

# THE BIG QUESTION

THIS MONTH WE ASK

“Is science  
gender  
biased?”





## Caroline Parkes

**Quality and Training Manager**  
Kettering General Hospital  
NHS Foundation Trust

Online research shows there are over 300 measures of gender equality; bias, taken to mean a subconscious inclination, rather than a deliberate discriminatory act, is difficult to quantify. My experience of working in biomedical science for nearly 28 years has only been in an NHS laboratory environment, and only in one hospital. I have always had a far larger number of female colleagues than males. I've had four female and two male managers, and our Clinical Director is female.

I've promoted International Women's Day and taken part in an international "Celebrating Women" project. When asked this question, I began to think about gender bias in science globally, and compare it with my local and personal view. An interesting *Scientific American* blog post quoted a 2012 study in which otherwise identical job applications from scientists were given male and female names. The "females" were rated significantly lower in terms of both competence and hireability, and offered lower salaries.

In the NHS, ahead of much of the rest of the scientific community, HR policies are designed to make it very difficult to discriminate – perhaps others should learn from this. I personally feel that over the many years I've been a scientist (and a feminist), being female hasn't limited me or held me back in any way, while male contribution to the profession has been equally valued. A positive statement, without being a positive bias.



## Valerie Bevan

**Chair**  
British Society for Microbial Technology

First, some facts. Girls outperform boys in national exams, and more women than men study science at university and outperform them. However, the attrition of postgraduate women in science progressing to senior roles is high, and few women reach the top jobs. Using quantitative data from the Health Protection Agency, I have previously shown that the proportion of women scientists decreased as the pay grade increased. At the very top of science, just look at the low percentages of women who are elected to the Royal Society or who achieve Nobel Prizes.

Why does this happen? My research, using mainly qualitative interviews as the source data, illuminated many factors and I touch on one aspect here.

Society regards science and scientists as objective and rational, but this has been challenged by many studies that show scientists are just as likely to be biased as anyone else. Biases are harmful and there are many ways in which they manifest themselves. Biases affect women and men, but women suffer their effect more.

I regard subtle masculinities as the most invidious bias. Both female and male scientists have internalised this behaviour as normal and tend not to notice it happening. In practice this subtle sex discrimination means that men support and promote other men rather than women and exclude women from decision-making processes. Oh yes, science is full of gender bias. Read more about it in my forthcoming book, *Knowing Her Place: Positioning Women in Science*.



## Nicola Hannam

**Social Mobility Consultant**  
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Yes, but progress has been made to remove bias specific to science. The world of work that evolved from factories and male breadwinners is no longer fit for purpose. We need new models of leadership, we need flexibility that benefits everyone – we need a revolution in the way we work. Both to catch up with the modern world and to harness the value added by diversity of perspective and approach, and not just gender diversity – none of us are defined by our gender alone. Vive la révolution!

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