

DEVELOPING TALENT IN INDIA

For innovative chemistry to become a major driver of growth in India, academic-industry links need to be strengthened

The developments of science and education in India are likely to be on a vast scale. This was the overriding impression of RSC Chief Executive, Richard Pike, on his return from a trip to India in September.

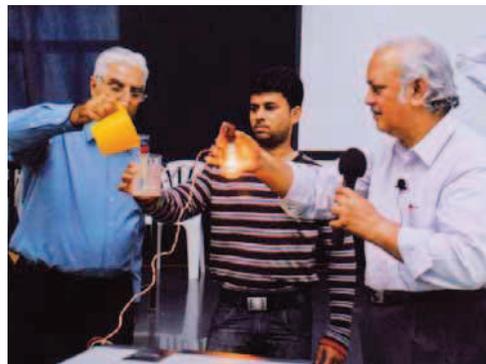
As part of his visit, Pike met

with CNR Rao, Chairman of the Science Advisory Council in India, who has just overseen a 'vision' paper for science in India by 2025 (see page 15, *Chemistry World*, November 2010).

Indian chemistry is growing rapidly with increasing funding from central government, along with a programme of building new universities and research institutes. To bring the proportion of the Indian population that enter tertiary education to the level of that in the UK, for example, would mean an increase of at least 30 million students compared to today. This would need to be supported by significant changes in the primary and secondary

education sectors as well.

The RSC has had strong links with India for many years, particularly through its Indian international sections (see box) and more recently with its international cooperation agreement with the Chemical Research Society of India. With the first RSC office opening in India in September (see *RSC News*, October 2010), the ability for the RSC to support the chemical sciences in India at all levels will grow.



Developing Talent

In September the RSC Chemistry Leadership Network held a UK-India Developing Talent workshop. This brought together academics and industrialists as well as representatives from the British High Commission and umbrella bodies in India. The purpose of the high-level workshop was to explore the roles of government, academia and industry in the innovation and development processes for positioning India more competitively in the world. Underlying this was how the UK and India could collaborate more effectively to mutual benefit.

It was co-organised by the RSC, the National Chemical Laboratory (NCL) and the Indian Institute for Science, Education and Research (IISER) in Pune, and it was financially supported by Shell Global Solutions through the RSC Chemistry Leadership Network.

The delegates participated in breakout sessions that focussed on the needs of education, research and innovation, and the roles and interplay between those in academia, industry and government. The resulting recommendations will

be presented in a detailed report to be published in early 2011.

Richard Pike highlighted some of the interesting conclusions after the meeting: "In India, high-level chemistry research tends to be mainly limited to the Indian Institutes of Technology and a few of the universities – within these there is actually very little competition for funding. Although this may seem like an enviable luxury, the consequence is that academic research projects very often have little relevance to current or longer-term industry applications and needs.

"For industry, this means that there tends to be very little input from university research and there is a mismatch between the skills delivered through the university sector and those needed by industry to support innovation.

"I'm looking forward to seeing the full report resulting from this workshop and linking this in with future RSC activities to support education and chemistry in India."

Thomas Faust was one of the UK PhD students who attended the workshop and he took away some very positive experiences from India: 'I was astounded by the enthusiasm of the young Indian researchers at both PhD and post doctoral level. Their passion for science and drive to establish a framework in which

they could become a world leader in the chemical sciences was clear to see.

"There was also a real sense of excitement surrounding the newly established IISER at Pune, which brought with it a new working practice of interdisciplinary research from an early stage to develop scientists with a truly holistic approach to their discipline. This is something from which the UK could learn very much."

Next steps

The chemical sciences have an essential role to play in global social and economic development. Despite the tremendous growth and support from government, without a clear link between science and its applications, chemistry in India may not become a major driver of growth. This may have serious consequences for the development of the pharmaceutical and chemical industries and impact their ability to compete internationally.

With the help of its networks, the RSC will support collaboration, both within India and between the Indian, UK and global chemical science community.

For more information on how to get involved, email Alejandra Palermo, RSC Manager of International Projects. palermo@rsc.org



Shortly after the workshop, one of the Indian students, Agnimitra Banerjee, sadly died in a freak accident where he was drowned in flash floods in Pune, on 4 October, 2010. Agni (pictured above, centre) made a great contribution to the workshop and delegates from the RSC were incredibly impressed with his enthusiasm and commitment. He spoke strongly and passionately about the role of the younger generation of Indian chemists.