

that genome sequencing has revealed between diverse species such as humans, plants and insects. The *Observer* newspaper compared the work to that of Kandinsky and the 'landscapes of Dali and the Surrealists'. Enlarged 12 times from the original, the unveiling of the piece coincides with an exhibition of Middlebrook's work at the Wellcome Trust's Two10 gallery. It is hoped that providing such a dramatic change to this part of the London landscape will spark passers-by to think more about the role of science in their lives as well as to find out more about the work of the Trust in biomedical research. The artwork is part of Wellcome's ongoing 'science and art' project and will be on display along the Euston Road until February 2002. Links: [www.wellcome.ac.uk](http://www.wellcome.ac.uk) *D.S.*

## Lasker Awards – it's a knockout



The 2001 Albert Lasker Award for Basic Medical Research was won by three researchers for their key development of mouse knockout technology. The awardees were Mario Capecchi of the University of Utah in Salt Lake City, Martin Evans of Cardiff University in the UK, and Oliver Smithies of the University of North Carolina School of Medicine in Chapel Hill. On presenting the award, Ira Herskowitz, one of the Lasker jury members, commented on how 'the ability to precisely tailor mouse genes has completely revolutionized the practice of biomedical science for the past decade and is likely to become even more important in the decades to come'. The clinical award went to Robert G. Edwards of the University of Cambridge, UK, for his work on the development of human *in vitro* fertilization, performed in conjunction with his late colleague Patrick Steptoe, who died in 1988. The final award for 2001, the Mary Woodard Lasker Award for Public Service, was presented to William H. Foege, the former head of the Centers for Disease Control and Prevention, who is now based at Emory University in Atlanta. *D.S.*

## The perfect PhD?

Earlier this year, a new standard was unveiled for postgraduate education and research in the UK. Reported in the *Guardian* newspaper, ahead of the formal announcement by the Joint Research Councils in the UK, the main point of the proposal is for increased teaching of transferable skills to students. A survey by the Institute for Employment Studies found that all of the UK's major employers are concerned about the skills of new recruits in the areas of 'communication, team-working and problem solving'. The new statement, although made jointly by the Research Councils, will not make any sweeping changes and will allow for each individual body to address the issue in their own way. More sweeping changes might soon be under way – the *Guardian* highlights a report due to be delivered to the UK government by Sir Gareth Roberts, president of Wolfson College, Oxford, and former vice-chancellor of Sheffield University, relating to the supply of scientists and engineers. The government appointed Sir Gareth, and it is therefore likely that they will endorse his ideas. Roberts is a known supporter of the move towards four-year PhD programs and of training students for life outside academia. These new reports, coupled with the five-yearly review of the UK research council practices, also due in late 2001, suggest that there might be considerable change in the coming years to the way that PhD students in the UK are trained. *D.S.*

## Survey examines cultural melting pot in US labs

Most scientists are accustomed to a multinational workplace, as researchers increasingly travel abroad for experience and improved career prospects. This is the subject of a survey of US life scientists – 'Working in a Multinational Laboratory' – published in *The Scientist* ([www.the-scientist.com/yr2001/oct/results\\_011001.html](http://www.the-scientist.com/yr2001/oct/results_011001.html)). The poll suggests that international participation in US academia is increasing, as homegrown scientists seek higher salaries in other sectors. Of 1153 researchers in respondents' laboratories, only 50% were US born. Most overseas scientists come from China and India, with significant numbers from Japan, Russia, Germany and the UK. The survey also investigated the benefits and challenges of a multinational workplace. Overall, the reaction was extremely positive; respondents felt it

benefited their research and also led to 'great potlucks'. Non-US researchers enjoyed the resources available, and many expressed a desire to continue their careers in the USA. Worryingly, a few overseas researchers were paid less than their American counterparts and felt like second-class citizens, with fewer opportunities to move up the career ladder, causing a 'raft of foreign-born scientists moving from lab to lab'. The greatest cultural bonding often occurs between members of different non-US nationalities. As a Harvard colleague once remarked: 'before I came to the US I was a German, I am now a European'. *S.L.*

## Cytoplasm through the looking glass

A Harvard study recently reported in the *Boston Globe* might change the way we think about the cytoplasm. During cell movement, cytoplasm 'flows' like a liquid. However, a 'liquid' cell would be unable to maintain its structural integrity. This paradox is explained by the idea that the cytoskeleton undergoes a gel-sol transition, allowing the cell to have both fluid-like (sol) and more solid-like (gel) properties. The researchers coated 4.5- $\mu$ m ferrimagnetic beads with RGD-containing peptides and bound them to the surface of various cell types through integrin receptors. Elastic and frictional properties of the cells were measured by shaking the beads using a magnetic field at increasing frequencies. The cells did not behave like a gel, which stiffens up suddenly, but stiffened gradually, like glassy materials. Thus, rather than thinking of the cytoskeleton as a gel, these observations suggest that it should be thought of as a 'glassy material close to a glass transition, and that disorder and metastability may be essential features underlying its mechanical functions'. [See: Fabry, B. *et al.* (2001) Scaling the microrheology of living cells. *Phys. Rev. Lett.* 87, 148102.] *S.L.*

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