sales force around the country. Our UK sales alone have risen from around £17m in 1983 to £57m in 2002. Most importantly, we have made significant contributions to the improved treatment of cardiovascular disease and helped revolutionise the treatment of severe pain, particularly that associated with cancer. Knowing that patients have really benefited from our work is the achievement in which we take greatest pride over the last 20 years.

'Of course, there have been a large number of changes that have taken place over this period, and the Cambridge Science Park is a radically different place to when we first arrived. There has been a huge growth in activity, and we like to believe that we have played our own part in this. By making such a major investment back in 1983, Napp became something of a flagship for the Cambridge Science Park, helping to attract others to this unique site. Naturally, we have been a beneficiary of the extraordinary development which has occurred – but I also believe Napp has acted as a powerful engine in driving this process forward.

'As for our industry sector, it is now a much tougher market than it was 10 or 20 years ago. So looking forward to the next 20 years, if we could record a similar growth to that which we have achieved since arriving here, I am sure we would all be very pleased. But while financial returns are important, what we are most interested in is continuing to make a real contribution to and impact upon the treatment of serious diseases. I am sure we are in the right place to do that.'

As part of the celebrations to mark its 20th anniversary at the Cambridge Science Park, Napp Pharmaceuticals, in conjunction with the ***Cambridge Evening News****, is sponsoring a Charity Press Ball. This will be held on Napp's grounds at the Cambridge Science Park on Saturday 28 June 2003.*

Money raised will be divided between two charities, the Arthur Rank Hospice Charity, which works to help the terminally ill and their families, and Press Relief, an organisation which works to help relieve poverty and advance the welfare of people in Cambridgeshire.

For more details and to order tickets, email: helenbearfield-smith@pressrelief.org

---

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

www.cambridgesciencepark.co.uk

Management Team:

David Lupson
email: dlupson@bidwells.co.uk
Tel: +44 (0) 1223 559548

Dr Sarah J Tasker
email: stasker@bidwells.co.uk
Tel +44 (0) 1223 559186
Fax: +44 (0) 1223 840294