

## **The Leveson Inquiry into the Culture, Practices & Ethics of the Press**

### **Witness Statement by David Colquhoun FRS**

1. I make this statement in reply to a request issued on behalf of Lord Justice Leveson, in a letter dated 30th January 2012 by Sharron Hiles, senior assistant solicitor to the Inquiry into the Culture, Practices & Ethics of the Press.

#### **Who I am**

2. I am Professor of Pharmacology at University College London. I was elected to the Royal Society in 1985 and I have spent most of my life doing research, both theoretical and experimental, on the pharmacology and biophysics of single ion channels. I have also published a textbook on statistics (Lectures on Biostatistics, Clarendon Press, 1971). I held the established chair at UCL, the AJ Clark chair of pharmacology, from 1985 to 2004, and in 2004 I also stepped down as Director of the Wellcome Lab for Molecular Pharmacology.

3. Since 2004, when I have no longer had the responsibility of running a lab, I have spent an increasing proportion of my time on “public engagement” about science. This has been done mostly through my blog, now at <http://dcscience.net/>, and, stemming from the blog, through articles in newspapers, radio and TV.

#### **What I write about**

4. The title of my blog is *DC's Improbable Science*, with subtitle *Truth, falsehood and evidence: investigations of dubious and dishonest science*. It has had over 2.5 million hits since it started. At the moment the average is about 1,400 hits a day with a peak of 10,916 hits (on Nov 6, 2011). This is an enormous readership compared with that of any scientific journal. It is about seven times larger than the readership of UCL News.

5. The blog's reputation probably rests largely on my use of bad science in order to illustrate how to do good science, in the manner of Ben Goldacre. In particular, I have a lot of posts concerned with various sorts of health fraud, in particular (but not exclusively) so-called alternative medicine. Some of my writing is based on recent newspaper, radio or TV reports, particularly when these reports seem to me to be misleading or inaccurate. Some examples are given below, in para 12.

6. I also write about higher education policy and academic publishing, particularly in the diary section of my blog, and this has a following, particularly among those in higher

education. Recent articles include one on the need to reorganise degree structures (a shorter version appeared in *The Times*, in their Thunderer column). And Open access, peer review, grants and other academic conundrums.

### **Aim of this statement**

7. It is my aim in this submission to show that the best blogs often analyse things in greater depth, and with better accuracy, than the mainstream media. They need protection from threats of defamation from people who disagree with them.

This statement contains many links, explicit and embedded, to source material. It is one of the great advantages of blogs over print media (and, *a fortiori*, TV and radio) that sources can be made instantly available to readers via links.

### **Influence**

8. I have been particularly incensed by the existence of Bachelor of Science degrees in fringe medicine subjects that I would regard as not only not science, but often actively anti-science. These courses exist only in post-1992 universities, though some of their ideas have penetrated Russell Group universities too.

9. By use of the Freedom of Information Act I have been able to reveal some of the nonsense taught on these degrees (e.g. Westminster University BSc: "amethysts emit high yin energy"), and that revelation has embarrassed vice-chancellors into close them. In every case, universities have refused FOIA requests for teaching materials (though I have had substantial amounts sent to me by disillusioned employees of the universities themselves). It took three years to get a judgment from the Information Commissioner that universities must supply such materials, and to win a subsequent Information Tribunal that was held after the university appealed against the Information Commissioner. By the time the final decision was promulgated, the university had already shut down all of its courses in alternative medicine.

10. Since 2007, when I drew attention in Nature to the problem of BSc degrees in anti-scientific subjects, the number of BSc/MSc degrees listed in UCAS has roughly halved. The five BSc degrees in homeopathy that existed in 2007 have all closed, as have all degrees in Naturopathy and in "Nutritional therapy" (an alternative form of nutrition) have closed.

11. Why have dishonest courses closed? Partly it is the embarrassment caused to vice-chancellors when I have revealed that their students are taught that “amethysts emit high Yin energy”, and nonsense (and dangerous) cancer treatments, as part of a BSc degree. Another reason is likely to be the astonishing rise, over the last five years, in what’s sometimes known as the ‘sceptical blogosphere’. A great deal of superb investigation has appeared on blogs that dissect health scams. This has spread to the mainstream media. Even the Daily Mail, previously notorious for its poor health reporting and sympathy with quackery, now publishes quite sensible articles. No doubt, this has contributed to a decline in the number of applicants for courses.

### **Why have blogs been successful?**

12. One reason is time. Another is expertise. Journalists have to write to very tight deadlines, and so may often do little more than reproduce the press release (which, only too often, is itself hyped up by university PR departments, or even by the authors themselves). Furthermore, journalists are often called on to write about subjects about which their knowledge is very limited. In contrast, people like me have the time to read the original paper, and have the expertise to assess its claims. In the past, if I found a problem, I would have had to submit a paper to a journal, and 6 months later it would appear, and be totally ignored (even if was not inaccessible behind a paywall). Now we can publish anything the moment it’s ready, for the world to see. Any journalist who makes mistakes can be sure that very soon they’ll be corrected by a blogger. This has, I believe, driven up the standards of journalism. Here are some examples from my own work

Diet and health. What can you believe: or does bacon kill you? An explanation of the importance of causality and of the reasons for conflicting results from diet studies)

Snoring “remedy” on radio An investigation of a “remedy for snoring” which, with the help of Companies House and the phone book revealed hidden vested interests. This eventually was featured on the radio programme, *You and Yours*.

Why honey isn’t a wonder cough cure: more academic spin An investigation of misreporting by journalists which traced to a misleading press release from the university and the authors themselves.

Why was an study on ‘acupuncture’ reported so badly? Getting to the bottom of misreporting of a report in Nature, and of vested interests in the study itself.

Acupuncturists show that acupuncture doesn’t work, but conclude the opposite: journal fails Investigation of a paper that appeared in the British Journal of General Practice in which misreporting was traced to highly inaccurate press releases by the Journal itself and by the university where the work was done.

13. Another reason is (for the best blogs) financial independence. On dcscience.net. I have written 341 posts (which have elicited 6239 comments). This must amount to at least two good-sized books. I have not received a penny for this. I pay the (small) expenses out of my own pocket. I do it as a hobby, and the reward comes when I'm able to influence public policy (something that never happened when I was writing about my research on the stochastic properties of single ion channels). The only money I've ever made from these activities is a few modest fees from newspapers (TV and radio. never pay a penny)

### **Legal problems for bloggers**

14. Having demonstrated, I hope, that blogs have become an important part of the media, I can now to the legal problems that might be of interest to the Leveson Inquiry.

Every blogger runs a constant risk of being silenced by defamation threats. Examples from my own experience are given below. The risks depend on the subject area. Vice-chancellors have never been known to sue for defamation, even when I have (with good evidence) accused them directly of lying (see, for example, Professor Geoffrey Petts of the University of Westminster says they "are not teaching pseudo-science". The facts show this is not true).

On the other hand, alternative medicine practitioners do. I parodied this tendency by defining libel thus

Libel: A very expensive remedy, to be used only when you have no evidence.  
Appeals to alternative practitioners because truth is irrelevant.

Although light-hearted, this gets to the heart of the problem. For me, as a scientist, it is absurd that I can be punished for making scientific statements which I believe to be true, and for which I can produce evidence.

15. It is, as far as I know, unknown for one scientist to sue another for defamation, however acrimonious their disagreement may be (and there have always been acrimonious arguments within science, from Newton vs Leibniz). The problems arise when scientists criticize subjects that are outside science (such as alternative medicine). The problem is exacerbated because blogs tend to be written in a journalistic style (as they should be), rather than the stilted formal style of scientific papers and so may appear more blunt in their criticism.

I have only once had a direct threat from a lawyer, though I've had several threats of legal action.

16. *Threat from New Zealand Chiropractic Association*

I was invited by the editor of the New Zealand Medical Journal to write an editorial about chiropractors. It was an editorial and so written in a somewhat journalistic style. The article can be read at

<http://www.dcscience.net/colquhoun-nzmj-chiro-editorial-250708.pdf>

It was posted simultaneously on my blog, at <http://www.dcscience.net/?p=241>

I am happy to stand by every word that in that article. I was astounded when a letter was sent to me, and to the journal, by lawyers acting for the New Zealand Chiropractic Association (the letter is at <http://www.dcscience.net/lawyer1-nzmj-1821288%20Ltr.pdf> )

The letter states that my article, and the article by Dr Gilbey, are defamatory because

“the publications tend to lower the entire profession: including the practitioners of that profession; the teachings and concepts of the profession itself;”

I freely admit that this is probably true, and defend my article by pointing out that it is a fair scientific assessment of the available evidence, and that it is in the public interest that I should express the opinion. The lawyer’s letter goes on

“the publications contain false statements about the profession, its practitioners, regulators, and educators, that have been published to the discredit of those persons”

Needless to say, I deny strongly that I made any false statements (none are specified, I notice) and I deny equally strongly that my motive was to discredit chiropractors. My motive was to assess the evidence. It is the evidence that discredits chiropractors.

I was, frankly, terrified when I got this letter. It arrived shortly before the much better known, but similar, case of the British Chiropractic Association’s attempt to sue Simon Singh, because he offered the opinion (based on good evidence) that some of the claims made by chiropractors are “bogus”. Unlike Singh, I have not got enough money to risk losing my house and destituting my family should the case go against me.

18. The letter was published in full in the New Zealand Medical Journal, together with a feisty editorial by its editor, Prof Frank Frizelle (see <http://www.dcscience.net/?p=245> ) and in the end the legal threat was withdrawn after the journal gave the chiropractors right of reply. By that time, many blogs had appeared in support of me and the journal (links on that page) and it is fair to say that chiropractors ended up getting far more criticism than if they hadn’t resorted to legal action.

See <http://www.dcscience.net/?p=245> and <http://www.dcscience.net/?p=526> for subsequent events, which vindicated the opinions I'd expressed.

19. The same is true of the Singh vs BCA case. That lasted a lot longer, and, I believe, it cost Simon Singh something of the order of £100,000 despite the fact that the BCA eventually backed down. In the intervening period, the evidence offered by chiropractors was subject to scrutiny as never before, again by bloggers, not the mainstream media. When the BCA eventually (15 months after their initial action, finally produced their "plethora of evidence", acute analyses of all of it appeared within 48 hours. It was found to be wanting. My own contribution was to analyse the nine papers on infantile colic ([British Chiropractic Association produces its plethora of evidence](#)). The result is that claims to treat colic by chiropractors are no longer allowed even by the General Chiropractic Council, their regulatory body, which had itself previously endorsed claims that could not be justified)

The service to the public done by smart critical bloggers was, once again, apparent.

*Two other brushes with the law*

*The case of Dr Ann Walker and red clover*

20. The first came in 2007 when two herbalists sent legal letters to UCL (not to me directly) because [I had written](#), *apropos* of Dr Ann Walker's description of red clover,

"What on earth is a "blood cleanser" or a "cleanser of the lymphatic system". This is so much meaningless gobbledygook"

The latter term "blood cleanser" has no medical meaning whatsoever, though it has [a long history](#) of being used by quacks, as was later verified by the eminent word expert, [Michael Quinion](#). Walker, and her husband, sent legal letters not only to the provost of UCL but also to the Chair of Council, at that time Lord Woolf. At that time my blog was hosted on UCL's servers, and because of the time that was being wasted by the legal harassment, the provost asked me to remove hosting of the blog elsewhere. When this became known, it caused a storm in the blogosphere. [Letters to the provost](#) poured in from all over the world, and after Ben Goldacre wrote powerful pieces in my support, both on the web ([The mighty David Colquhoun](#)), and in [the Guardian](#), the provost relented and invited me back. By that time I'd had several offers from commercial ISPs to host my blog, free of charge and I had already set up the blog, in a much better format on one of them. It now runs on the servers of Positive Internet, which, though a commercial company, does not charge me because of its owners' belief in freedom of speech. As can happen on the internet, the effect of this episode was to increase my readership vastly, so despite the time and trouble, the end effect was good for me.

Incidentally, the person who caused the problem, Ann Walker, turned out to be also one of the people behind the Nutriprofile web site, which, the next year, I revealed as a scam. She was eventually struck off the Register of Nutritionists.

#### 21. *The case of Patrick Holford*

Patrick Holford is a “celebrity nutritionist”. He is the subject of an entire chapter on Goldacre’s celebrated book, *Bad Science*. He is also scrutinised by a web site, HolfordWatch, which is written by two clever young scientists. His abuse of science to sell supplement pills is legendary. In September 2008, I got a letter from Holford, which threatened me with legal action because of comments that I’d made about him in the Guardian, and on my blog, where I had revealed his misuse of testimonials. He threatened me with legal action if I failed to apologise. After some thought. And a legal opinion, I decided that the facts were so clear that I’d take the risk of ignoring his threat, and saying why. Luckily I heard no more, but perpetual threats of this sort always worries me, if only because, at present, the truth of my assertions may not be enough to protect me from destitution.

### **How much freedom should bloggers have to express opinions?**

22. Among many others, I have written about the libel law, in Libel law threatens science and honesty. The article started

“Freedom of speech in everyday life is a beautiful and hard-won fundamental liberty. I can say what I like about the prime minister and the royal family. There will be no knock on the door in the night.  
But as a scientist, I *cannot* express an opinion on a scientific question freely.”

I take it that one job of the Leveson Inquiry will be to advise about the compromise between freedom of speech and responsible journalism (for this purpose, it seems reasonable to classify myself as a journalist, albeit amateur).

I presume that the inquiry will have to take into account the proposed new Defamation Bill which is, at present, still at the stage of discussion. The first draft, while a great improvement on the present law, is not, in my view, sufficiently strong yet. There needs to be a stronger public interest defence, and the law must take into account the evidence that statements made are true. Without these changes, people like me, who try to explain evidence, truth and falsehood to the general public, will be perpetually at risk of being sued for expressing opinions on scientific and related matters.

**What should be done about bad and mendacious blogs?**

23. What I have written about blogs refers to the good ones, written by scientists themselves, and free of vested interests. There are, no doubt, far more bad web pages, but most (in the field of medicine anyway) are trying to sell you something, and cannot therefore be expected to be truthful. The way to cope with these is *via* the Advertising Standards Authority (ASA), and Trading Standards officers. It is worth noting that although the ASA has been quite good, Trading Standards officers have consistently refused to enforce the Consumer Protection Regulations (2008) which contain quite strong rules against false health claims (see Most alternative medicine is illegal). There is an urgent need to reorganise enforcement, and in particular the Office of Trading Standards, the local organisation of which is quite inappropriate in the internet age. The existing law, if it were enforced (which it isn't), should be sufficient to deal with mendacious sales methods. The Inquiry would do a great service if it recommended updating of the law in this area.

There is also a smaller class of web sites written by zealots, some of which can be exceedingly defamatory and exceedingly inaccurate (one recently compared me with Stalin). The consensus among science bloggers is that the best way to deal with sites like that is simply to ignore them.

**Conclusion**

24. I hope that I've made the case that blogs written by scientists, and the scientifically-literate, are part of the solution to media wrongdoing, not part of the problem. Those who write them need to be able to express a scientific opinion without facing the risk of destitution.

I believe the contents of this witness statement are true

Prof David Colquhoun FRS.