

Can we rely on science?

Special Issue Editorial

Lloyd D Hughes (5th year MBChB, University of Dundee; Associate Editor, SUMJ)

Correspondence to: Lloyd Hughes : L.D.Hughes@dundee.ac.uk

EDITORIAL

Science commands an enormous amount of respect in society at large. Indeed, scientists and their endeavours have helped enlighten the world over the last several hundred years. However, in the past decade or so there have been numerous concerns about the quality of the science papers that are driving policy in numerous different settings.

In 2010 a paper by two world leading economists in an eminent journal reported that economic growth of a nation slows dramatically when a government's debt exceeds 90% of a country's annual economic output. The study was cited by politicians and policymakers worldwide, helping to justify that reducing public spending would help drive economic growth. However, in 2013 a Harvard student found simple errors in the paper when trying to verify the findings, and the paper was later retracted with the authors fervently denying they were selective in their selection of data, and admitted a coding error¹. In the realm of healthcare there have been unfounded concerns voiced about the Measles Mumps and Rubella vaccine (MMR)² and difficulties in highlighting genuine concerns with an experimental drug³ due to the influence of a drug companies. Indeed, in a recent Economist article it was suggested that, “the false trails laid down by shoddy research are an unforgivable barrier to understanding”⁴.

This Scottish Universities Medical Journal supplemental edition ‘Can we rely on science?’ focuses upon some of these issues. Firstly, in the article, ‘The State of Science and Unreliable Research’⁵, your Associate Editor will look at the current challenges to high quality clinical and scientific research, including the competitiveness of science and academia, publication bias, the weaknesses of peer-review and ‘hidden’ data-sets.

Secondly, Dr David Christmas (Consultant Psychiatrist) will report about the influence that drug companies and the pharmaceutical industry has upon medical research⁶⁻⁷. In his two article series, Dr Christmas will **consider** both the problems that the current level of involvement the pharmaceutical industry causes and will suggest solutions to improve the relationship between scientists, clinicians and industry. Finally, Iain Hyndman explores the Human Genome Project, an area where scientific research has incredible potential to aid the lives of millions of patients worldwide⁸.

This supplement hopes to inform our readers about some of the important non-clinical factors that drive evidence based practice. As always we welcome comments and suggestions about our publication and welcome submissions for future main issues, online platform and supplements.

References

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