

Biotech competition forges new UK-India links

In a unique link-up that aims to boost biotechnology entrepreneurship in India, and help UK scientists to build links with Indian colleagues, four teams of Indian researchers pitched proposals at the final of the 2007 Biotechnology Young Entrepreneurs Scheme (YES) competition in December.

The first ever India YES, run in parallel with the UK competition and sponsored by UK Trade and Investment and the Foreign & Commonwealth Office, attracted 69 teams from research organisations across India. A team from the International Centre for Genetic Engineering and Biotechnology were awarded first prize for their hypothetical business idea for a probiotic deodorant, having advanced through preliminary rounds in India, and the semi-finals in Oxford and Edinburgh en route to the National Final.

Dr Doug Yarrow, BBSRC Director of Corporate Science, said: "We are really pleased that India YES attracted high-calibre teams from the Indian biotechnology research community. India YES has been an excellent opportunity to boost the profile of UK bioscience and biotechnology in India and for participants from both countries to network.

"The Indian participants in the UK workshops have been superb ambassadors for their country's research community." Speaking about the Final, the Minister of State for Science and Innovation, Ian Pearson MP said, "I am particularly delighted that for the first time this year, with support from the Foreign & Commonwealth Office and UK Trade & Industry, teams from India have participated, the winner being showcased here today. This is further evidence of the high international regard for the scheme and all that it stands for."

Rob Daniel, First Secretary to India (Science and Innovation) at the Foreign and Commonwealth Office, said, "The Indian biotechnology sector is well-developed and growing fast. Improving links and sharing skills between both countries will benefit us all in the future."



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Cambridge Quantum Technologies: overall winners in YES 2007

A team from the University of Cambridge were presented with the sought-after title at the national final on 03 December. Their hypothetical idea for analysing blood chemistry with a hand-held device that harnesses fluorescing quantum dots.

In addition, the team received £1,000 in cash, a sponsored table at this year's BioIndustry Association dinner and the chance to present their hypothetical business idea at a prestigious US business plan competition.

Now in its 12th year, Biotechnology YES helps young bioscientists gain the skills and contacts needed to turn lab research into commercial reality. The competition is run by BBSRC and the University of Nottingham Institute for Enterprise and Innovation (UNIEI). This year, 64 UK teams competed for a place in the final.



Nurturing talent to meet the needs of UK bioscience

BBSRC fellowship schemes help scientists follow their chosen career paths, either in academia, industry, or by applying their skills to another sector.

Our 2007 conference for BBSRC Fellows gave award holders an opportunity to meet with each other, as well as BBSRC Council and Strategy Panel members, to discuss their science and issues around funding and career development policies.

Professor Mary Bownes, Chair of BBSRC's Studentships and Fellowships Panel, said, "People are at the heart of developing a robust research base. There is an increasing need for scientists to learn new skills, collaborate with experts from other disciplines, and share knowledge with scientists in other parts of the world."

The following case studies highlight how opportunities available through BBSRC fellowship schemes are making a difference to researchers across the bioscience spectrum at different stages of their careers.

Professor Martin Sheldon's career at the Royal Veterinary College has undergone a major step-change recently, with the help of a **BBSRC Research Development Fellow**.

"The Fellowship has allowed me to take a new direction in my research to test how the biological systems governing immunity and reproductive hormone status are integrated in mammals," says Sheldon.

Having made the transition from a largely clinical and teaching role, where he specialised in bovine uterine disease, to a full-time research position, Professor Sheldon will test whether the concepts he has developed in cows apply across mammals.

"We have already shown that cells lining the uterus have receptors, which can detect bacterial infections in the genital tract, and these cells can affect the levels of uterine hormones that regulate the ovarian cycle. As well as this indirect effect

on the ovary, we have recently reported that other cells surrounding the egg itself can also detect bacterial toxins, and these bacterial toxins reduce sex hormone secretion. Our findings are important because they show that these cells, which are essential for mammalian reproduction, also have immune responsibilities and directly impact the ovary," explains Sheldon.

Now with funding through his Fellowship, Professor Sheldon has visited the Jackson Lab in the USA to acquire novel techniques, which will allow his research team to study uterine and ovarian function in mice. He is also collaborating with US scientists at Cornell University, to explore gene expression and the 'phylogeny' of bovine uterine pathogens.

"In the long-term, a better understanding of the mechanisms by which uterine infection disrupts the function of the female reproductive system could lead to new drugs that can prevent infertility in cattle and other animals, including humans," says Sheldon.

