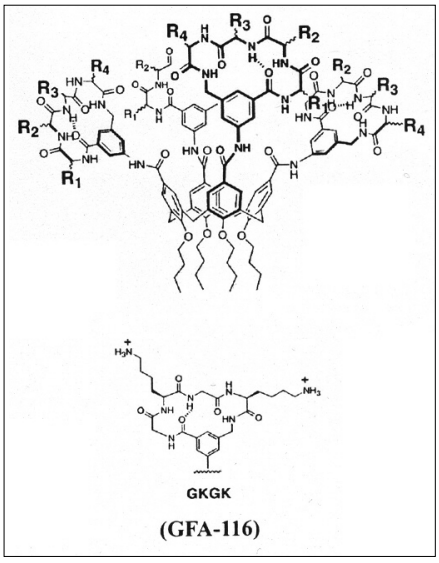

growth and metastasis of highly metastatic B16-F10 melanoma cells.

Taken together, the results show that the synthetic molecule GFA-116 is specific for and effective in blocking VEGF-dependent signaling and could therefore be a potent new anticancer drug candidate.

6 Sun, J. *et al.* (2004) Blocking angiogenesis and tumorigenesis with GFA-116, a synthetic molecule that inhibits binding of vascular endothelial growth factor to its receptor. *Cancer Res.* 64, 3586–3592

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Metastasis, with a Twist

Despite being a major cause of cancer mortality, the mechanisms regulating tumor metastasis remain poorly understood. In an effort to address this deficiency, a team led by Robert Weinberg has identified Twist as a key player in this process [7].

The researchers exploited a mouse model comprising four distinct cell lines derived from the same spontaneous mammary tumor. When implanted into a host mammary gland, these lines form primary tumors differing in their metastatic potential. Using microarray technology, Twist was identified in three of the cell lines, suggesting a role in the early stages of metastasis. This was confirmed using siRNAs to inhibit Twist expression.

During *Drosophila* gastrulation, Twist is involved in the epithelial-mesenchymal transition (EMT). Intriguingly, Twist was also able to promote EMT in human mammary epithelial cells. This was associated with increased expression of mesenchymal markers at the expense of epithelial cell markers, including E-cadherin.

Because EMT occurs during epithelial carcinoma metastasis, the researchers speculated that Twist contributes to this process by inducing EMT. Twist was present in several metastatic tumor cell lines but undetectable in non-metastatic and normal cells. In addition, Twist was overexpressed in 70% of invasive lobular carcinomas, which display many features of EMT. Indeed, an inverse correlation between Twist and E-cadherin expression was established in these tumors.

In conclusion, during metastasis, tumor cells appear to subvert factors usually active in development. At this point, the involvement of additional components of the Twist pathway cannot be ruled out; however, identification of Twist provides a valuable tool for further dissection of the metastatic process.

7 Yang, J. *et al.* (2004) Twist, a master regulator of morphogenesis, plays an essential role in tumor metastasis. *Cell* 117, 927–939

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Business

Collaborations

Cellomics and GE collaborate for cellular screening solutions

With the aim of accelerating and enhancing drug-discovery programs, Cellomics (http://www.cellomics.com) and the General Electric Company (GE; http://www.ge.com) have announced details of a software development and commercialization agreement. The agreement outlines how the two companies will collaborate to develop high-content screening tools, using Cellomics' high-content informatics (HCi™) platform and GE Healthcare's sub-cellular imaging instruments.

The software developed by Cellomics will be developed to analyse information generated by GE Healthcare's IN Cell Analyzer 3000 and IN Cell Analyzer 1000 sub-cellular-imaging systems. Such software will permit the interrogation of this data using Cellomics® Store and vHCS™ Discovery ToolBox. As a result of these developments, it is thought that scientists will more easily be able to store, mine and interpret data. Such a system should permit more rapid and better-informed decisions to be made.

Michael Evans, Vice President of marketing and strategy, Discovery Systems, GE Healthcare, commented: 'This collaboration with Cellomics supports GE Healthcare's strategy of helping customers improve efficiencies in gathering, analyzing, and understanding complex drug development information,' and continued 'We are pleased that we will be able to combine our informatics solution expertise with GE Healthcare's cellular analysis products to drive towards the ultimate goal of cutting drug development time.'

Vernalis and Biogen Idec to collaborate on Parkinson's disease

Vernalis (http://www.vernalis.com) and Biogen Idec (http://www.biogen.com) have agreed to collaborate in a joint venture to develop and commercialize the Vernalis lead compound, V2006. The compound has recently completed Phase I clinical trials

Under the terms of the agreement, Vernalis will immediately receive US$10 million license fee and a series of other payments, dependant upon achieving specific milestones. Biogen Idec will have the right to develop one V2006 back up compound. They will invest to the tune of US$6 million through subscription of 6,218,487 new Vernalis ordinary shares, at a price of 53 pence per share.

Simon Sturge, chief executive officer, Vernalis commented 'This is an important program for Vernalis, and we are delighted to have attracted a partner of Biogen Idec's calibre to help us take it forward,' To which James Mullen, president and chief executive officer of Biogen Idec, added 'We look forward to applying the expertise we have developed with our neurology franchise to V2006, a promising product that will bolster our growing small molecule portfolio. In addition, this

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partnership brings us one step closer to our corporate goal to in-license 50% of our pipeline by 2010.'

PamGene and JPT partner in new approaches in kinase research

PamGene International BV (http://www.pamgene.com)and Jerini Peptide Technologies (http://www.jerini.com) have announced a partnership to develop and provide new technology for kinase research. Capitalizing upon PamGene's ability to generate kinetic read-out of multiple kinase activities on their 3-Dimensional Microarray Platform and JPT's advanced peptide expertise and extensive peptide libraries, it is hoped that significant benefits to signal transduction-focused medicinal chemistry groups will ensue.

It is expected that with this technology, the cost of the drug-discovery process can be reduced substantially as explained by Rob Ruijtenbeek, Head of Kinase Research at PamGene 'One of the main challenges in pharma R&D is improving compound selection. With PamGene's 96-well array platform and JPT's kinase peptide substrates, it is now possible to generate kinetic read-out of multiple kinase activities in one experiment. Additionally, we can analyse multiple conditions on a single plate, for example inhibitor concentration series. The high-content and high-quality kinetic data will allow much more intelligent selection and prioritization of leads that enter the subsequent expensive stages of drug development.'

Mike Schutkowski, Director of Jerini Peptide Technologies was equally buoyant, adding: 'Employing our PepSpot™ technology to rapidly synthesize large numbers of different peptides in parallel at very low cost has enabled us to develop versatile tools widely used for many biomedical applications, such as enzyme profiling, biological screening and immunological applications. We are delighted to see that our comprehensive peptide sets for kinase profiling are joined with PamGene's microarray platform to arrive at a unique combination of content and user-friendliness. There is no question that this will make peptide tools more readily accessible to many scientists and enable further advances in this field.'

Business was written by *Stephen Carney*

People

Awards

Bioinformatics scientists awarded the Max Planck Research Prize

Martin Vingron, director of the Max Planck Institute for Molecular Genetics in Berlin (http://www.molgen.mpg.de) and Eugene W. Myers of the University of California, Berkeley (http://www.berkeley.edu/), were recently awarded the prestigious Max Planck Research Prize for International Cooperation.

At the award ceremony in Stuttgart, the scientists received a cash award of €750,000, which represents a significant increase over previous years, when awards were €150,000, given to 12 researchers. The prize is funded by the Alexander von Humboldt Foundation, the Max Planck Society and the Germany Ministry of Education and Research.

Myers is widely acknowledged as one of the founders of the discipline of computational molecular biology. While heading the bioinformatics department at Celera, he developed tools to allow the sequencing of large sections of DNA from the smaller sequences of DNA that were generated. Vingron, however, has been more involved in studies on the regulation of gene expression.

Vingron aims to use his award to help turn Berlin into a 'centre of intellectual creativity' in bioinformatics. He intends to do this by supporting travel for Germany-based bioinformaticists and by hosting summer seminars at the Max Planck Institute for Molecular Genetics, with invited international speakers.

Appointments

Departure of Hannes Smarason from deCODE genetics

Hannes Smarason, Executive Vice President and Senior Business Officer, is to leave deCODE genetics in order to concentrate upon his position as chairman of the board of Icelandair. Smarason will, however, continue to act as consultant for deCODE.

When interviewed, Kari Stefansson, CEO of decode commented that: 'Hannes joined deCODE shortly after its formation and in his seven years with the company, he has made a very significant contribution to deCODE's growth from a leader in human genetics research to an integrated biopharmaceutical company.'

By way of reply, Smarason said: 'It has been a privilege to work with Kari and the many talented people at deCODE. My time at deCODE has been both exciting and rewarding, and I am very proud to have contributed to building one of the most dynamic companies in biotechnology. deCODE is a remarkable enterprise and I look forward to following its success. I wish to thank everyone at deCODE for sharing with me their enthusiasm for making better medicine.'

Sir William Castell made Vice Chairman of GE

Sir William Castell has recently been appointed to the post of Vice Chairman of the board of directors of the General Electric Company (GE; http://www.ge.com). Castell will continue to be based in Chalfont St Giles, UK.

Castell had been with Amersham since1989, assuming the post of Chief Executive. Prior to that, he had been with the Wellcome Foundation, where he had a number of posts. Amongst his honours, Castell was recently made Lieutenant of the Royal Victorian Order, to add to his Knighthood, which he received in 2000.

GE chairman and CEO, Jeff Immelt, was enthusiastic about the appointment, stating: 'We are excited to have Bill Castell added to our Board after his recent addition to the GE Corporate Executive Office, where he joined Dennis Dammerman, Bob Wright and myself,' Immelt continued 'Bill is a great leader who understands how to leverage technology. His passion, vision and experience will be an asset to all of our businesses.'

People was written by *Stephen Carney*

Conference reports

Conference participants who wish to cover a particular meeting should contact:
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