

Written evidence submitted by Professor Wendy Purcell Ph.D FRSA,
Former University President Vice-Chancellor and now
Professor at Harvard University (COM0120)

Submission to the STC Inquiry: Science Communication

Executive Summary and Actions

(1) Teach scientists how to communicate!

Support schemes and ventures that draw scientists in training together with journalists and media outlets.

(2) Girls can do science!

Encourage universities and other research establishments, including business/industry, to showcase both the science they are doing as well as the scientists (especially their woman) doing it.

(3) Scientists can be sexy and rich!

We need to see scientists in soaps, dramas and films portrayed as sexy and wealthy as well as smart.

Commentary

(1) Teach scientists how to communicate!

- I was fortunate in being selected to join the **British Association** scheme for working scientists to spend time in the media – the so-called **Media Fellowship Scheme**. I was The Wellcome Trust Media Fellow and spent time working as a Broadcast Journalist with the BBC World Service Science Unit.
- The scheme was fantastic! It was for scientists who wanted to shout out loud and proud about their work and that of their colleagues – but we needed to understand what made science news. I undertook my Fellowship decades ago now, but it has influenced my scientific and academic career and through me influenced the work and activities of my colleagues.
- For example, as a Dean of Science I made sure every degree programme included a variety of assessed ways of communicating science. We changed our **assessment strategy** so that students were tasked to communicate their science to both lay/generalist and specialist audiences. From posters, to talks and interviews to writing short accounts – the communication of science was woven into the assessment strategy. I also went on to set up a Masters in Science Communication, a partnership between two universities.

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- In terms of my own Research Group and PhD students under training, I made it clear that we have a **social responsibility** to those who fund our research to communicate our research. As such, PhD students and indeed graduate students on other science programmes were trained to communicate their research to lay and specialist audiences.
- The 'academy' is sometimes suspicious of the motives of journalists and worried that somehow communicating to the public lowers their own academic esteem. However, exposing young scientists in training to working journalists across a range of media and building up their confidence in communicating to a range of audiences is essential to promoting a more scientifically literate general public.

ACTION: Support schemes and ventures that draw scientists in training together with journalists and media outlets.

(2) Girls can do science!

- As a 'girl' and former Head of a University Science Department, then Dean of Science, followed by a period as a Pro Vice-Chancellor Research and most recently President Vice-Chancellor I have been responsible for enrichment and engagement activities in the sciences. Opening up the resources of my university to local schools and colleges in support of bringing science to life and 'hands-on' science activities has been a priority as well as taking science out into the community, for example a Showcase and Festival of Science for local schools in the region.
- However, I am dismayed by the lack of practical science in schools and also by fact that many of the young girls (and indeed boys) had never met a woman scientist. I remember when a girl of 11-years attended one of our open lab days and said "I didn't know girls could be scientists!".
- Meeting our women PhD students, staff and technicians – as well as our men too – was a key experience alongside the science enrichment activities on show and on hand.
- We need more universities and indeed other research establishments, including business and industry, to open their doors to young people and to show science in action changing people's lives. And to show the women and men scientists in action.

ACTION: Encourage universities and other research establishments, including business/industry, to showcase both the science they are doing as well as the scientists (especially their woman) doing it.

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(3) Scientists can be sexy and rich!

- Too often the media reinforce the ‘mad’ scientist or geek profile of a scientist – friendless with bad hair, teeth and clothes. Against this, bankers, lawyers and business folk are attractive and wealthy. While we have seen the rise of the geek, with billionaire dot.com and IT entrepreneurs, we still have a problem.
- Asked to imagine a Professor – few will draw a blonde with red-lipstick! We need to encourage the media to draw up characters and plots that show scientists as beautiful, smart people who have friends and lovers as well as test-tubes and cadavers!
- This also extends to race and ethnicity – we need to see amazing black and minority ethnic scientists fronting programmes and as commentators and experts; so too for women in science.
- In terms of accessibility, focusing on the application of science and showing how it transforms lives makes it easier for the general public to engage in the science. There is of course a place for some of the basic science too, but engagement is about inspiring and enthusing people and science in action does just that!

**ACTION: We need to see scientists in soaps, dramas and films
 portrayed as sexy and wealthy as well as smart.**

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