

# Prominent Speakers Captivate Audience

By Heather Hobbs

**At Science World – The Fisher Scientific Laboratory Experience visitors were treated to two thought provoking seminars from Lord Professor Robert Winston and Professor David Bellamy.**

Speaking to a packed auditorium, Professor Winston questioned how scientists engage with the general public, particularly in relation to ethical issues. "It is very clear in a modern society, (that) we have to be much more responsive and recognise that the adverse effects of the things that we do does impact on society as much as us and therefore the ethical responsibility is something that we need to think about afresh."

"In my view there needs to be a contract between the people who invent the technology and society. The plea is really for scientific responsibility... and for people to be more aware of the ethical implications of the science that they do. They also need to be more aware of a need for dialogue with the public, not merely to communicate, but to listen to their anxieties and respond better to them." He pointed out that since mankind first began to use tools, advances in technology which have brought intended benefits to specific areas of application, might also prove in time to be beneficial to totally different market sectors, which could result in good or more questionable outcomes.

As an example he considered the development of lasers, which accelerated advances in medicine and then also played a positive role in the development of DVD's. Equally, he pointed out, some facilities where lasers are being used for attempts at nuclear fusion, might really have been designed for nuclear weapons. He argued that: "every technology has a downside that might not be recognised at the time," and that control of such technological advances "should not be left to Government who might have other agendas."

Recognising the increasing momentum of new discoveries and changes that impact directly on today's society, he points out that this inevitable trend also probably supplies the best solutions to deal with consequences arising from applications of new research or inventions: "Although we should try to be more aware of these downsides.. I think, so far in the history of mankind we have managed to improve our lot and by using advances in technology have managed to control the worst aspects of it."

He also noted that sometimes too much emphasis is placed on promising developments rather than on what is potentially achievable today: "We hugely hyped up the human genome when it was published 8 or 9 years ago, - but it has not been of much value yet and the idea that this is the most important biological invention –well it may be true, but it's yet to be demonstrated how valuable it will be."

"In fact, I think the ability to make a transgenic animal is much more important,.. because it helps us understand how genes function and this is particularly important now in the field of epigenetics."

Summing up Professor Winston added "We can't predict where we are going – what we can do is try to anticipate some of the bad effects and make certain that society is on board with that – this is the important message for today's society."



Lord Professor Robert Winston

Presenting his viewpoint enthusiastically on global warming to an equally crowded theatre during the afternoon, Professor David Bellamy believes that climate change throughout history has been cyclical and is not caused by man-made interference, despite current recorded increases in carbon dioxide levels.



Professor David Bellamy

"In 1947 we had the hottest summer and the coldest winter in one year and this sort of thing makes me wonder about the idea that just people can screw the climate of the world up. If we even wanted to double the amount of carbon dioxide in the atmosphere, we would have to burn all the known oil reserves, all the known gas reserves and a third of the coal and we still couldn't do it", he commented.

"2000 years ago the Romans were making red wine in Scotland. The temperature at that time must have been much higher." He also presented a graph that detailed temperature patterns over the last 1,000 years. This described the mediaeval warm period from around 1000 – 1400 during which time the Vikings colonised Greenland before temperatures again fell to minus figures; and there then followed a period described as the 'Little Ice Age' which lasted from around 1400 to early 1900's, during which time the River Thames in London froze over 26 times.

"We have just had the worst winter since 1963 and I believe it's a cycle, so hurray for the cycles of natural climate change."

On the question of whether the amount of

carbon dioxide levels in the air today are a factor inducing climate change, he said he believed in evidence suggesting that there had not been a rise in global temperature since 1998, despite the increase in carbon dioxide being pumped into the atmosphere; this suggested, he added, that carbon dioxide is not the driver.



His main concerns were that the current levels of attention concentrating on climate change and the rush to develop alternative energy sources such as bio-fuels, were not only diverting money and resources away from other issues such as food and medical supplies to poorer areas, but were also adding to the burden of plight affecting many developing countries. "The soils of the world have to produce around 18 billion meals every day and if science doesn't get its act together how are we going to do that?" His second biggest concern was that rain forests and other habitats are still being cleared and replanted with crops which might not be beneficial to local communities. He went on to describe how, on an expedition into Sierra Leone in 1961, he learnt of the death of a nine year old child who had been helping the research team locate and name plants. He, in fact, had died of starvation, because the habitat on which his family and society depended on for a living, was actively being destroyed and cleared. Professor Bellamy also expressed great concern that currently many natural habitats worldwide are being trashed in a bid to



Dr Hal Sosabowski and Dave 'sideshow' Campbell delight the audience.



Dr Hal Sosabowski

develop biodiesel fuels.

While he believes that the number of scientists who do not believe in global warming far outweigh the number who do, he said that many scientists from around the world were not prepared to have an open debate on the subject, a situation he added "that worries me".

"I don't think that carbon dioxide has got anything to do with a catastrophic global warming; these are cycles and when we understand these cycles, perhaps then I may be wrong, or perhaps (other scientists) are wrong. At the moment I think I am right."

Adding sparkle and a couple of big bangs and flashes to the day was the science spectacular created by Dr Hal Sosabowski\* and his colleague Dave 'sideshow' Campbell, who demonstrated the fun elements of science. Dr Hal gave several presentations during the day revealing gases in unusual states featuring liquid nitrogen, liquid oxygen, SF<sub>6</sub>, hydrogen hi-jinx and 'friendly methane mambas' – followed by the 'Explosive Chemistry Show' in which he revealed the delights of chemilevitation, oscillating reactions and an amazing phosphorous sun, to the great enjoyment of many of the visitors. Stunning effects and an interesting touch to an enjoyable event.

\* Dr Hal Sosabowski BSc PhD MBA MA CChem FRSC, is Principal Lecturer at School of Pharmacy and Biomolecular Sciences, University of Brighton. [www.thebiggerbang.co.uk](http://www.thebiggerbang.co.uk)

Pictures Courtesy of Fisher Scientific.