

BA Festival of Science in Norwich, 2006
The x-change, Thursday 7th September



Panellists:

- **Dr Brian Cox**, BA Lord Kelvin Award Lecturer, University of Manchester
- **Professor Trevor Cox**, University of Salford
- **Professor Jim Al-Khalili**, University of Surrey
- **Dr Sian Astley**, Institute of Food Research
- **Stefan Fafinski**, BA Joseph Lister Award Lecturer, University of Leeds
- **Professor Cyril Isenberg**, President of the BA Physics and Astronomy Section, University of Kent
- **Professor Kathy Sykes**, University of Bristol
- **Professor Lord Robert Winston**, Imperial College London

Host: **Quentin Cooper**

The x-change reached a staggering crescendo of science communication prowess on Thursday night. From lunchtime, rumours abounded that Professor Lord Robert Winston would be in attendance. Strategically-placed publicity posters bearing the caption: *the x-change. Now with extra 'tache!* did nothing to quell the rumours.

The x-change kicked off with a demonstration of the problem-solving physical and mathematical properties of bubbles. Professor Cyril Isenberg, President of the BA Physics and Astronomy section, used 4-D shapes to create bubbles which drew *oohs* and *aahs* from the crowd. And it wasn't just pretty; Professor Isenberg explained that bubbles can be used to solve problems in town planning and road building.

Sian Astley from the Institute of Food Research explained what nutrigenomics is: using our own genetic make-up to determine the right and wrong foods for people to eat. She explained that it is likely that it's our genes which determine why some people can eat what they like and never put on an ounce, and others can follow all the diet and nutrition rules and still be overweight. Sian argued that with the wealth of information the publication of the human genome sequence has offered nutrigenomics could eventually underpin and inform public health policy and make dietary information more personal and effective.

Next up was a three-way debate between Jim Al-Khalili, Kathy Sykes and Robert Winston, with plenty of audience participation and comments chipped in by other panellists with opinions on whether science on TV is any good, or whether in fact it's rubbish of which we should all be ashamed. Jim Al-Khalili started off, revealing that he suspects his colleagues see him as a bit of a 'media tart'; something about which he was quite comfortable and refreshingly unapologetic. Robert Winston added that he didn't identify himself as a science communicator, but as a scientist who happened to present science programmes, and almost sounded as sincere when he revealed 'I don't actually like being a celebrity at all'. Kathy Sykes spoke passionately about her work, and the overwhelming positive feedback she had had about her programme *Alternative Medicine*, despite the criticisms of a vocal minority. Brian Cox impressed everyone by name-dropping the pop band *Busted*. Kathy Sykes rounded things off by plugging her latest initiative: *Science Horizons*, an opportunity for science communication groups and think tanks to ask the public 'what would you like your future to be like?'. All three panellists proved to be surprisingly poor players of 'Scientific Call My Bluff'.

Brian Cox explained that the Large Hadron Collider at CERN in Switzerland is a 27km, 700tonne behemoth designed to smash protons together and recreate the conditions at the very beginning of the universe. Once that's out of the way, he's pretty sure that he and his colleagues will be able to tell us what the origin of matter is. He was also hopeful of telling us interesting tidbits about what the 95% of the universe about which we currently know nothing. His enthusiasm raneth over; not only does he think they will find *the* Higg's boson, but maybe as many as five. Time will tell.

Stefan Fafinski explained that annoyingly, spam is becoming more and more of a problem and there seems to be little we can do about it except hit the delete button. As long as massive legal loopholes exist (like there being no upper limit on how many spam emails you can send to one email exchange before it becomes a crime) spam will be big business.

The x-change ended on an uncomfortable note: Trevor Cox played some sounds from his mass-participation website researching what the most unbearable noise is. The squealing of fingernails being scraped down a blackboard caused more wincing and shifting in seats than the whirr of a dentist's drill or the noise of someone vomiting. Dr Cox explained that each noise produced a strong human reaction because of largely adaptive reasons; we often associate the dentist's drill with pain, and the noise of fingernails down a blackboard may resemble a primate scream from evolutionary days gone by. He hoped to use his research for good as well as evil, to help develop a way to measure acoustics in different kinds of spaces.