EDITORIAL

nature cell biology

Science without borders

A shared culture of science across nations can bring cohesion in the face of difference. The launch of the *Nature Middle East* portal promises to engage the Arabic-speaking science community.

Hardly a day goes by without hearing the word 'globalization', used in one context or another. Whereas business and technology are widely recognized to be global undertakings, scientific research is not often discussed in these terms. But, of course, we all know that science today is truly a global enterprise. The creation and dissemination of scientific knowledge draws on resources from around the world. Many papers in this journal describe research resulting from collaborations that are supported by funding from diverse international agencies. Aided to a great degree by technological developments that allow effective communication in real time, the growth of international collaborations has greatly accelerated. The review process too involves experts from all over the world. Globalization can be a positive force for scientific research, and governments and institutions should support this movement.

The US has a long history of attracting researchers from all over the world, and research laboratories in the US today still have a high percentage of foreign-born graduate and postgraduate trainees, as well as senior investigators. In recent years, unfettered mobility for EU citizens has also facilitated training programmes and joint international ventures. But research organizations in both the US and Europe are now also turning eastward, by establishing institutes and collaborative networks in Asia. For example, Institut Pasteur Korea brings together the research mission of the Pasteur Institut of France with the expertise of South Korean life scientists. Germany's Max Planck Gesselschaft has also established partner groups in countries in Asia and Eastern Europe that are led by investigators who have trained at a Max Planck Institute and have subsequently returned to their country of origin.

High profile funding agencies have an important role in encouraging trans-national collaborations and movement of researchers across borders. The Human Frontier Science Program emphasizes international collaborations and training for their postdoctoral fellowships and research grant awards. International mobility is also a condition of the EMBO fellowships. The US-based Howard Hughes Medical Institute's International Research Scholars Program and the UK-based Wellcome Trust fund biomedical scientists outside the US and UK, respectively. Although the US and Europe are traditional hubs for molecular-cell-biology-oriented conferences, both Cold Spring Harbor Laboratories and EMBO have recently extended their conference programme to Asia. Cold Spring Harbor Asia Conferences, which will be launched later this year, will pattern itself after the traditional Cold Spring Harbor symposia but will be based in China. EMBO Global Exchange, a new initiative in 2010, focuses on India, China, Taiwan and Africa, and is designed to promote scientific exchange by supporting lecture courses run by leaders in the field for graduate students and postdoctoral trainees in their home countries.

Research organizations stand to benefit greatly by extending their mission beyond their borders and by welcoming foreign researchers to their home base. Most obviously, this practice allows these organizations access to a wider base of inspired and gifted scientists. Tighter visa restrictions for foreign scientists travelling to, and working in, the US have underscored the degree to which a competitive research system in the US is reliant on significant contributions from foreign researchers. Efforts must also be made by the EU to limit travel impediments for non-EU researchers and thereby help the EU meet its stated goal of developing into a knowledge-based economy. Although access to a global pool of talent is an immediate benefit, there are other less tangible advantages. Most importantly, perhaps, is that science can foster a shared culture across nations that can potentially bridge political and cultural divides. The culture of laboratory research, academic structure, funding processes and the specifics of science education vary widely in different countries. Nevertheless, there are shared concerns. Redressing gender inequities and providing competitive training for a next generation of scientists are two prominent examples. Dialogue between participants in different systems increases the diversity of perspectives that can be brought to bear on a particular issue and, as a result, solutions developed for one country can inform debate in another.

Nature Publishing Group has initiatives that aim to stitch together scientific communities within specific regions. As this issue of *Nature Cell Biology* goes to press, *Nature Middle East*, a website dedicated to serving the science community in Arabic-speaking countries of the Middle East, will be launched. The site aims to become a comprehensive source of information on scientific and medical research, with a target audience of students, postdoctoral trainees and principal investigators from Arabic-speaking countries across the Middle East, and for researchers outside the region who may have an interest in the emerging science of the Arab world. Following the success of two equivalent gateways — *Nature China* and *Nature India* — *Nature Middle East* will have content mainly in English, with some content being translated into Arabic. The content will include highlights of select research published in *Nature* journals and elsewhere, news items and commentaries. By providing links to jobs and events in the region and creating a platform for discussion via blogs and other online social networking tools, the website will also serve as a networking forum to engage the science community in this region, and facilitate further integration with the global scientific community.

A global scientific society that values open communication, collaboration and sharing of resources could become a powerful medium for change if these attributes take root in other spheres of human activity.

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