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# **Science in an Uncritical Sphere; Science Journalism in the UK**

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# My Hats.....



University Lecturer  
MA Science Journalism



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**President of the Association  
of British Science Writers  
ABSW**

**FEARLESS  
LEADER**



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**Freelance  
Broadcaster  
and  
Journalist**



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# Good news!

Informed, articulate science journalists are needed today more than ever .....



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## Bad News!

Science Journalism in the UK is being 'PR ed' by science

80 percent of the stories in Britain's quality press were not original and that only 12 percent of stories were generated by reporters.

Cardiff University Study



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Pictures courtesy of Nature©





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*“Over the last 20 years science news has been written by dwindling numbers of reporters, with higher workloads, and less time than previously to conduct tasks such as finding, researching, and checking news stories and are increasingly reliant on PR.....This echoes the findings of numerous studies which have charted the growing importance of science public relations in setting agendas, influencing media frames, mediating news events, and in some cases actually providing journalists with the very words and images that make up the science news we consume”* Andy Williams and Slavko Gajevic *Selling Science? (2012) Journalism Studies, DOI:10.1080/1461670X.2012.718576*





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# BBC Trust review of impartiality and accuracy of the BBC's coverage of science

July 2011

**With an independent assessment by  
Professor Steve Jones and content  
research from Imperial College  
London**



# How the BBC reported the impartiality report

## BBC praised for science coverage

BBC science coverage is of "high quality and significant quantity", an **independent** review has found.

But the report, by genetics professor Steve Jones, said the BBC "must make a distinction between well-established fact and opinion".

Attempts at balance were giving "free publicity to marginal opinions", the BBC Trust-published report said.....

The BBC, which has announced a new science editor role, welcomed the "generally positive assessment".

[The review of impartiality and accuracy of the BBC's coverage of science](#) includes Prof Jones' independent assessment as well as analysis of BBC science output carried out by Imperial College London.

'Exemplary' accuracy The report praised "a thriving and improving genre of programming which is well established across a wide range of BBC services".

Its accuracy was "exemplary", it added.

It also found that one in four broadcast news items was science-related with BBC One's Panorama and Radio 4's Today programme providing particularly strong output.

[Continue reading the main story](#) **"Start Quote**

Equality of voice calls for a match of scientists, not with politicians or activists, but with those qualified to take a knowledgeable, albeit perhaps divergent view of research"

Prof Steve Jones

But it found that, where there was consensus on scientific matters, providing an opposite view without consideration of "due weight" could lead to a "false balance".

This meant viewers "might perceive an issue to be more controversial than it actually is".

Prof Jones cited issues including global warming, MMR vaccines and GM foods.

He said the BBC "still gives space" to global warming sceptics "to make statements that are not supported by the facts".

He added that, for years, "the climate change deniers have been marginal to the scientific debate but somehow they continued to find a place on the airwaves".

"Equality of voice calls for a match of scientists, not with politicians or activists, but with those qualified to take a knowledgeable, albeit perhaps divergent view of research," he said.

The report said that, when opposite views were deemed appropriate, the BBC "must clearly communicate the degree of credibility the view carries".

It also found that the links between science programme-makers across the BBC was "underdeveloped, meaning that internal expertise is not sufficiently exploited".

And it said the range of sources for stories was too narrow and overly-reliant on press releases.

Range of views [Writing in a blog, head of newsgathering Fran Unsworth](#) said she was delighted by the report's praise for the BBC's science coverage.

She said Prof Jones' findings did not mean that "in future we will, for example, not interview climate change sceptics".

She said some scientific stories "should be presented as a debate purely and simply within the scientific community".

"There will be others when it is appropriate to broadcast a range of views, including some from non-experts, because science cannot be divorced from the social, political and cultural environment in which it operates," she added.

On those occasions, the BBC must explain to audiences "whether they are scientists, policy-makers, lobbyists or whether they are taking an ethical stand".

She also confirmed the creation of the role of science editor "to bring a new level of analysis to science coverage, strengthen our contacts, and help us to take an overview of our coverage".



## **What Value did the Public get from this BBC report?**

Some of the criteria that the BBC trust uses in its own value judgments e.g. editorial integrity was absent

No exploration of its relationship with science

Boundary theory



# Boundary Theory

GIERYN, T.F. (1983) **Boundary-Work** and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists. *American Sociological Review*, 48 (6), pp. 781-795

- Scientists engage in **boundary work**,
  - science is described for the public and political authorities,
1. The intention is to enlarge the material and symbolic resources of scientists or
  2. to defend professional autonomy.



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**Fraud/Misconduct**

**Political pressures**

**Mistrust**

**MMR**

Science

Time

Science

**Funding**

**Climate Change**

**Media Inaccuracy**



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# Increasing the Boundary

Communication!

Communication!

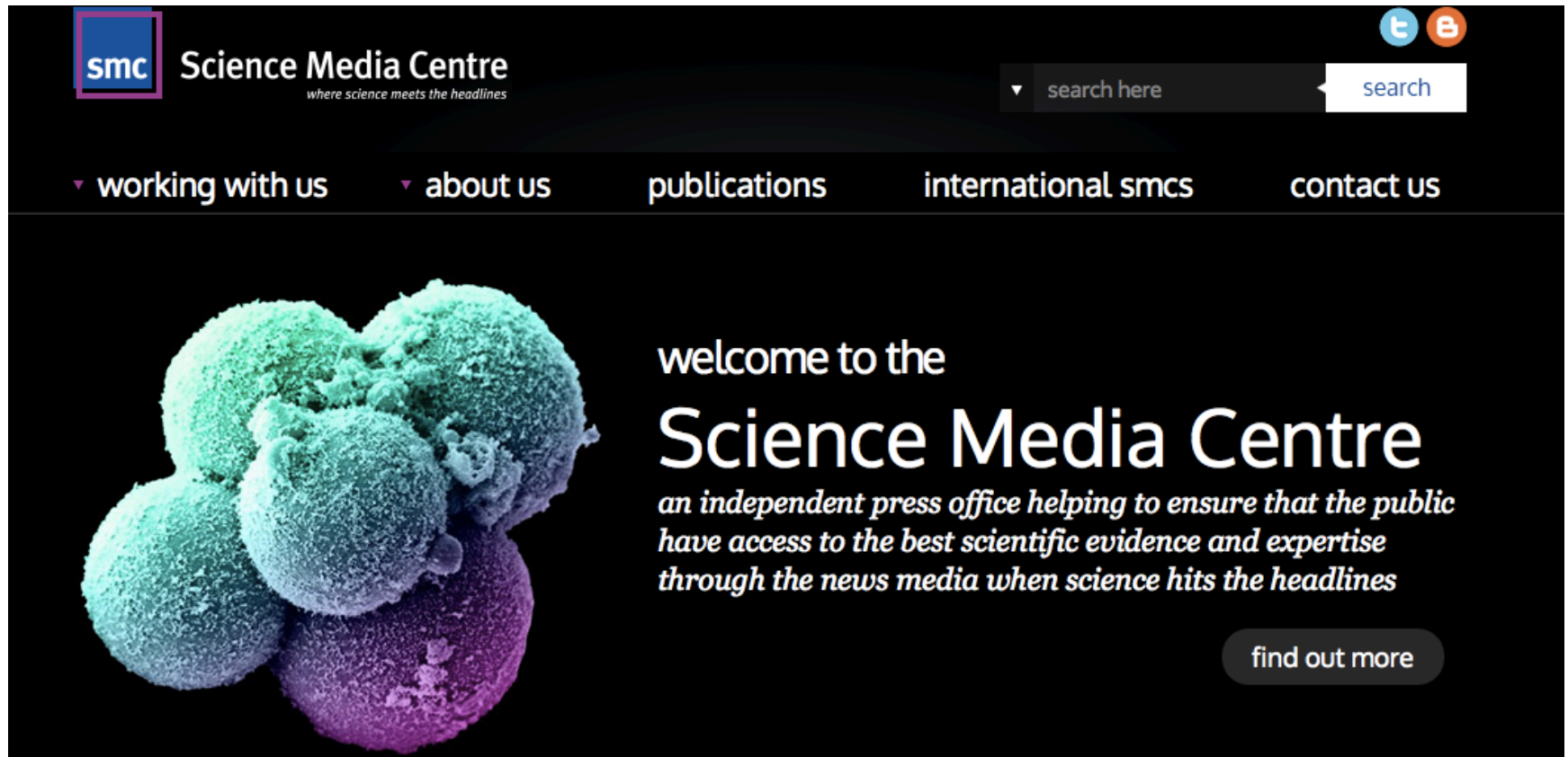
Communication!



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# Science Media Centre

Formed 10 years ago as a result of MMR scandal



The screenshot shows the Science Media Centre website homepage. At the top left is the 'smc' logo in a blue square, followed by the text 'Science Media Centre' and the tagline 'where science meets the headlines'. To the right are social media icons for Twitter and Facebook, and a search bar with the text 'search here' and a 'search' button. Below the header is a navigation menu with links: 'working with us', 'about us', 'publications', 'international smcs', and 'contact us'. The main content area features a large image of colorful, textured spheres on the left. To the right of the image, the text reads: 'welcome to the Science Media Centre', followed by the tagline 'an independent press office helping to ensure that the public have access to the best scientific evidence and expertise through the news media when science hits the headlines'. A 'find out more' button is located at the bottom right of the main content area.

smc Science Media Centre  
*where science meets the headlines*

search here search

working with us about us publications international smcs contact us

welcome to the  
**Science Media Centre**  
*an independent press office helping to ensure that the public  
have access to the best scientific evidence and expertise  
through the news media when science hits the headlines*

find out more



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# Who makes the decision on Public Value?

**BBC**

**Public**

**Science**





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# BBC Trust review of impartiality and accuracy of the BBC's coverage of science

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# Commissioned initial report – ‘Scoping Report’

## Found

An over reliance on press release materials

Representation: Not enough women (and other minority communities)

Lack of balance (false balance)



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# Steve Jones Report

## Found

An over reliance on press release materials

Representation: Not enough women

Lack of balance (false balance)

There were no significant factual inaccuracies in news or non-news coverage



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## From one of the content analysis research team

“ we knew the answers before we did the research, it was the same old story.... but what is seriously lacking is research on why there is no critical reporting or investigation of science by the BBC. Why are the BBC the biggest cheerleaders of science, when they are one of the few news outlets to have the resources to do robust journalism?

This is the most important finding but it has been lost, but of course it would be if the report is written by a scientist ”



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## What did the researchers think?

“ we knew the answer before the research, its the same story but what is seriously lacking is research on critical science reporting”



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# Value for Money?

Money wasted around £140, 000?

Large amount of staff time and corporation resources

Because of the 'inaccuracy' in a report about accuracy an opportunity was missed to debate this report in the public domain

Important debate cancelled for fear of libel



The writers also state that they have found BBC science coverage to be “informative but rarely investigative” (*“infotainment”*)

**BUT**

Great opportunity for the BBC to examine its relationship with science has been missed



## Report published in July 2011 then part retraction in August 2011

- **Clarification**

On 8 August 2011 the Trust published an updated version of Professor Steve Jones' independent review of the accuracy and impartiality of the BBC's science coverage due to an ambiguity in the section on climate change. This reference was in the section on pages 71-72, immediately before Professor Jones discussed statements about climate change contained in two BBC programmes.

The Trust and Professor Jones now recognise that the passage as originally published could be interpreted as attributing statements made in those two programmes to Lord Lawson or to Lord Monckton. Neither programme specifically featured Lord Lawson or Lord Monckton and it was not Professor Jones' intention to suggest that this was the case. Professor Jones has apologised for the lack of clarity in this section of his assessment, which has now been amended.





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## **BBC main response**

Appoint a new Science Editor for BBC News whose task will be to bring a new level of analysis to science coverage, strengthen our contacts, and help us to take an overview our coverage relative to the weight of scientific work.

Also gave ALL production staff 'science training'



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## Is the BBC being 'pr'ed by science?

Nowhere in the recommendations are there any measures to help or to encourage journalists to question, critique, or challenge what scientists are telling them.

BBC Training Response

<http://www.bbc.co.uk/academy/collegeofjournalism/subject-guides/subject-guides-science-category-page/science-and-the-media>

Would this happen in politics?



# Future of Science Journalism

It won't be best communicators of science who will survive, nor the most intelligent but the mavericks; the ones that find ways to call science to account when they are confronted by barriers and boundaries.



# Brain Deer

IVIVIX SCARE

The BMJ series



## brian deer

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[briandeer.com](#)

### Doctoring the evidence

What the science establishment doesn't want you to know. In this Sunday Times focus, Brian Deer reveals new efforts to deal with fraud and misconduct in research, and asks: how can the sociopaths in white coats be stopped?

### Death by denial

To mark the 25th anniversary of the so-called "Duesberg hypothesis", Brian Deer considers the fate of some of the strange crusaders who, contrary to the insights of a quarter century of science, argue that Aids is not caused by HIV

### Solved: the riddle of MMR

In part three of an award-winning Sunday Times of London



[Selected video clips](#)

[Public speaking](#)

[Second press award](#)

[2011 nominations](#)

[First press award](#)

[Content overview](#)

# Retraction Watch

## Retraction Watch

Tracking retractions as a window into the scientific process

### Cardiology journals retract five Matsubara studies

with 3 comments

The American Heart Association (AHA) is retracting five studies by [Hiroaki Matsubara](#), a former Kyoto Prefectural University cardiology researcher, that it had [subjected to an expression of concern last year](#).

Here's the [notice](#):



The American Heart Association (AHA) published an expression of concern(1-3) simultaneously in Circulation, Circulation Research, and Hypertension, and we have now been notified by Kyoto Prefectural University of Medicine that certain data and figures in these 5 articles were falsified. Kyoto Prefectural University of Medicine sends their deepest apologies to the academic community at large.

The AHA is hereby retracting these articles:

Fujiyama S, Matsubara H, Nozawa Y, Maruyama K, Mori Y, Tsutsumi Y, Masaki H, Uchiyama Y, Koyama Y, Nose A, Iba O, Tateishi E, Ogata N, Jyo N, Higashiyama S, Iwasaka T. Angiotensin AT1 and AT2 receptors differentially regulate angiotensin-2 and vascular endothelial growth factor expression and angiogenesis by modulating heparin binding-epidermal growth factor (EGF)-mediated EGF receptor transactivation. *Circ Res.* 2001;88:22-29. doi:10.1161/01.RES.88.1.22.

Shibasaki Y, Matsubara H, Nozawa Y, Mori Y, Masaki H, Kosaki A, Tsutsumi Y, Uchiyama Y, Fujiyama S, Nose A, Iba O, Tateishi E, Hasegawa T, Horiuchi M, Nahmias C, Iwasaka T. Angiotensin II type 2 receptor inhibits epidermal growth factor receptor transactivation by increasing association of SHP-1



#### Pages

- [About Adam Marcus](#)
- [About Ivan Oransky](#)
- [The Retraction Watch FAQ, including comments policy](#)
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## **Doctoring the evidence: what the science establishment doesn't want you to know**

The Sunday Times, August 12 2012

### **Science has a dirty secret: research is plagued by plagiarism, falsification and fabrication. A new voluntary code is meant to prevent fraud, but it lacks teeth. So how can the sociopaths in lab coats be stopped, asks Brian Deer**

In nearly seven years since being appointed editor-in-chief of the British medical Journal, Dr Fiona Godlee has won a name for upsetting consensus. Publishing hard-hitting investigations alongside traditional research articles, she has challenged drug companies and professional societies like an old-school muckraking reporter rather than the editor of the establishment's house journal.

Hammering out an editorial last week at the British Medical Association's redbrick headquarters off Euston Road in London, she tackled one of the toughest problems of all: science fraud and research misconduct.

"It's difficult to know how prevalent misconduct is," Godlee wrote, "but there is evidence that it happens frequently."

She was commenting on a voluntary "concordat", just signed by a crowd of research funding agencies, that is supposed to outlaw scientific fraud but lacks the teeth to do so.

The science establishment's consensus is that there is no need for outside scrutiny because, apart from the odd sociopath, given credence by an "irresponsible" media, science is above the kind of misconduct that has tainted the Roman Catholic Church, politics, the press and, of course, the banks.

This is a little like the church saying, as it did, that everything was fine but for a little bit of regrettable priestly paedophilia – or the press claiming that phone hacking was confined to one "rogue reporter".

For too long, science grandees have refused to confront the ethical misconduct in their midst, which is driven by the need to generate research funding.

If the mandarins of science shirk a house cleaning, others will do it for them. In recent months, the quiet, polite voices of traditional science editors such as Godlee have been joined by noisy and knowledgeable – whistleblowers on the worldwide web.

Science, like other fallen pillars of modern British society, faces a reckoning.

SCIENTIFIC FRAUD is classified under three big sins. The first is plagiarism, best exemplified in Britain by the case of Dr Raj Persaud, the celebrity psychiatrist. He cut and pasted other's work into his books and articles, and in July 2008 was briefly suspended from practising.

The second sin is falsification, such as in the case of Andrew Wakefield, the so-called MMR doctor. He was erased from the medical register in 2010 over what Godlee calls "an elaborate fraud" exposed by The Sunday Times.

And the third is fabrication, admitted only four months ago by Dr Peter Francis, a British ophthalmic geneticist working in the United States. He made up the results of work never done, leading to sanctions by America's National Institutes of Health.

Science editors have been complaining about such behaviour for almost a quarter of a century. In December 1988, Dr Stephen Lock, one of Godlee's predecessors at the British Medical Journal, wrote a similar editorial not far from her present desk.



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Thank you!

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