

**“ASA Ltd’s writing [on homeopathy] does not even begin to approach a professional standard”**

*Professor P. Matthiessen and Dr G. Bornhöft*

**“Only by omitting 98% of the evidence can you ‘prove’ homeopathy to be ineffective”. Homeopathy denigrators are therefore either “very bad scientists”, or else “liars”.**

*Professor Robert Hahn*

**Appeal to action by Trading Standards & the Competition and Markets Authority:**

to study this document in detail, to investigate allegations of serious unlawful conduct by, *inter alia*, the Advertising Standards Authority (ASA) Ltd. and Committees on Advertising Practice (CAP) Ltd. , and to reach their own conclusions on whether there is, as in our opinion, an abundance of evidence with which to proceed to prosecution under –

**The Consumer Protection from Unfair Trading Regulations (2008), reg. 3 (3):**

A commercial practice is unfair if -

- a) it contravenes the requirements of professional diligence; and
- b) it materially distorts or is likely to materially distort the economic behaviour of the average consumer with regard to the product.

**Resumé**

- |   |
|---|
| <ul style="list-style-type: none"><li>a. ASA and CAP Ltd. are attempting to prevent homeopaths from communicating lawful information of their lawful trade to members of the public who have a legal right to know. This is alleged to be in breach of The Consumer Protection from Unfair Trading Regulations (2008).</li><li>b. ASA and CAP Ltd have full knowledge that their position is, or might be, untrue or misleading, and appear to many to be irrefutably attempting to materially distort the economic behaviour of the average consumer in relation to homeopathy.</li><li>c. Professor Robert Hahn<sup>i</sup>, Head of Research, Södertälje Hospital, Södertälje, Sweden, has demonstrated that no one can argue homeopathy to be ineffective without omitting 98% of the evidence (which is precisely what numerous people including highly distinguished professors of medicine accuse ASA and CAP of doing). Professor Hahn talks also of widespread intimidation (mocking and ridiculing) of anyone supporting homeopathy.</li><li>d. Homeopathy has been scientifically demonstrated to be an effective system of medicine, and its use has spread massively around the world. It is used or advocated by millions of medical professors, doctors and other health-care professionals, all holding a viewpoint directly opposed to that of ASA and CAP Ltd.</li><li>e. Court cases in Canada and the US attempting to disprove homeopathy’s effectiveness have been lost.</li><li>f. A vicious campaign of ‘lies’ and disinformation against homeopathy, with apparently widespread intimidation, has been waged not least in the UK. Evidence suggests this to be in breach of serious criminal laws.</li><li>g. The Department of Health has so far avoided the issue by saying only that it leaves clinical decisions in the hands of individual clinicians. But clinicians cannot make appropriate decisions if intimidated, or given lies and disinformation.</li></ul> |
|---|

**Background**

**a. Worldwide campaign against homeopathy**

A worldwide campaign of denigration and lies has been waged against homeopathy - that homeopathy is mere 'placebo', of no value in treating any disease, even that it is 'nonsense' and that homeopaths are 'peddlers'. This campaign has included:

- The 2010 UK House of Commons Science and Technology Committee (S&T) which, in judging homeopathy to be mere placebo, flew in the face of all science after omitting almost all positive evidence for homeopathy or stating positive evidence as negative, and placing considerable importance on wholly discredited ‘research’ by Shang et al. (see page 4). The S&T failed to address, or even ask, how a ‘placebo’ can effect beneficial changes in animals and plants.
- Bogus propaganda myths against homeopathy, use of media and press to spread a steady stream of disinformation.
- A seeming army of online anti-homeopathy bloggers, all supporting each other with personal opinion and pseudo-science and using the S&T to justify themselves, and some openly admitting to being paid, e.g. ‘Gimpy’, who admits being a pharmaceutical researcher, and who encourages people to: ‘Kill, kill, kill, mutilate, smash, annihilate, obliterate or at least maim all the homeopaths’<sup>ii</sup>. (Later he says not to kill them, but apparently still wishes to mutilate, smash and maim them). Will Trading Standards (TS) and the CMA please take all necessary steps to identify this man and bring him to court?
- As the UK S&T became ever more discredited, the denigrators turned to Australia for their next attempt to damage the reputation of homeopathy. The Australian National Health and Medical Research Council evidently knew from the start that the ‘placebo accusation’ was already thoroughly disproved, and so instead concluded that there is ‘no reliable evidence that homeopathy can treat any diseases’, after setting a requirement of 150 subjects in a trial to demonstrate homeopathy as ‘effective’, and demanding three such successful trials for the results to be ‘reliable’ after setting a definition of ‘reliable’ that would at the same time have eliminated an estimated 95 – 99% of ‘conventional’ (pharmaceutical) treatments also.

This anti-homeopathy campaign, which this document demonstrates to be irrefutably and indeed dangerously false, continues still in the UK in spite of being now largely defeated abroad, both by governments and in the courts:

- Professor Robert Hahn has demonstrated that Homeopathy denialists are either ‘very bad scientists’, or else ‘liars’. If ‘liars’, that can only be explained by there being either **intimidation** or **fraud**.
- Court cases in Canada and the US attempting to disprove homeopathy’s effectiveness in treating medical conditions have been lost<sup>iii</sup>.
- One of the most thorough scientific investigations into homeopathy to date is the Swiss Health Technology Assessment (HTA)<sup>iv</sup> of 2011, which concluded homeopathy to be both effective and cost-effective. As a result of this (and following years of practical experience throughout the country), Switzerland granted homeopathy full equal status with conventional medicine and adopted homeopathy into its national health system.
- Homeopathy is used or advocated by professors and researchers, medical doctors and other healthcare workers in the millions, all of them persuaded by the evidence for homeopathy. Is it seriously suggested that they are all so irrational as to devote their whole professional life to something useless?
- Homeopathy has been spreading ever further around the world as ever more positive homeopathy research data appears: homeopathy is used in Switzerland, Germany, France and all over Europe, India and the Sub Continent, Arab Countries, Africa, North and South America, etc.
- The respected medical journal *Family Practice*<sup>v</sup> revealed that 95% of French GPs, paediatricians and dermatologists use homeopathy in France, as do 75% of midwives. Is every one of them mad, or fraudulent? Or are they just so much less capable or qualified to assess appropriate medical treatment than ASA and CAP Ltd. employees? Or are ASA and CAP nonsensically detached from reality?

## **b. ASA's and CAP's position on homeopathy**

CAP's website states: 'To date, the ASA has not seen persuasive evidence to support claims that homeopathy can treat, cure or relieve specific conditions or symptoms. We understand this position is in line with other authoritative reviews of evidence'.

CAP Ltd. fails to identify to which reviews it refers and who has judged them to be 'authoritative'. But CAP's claim is in any event false on a multitude of levels. The word 'persuasive' is of course highly subjective, and there are none so unpersuaded as those who refuse to be persuaded and who refuse to read the evidence, a basic requirement of 'professional diligence'. ASA Ltd. has for a fact been sent, and has disregarded, an abundance of evidence that is highly persuasive to countless doctors and medical researchers that homeopathy not only can treat specific conditions or symptoms, but that homeopathy is doing just that, right now, all around the world; and that CAP's 'authoritative reviews' are therefore bogus.

The burden of proof must therefore lie unequivocally on ASA Ltd. and CAP Ltd., and others, to provide persuasive evidence that all of the millions of worldwide homeopathy advocates and users are either irrational, deluded or fraudulent, and also provide irrefutable evidence that court decisions in Canada and the US were counterfeit. Or else ASA and CAP must accept that their position is unsupported by any credible evidence, and contradicted by the facts. NB - **personal opinion, no matter whose, is not scientific evidence.**

## **c. Specific concerns about ASA Ltd requiring investigation by TS and CAM**

1) To assess homeopathy *test-cases*<sup>vi</sup> ASA Ltd appointed an 'expert', Professor Peter Hylands of Kings College London, with, according to his own CV, no knowledge, training, qualifications, practical experience or research experience in homeopathy nor in any other form of medicine whatsoever, but who had pursued a career pathway with interests directly opposed to homeopathy, i.e. conventional pharmacology. Hylands started from a biased and wholly erroneous position that homeopathy is 'a generally accepted placebo effect'<sup>vii</sup>, omitting, misrepresenting or distorting facts to whatever extent was necessary to fit his already discredited assumption. How could that be possible?

2) As already stated, the distinguished Swedish Professor Robert Hahn (with no interests in homeopathy whatever, but with great desire to expose bogus science) has demonstrated that only by omitting 98% of the scientific evidence can anyone show homeopathy to be ineffective, and that the anti-homeopathy campaign consists merely of personal denigration and lies. The first would be infamy and intimidation, the second surely fraud. This paper demonstrates that omitting 98% (or more) of the evidence is precisely the means by which ASA and CAP Ltd., for motives yet to be exposed, wish to prevent homeopaths lawfully communicating information which the public has a right to know.

3) A copy of the Swiss HTA report was sent to ASA's reviewer, Sir Hayden Philips, complete with multiple pages of Randomized Control Trial results and meta-analyses positive for homeopathy. Astonishingly, Sir Hayden evidently accepted Hylands' opinion as fact without even carrying out basic checks for himself. Sir Hayden's report stated that he and ASA Ltd 'expect claims that a particular medicine or approach could be used to treat medical conditions be substantiated with a robust body of evidence, consisting of Randomized Control Trials (RCTs) conducted on human subjects, where appropriate, and that the *Homeopathy in Healthcare* did not include robust evidence, of the type we considered necessary'.

The HTA authors protested (letters attached) to the ASA Chief Executive, Mr Guy Parker: ‘to airbrush out of existence, so it would appear, all the RCT research that *Homeopathy in Healthcare* contains is deeply disturbing.... Pages 130 - 140 of the HTA discuss 17 homeopathic RCTs, all conveniently summarized on page 207. Pages 103 – 106 refer to homeopathic RCTs in the hundreds. You say our ‘main conclusion regarding efficacy was drawn from a reconsideration of a previous meta-analysis of qualifying trials which found no significant difference between placebo and homeopathic treatment’ (seemingly referring to Shang et al)<sup>viii</sup>. **Even a glance at our contents page would reveal the falseness of your absurd claim:** reading our book in any detail at all would verify that our conclusions are, on the contrary, based on an analysis of:

- Well over 100 homeopathic RCTs
- 22 meta-analyses, involving the results of thousands of patients (20 of the 22 found at least a trend in favour of homeopathy - many of them strongly so – while the remaining two were of low validity).
- a detailed study of homeopathy’s success in treating upper respiratory tract infections. Six out of seven controlled studies showed at least an equivalence with conventional-medical interventions, whilst a further 8 (out of 16) RCT studies showed results from homeopathy treatment that were significantly the superior.
- studies into beneficial homeopathic effects on animals and plants.
- changes which homeopathy has been shown to produce on cells in test tubes. An explanation of any kind of how this can be effected by mere ‘placebo’ has to our knowledge never yet been postulated.

4) A highly successful programme of homeopathy was used to tackle the killer epidemic disease leptospirosis in Cuba under the auspices of the WHO accredited Finlay Institute, and led by the international WHO expert in vaccines, Dr G. Bracho. The results were later reanalysed to confirm that homeopathy did indeed save thousands of lives, homeopathy results far exceeding those of conventional vaccines, and at a fraction of the cost. Sir Hayden and the ASA Council were evidently at pains to censor this knowledge, with their astonishing claim that this homeopathy programme was ‘not a clinical situation’. For a fact, a clinical setting was precisely what it was.

### **ASA's attempted defences to date:**

#### **1) ‘We took expert advice from Professor Hylands’.**

As already noted, Professor Hylands has according to his own CV, no knowledge, training, qualifications, practical experience or research experience in homeopathy or any form of complementary medicine whatsoever, but has pursued a career pathway with interests directly opposed to homeopathy. In his apparent determination to disprove homeopathy’s effectiveness, Professor Hylands did no such thing. On the contrary, Hylands successfully proved Professor Robert Hahn correct, that only by omitting 98% of the scientific evidence can anyone show homeopathy to be ineffective.

#### **2) ‘A substantial review of over 100 placebo controlled trials showed no convincing evidence that homeopathy was superior to placebo’<sup>ix</sup>.**

This ‘review’ was circumspectly not named by ASA Ltd. in its report, but confirmed it separately to be a reference to the paper: ‘Are the clinical effects of homeopathy placebo effects? Comparative study of placebo-controlled trials of homeopathy and allopathy’, written by **Shang et al**<sup>x</sup>. This paper has been discredited numerous times around the world, yet continues to be quoted by homeopathy denialists such as CAP and ASA. For example:

- i) Writing in the British Medical Journal, Dr Christopher Johnson said<sup>xi</sup>: ‘Homeopathic critics, if they cite any evidence, seem to universally cite only one study – the Shang, et al meta-analysis (Lancet, 2005). They may as well have referenced no data at all, since **Shang is an abomination of science** – failing nearly every conventional norm

for high quality research (e.g. failing to meet multiple QUOROM criteria for systematic reviews) – and basing its conclusions on 8 out of 110 cherry picked trials..... In other words, Shang is a sham’.

- ii) Professor Robert Hahn has demonstrated that Shang’s evidence in reality shows homeopathy to be 13% more effective than placebo, writing: ‘I assume that the authors had to find some trick to produce the results they wanted from the outset - namely, that homeopathy failed to produce any effect..... I must also point out that the authors with whom Shang worked had a few years earlier published a very negative article on homeopathy, which makes me doubt the objective starting point of this group’.
- iii) In a successful complaint to the New Zealand Press Council, Clive Stuart also testified that ‘Shang et al appear to have adopted the “*data dredging*” approach (i.e., altering analyses until they found the answer they were looking for)’, and that Shang is ‘one-sided; is based on a factually incorrect and misleading understanding of the nature of the scientific evidence concerning homeopathy’s efficacy; and is thus inaccurate, unfair and unbalanced in its treatment of homeopathy’.

**3) *‘Our position is supported by the Science and Technology Committee 2010 (S&T), which concluded homeopathy’s effect to be mere placebo’.***

This S&T report was rejected by government. It defined acceptable evidence as RCTs and meta-analyses, then omitted all mention of RCTs<sup>xii</sup>. It further relied heavily on testimony of one Professor Edzard Ernst, who stated Shang’s analysis to be ‘devastating for homeopathy’. As just shown, Shang’s paper was no such thing. And there was no attempt to explain how a ‘placebo’ can effect changes in animals and plants<sup>xiii</sup>.

**4) *‘The majority of independent scientists consider the evidence for the efficacy and scientific basis of homeopathy to be weak or absent’.***

No evidence for this claim (made at the S&T 2010 hearing) has ever been produced, the nearest being Edzard Ernst’s *A systematic review of systematic reviews of homeopathy*<sup>xiv</sup>, in which Ernst concluded that the reviews ‘failed to provide strong evidence in favour of homeopathy’. Ernst however had reviewed only 17 papers by a total of just nine authors, the majority not negative for homeopathy<sup>xv</sup>. And of the 17 papers, Ernst was the author or co-author of nine.

Of the anti-homeopathy Professor Ernst, Professor Hahn wrote: ‘I’ve never seen a science writer so blatantly biased as Edzard Ernst. I have read several other studies that he has published, and they are all untrustworthy. His work should be discarded’.

As to the ‘scientific basis of homeopathy, according to the BMJ over 50% of conventional medical procedures funded by the National Health Service also have little or no basis in science<sup>xvi</sup>. And the editor of the BMJ has admitted that only 11% of conventional medicine treatments have any proven effectiveness<sup>xvii</sup>. It is the absence of level playing field that is of such concern to us.

**5) *‘Our position is supported by England’s chief medical officer, Dame Sally Davies, who described homeopathy as ‘rubbish’ and homeopaths as ‘peddlers’.***

We are sorry that the chief medical officer considers near-eradication of deadly diseases to be ‘rubbish’, qualified medical professors, doctors and other health-care professionals in the millions to be ‘peddlers’, plainly an emotional term of abuse. But Dame Sally to our knowledge has given no evidence to support her opinion, other than ‘what is in the S&T’.

6) ***‘Our expert confirmed the Science and Technology Committee to be accurate’.***

Professor Hylands claimed to have verified the S&T report as accurate. He did no such thing: he merely summarized and endorsed it, neither he nor Dame Sally Davies giving reasons as to why, for example, the S&T was entitled to omit all reference to positive RCTs, or claim *Shang et al.* to be devastating for homeopathy, or explain how a ‘placebo’ can effect changes in animals and plants<sup>xviii</sup>.

7) ***‘Homeopathy is implausible’.***

To the extent that this means anything at all, it is: ‘We don't know how it works, so therefore it can't, and therefore it doesn't’. That is ludicrous. We don't know how gravity works - does that mean that it doesn't?

8) ***Our position is supported by the Australian National Health and Medical Research Council, which concluded that there is no reliable evidence that homeopathy can treat any diseases.***

As noted already, the conditions set for ‘reliable research’ by the Australian Council not only nullified all of homeopathy research (as apparently designed to do so), but would have eradicated the overwhelming majority of all conventional medicine treatments and procedures currently in use also. Homeopathy writer Dana Ullman observes ‘some extremely serious biases in evidence here instead of good science’, and ‘bad faith’ on the part of the BMJ in publishing this ‘research’ without pointing out the obvious impartiality.

### **Appeal for Action by TS and CMA (cont.)**

Aside from legal requirements of a level playing field, homeopathy denigration is particularly disturbing in the light of **ever growing anti-microbial resistance (AMR)** due to over-use of antibiotics. In reaching its present denialist position on homeopathy, ASA totally ignored high quality positive RCT evidence of homeopathy's success in upper respiratory tract infections, one of the most common reasons for antibiotic prescriptions (see page 4). NB - ASA did not dispute the validity of the evidence for homeopathy, but simply white-washed it out of existence. This falsity remains on ASA's website today.

### **Bribery and endemic corruption aka the Mafia**

In his book *Deadly Medicines and Organised Crime: How Big Pharma Has Corrupted Healthcare*, Dr Peter Gøtzsche (co-founder of the influential Cochrane research collaboration) gives full accounts of ‘Bribery, endemic corruption and intimidation aka 'the Mafia' in the pharmaceutical industry’. Gøtzsche is not the first to compare this industry to the mafia<sup>xix</sup>. We see reason for Trading Standards (TS) and the CMA to investigate homeopathy denigration in that light, also bearing in mind Professor Hahn's reference to intimidation.

Who was paying Gimpy, and how many others have also been paid to denigrate homeopathy? To what authority will Trading Standards and the CMA refer him for exposure and prosecution?

Further to consideration of the **Unfair Trading Regulations (2008)**, we allege that such are the myriad of lies and false representations that we see reason further to investigate under the **Fraud Act (2006), section 2:**

Fraud by false representation (1). A person is in breach of this section if he—

- (a) dishonestly makes a false representation, and
- (b) intends, by making the representation—
  - (i) to make a gain for himself or another, or
  - (ii) to cause loss to another or to expose another to a risk of loss.

(2) A representation is false if—

- (a) it is untrue or misleading, and
- (b) the person making it knows that it is, or might be, untrue or misleading

Other relevant laws may include, but not be limited to, Wilful Blindness; Freedom of Expression, Article 10 of the European Convention on human rights.

### **ASA and CAP Ltd have full knowledge that their position is, or might be, untrue or misleading**

ASA and CAP have been told numerous times that the S&T omitted swathes of evidence. They have been sent the Swiss HTA book, but there is no evidence that they even opened it. Homeopathy: Medicine for the 21<sup>st</sup> Century (H:MC21) made vehement complaint to Mr Guy Parker about the way that investigation was being handled at the time, and told him after the adjudication: “The ASA lacks both the integrity and the competence necessary to claim the moral authority to regulate advertisements of homeopathy”.

There is little, if anything, of substance in this present document which has not been sent to Sir Hayden Philips, Lord Smith and to the Chief Executives of ASA and CAP, none of whom have replied other than Sir Hayden sending a blank acknowledgement of receipt. That is not acceptable, and we call on Trading Standards and the Competitions and Markets Authority to require from all key players in ASA and CAP Ltd. as well as England’s chief medical officer, a clear response to everything in this document, emphasising that as much may in the future be deduced from what they do not say, as from what they do say.

### **References**

---

<sup>i</sup> All scientific publications listed at <http://www.roberthahn.se/RobertHahnEngl.htm>

<sup>ii</sup> <https://gimpygimpy.wordpress.com/tag/homeopathy/page/2/>

<sup>iii</sup> <http://www.lexology.com/library/detail.aspx?g=7d9b009a-e041-422c-b9cc-bb0437958523>

<sup>iv</sup> Bornhöft G, Matthiessen PF (eds), Homeopathy in Healthcare – Effectiveness, Appropriateness, Safety, Costs. © Springer-Verlag Berlin Heidelberg 2011

<sup>v</sup> Homeopathy in France in 2011-2012 according to reimbursements in the French national health insurance database (SNIIRAM). Piolot M, Fagot JP, Rivière S, Fagot-Campagna A, Debeugny G, Couzigou P, Alla F. Fam Pract. 2015 Aug;32(4):442-8. doi: 10.1093/fampra/cmz028. Epub 2015 Apr 28. Available online at <https://www.ncbi.nlm.nih.gov/pubmed/25921648>

<sup>vi</sup> These ‘test cases’ were announced by Mr Miles Lockwood at a meeting at the Palace of Westminster in December 2010 to be ASA investigations of complaints against the Society of Homeopaths and Homeopathy: Medicine for the 21<sup>st</sup> century.

<sup>vii</sup> See ASA Ltd’s ruling on the Society of Homeopaths, available online at [https://www.asa.org.uk/Rulings/Adjudications/2013/7/Society-of-Homeopaths/SHP\\_ADJ\\_157043.aspx#.V\\_5MgtQrKXa](https://www.asa.org.uk/Rulings/Adjudications/2013/7/Society-of-Homeopaths/SHP_ADJ_157043.aspx#.V_5MgtQrKXa)

<sup>viii</sup> ASA Ltd also wrote: ‘the Swiss HTA report’s ‘main conclusion regarding efficacy was drawn from a reconsideration of a previous meta-analysis of qualifying trials [elsewhere admitted to be Shang et. al, but not named here] which found no significant difference between placebo and homeopathic treatment and had been published in a reputable peer reviewed journal’.

<sup>ix</sup> As claimed by ASA Ltd. in its ruling on Homeopathy: Medicine for the 21<sup>st</sup> Century, available online at [https://www.asa.org.uk/Rulings/Adjudications/2013/7/Homeopathy-Medicine-for-the-21st-Century/SHP\\_ADJ\\_139800.aspx#.WAJD\\_tQrKXa](https://www.asa.org.uk/Rulings/Adjudications/2013/7/Homeopathy-Medicine-for-the-21st-Century/SHP_ADJ_139800.aspx#.WAJD_tQrKXa)

<sup>x</sup> Are the clinical effects of homeopathy placebo effects? Comparative study of placebo-controlled trials

---

of homeopathy and allopathy. Aijing Shang, MD; Karin Huwiler-Müntener, MD; Linda Nartey, MD; Peter Jüni, MD; Stephan Dörig; Jonathan AC Sterne, PhD; Daniel Pewsner, MD; Prof Matthias Egger, MD; Published in the Lancet:2005 Aug 27-Sep 2;366(9487):726-32.

<sup>xi</sup> Available online at <http://www.bmj.com/content/345/bmj.e6184/rr/606486>

<sup>xii</sup> An early day motion tabled by David Tredinnick protested: ‘That this House expresses concern at the conclusions of the Science and Technology Committee's Report, Evidence Check on Homeopathy; notes that the Committee took only oral evidence from a limited number of witnesses, including known critics of homeopathy Tracy Brown, the Managing Director of Sense About Science, and journalist Dr Ben Goldacre, who have no expertise in the subject; believes that evidence should have been heard from primary care trusts that commission homeopathy, doctors who use it in a primary care setting, and other relevant organisations, such as the Society of Homeopaths, to provide balance; observes that the Committee did not consider evidence from abroad from countries such as France and Germany, where provision of homeopathy is far more widespread than in the UK, or from India, where it is part of the health service; regrets that the Committee ignored the 74 randomised controlled trials comparing homeopathy with placebo, of which 63 showed homeopathic treatments were effective, and that the Committee recommends no further research’.

<sup>xiii</sup> As detailed by Dr Peter Fisher in his testimony to the UK Science & Technology Committee 2010.

<sup>xiv</sup> A systematic review of systematic reviews of homeopathy. From *Br J Clin Pharmacol.* 2002 Dec; 54(6): 577–582. doi: 10.1046/j.1365-2125.2002.01699.x PMID: PMC1874503. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1874503/>

<sup>xv</sup> Linde protested vehemently that Ernst had misrepresented him; Reviews by Barnes and Lüdtkke were both positive for homeopathy; Evidence presented by Cucherat was also positive (see Prof. Hahn's blog); Two other papers (Jonas and Long) did not include sufficient evidence for reliable assessment.

<sup>xvi</sup> See BMJ site <http://clinicalevidence.bmj.com/cweb/about/knowledge.jsp>. Accessed 22nd April 2013

<sup>xvii</sup> When the British Medical Journal's "Clinical Evidence" analysed common medical treatments to evaluate which are supported by sufficient reliable evidence, they reviewed approximately 3,000 treatments and found only 11% were found to be beneficial: ‘What conclusions have Clinical Evidence drawn about what works, what doesn't based on randomised controlled trial evidence?’ *BMJ*, 2015.

<sup>xviii</sup> As detailed by Dr Peter Fisher in his testimony to the UK Science & Technology Committee 2010.

<sup>xix</sup> A former vice-president of Pfizer, is quoted as saying: “It is scary how many similarities there are between this industry and the mob. The mob makes obscene amounts of money, as does this industry. The side effects of organized crime are killings and deaths, and the side effects are the same in this industry. The mob bribes politicians and others, and so does the drug industry.”