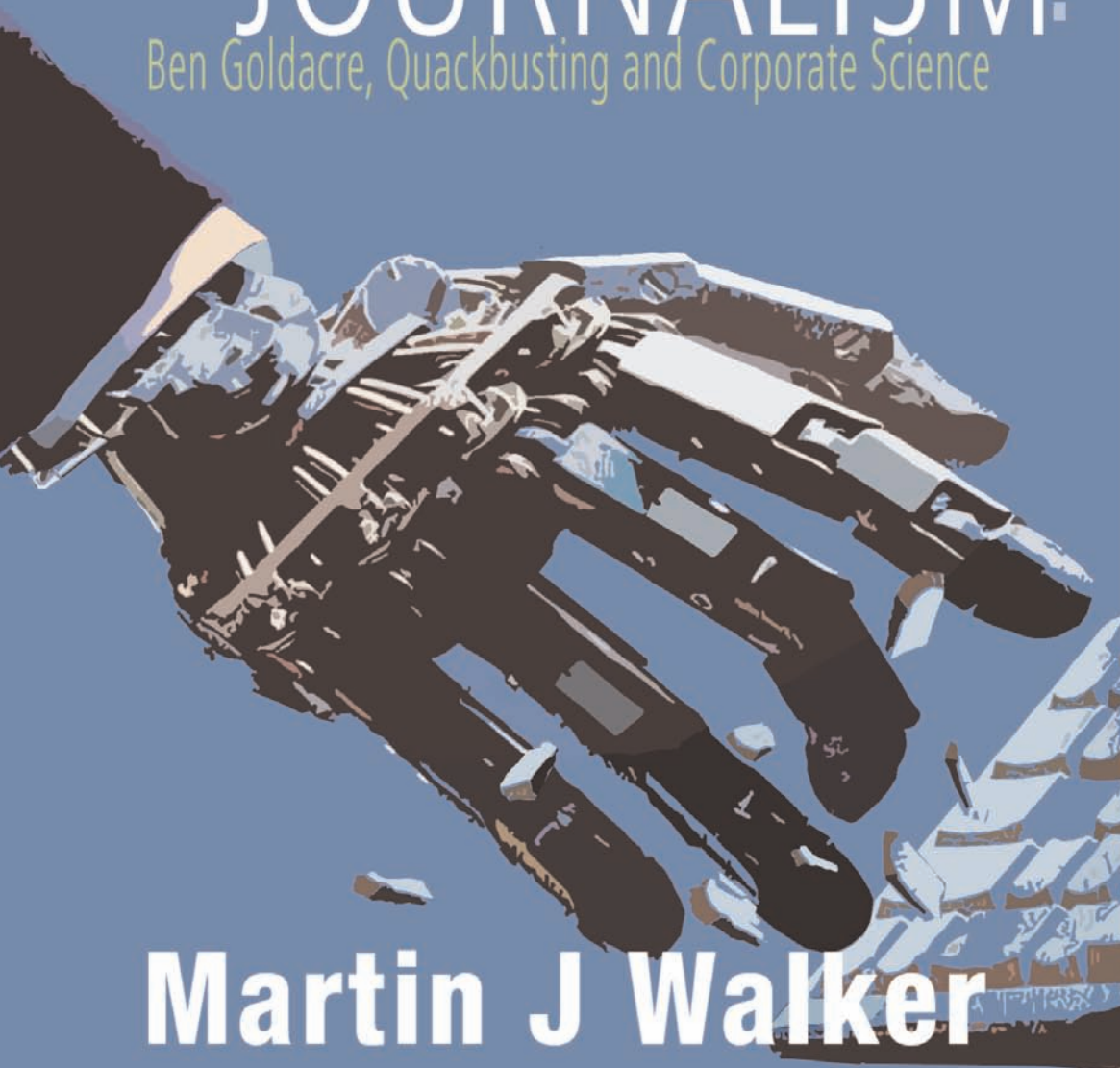


CULTURAL DWARFS AND JUNK JOURNALISM:

Ben Goldacre, Quackbusting and Corporate Science



Martin J Walker

Cultural Dwarfs and Junk Journalism

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and Corporate Science*

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Selected non-continuous pieces of the text may be quoted in reviews and other works or campaigning leaflets and pamphlets or on the internet.

You cannot hope to bribe or twist,
Thank God, the British Journalist,
For seeing what the man will do
Unbribed, there's no occasion to.¹

Every journalist
who is not too stupid or too full of himself
to notice what is going on knows that what he
does is morally indefensible ...²

Health fraud activists tend not to be scientists themselves, but journalists, philosophy lecturers, sociologists and others in 'soft' disciplines.

They claim to be on the side of Science, but when results appear which contradict their prejudices, they try to 'debunk' them, heap abuse on them, and finally simply ignore them.³

What is true cannot be minted
into a falsehood, even by
the most distinguished professor.⁴

1 Anon.

2 Malcolm, Janet. *The Journalist and the Murderer*. Bloomsbury. London 1991.

3 Adams, Jad. Dirty tricks to discredit alternative medicine. *i to i*, April-June 1994.

4 Samuel Hahnemann.

Dedication

To Jacques Benveniste 1935-2004
and all the innocent, honest and principled victims
of mercenary skeptics and quackbusters.

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Introduction

Broadly speaking, the essay that follows is the latest addition to my ongoing analysis of the British corporate science lobby and its popular campaigning arms, skeptics and quackbusters.⁵ Specifically, the essay focuses on attacks on Patrick Holford, the independent nutritionist, while trying to place the quackbusting journalist Ben Goldacre, who began this round of attacks, in a social and political context.

In its method, the essay suggests ways of investigating and presenting information about quackbusters, whether they appear disguised as journalists or lecturers in Complementary and Alternative Medicine (CAM). The object of the essay is to familiarise contemporary activists in the area of alternative health with quackbusters and to give some suggestion as to how they might be exposed and campaigned against.

As I explain later, a great deal has changed, especially in relation to the structure of the quackbuster campaign in England over the past decade; the initial amateur campaign begun in the mid eighties is now a professionally-organised lobby. But something else has changed – something that bodes ill for honest journalism and the integrity of the scientific community. As I described in my book *Brave New World of Zero Risk*,⁶ the pro-industrial science lobby now professes a philosophical position that should be untenable to any sane person in a

5 The other books in this series are:

- Walker, Martin J., *Dirty Medicine: Science, big business and the assault on natural health care*. Slingshot Publications. London, 1993. 2nd edition, 1994.

- Walker, Martin J., *Skewed: Psychiatric hegemony and the manufacture of mental illness in multiple sensitivity, Gulf War syndrome, Myalgic Encephalomyelitis and chronic fatigue syndrome*. Slingshot Publications. London, 2003.

- Walker, Martin J., *Brave New World of Zero Risk: Covert strategies in British science policy*. Slingshot Publications, 2006. Available as an e-book from: www.slingshotpublications.com

6 Ibid, *Brave New World of Zero Risk*.

developed society.

Previously, the campaign maintained that it was unlikely that industrial or environmental factors were responsible for ill health. It now holds that technological development, and major industries such as the biotech and pharmaceutical industry, are *incapable* of creating human health damage: there is, in the view of The Lobby, no such thing as an adverse reaction. What was originally the 'Health Fraud' movement has joined with the pro-industrial science and technology lobby⁷ and they now travel this road together.

The results of this growth in the movement and the concentration of its message were inevitable, and have been far-reaching. While previously therapists and doctors, together with schools of thought, came under attack, now the attacks include as targets, the victims of adverse reactions and the damaged consumer and citizen on a much wider scale.

The Lobby has left in the wake of its campaign against the environmental causes of illness, large groups of people suffering from so called 'undiagnosed' illnesses. From the mid-Eighties, when the present strategy was being resolved, people with myalgic encephalomyelitis (ME) were publicly insulted by academics, clinicians, lobby activists and politicians.⁸ Everything was done in relation to them except to carry out clinical investigations on their behalf; instead, it was said that they were mentally ill. Although this strategy

7 It was always difficult to give a name to the 'Health Fraud' movement, as they called themselves, or as part of it was, the 'anti-quackery' movement. Now that these groups are all part of the industrial science and technology lobby, I have chosen to call them collectively The Lobby, as they constitute in their various forms the biggest lobby, organised against the recognition of all kinds of environmental health hazards in Britain.

8 Op. cit., *Skewed*. Also, Williams, Margaret, *Denigration by Design: A review, with references, of the role of Dr Simon Wessely in the perception of Myalgic Encephalomyelitis (ME)*, Vol. 1. 1987 – 1996 & Vol. II. 1996 – 1999. Published privately, for information contact, the Environmental Issues Forum, C/o, 176, Perth Road, Ilford, Essex IG2 6DZ. Also, the archive of the One Click Group: <http://www.theoneclickgroup.co.uk>

has been evident over the past two decades in the Lobby's continuous assault upon those who have ME-like illnesses and such things as Gulf War syndrome, it has come to a head recently, with the cases of vaccine-damaged children and their parents.⁹

The Lobby will do everything in its power to ensure that no clinical or popular media voice is given to those who experience adverse reactions to new drugs or new technologies. It accuses those who try to speak out about adverse reactions to these, not just of bad science, but of being liars and cheats whose analysis, especially if they are ill, stem from mental instability.

If any of these straw men are knocked down, being disproved by proper scientific inquiry and clinical research, The Lobby simply moves on in the hope that no one is tracking their performance. A classic example of this is its early attack on those who suffered from or advocated diagnosis of food intolerance or allergy. From the early Eighties, as more cases of food intolerance began to be reported, industrial interests in Britain and America reported that both sufferers and therapists who claimed that this was a real phenomenon were mentally unstable or in the pay of vitamin companies and New Age Health gurus, that they had commercial interests in attacking dairy farming and additive manufacturers.¹⁰

Advocates of these theories were active in all the major institutions of health in Britain, and managed to influence large bodies of general practitioners, consultants Associations and societies.¹¹ There came a time, however, when the objective clinical evidence began to outstrip the absurdity of the idea that everyone who claimed to have

9 See my reports of the GMC 'fitness to practice' hearings against Dr Andrew Wakefield, Professor Simon Murch and Professor Walker-Smith on: www.cryshame.com

10 Op. cit., *Dirty Medicine*.

11 See the Report of the Royal College of Physicians: *Allergy: Conventional and alternative concepts*, 1992. This report was completely taken over by the Campaign Against Health Fraud and written for the RCP by non-doctor Caroline Richmond, the founder of CAHF. (*Cont.*)

an allergic condition was mentally ill. In 2003, the Royal College of Physicians published *Allergy: the unmet need*, and the Lobby's cover was blown. By then, however,¹² Britain had the highest number of allergy and food intolerance cases in the developed world, and among the highest numbers of child deaths from anaphylactic shock.¹³ There is an argument that elements within the allopathic medical profession were directly responsible for these high rates of allergy and death from anaphylaxis.

The Lobby, naturally, has no reverse gear, nor any desire to make academic amends for its past disinformation and misstatements, so it simply hangs on to the thread of an argument but does not any longer claim allergy and mental illness as one of its central issues. The Lobby moves on, concentrating on other enduring schemes, such as their refutation of multiple chemical sensitivity or environmental causes of cancer. The Lobby is ahistorical, amoral, unscientific and without intellectual integrity. It cares nothing about the damage caused to individuals in the wake of developing science and technology. Rather than address the moral question of what society should do for the individuals damaged by progress, it has chosen to support the cheapest argument for industry: the claim that progress causes no damage. The contemporary trend in the appraisal of adverse reactions, by corporate science, is utter denial.

The consequence of this denial, in the area of health, will be the development of ghettos of affected people who are denied any kind of insurance or compensation for their illnesses. They will also face the

11 (*Cont.*) For a critique of the report, see: Davies S, and Downing D., *Allergy: Conventional and alternative concepts, a critique of the Royal College of Physicians. Journal of Nutritional Medicine.* 1992; 3:331-49.

12 *Allergy the Unmet Need: A blueprint for better patient care.* Royal College of Physicians. London 2003.

13 *Allergy the Unmet Need* reported that allergy affected 1 in 3 of the UK population. The UK ranked highest in the world for asthma symptoms, with a prevalence 20-fold higher than that of Indonesia and also near the top of the world ranking for allergic rhinitis and eczema.

continual ridicule of quackbusters and industrial scientists who insist that they are shamming, or that their illnesses are consequent upon some unshakeable cause cemented by fate or the genome. The developed world, especially Britain and the US, is entering a new era in which corporate responsibility for any illness is denied completely, and the idea of recognising environmentally-induced illness becomes deeply subversive.

I have used Patrick Holford as the principle example of a victim of The Lobby in this essay because I wrote about him and the attacks upon him in my 1993 book *Dirty Medicine: Science, big business and the assault on natural health care*. Following this, I have been able to present a narrative with some kind of continuity. My choice of Patrick Holford's story is not meant to imply that his story is more worthy or more important than that of other individuals who have come under attack from pro-industrial science lobbyists.

PART I

The Campaign Against Patrick Holford

All you can do is do what you must, and do it well.

Bob Dylan¹

In mid-2006, Patrick Holford, one of Britain's leading independent nutritionists, had his 24th book published. Written with Jerome Burne, a notable health journalist, the title of the book could not have been more explicit, *Food is Better Medicine than Drugs: Your prescription for drug-free health*.²

Unlike the great majority of 'natural' health books, which suggest that allopathic and natural medicine can exist equitably in the world, this book forcefully argues for a nutritional way to health. It crosses the medical divide without taking prisoners, and establishes a bridgehead in the orthodox camp from where it wages war against pharmaceutical medicine. There could have been no doubt at all that Holford and this book would attract the attention of 'quackbusters'.³

1 Bob Dylan, Buckets of Rain from *Blood on the Tracks*. Sony Music Entertainment Inc. 1975.

2 Patrick Holford and Jerome Burne. *Food Is Better Medicine Than Drugs; Your prescription for drug free health*. Piatkus, London 2006.

3 As used here, 'quackbusters' refers to all the groups and individuals that campaign, write, are in any way active, in Britain, America or Europe, or associated in any way with the US and UK campaigns against 'health fraud', the international skeptics movement or CSICOP.

Holford has been making a name for himself as an independent nutritionist since he set up the Institute for Optimum Nutrition (ION) in 1984. He drew the attention of the British Campaign Against Health Fraud (later called HealthWatch) from the time that it was first set up in the late Eighties. Soon after, Holford became one of the principle targets of Duncan Campbell, a renowned leftwing investigative journalist and at that time a HealthWatch^{4,5} fellow traveller.

Duncan Campbell was a considerable asset to the Campaign Against Health Fraud (CAHF) in its early days. A well-established, left-leaning writer with a vaguely scientific background and a commitment to the medical scientists working on a pharmaceutical treatment for HIV and AIDS-related illness, he combined an unmatched ability as a propagandist with a ruthless determination to destroy those whom he saw as enemies of science. In the early Nineties Campbell pursued Holford with a fervour that he employed against a number of other targets.⁶

After he finished his first university degree at York University in 1979, Holford applied to do an MPhil at Surrey. Dedicated as he was, even then,⁷ to nutritional therapies, he wanted to research hair-mineral analysis, a diagnostic technique thought by the new school of nutritionists to be of benefit in measuring mineral deficiencies, but seen as quackery by industrial nutritionists. Everything went well with his research, until Vincent Marks took over as the head of the Nutrition department.

4 Op. cit., *Dirty Medicine*.

5 He was later to sever his links with them, suggesting that their organisation lent itself to accusations of conspiracy and dirty tricks.

6 Op. cit., *Dirty Medicine*.

7 You will see later in this essay, Goldacre describes himself proudly as a ‘geek’ – ‘a person with an eccentric devotion to a particular interest’, while he describes Holford as some kind of Johnny come lately on the make. The truth, as always with quackbusters, is completely different: Goldacre’s geekiness is self-congratulatory and it is difficult to see what his devotion is focused on. Holford, on the other hand, cured himself of acne using nutrition while he was at University and has devoted his entire adult life to the pursuit of nutritional health.

Marks was a dedicated quackbuster with links – like a number of others at that time – to the Wellcome Foundation drug company, that had just launched the contentious AIDS drug AZT.⁸ Marks boasted a deep knowledge of nutrition and had been a consultant to the sugar industry for a number of years.

Holford was prematurely called to a *viva* examination for his MPhil. This was carried out by a colleague of Marks, who espoused views antagonistic to various alternatives, including nutritional medicine; Holford was failed. In 1988, Marks became a founding member of CAHF and a champion of AZT. He worked closely with Duncan Campbell and Caroline Richmond, the founder of the Campaign.

In 1984, having set up ION, Holford began his own ‘life university’ course. He travelled to America to meet with various nutritionists, including Professor Linus Pauling, for whom he had the highest regard. Pauling was to become one of the most academically-acclaimed targets of quackbusters, who accused the twice-nominated Nobel Laureate of all kinds of quackery relating to vitamin C.⁹

Also in 1989, the Wellcome Foundation, in order to protect AZT, began a campaign against anyone who advocated alternative therapeutic approaches to HIV or Aids-related illnesses. One of the nutritionists whom Campbell attacked in the *New Statesman* was Monica Bryant. In the summer issue of *Optimum Nutrition*, the magazine of ION, Holford came to Bryant’s aid. It was from this point onwards that Holford also became a target of the health fraud campaign.

In December 1989, Duncan Campbell’s article ‘The Rise of the New Age Pill Pushers’ appeared in the *Sunday Correspondent Magazine*.¹⁰ In this and other articles, Campbell tried to destroy Holford’s professional career and reputation.

8 This has now ceased to exist and should not be confused with the Wellcome Trust, the biggest medical research funder in Britain outside the MRC.

9 One of the best books written about the politics of medical conflicts is: Evellen Richards. *Vitamin C and Cancer: Medicine or politics*. Macmillan, 1991.

10 Duncan Campbell. The Rise of the New Age Pill Pushers, *Sunday Correspondent*. 3 December, 1989.

Later in 1989, the *New Statesman* carried articles against Yves Delatte and Monica Bryant. The articles and literary assaults by Campbell at this time centred not only on Holford, Bryant and Delatte, but on Dr Stephen Davies, Dr Alan Stewart, Dr Damien Downing, Dr Belinda Dawes and Dr Patrick Kingsley, some of the most reputable nutritional doctors in Britain, members of the British Society for Nutritional Medicine (BSNM) as it then was,¹¹ whose annual conference in 1989 centred on nutrition and AIDS. In 1993, in my book *Dirty Medicine*, I wrote the following about Campbell's attacks on Holford and other nutritionists. (This piece taken from *Dirty Medicine* is all in the type face Verdana to distinguish it from the text of this essay, which is in Times New Roman.)

* * *

In his first articles attacking nutritionists, Campbell was insistent that Bryant's probiotics contained faecal matter.¹² Holford had come to know and respect Monica Bryant, who had lectured on bacteria and probiotics at ION. In defence of Bryant, Holford sent off Bryant's preparations to be analysed at two laboratories. Both labs returned reports stating that there was no faecal matter in the preparations.

Holford's defence of Monica Bryant led him to the Campaign Against Health Fraud. When he found that Vincent Marks was a founder member of the organisation, he wrote an editorial in the summer 1989 edition of *Optimum Nutrition*.

The most vicious attack on natural remedies appeared recently in the New Statesman, written by Duncan Campbell, involved in the Campaign Against Health

11 This society is now called the British Society for Environmental Medicine: allergy, environment, nutrition. It can be found at www.ecomed.org.uk

12 Campbell also alleged this of two doctors who practiced Ayurvedic medicine. They were both later struck off the medical register by the GMC. See *Dirty Medicine*.

Fraud, slamming the use of beneficial human strain bacteria in relation to AIDS and ME as 'selling extract of excrement to sick and dying people.' The article entitled 'Let them eat shit', basically three pages of abuse, claimed that Probiotic supplements including Symbion, a combination of three beneficial bacteria, were 'extract of excrement' and were made 'in an ordinary kitchen'. To test these claims we obtained two independent analyses of the product from Brighton Polytechnic, and a private laboratory. Each analysis confirmed that there were no pathogenic organisms or faecal matter present. Monica Bryant, director of the International Institute of Symbiotic Studies, told us, 'There is no truth to the claim that these products contain pathogenic substances or faecal matter. These products are produced by a reputable pharmaceuticals manufacturer and its laboratories under strictly controlled conditions'.¹³

When the next attack on Monica Bryant, 'Pretty poison', about germanium, appeared, Holford again went to her defence. He did not think that germanium was an essential nutrient, but he saw no evidence to suggest that germanium sesquioxide was toxic.¹⁴

Patrick Holford's defence of Monica Bryant, his article about HIV, together with a personal altercation which he had with Duncan Campbell at the 1989 Here's Health exhibition, were adequate reason for Campbell to begin a crusade against both ION and Holford. There was also the fact that Patrick Holford had been involved for the last two years in an

13 AIDS can be cured. *Journal of Optimum Nutrition*, Spring, 1989.

14 A vigorous campaign mounted on the basis of this article, and other utterly tenuous evidence, got the Medicines Control Agency and the DH to ban the sale of Germanium in retail outlets in Britain in 1989.

ongoing battle with Vincent Marks at Surrey University. As Campbell had joined up with Marks, they now had an enemy in common.¹⁵

Some time after Patrick Holford had argued with Duncan Campbell at the Here's Health show, he received a phone call from him. Campbell wanted to know about Holford's contacts with vitamin companies. Holford was polite but not particularly forthcoming: he also recorded the conversation.

It was clear to Patrick Holford from the phone call that Campbell had got some of his information wrong. In order to clarify the situation, Holford sent a statement to Campbell and told him that if he wanted to ask any more questions, he should put them in writing and they would be answered.

Duncan Campbell, however, began to apply the same pressure to Holford that he had maintained on others he had targeted. He began ringing Holford's place of work frequently, sometimes being very rude to the staff.¹⁶ He then began to say that Holford was refusing to speak to him and finally began to threaten the publication of a story about Holford in an unnamed publication.

Angered by Campbell's tactics, Patrick Holford wrote directly to the *New Statesman*, informing them that Campbell was sending out faxes on *New Statesman* headed paper and asking the editor to tell him if they intended to publish an article about him. He finally found out that Campbell was about to publish a piece in the *Sunday Correspondent*.

Patrick Holford wrote to the *Sunday Correspondent* informing them that if they or Duncan Campbell had any more queries, they should contact him personally. He soon

15 At this time Marks was receiving funding from the Wellcome Foundation on Aids-related research.

16 At the height of Campbell's campaign against me before the publication of *Dirty Medicine*, Campbell rang me 12 times over one weekend, being hectoring and abusive.

got a reply from the editor suggesting a meeting between Holford and Campbell at his offices. Holford took a lawyer and sat for almost two hours answering questions put by Campbell before the editor and his assistant. At the end of this interrogation, in Holford's opinion, everything had been cleared up. The meeting ended on a friendly note, with Campbell suggesting that he and Holford should have a drink together sometime.

Following that meeting, Patrick Holford's lawyer drafted a letter to the *Correspondent* making it clear that as Holford had been open and honest and hidden nothing, they would not hesitate to sue were the *Correspondent* to publish anything libellous.

About two weeks after this meeting, when Patrick Holford was working late at the Institute for Optimum Nutrition, there was a ring on the door. Opening the door, he was confronted by a large man who asked: 'Are you Mr Holford ... Patrick Holford?' When he replied that he was, the man produced an automatic camera from behind his back and began taking pictures while walking into the Institute. Holford struggled to close the door and keep the man out. Even at the last minute, as the door was closing, the man was able to hold his camera round the door. When the door was shut, Holford's heart was pounding. Nothing like that had ever happened to him. He was annoyed that he had let the man get pictures of him looking furtive while struggling to shut the door.

The next day Patrick Holford set off in his car to give a lecture on nutrition at a teaching hospital in south London. When he was stopped at a set of traffic lights, the driving side door of his car was suddenly thrown open and the same man with a camera began taking photographs of him. Holford reported both incidents to the police and the Press Council.

*Phoney health information services and Institutes like Holford's ION abound, most of them scarcely disguised sales fronts.*¹⁷

In December 1989, Duncan Campbell's article entitled 'The Rise of the New Age Pill Pushers' appeared in the *Sunday Correspondent Magazine*.¹⁸ The introduction consists of horror stories and unattributed case histories of people apparently seriously damaged by vitamin and food supplements. Following these horror stories came profiles of the targeted professionals involved in what Campbell claims to be nutritional fraud. Such people appear to be implicated somehow in the previously described horror stories, and more specifically are only involved in health care issues for mercenary motives.

*In the last six months, horrible new frauds have come to light, aimed particularly at AIDS patients. The 'treatments' sold are dangerous. One is a powder called Ecoflorin or Delta Te, whose key, advertised ingredient is food poisoning bacteria. Many patients with ME, allergies, AIDS and other conditions have also been enticed to pay for extremely expensive but nutritionally worthless 'organic germanium' pills.*¹⁹

The horror stories in this article are mainly about those who took a substance called Protexin B. We are told only that Protexin B consists of laboratory cultivated bacteria. A Mrs Harvey from Thetford in Norfolk took it, and testifies that it gave her a real turn. Amongst other things, when she took Protexin B she turned 'yellow like a buttercup. My liver swole (sic) up and my spleen hurt'. Dr Charles Shepherd (who we

17 Campbell, Duncan. The rise of the New Age pill pushers. *Sunday Correspondent*, 3 December 1989.

18 Ibid.

19 Ibid.

will meet again later), medical advisor to the ME Association and, though not stated, a Campaign Against Health Fraud member, who had previously helped Campbell in his campaign against germanium, says of Protexin: 'it's an immoral, worthless hoax'.

Having set a scene which has no relevance to Patrick Holford, Campbell launches into a description of Holford, his work and his Institute. Holford is made out to be a scheming quack: 'The sales methods of the vitamin-pill trade are often subtle. Patrick Holford, who runs the Institute for Optimum Nutrition in Fulham, is one of Britain's most articulate new pill pushers'.

The description of Holford's life and work, and his professional position, is meanly reduced to that of a salesman, a person whose *raison d'être* is the making of money out of vulnerable and sick people. Campbell does not even attempt to engage in a reasoned debate about vitamins and in common with his other articles, 'The Rise of the New Age Pill Pushers' is devoid of intellectual nuances.

*Magazines, books, lectures and training courses provided by the Institute for Optimum Nutrition (ION) can all be shown to be vehicles for promoting and selling Health Plus products.*²⁰

Holford's entire learning experience and expertise are reduced and described in terms of self-publicity.

*Holford describes himself as a 'nutritional counsellor', credited with the 'Diploma of the Institute for Optimum Nutrition'. But Holford awarded the 'diploma' to himself.*²¹

It is of course fairly easy to write this kind of cynical junk about anyone. It is much harder actually to get to the social

20 Ibid.

21 Ibid.

and personal heart of the matter and understand people's attitudes within their social and inter-personal context. Campbell uses the article to make sweeping value judgements about the worth of people's lives. Having reduced Holford to criminal rubble, he quotes Dr Andrew Taylor, friend and colleague of Vincent Marks.

Dr Andrew Taylor ... runs a genuine trace-element laboratory in Guildford as part of the National Health Service. Hair analysis test salesmen, says Dr Taylor, make extravagant claims for their methods. But patients who are told that they suffer from 'trace element imbalance' can be left 'anxious [and] frightened'.²²

Again, while there is an apparent reality to the life and comment of someone who 'runs a genuine trace-element laboratory', there is no such reality to Patrick Holford's opinions. This is despite the fact that Holford would most probably use a 'genuine trace-element laboratory' if he wanted to obtain an analysis, and despite the fact that Patrick Holford does not generally give diagnostic counselling, and so is unlikely to leave anyone anxious and frightened.

Later in the article, Campbell draws on the erudition of CAHF member Vincent Marks and even manages to regurgitate his case against Cass Mann. The article ends with an advertisement for the Campaign Against Health Fraud, and a quote from Caroline Richmond. There is no mention of who funds CAHF, or the fact that Caroline Richmond was working at the Wellcome Trust at that time.

In many of Duncan Campbell's articles, it is possible to glimpse the hard cynicism of CSICOP and HealthWatch. His arguments speak on behalf of a society peopled by pre-packed uniform units which aid production, marketing and consumption. Its inhabitants ask no questions, and forego

22 Ibid.

their personal search for truth because it has all been done for them by the State and its scientists. It is a futuristic world managed by professionals, in which high-technology is the power.

* * *

In July 1990, following the start of his libel action against Duncan Campbell for the article 'New Age Pill Pushers' in the *Sunday Correspondent*, Patrick Holford began a fight back on a number of fronts. In particular, he launched the Campaign For Health Through Food (CHTF). One of the objectives of CHTF was to begin a fund for those who had to fight libel actions. As far as Patrick Holford was concerned, there was no distinction between the struggle against the vested interests in the processed food industry, the struggle to make people aware of optimum nutrition, and the raising of a legal fund which, among other things, would help the Institute for Optimum Nutrition (ION) fight its action against Campbell.

The process of fighting a libel action is complex and protracted. Holford issued his writ in January 1990, as soon as possible after Campbell's article had appeared. The lawyers for the other side delayed presenting their defence to the point where Patrick Holford's lawyer had to obtain an injunction against them, forcing them to do so. The defence turned out to be a 50 page document, which was itself highly misleading and scientifically inaccurate. By July 1990, Patrick Holford had served ION's reply to the defence case.

The Campaign For Health Through Food was set up to focus concern upon a number of damaging developments affecting health foods and natural medicine. Holford was worried both about the attacks upon members of the nutritional community, and particularly concerned about the impending set of new rules and regulations governing vitamin supplements, which were being pushed through the European Parliament by pharmaceutical vested interests.

At the launch of CHTF, Holford put great emphasis on the idea that the campaign would make use of journalists to bring important food and health issues to the attention of the public. He proposed a network of campaign advisors. These advisors were high-ranking experts, including: Professor Linus Pauling, Dr Philip Barlow, Alexander Schauss and Professor Michael Crawford.

Holford stressed that this network of scientists, journalists and doctors and its capacity to raise money for a legal fund, would act as a deterrent against attacks by those representing the processed food industry. The interests of such eminent scientists would ensure that those who mounted attacks while choosing to ignore research material about nutrition could be countered. Holford also discussed Campbell's attack upon him and the grounds upon which he had taken his legal action.

*The Institute has been accused by inference of promoting worthless and sometimes dangerous supplements. On the basis of worthless tests, based upon a worthless philosophy of nutrition, for reasons of financial gain ... These untruthful and unsubstantiated accusations could, we fear, be made against many reputable practitioners who recommend supplements. We are therefore glad that ION has chosen to take this issue to court and establish that optimum nutrition and supplementation is not quackery. We hope that this action will deter future unfounded attacks and thereby protect others for many years to come.*²³

Duncan Campbell attended the Campaign launch uninvited, and inappropriately intervened to make long, rambling and aggressive statements.

²³ Transcript of tape recording of the launch of the Campaign for Health Through Food.

I think it's important that it is made clear to everybody that this campaign is an organisation established by Patrick for purposes which include paying his legal costs.

I am going to ask you to make clear to this meeting that the claims you have made in your literature and letter are extremely misleading.

*The libel case which you are involved in is purely concerned with your reputation, and not with these wider issues.*²⁴

Campbell finally managed to bog down the launch with questions about Holford's libel action and the proximity of the proposed legal fund to Holford's own case.²⁵ Campbell also asked questions about Patrick Holford's links with vitamin companies. Once again, Campbell's tactics reflected the influence of the American National Council Against Health Fraud and activists like Victor Herbert.²⁶

In October 1991, the *Sunday Correspondent* closed down and, concerned to settle any pending action before going into liquidation, they settled their case with Patrick Holford. In the latter half of 1992, Campbell, deserted by the *Sunday Correspondent's* solicitors, was still determined to defend the case brought against him. He was, though, complaining that Patrick Holford had not given him an opportunity to settle.²⁷

* * *

24 Ibid.

25 In fact, none of the money raised by the Campaign For Health Through Food was used to fund Patrick Holford's libel action.

26 Victor Herbert, in his extensive writings, portrayed the health-food industry as a form of organised crime, and characterised its leading figures as 'the quackery mafia'.

27 Extracted from: Martin J Walker. *Dirty Medicine: Science, big business and the assault on natural health care*. Slingshot Publications. London 1993.

When I published *Dirty Medicine* in 1993, Campbell did his best to stop it from being printed, published and distributed. As far as I was concerned, this came with the territory, and as far as Campbell was concerned, it was par for the course. More frightening, I felt, were the number of journalists and uninvolved colleagues of Campbell's who were adamant that what I had written about him was at worst lies and at best without any foundation. They seemed to be saying that there was no place in reporting for the descriptions of the kind of organisations and campaigns that my work had thrown up.

In fact, I had always been completely objective in my reporting of Campbell's actions and his journalism.²⁸ All around me, those who were subject to attacks in this period were scornful of my objectivity, they worked themselves up into a lather, insisting, despite the absence of evidence, that Campbell was working for the Wellcome Foundation (the drug company not the Trust). I didn't believe that Campbell was working for a drug company; I believed that his commitment was borne out of his regard for science and the capacity of scientists to find a 'cure' for HIV and 'AIDS'.

When Dr Roger Chalmers and Dr Leslie Davis were brought before the General Medical Council (GMC), and struck off for life, after providing Ayurvedic treatments to patients who tested positive for HIV, the case against them was based almost entirely on Campbell's evidence and Campbell himself gave evidence. What did not become clear until a later date, when Campbell wrote in the *BMJ* about the need for a 'Medical MI5',²⁹ was that Campbell had been

28 This was despite the fact that he publicly stated that I was paid by the pharmaceutical companies, that I told lies, wrote untruths and on one occasion described me as part of shady and criminal conspiracy.

29 Campbell, Duncan. Medicine needs its MI5. *BMJ* 1997;315:1677-1680 (20 December). This article argued that the GMC needed more competent and deeply penetrating investigators to report doctors who were unfit to practice. Unfortunately, Campbell was not here referring to cases of those such as Harold Shipman, where a medical doctor had murdered his patients, but to mainly alternative practitioners whose therapeutic practices questioned pharmaceutical company control of general practitioners and Hospital medicine.

helped in assembling the legal case against the two doctors by Medico Legal Investigations (MLI). MLI is a private inquiry agency, a shadowy intermediary body, which helps to bring pharmaceutical industry business before GMC hearings. This organisation had helped to prime Campbell with information about his journalistic targets.

In the 1990s MLI was subsidised entirely by the Association of the British Pharmaceutical Industry (ABPI). The company, which now has one partner with a background in military intelligence and another from Scotland Yard, considers its brief on behalf of the ABPI to include the policing of 'research misconduct'. At the time that Campbell worked with its people, they were almost solely responsible for putting together professional misconduct cases *of their choosing* for the GMC. These cases were, on the whole, ones that somehow threatened the pharmaceutical companies, not ones that were built upon patient complaints against doctors. More recently, the agency has given advice to Brian Deer, the sole complainant in the case of Dr Andrew Wakefield, who began an appearance before the GMC, with two other doctors, in July of 2007.³⁰

Patrick Holford was not a doctor and so the strategy of getting him struck off the Medical Register was never an option. When in the mid-Nineties Campbell cut short his foray into the science underworld, British quackbusters had no one of his calibre to take his place. Between 1996 and 2003, nutritionists in Britain who believed that pure food, vitamins and other supplements could benefit health, had an almost level playing field on which they could present their ideas.

However, waiting in the wings was a much more dangerous lobby. The CAHF had proved to be too amateur in its organisation, and Big Pharma needed something more powerful and better connected to government to keep health's nether regions in check. The Department of Trade and Industry, which controlled the grants to the Medical Research Council and some University scholarships among other

30 See: www.cryshame.com

things, began to orchestrate attacks on vitamins, supplements and all matters ‘alternative’, while defending high-tech science in relation to food and medicine.

In 1997, the DTI fell under the malign leadership of Lord Sainsbury, the Liberal peer who had donated over four million pounds to the New Labour election campaign, before being made a peer and whose business interests were deeply involved in genetic modification.³¹

In the background, the heavier weaponry of Codex Alimentarius and EU regulations were being trundled into place. Even further in the background, however, the whole British ‘quackbuster’ operation was being redefined by a group of Liberal peers and members of the late Revolutionary Communist Party.³²

In 2003, the new anti-quackery, pro-industry campaign, which I have throughout this essay called The Lobby, was in place. Its new-model Campbell, trade-named ‘Goldacre’, came on stream. Ben Goldacre, an apparently practising medic with next to no experience in journalism, was given a plum job on the *Guardian*, a newspaper that in the eyes of the science lobby, had been responsible for exposing the Dr Puztai affair and dealing a mortal blow against Sainsbury’s pro-GM lobby.

All the more interesting, then, that the *Guardian*, a paper which, over the years, has turned steadily in support of multinational corporations, should give the untried Goldacre a prominent place on its pages. His ‘Bad Science’ column quickly became an influential

31 Sainsbury left the Government, and the DTI, almost silently in 2006 just before Blair left power. He was undoubtedly one of the main beneficiaries of Blair’s cash for honours scam and one of the main architects of New Labour. Despite Brown’s well kept pledge to shut down the DTI, Sainsbury is still in with New Labour; in 2007 he donated over £1M to help Brown keep the governing party afloat.

32 Yes, I know, unbelievable, isn’t it? See this author’s *Brave New World of Zero Risk*, the writing of George Monbiot and the GMWatch web site.

springboard for the anti-quackery, pro-industry, drug company movement now so familiar to large numbers of irritated *Guardian* readers.

This new model Campbell, did not have Campbell's native intelligence, nor did he show the maniacal aggression that was Campbell's trademark. However, all the superficial make-weight arguments, the scientific falsifications, and the hand-carved character assassination built in to all quackbuster production models, were there in the mischievous campaigns ignited by Goldacre. And, inevitably, all the same targets were set up to be knocked down; Patrick Holford's peace was about to be shattered.

PART II

The Return of a bad bug

People say it's a sin to feel too much within.

Bob Dylan¹

The social structure of quackbusting in Britain has undergone manifold changes since its first organised appearance in 1988 with the Campaign Against Health Fraud (CAHF).²

It looks very much as if the quackbusting movement has learnt lessons from its early and more amateur forays into name-calling attacks on progressive environmental and alternative health organisations. One of these lessons has been not to get too personally involved, as did Caroline Richmond and Duncan Campbell in the early days of HealthWatch. Another contemporary lesson is to righteously declare – at least exposing in part – the corporate funding for pre-eminent groups and institutions.

The North American quackbusting experience has seen many splits and divisions in the National Council Against Health Fraud, mainly as a consequence of the need to avoid liability in legal actions taken against it.

1 Bob Dylan. A Simple Twist of Fate from *Blood on the Tracks*. Sony Music Entertainment Inc. 1975.

2 For its early history see *Dirty Medicine*.

In Britain, the reverse of this process has occurred. After CAHF's first unsuccessful attempt to become a quackbusting agency within the Department of Health, its days were inevitably numbered. Without clear operational links to government, or substantial funding from corporations, it was powerless as a lobby and *ersatz* regulatory agency.

In 1997, New Labour, while ditching its working-class and trade-union base, brought to power a rag bag of former Liberal and Social Democrat Party workers, many of whom had been deeply involved in public relations for the pharmaceutical industry and other multinational concerns.³ The time could not have been better for the development of pro-corporate-science lobby groups⁴ and little conspiratorial cabals, which wanted to defend science technology while attacking alternative medicine and everything – as they saw it – irrational.

Perhaps the two most instrumental new peers of 1997/1998, were Dick Taverne and David Sainsbury (let's not bother using their anachronistic titles, let's just call them Dick and Dave like the East End music hall act that they have been). Dick had been a member of the Labour Party in the 1980s, before deciding that the unions and Militant Tendency, were a malevolent leftwing force that was gaining power and taking over. On his resignation, he took up working with Dave in the Liberal Democrats, a group heavily influenced by Labour defectors. 'Outside' of politics, Dick pursued his professional occupation as an executive of an influential PR company with pharmaceutical industry clients.⁵

Both Dick and Dave were given peerages around the time of Labour's victory, and both embedded themselves with considerable

3 The early manifestation of this link-up with industry, Lobbygate, blazed a trail into the public consciousness within months of Blair coming to power, it's exposure didn't, however, appear to change the basic practices of New Labour in which an intimate clinch with industry was an essential aspect. See Greg Palast, *The Best Democracy Money can Buy*. Constable and Robinson Ltd. London 2003.

4 Ibid, Palast.

5 Op. cit. *Brave New World of Zero Risk*. Available on www.Zero-risk.org.

influence within the Lords and the Government, and, when Tony Blair came to power, Dave took up the post of head of the Department Trade and Industry (DTI). Profits from his biotech companies and trusts were placed in a 'blind trust' so that personal control and profit from them was suspended – well that was his story, anyway. On entering the Lords, Dick immediately moved onto the Parliamentary Science and Technology Committee.

From the time of Dave's appointment, the Department of Trade and Industry was taken over by industry and its lobby groups. In the Lords, Dick worked hard to set up the organisations to relay corporate propaganda from Dave's office to parliamentarians, and from there to organisations and individuals of influence.

Dave's department also held the brief for all the 'science' research councils, and so from 1997, such organisations as the Medical Research Council (MRC) also became infected with the radical Liberal agenda, which put industry, its PR and lobby groups in the driving seat of government.

One of the earliest signs that Dave was in bed with the enemies of democracy was the secretly-instituted but later well-publicised meetings with representatives of Monsanto, who wanted to introduce GM crops to Britain.⁶ A less well-publicised dirty tricks campaign ensued around the B complex vitamins. A specific group was set up within the DTI to rubbish the idea that B vitamins were helpful, especially to

51 *The Independent: The Independent* can reveal that Lord Sainsbury held a confidential discussion with three Monsanto executives in his private office at the Department of Trade and Industry on 14 December, three weeks after he attended the first meeting of the Cabinet's new Ministerial Group on Biotechnology and Genetic Modification - known as the Misc 6 committee. His meeting with Monsanto, attended by civil servants, raises fresh concerns about the extent of his role in dealing with GM issues within government and the potential conflict with his private business interests. The day after the Monsanto meeting, Lord Sainsbury chaired a government-sponsored biotechnology seminar with consumer associations, environmentalists such as Friends of the Earth, and one of the Monsanto officials he had met the day before. (Steve Connor, Sainsbury in talks with Monsanto. *The Independent* March 8, 1999).

women's health, PMT and the menopause. Although this campaign and, for instance, the presenting to the House of Commons of fake research data about damage done by B6, can be traced, the reason for setting up the campaign remains obscure. Some have suggested market competition to anti-depressants and specific pharmaceutical treatments for PMT and the menopause could have been behind the campaign.

Aided by these two industry influential peers, some of the most important cultural and academic institutions in Britain were completely corrupted. Dick and Dave were responsible for formulation and organisation of a whole new anti-environmental, pro-science, pro-industry, lobby group, which within a short time, in a classic scenario from the film *The Body Snatchers*, had replicated and merged with the older quackbusting structure.

The history and development of the campaign to introduce GM food while bypassing any democratic or accountable processes, is well recorded by Jonathan Matthews, George Monbiot and the GMWatch web site.⁷ A summary of the progress of this Lobby can be bullet pointed in the following way:

First: A major campaign in the late Nineties and early part of the 21st century to radically redefine and censor science reporting in the media. The lobby groups drew up a regulatory charter, *Guidelines on Science and Health Communication*. Without any statutory authority at all, the lobby demanded that newspapers and other media follow these guidelines.⁸

Central to this set of guidelines was the idea that non-scientists should not be allowed to write about science or report on science matters.

7 Then in relation to medicine, rather late in the day in my book, *Brave New World of Zero Risk*.

8 Consider the title of the document *Guidelines on science and health communication*, and the problem comes immediately into sight. In the body of the *Guidelines*, it becomes clear that what the title should read is, *Guidelines to enforce a corporate scientific construct on health communications*.

At one end of the scale, this meant that newspapers should stop reporting any personal stories of those who had faced illness either with alternative therapies or without pharmaceuticals. At the other end of the scale, it forbade popular science journalists and qualified social scientists from writing, for example, about alternative medicine, whatever their background. This campaign also involved the placement or the taking-up of certain journalists and DTI-backed ‘scientists’ in some media. This was particularly the case with the BBC.

Second: An ongoing campaign organised on a military level and begun inside the DTI, to bring, without consultation, GM crops and other GM products to Britain. Groups organised by the DTI were set up within the Royal Society and in the Royal Institution. Leading, corporately-funded academics were embedded in these campaigns, bogus stories were planted in the press, attacks and campaigns against individual scientists who came out even slightly against corporately backed research or products. The most important victim of this conspiracy was Dr Arpad Puztai.

- *Consequence one:* Two major pro-corporate science lobby organisations were set up: Sense About Science and The Science Media Centre.
- *Consequence two:* Within five years of these organisations coming into being, the major actors in Sense About Science and the Science Media Centre had assumed control of HealthWatch. Today, HealthWatch is a much stronger, more professional organisation having been gifted the power and, no doubt, funding of these new lobby groups.⁹
- *Consequence three:* The most powerful interests to have come together in all these structural groupings were: The Cabinet Office, the DTI and Members of the previously named Revolutionary Communist Party, now embedded in a number of

⁹ It is clear from this that the Campaign Against Health Fraud was, from the beginning, a lobby organisation working on behalf of the pharmaceutical and other corporate interests.

influential policy organisations; Liberal peers who had shaped New Labour and ensured that there were no ‘working class’ or radical elements within it; heads of major industries, the ABPI, the Royal Society, the Royal Institution, the BBC and a number of specific journalists.

PART III

The Placement

I offered up my innocence, I got repaid with scorn.

Bob Dylan¹

I have chosen in the main not to argue the science of the issues approached in the following section of this essay. The object of the essay is not to argue the correct position on the issues raised, but to describe the position argued by Goldacre and his skeptic friends,² and so place him within an understandable area of social campaigning and power.

Away from specific issues of science, thinking sociologically, it is easy to comprehend the linkage between HealthWatch, Sense About Science, the Science Media Centre and industrial chemical and pharmaceutical interests, without viewing secret documents or finding whistle blowers. All refute multiple chemical sensitivity; all refute ME and CFS as organic illnesses. All support the government stand on the total safety of MMR. There is an absolute denial of damage done by MMR – in fact, of any adverse reactions to any pharmaceutical products. Electro-magnetic fields (EMF) do not damage health. None of the organisations or individuals accepts nutritional ideas that might

1 Bob Dylan. Idiot Wind. From *Blood on the Tracks*. Sony Entertainment Inc. 1975.

2 When describing members of, or organisations devoted to the ideology of the Skeptic movement, I have used the word that they use spelt with a 'k'. When I have used the word sceptic to describe a person or a view not associated with the Skeptic movement I have used the proper spelling.

conflict with pharmaceutical medicine. All characters and organisations are vehemently against homoeopathy. All complementary and alternative medicine (CAM) is said to be quackery.

All characters and organisations are in support of in vitro fertilisation and other new reproductive technologies. All believe that the media have to be stopped from publishing *irrational* information. GM technology and all other high-tech ‘advances’ such as head transplants are to be encouraged, and even forced upon, a reluctant population.

After almost 20 years of studying quackbusters, two things are clear to me. First, whatever the public appearance or acknowledgement, they are usually in touch with each other, and behind their front of independence they toe a clear collective line. The classic example of this is ‘Professor’ Edzard Ernst, who, while being described as Britain’s only professor of complementary medicine, is better described as a fully-paid-up quackbuster linked to HealthWatch and the Committee for Scientific Investigation of Claims of the Paranormal (CSICOP), the leading US skeptics organisation. Anyone who attended CSICOP’s 15th Annual ‘conference’ in London, would have heard him introduced by Paul Kurtz, the founder and principle member of CSICOP, to present the most puerile anti-CAM presentation, which left the cheering audience in no doubt about on which side he was.

In quackbusting circles, you can certainly tell a man, or a woman for that matter, by the company they keep, and this is clearly true of Goldacre. The next section of this essay looks at some of his views and received opinions, while pointing out who else shares them. For those who consider that this is ‘guilt by association’, I can only agree. If, however, we consider the views directly expressed in his writing as ‘evidence’, we are dealing with something more than association. Anyway, I have always had a relatively common-sense approach to these matters: if it cocks its leg against a tree to piss, barks and sniffs round bitches, it’s probably a dog.

* * *

The post-industrial world is quite unlike the industrial world. During the Cold War, and for almost half a century before that, agents were trained and put in place to counter and fight ideologies. In the post-industrial world, it is not ideology that is fought over, but markets, the advancement and then stabilisation of industrial production. The New World Order does not have an ideological agenda that dare speak its name; ultimately, it simply wants to control absolutely the means of production and to make maximum profit. The post-industrial power needs to move people around at will, to turn individuals into drones and to ensure the uninterrupted development of production.

Today's covert organisations and agents, such as the CIA in North America, are turning their intelligence to defend industry and, most importantly, the pharmaceutical, biotech and weapons industries. It is unremarkable, then, that the DTI, while acting in defence of industry, has also moved likely candidates around, giving them a training and embedding them, or emplacing them in sensitive areas to continue the war for the control of high-technology production.³

BEN GOLDACRE, IN HIS OWN WORDS AND THOSE OF HIS FRIENDS

Ben Goldacre is 33, a medical doctor whom it is said works as a junior doctor in a London hospital. He is also a journalist penning, since 2003, a weekly 'Bad Science' column in the *Guardian*.

He studied medicine at Magdalen College, Oxford, where it is said he edited the student magazine *Isis*. He left Oxford in 1995 with a First. He was an honorary lecturer for a year, at the University of Milan, apparently doing research at the same time into neuroimaging on MRI brain scans, examining language and executive function.

³ Some of the early participants in the Campaign Against Health Fraud, like Caroline Richmond, obviously had a great deal of help being pulled out of their hum drum lives to fight for industrial science on the front line. One of the most spectacular cases of the DTI moving and embedding a science agent in a PR campaign is the case of Rebecca Bowden (Appendix Eight) whose story is told in *Brave New World of Zero Risk*.

Following this, he studied clinical medicine at University College London (UCL) graduating as a doctor in 1998. He claims to have paid his way through medical school by repairing vintage 1970s analogue modular music synthesisers.

After working for a short time as a registrar, he was funded by the British Academy to do a Master's degree in philosophy at King's College, University of London.

Goldacre is often self-deprecatingly modest when describing himself, although he is always at pains to stress his serious academic credentials, describing himself on his web site⁴ as 'a serious fcuk-off academic ninja'.

Goldacre is, he says, a shameless geek⁵ who has always looked like a boy rather than a grown adult. In photographs he has the naïve, punky look of a television chef. One blurb says that he 'appears regularly on Radio 4 and TV while attending obscure geek science and arts events. He is usually ranting about the public misunderstanding of science. He cycles everywhere and eats his greens.' Oddly enough, this is almost an identical persona to that which Duncan Campbell projected during his years as a quackbuster.

Goldacre's 'Bad Science' column in the *Guardian* claims to 'debunk pseudoscientific nonsense in cosmetics adverts, alternative therapies, and flaky media science stories'. The column is disarming-

4 www.badscience.net.

5 At the kindest, this is defined as: 'an enthusiast or expert especially in a technological field or activity,' or 'The definition most common among geeks themselves is: "one who is primarily motivated by passion," indicating somebody whose reasoning and decision making is always first and foremost based on his personal passions rather than things like financial reward or social acceptance. Geeks do not see the typical "geeky" interests as *interesting*, but as objects of passionate devotion. The idea that the pursuit of personal passions should be the fundamental driving force to all decisions could be considered the most basic shared tenet among geeks of all varieties. Geeks consider such pursuits to be their own defining characteristic.' At its worst, however, the appellation could mean a circus geek — performers at carnivals who swallow various live animals, live insects, and so forth. Sometimes this (*cont.*)

ly subjective, and often Goldacre publicly ‘wonders’ and ruminates, giving glimpses of an attractive but phoney uncertainty.

He has, his publicity claims, won numerous awards,⁶ including ‘Best Freelancer’ at the Medical Journalists Awards 2006. Goldacre recently won ‘best feature’ at the Science Writers awards, for the second time. He has also received the HealthWatch award for ‘significant steps in improving the public's understanding of health issues’.

His writing in the *Guardian* is described in these terms on Wikipedia:

Devoted to satirical criticism of scientific inaccuracy, health scares pseudoscience and quackery, it focuses especially on examples from the mass media, consumer product marketing and complementary and alternative medicine in Britain. He has been a particular critic of the claims of TV nutritionist Gillian McKeith, anti-immunisation campaigners, Brain Gym, bogus positive MRSA stories in tabloids, and the makers of the product Penta Water; to name just a few.

* * *

Perhaps one of the reasons Ben Goldacre can appear to be so many things to so few people is that he has, at the time of writing, an agent within PFD – although recent turmoil and mass walk-outs within that agency may change that. Agents, it seems, can clearly work wonders for doctors who are journalists and scientists but who are rarely published; one wonders, does his agent get him patients?

Dr Ben Goldacre rarely draws attention to the fact that he is a

5 (*Cont.*) would extend to biting the heads off of snakes, chickens, or other living animals. We leave it to you to decide what Ben means by being a Geek; one alternative is definitely ruled out, that of being ‘A person with a devotion to something in a way that places him or her outside the mainstream. This could be due to the intensity, depth, or subject of their interest.’ Goldacre is never outside the mainstream but always embedded deep within it.

6 ‘Numerous’ is here used to mean 4, which says something about Goldacre’s approach to the science of mathematics.

medical doctor, nor does he ever discuss, even in the most general terms, patients with whom he has come into contact, in the way that, for example, James Le Fanu does in his intelligent *Sunday Telegraph* column.⁷ In fact, nothing Goldacre says seems to be grounded in everyday life, the condition of ‘ordinary people’ or the public at large.

Despite claiming to spend most of his life working in the NHS, he is circumspect about which London hospital he works in and what kind of medicine he practises. For someone who spends considerable amounts of time criticising those who practice non-allopathic medicine, for example nutritional practitioners, he might, one would think, make more of his NHS position.

The following comment from Goldacre appears to be a purposeful red herring, or was it just a slip of the pen?:

*There's no way that alternative therapies will ever be accepted into the mainstream, not because of any kind of ideological objection that empiricists like me might have to alternative therapies, but simply because you can't do alternative therapy on the NHS. Alternative therapy is about people paying money to have somebody spend a lot of time listening to them talk about their problems, and however much I might think that's a great way to spend your time as a healer, **however much I would love to do that in my own practice**, it's simply not possible on the NHS.*

Sorry? ‘In my own practice’. And there was I thinking that Goldacre was a junior hospital doctor. Perhaps he meant – *however much I would love to listen to patients, it's simply not possible in the hospital in which I work* – that would seem about right.

Although Goldacre claims not to be an activist of any kind, he does leave, scattered around, clues about his politics. He is apparently a Statist New Labourite who believes in the centralised public NHS. He never talks about the corporate interests with which he

⁷ Le Fanu was one of the original members of the Campaign Against Health Fraud. He has, however, grown considerably in his stature and independence as a journalistic commentator since resigning from them. Dr James Le Fanu writes a column in the *Daily* and *Sunday Telegraph*.

sometimes rubs shoulders, so we have to take it for granted that he is happy with the gradual privatisation of the Health Service which has taken place under New Labour.

Despite a definite circumspection about his politics, Goldacre is reported as having taken part in the Easter 2004 march from Trafalgar Square to AWE Aldermaston as part on the CND demonstration against Britain's investment in nuclear weapons. He has also spoken at 'broad left' conferences.

In 2006, he spoke at the annual conference of Compass,⁸ which calls itself 'the democratic left pressure group', the membership of which is primarily made up of Labour Party members. Its 'radical' policies seem to come mainly from a Fabian perspective. During the conference, Goldacre was speaking alongside individuals such as Natasha Walter of the *Guardian*, other speakers supported by Demos, and Steven Rose and Jim Giles from *Nature*, holding forth about Science, Technology and Everyday Democracy.

One of the sessions, organised by Demos, was titled, 'How can we make Britain more equal?' and was run by the Fabian Society. The speakers included Ed Miliband MP, Parliamentary Secretary to the Cabinet Office; Carey Oppenheim, chair, London Child Poverty Commission; Louise Bamfield, lead researcher, Fabian Commission on Life Chances and Child Poverty; Martin Bright, *New Statesman*; and Sunder Katwala, general secretary, the Fabian Society.

The politics of these groups is, in general, in the direction of support for the EU. It is the liberal strand from which, Peter Mandelson, Dick and Dave and others came, and out of which, eventually, Sense

8 From the Compass web site: 'Compass is the democratic left pressure group, whose goal is to debate and develop the ideas for a more equal and democratic world, then campaign and organise to help ensure they become reality. We have over 2,000 members across the UK. The organisation was launched in 2003 with the publication of our founding statement *A Vision for the Democratic Left*. It was the first stage in a process to develop a more coherent and radical programme for a progressive left government'.

About Science and the Science Media Centre developed.

* * *

By 2006, Goldacre had propelled himself with some speed from a rather boyish medic, who didn't appear to take his Saturday column in the *Guardian* that seriously, to an ace investigative reporter; a kind of Lewis Hamilton journalist career. He appeared at the Centre for Investigative Journalism summer school, side by side with some of the world's great investigative journalists.

On the afternoon of Sunday July 23, for three-quarters of an hour he gave a presentation entitled 'Evaluating Experts 3: Bad Science'. His colleague – and he must have needed one, just in case someone had asked after his experience – was Brian Deer. Deer is the journalist who has headed up the campaign supporting the government and the ABPI against Dr Andrew Wakefield. Deer's 'evidence', contained in two articles in the *Sunday Times* and a Channel 4 'exposé', constituted the only complaint to the GMC against the three Doctors, Andrew Wakefield and Professors Simon Murch and John Walker-Smith. The complaint triggered the longest investigation in the history of medical jurisprudence by the GMC. This in turn resulted in the laying of charges against the doctors before a Professional Conduct panel, and then the second longest trial in the history of British jurisprudence; it began in July of 2007 and is not due to finish before September 2008.^{9,10}

There is, of course, no doubting Deer's credentials, although the biographical description of him at the summer school might be ever so slightly grandiose. We might not go quite as far as recognising him, as did the British Press Award judges, as 'probably the only journalist in Britain that polices the drugs companies'. We might, as well, see a

9 For an account of this ongoing hearing go to www.cryshame.com.

10 In 1996, the McLibel case that had by then run for 292 days, overtook the previous longest trial of any kind, the Tichborne personation case. The McLibel trial went on the last for two and a half years.

scintilla of hyperbole in the statement that it was Brian's reporting that led to the break-up of the Wellcome Trust and its drug producing Foundation, then ultimately to the take-over of the drug company by one of its rivals.

But what about Ben Goldacre and how did he get invited to speak in such exalted company? You have to admit, it does sound a little like journalistic quackery, or is it just junk journalism?

* * *

The above summary biography, lends Goldacre some stature and a reality that begs one to believe in him as a man with a mature and experienced view of the practice and theory of science in which he has a profound philosophical belief.

However, compared to other science correspondents, Goldacre is a decidedly empty vessel; his academic record is very ordinary, reaching only to an MA – and *that* not in any area of practical working science but in philosophy.

Despite his claim to be a serious academician, and despite the fact that a number of his PR puffs say that he 'has published academic *papers* in neuroscience', there is no record on the significant data bases of his having co-authored more than one academic paper, apparently written while he was a visitor at Milan University. The only way in which academic status can be measured is by the number of peer-reviewed papers or other notable publications such as books. It should be pointed out that the engorgement of un-provable academic credentials is one of the major points of criticisms he addresses when writing his quackbusting articles.

If, as we shall do below, we look more deeply into areas in which he professes to have experience and knowledge, and if we also look at his extra-academic 'awards', we can discern with some clarity, not only that he is an academic lightweight, but that his arguments lack creativity and are expressed almost completely on the side of industrial science. But perhaps more importantly, Goldacre is locked into a

web of vested interests that are never mentioned in the *Guardian* newspaper.

I have begun the discussion below about the orientation of Goldacre's most clearly propagandist views, with a look at the 'awards' which he is proud to have been given since he began work on the *Guardian*. Unlike academic laurels, these awards do not have to be worked for and are not independently assessed. If one wanted to create a character with apparent academic plausibility, who in truth had little academic standing and seemingly no interest in producing high-standard academic or clinical work, one might give them awards.

THE REAL BEN GOLDACRE: LIFE AND WRITING

According to Goldacre, he began getting awards early in his career. In 1998 while working as a pre-registration house officer (not registered with the GMC), having just graduated from UCL, he was, he says, awarded the 'Roger Hole Essay Prize in Medical Scepticism'.

He was awarded the prize apparently by Lewis Wolpert, and Professor Souhami;¹¹ the prize was £250 and a signed certificate. Both Wolpert and Souhami have been consistent skeptics over the past two decades. Professor Souhami flirted with the initial Campaign Against Health Fraud, as part of its cancer strand.

I have found it impossible to find any reference to the 'Roger Hole Essay Prize in Medical Scepticism',¹² but if it exists at all, it is probably some little quirkery of skeptics at UCL, where Goldacre finished his medical training.

11 Wolpert and Souhami are both long time Skeptics. Dr Southami was involved in the cancer strand of the original Campaign Against Health Fraud.

12 Roger C. Hole is the corrupt mayor of Liberty City up until his assassination in Liberty City Stories. Grand Theft Auto. Liberty City Stories was the first GTA game released for the PlayStation Portable. Set in Liberty City in 1998. R.C. Hole's full name, when pronounced with two of his first names in initials, sounds like 'arsehole.' (From Grand Theft Wiki, a site all about GTA that anybody can edit).

University College London contains a whole nest of quackbusters and skeptics. The UCL Pharmacology Department, that inevitably has close links to some pharmaceutical companies, is presently headed by Professor David Colquhoun FRS, a leading skeptic and quackbuster; of whom more later.

London University also claims Dr Scott Campbell's Philosophy Programme at the School of Advanced Study. Campbell's full-time job is at the University of Nottingham in the Department of Philosophy. Alongside his academic achievement, Campbell takes pride in his work as a skeptic: 'He has been active in organised scepticism, and was for a number of years on the National Committee of the Australian Skeptics. He helped to organise and run the 2000 Skeptics World Convention at Sydney University. He also created the *Skeptics in the Pub*¹³ night in London, and ran it in 1999 and 2001.'

The Magazine of the British sceptics, *The Skeptic*, has its offices right next to University of London at 1, Gower Street¹⁴ (Appendix Three.)

The meeting of the *Skeptics in the Pub* for January 2006 presented Dick Taverne talking about Sense About Science. The occasion gave one apparent first-time attendee, Damien Morris, considerable food for thought. In his view, Taverne was not really representative of skepticism but more a representative of corporate lobbyists.¹⁵ In an open letter to *The Skeptic*, Beware the Ambassadors of Science,

13 They say: SKEPTICS IN THE PUB takes place Upstairs in the Florence Nightingale pub, 199 Westminster Bridge Road, London, SE1, U.K. Junction with York Road, on the roundabout. Near Waterloo station. Guest ales and food available. Non-skeptics welcome. You can turn up at any time during the night. The talk will be followed by informal discussion in a relaxed and friendly pub atmosphere.

14 They say: *The Skeptic*, 'the UK's only regular magazine to take a skeptical look at pseudoscience and claims of the paranormal. Founded in 1987 by Wendy Grossman, the magazine is now co-edited by Professor Chris French from the Anomalistic Psychology Research Unit, Goldsmiths College, London, and Victoria Hamilton. It is a non-profit magazine published four times a year, available only by subscription. An invaluable resource for journalists, teachers, psychologists ...'

Damien wrote a sceptical if not acerbic letter to his fellow skeptics. For its clear thinking and analysis, this letter is worth reprinting (Appendix Two).¹⁶

Inevitably, Dick's reply to Morris in the *The Skeptic* is not worth summarising, let alone repeating. Its first paragraph, however, shows us how seriously Sense About Science and the whole science and GM lobby felt about Monbiot and the *Guardian*.

It is hard to know where to begin my answer to Damien Morris, whose attack is a mixture of misrepresentation, smear and inaccuracies. It relies for its information partly on GMWatch and on a Guardian article by George Monbiot, who both argue on the basis of guilt by association, a well-known McCarthyite technique. Monbiot is obsessed by the wickedness of capitalism.

Goldacre won a British Science Writers (BSW) award, in 2003, the very year that he began working for the *Guardian*. At this time, the BSW was funded by MMR manufacturers Glaxo Wellcome and called the Glaxo Wellcome BSW Award – perhaps there is something in this for these corporations, or am I just a conspiracy theorist?

The 2003 Awards were presented at The Royal Society, London, by Pallab Ghosh,¹⁷ Chairman of the Association of British Science

15 Lord Dick Taverne set up Sense About Science in the same year he attended the annual Bilderberg meeting. Other British personalities involved in organising the Conference or simply attending that year were Lord John Sainsbury of Preston Candover, brother of David; Martin J. Taylor, one of Blair's closest advisers, on finance and the Public services. Taylor has attended many meetings of the Bilderberg Group and served as Secretary General for several years. Taylor was a member of the Parliamentary select Committee for Science and Technology for five years, where he would have worked with Taverne, a leading member of the Science and Technology Committee in the Lords. Taylor is part of a group called 'New Europe', which includes Lord Sainsbury of Preston Candover and a number of other British Bilderberg attendees. *Just ask yourself, can a skeptic really be sceptical if he attends Bilderberg meetings?* (Author's italics).

16 24 January 2006. *Beware The Ambassadors of Science*.

Writers, Science Correspondent for BBC News, and Dr Alastair Benbow, Vice President and European Medical Director of GlaxoSmithKline.¹⁸ Oddly enough, Pallab Ghosh has been consistently involved in Sense About Science from its inception. As Chairman of the ABSW he is in contact with its President, Dame Bridget Ogilvie, who is also Vice Chairman of Sense about Science.

Having launched himself on a journalistic career while apparently still keeping his clinical hand in, Dr Goldacre was again a winner in 2005 of the Association of British Science Writers Award (ABSW), hosted then by Syngenta. Syngenta is a world-leading agribusiness and producer of GM crops. It ranks third in the high-value commercial seeds market. Sales in 2005 were approximately \$8.1 billion.

The winners were announced at The Royal Society, London, hosted by Dr Ted Nield, Chairman of the Association of British Science Writers, and Martin Taylor, non-executive Chairman of Syngenta. Taylor and Dick Taverne are both Bilderberg attendees. The Bilderberg group is a world government in waiting, which organises the future global economy at its restricted but increasingly less than secret meetings.

The Judging Panel for the 2005 Awards was comprised of 10 scientists, a number of whom had connections with Sense About Science. In fact, Lord Dick Taverne was another award winner that year; I wonder if Goldacre spoke to him?

Goldacre received the HealthWatch award in 2006. The four Patrons of HealthWatch now include the Baroness Greenfield,¹⁹ OBE, head of the Royal Institution and a member of the Science Advisory

17 See the GM Watch site: Pallab Ghosh - a GM WATCH profile, <http://www.gmwatch.org/profile1.asp?PrId=203>

18 Glaxo Smith Klein were the pharmaceutical company responsible for importing and distributing MMR and were defendants in the claim made by parents of children damaged by this vaccine.

Panel of the Science and Media Centre, and Dick Taverne, founder and head of Sense About Science.

HealthWatch web links now include the American Council on Science and Health, Bad Science – Ben Goldacre's weekly column in the *Guardian*, the Cochrane Collaboration, CSICOP Committee for the Scientific Investigation of the Paranormal,²⁰ Dieticians.co.uk – the web resource for UK dieticians –, HFEA – Human Fertilisation and Embryology Authority –, Institute of Nanotechnology, James Randi's home page, National Council Against Health Fraud (USA), Ontario Skeptics Society, Quack-Files, Sense about Science and the Social Issues Research Centre²¹ (Appendix Five).

Previous recipients of the HealthWatch Award are predictable, they include: 1994 Petr Skrabanek, awarded posthumously; 1996 Sir Richard Doll, for his outstanding leadership over 50 years in clinical epidemiology;²² 1997 Annabel Ferriman, for her excellent medical journalism;²³ 1999 Bernard Dixon, one of the founders of the British branch of CSICOP;²⁴ 2001 Claire Rayner; 2002 Professor Michael Baum,²⁵ and in 2005 Professor Edzard Ernst, for his honest (sic) appraisal of CAM.²⁶

19 Her publicity says: The Baroness Greenfield is the first female director of the Royal Institution and a passionate populariser of science. She presented BBC2's *Brain Story* as part of her mission to explain the brain 'in a way that makes sense to everybody.' She is a neurologist by training and is Professor at Oxford where her research focuses on Alzheimer's and Parkinson's disease. She set up the research drug company Synaptica, to patent a novel use for a chemical in the brain.

Interestingly she elected to say 'I'm not a maverick' – (Like Dr Andrew Wakefield) in one of her recent interviews.

20 For information about ACSH and CSICOP, see *Dirty Medicine*.

21 See: *HRT Licensed to Kill and maim: The unheard voices of women damaged by hormone replacement therapy*. Slingshot Publications. 2006.

22 See *AJIM*, Secret Ties, Hardell *et al.* 2006, for background on Dolls under-the-table money from Monsanto.

23 Ferriman was heavily involved in journalistic attacks on independent nutritionists, Stephen Davies and colleagues in late eighties and early nineties.

Goldacre's HealthWatch award was at one point introduced on the HealthWatch web site with the following accolade:

At HealthWatch's eighteenth AGM and Open Meeting this October, the HealthWatch Award will be presented to Ben Goldacre, the junior doctor and Guardian contributor whose 'Bad Science' column every Saturday debunks pseudoscientific nonsense in cosmetics adverts, alternative therapies, and media science stories. Aged just 30, with a First in Medicine from Oxford and a Masters in Philosophy from Kings College London, Goldacre has published academic papers on neuroscience.²⁷

QUACKBUSTER OR JOURNALIST: DOES BEN GOLDACRE HAVE CONFLICT OF INTERESTS?

In 1999, two years after New Labour had come to power and Lord Sainsbury had been rewarded for his campaign donations, Goldacre was funded by the British Academy to do his Masters degree in philosophy at King's College.

Today, the British Academy (BA) is funded by the Office of Science and Innovation (OSI), which sits within the DTI.²⁸ In the past it has always been linked to both the Royal Society and the Royal Institution. It claims to '*maximise the contribution* made by our science, engineering and technology skills and resources to the UK's economic development, and to the quality of our lives'. Of course, one is bound to wonder how the quality of public life could be enhanced by Ben Goldacre gaining an MA in philosophy.

24 Op. cit. *Dirty Medicine*.

25 Michael Baum has been a hard working and committed member of HealthWatch from its inception. His latest campaign is against the London Homeopathic Hospital.

26 Ernest is a quackbuster, a revered friend of both HealthWatch and CSICOP.

27 Again there is the suggestion that he has published more than one paper in a peer reviewed journal.

28 The DTI ceased to exist by that name after Brown became leader of New Labour.

King's College is the bastion and training ground for The Lobby. It is where Simon Wessely, the premier master of scientific spin, resides, working, mad-professor-like on endless projects to prove that organic environmental illness does not exist, and that anyone who suggests it does is deluded.

The most empathetic and forgiving of us were imagining that Ben was a junior doctor in a heavily pressed casualty unit in an inner City area. If Ben was dealing with the dirty life and death of motor accidents, shootings and drug-related deaths in north-east London for example, perhaps he might be forgiven his hard bitten views, and his anti airy-fairy concerns about people affected by electric air waves, chemicals and bad vaccines.

It appears, however, that he has always been a post-grad clinical research worker, now possibly studying for a Phd at King's College, the home of the psychiatric school of 'all-in-the-mind aetiology'. In all probability Goldacre has been at this University Hospital since taking his MA, and was probably attached to it when he was taken on by the *Guardian*.

If this is the case, most probably he doesn't see patients, except when he passes them in the corridor at the Maudsley as he makes his way to the Liaison Psychiatry Unit within the Institute of Psychiatry,²⁹ where he is studying under the Prince of Spin Professor Simon Wessely, the head of the Liaison Psychiatry Department.^{30,31} Wessely is an advisor to the Science Media Centre and on the Advisory panel of the US American Council on Science and Health, one of the most heavily funded pro industry lobby groups in the world.

The Institute of Psychiatry (IoP) is based in the Guy's, King's and

29 This information was uncovered by John Stone (see under the Wi-Fi heading below).

30 In December 2007, a Cornish Coroner ordered the police to carry out an investigation into the apparent cover-up of the Lower Moore water contaminated disaster. If the investigation gets under way, that police will certainly want to seek the professional opinion of professor Wessely, who in the past has argued that apart from (*cont.*)

St Thomas' School of Medicine (GKT) and has a major input into most of the research projects that determine the psychological and psychiatric evaluation of individuals who claim to be affected by environmental pollutants. This work has moved through ME/CFS and Gulf War Syndrome and is now focusing on those who have been affected by EMF.

In the early years of 2000, the IoP held over 200 research grants with an annual value of around £14.5 million. Its second highest source of funding was the pharmaceutical industry. The IoP has received funding from, amongst other sources, Unilever, a massive chemical based company; SmithKline Beecham and Pfizer Limited, both producers of antidepressant drugs; Novartis Pharmaceuticals (previously Ceiba Geigy); Lilly Industries Ltd, the manufacturers of Prozac; Hoescht Marion Roussell; GlaxoSmithKline, vaccine manufacturers; Bristol Myers Squibb Pharmaceuticals; Bayer; Zeneca Pharmaceuticals; and Wyeth Laboratories. It also receives funding from the British and US governments and the mobile phone industry.³²

Those of us who were wondering how it was that Goldacre could afford the time to write his column, given that he was a time-challenged Junior doctor, now see how after attending the Maudsley a couple of days a week, to sit at Simon's knee and do what Simon says, while being peripherally involved in research projects about the effects of mobile phones or wi-fi networks, he can donate the rest of

30 (*Cont.*) the tonnage of chemical cocktail that was inadvertently tipped into the water supply, the incident was most probably caused by hysteria.

31 Professor Simon Wessely MA, BM BCh, MSc, MD, FRCP, FRCPsych, F Med Sci. Director, King's Centre for Military Health Research, Institute of Psychiatry, King's College London. Simon Wessely is Professor of Epidemiological and Liaison Psychiatry at the Institute of Psychiatry, King's College London, and Honorary Consultant Psychiatrist at King's and Maudsley Hospitals.

See below, Wessely's involvement in spinning mast EMF at the Health Protection Agency. Also Appendix 13 for a summary of his career and *SKEWED* for a more extensive one.

32 *OP. cit.* *SKEWED*, for more about Wessely's conflicts of interest.

his week to writing his Badly written, apparently vested interest free science column.

The really good thing about Liaison psychiatry is that you can blend all kinds of social issues with lots of mad-cap psychiatric ideas that work well for industry. Liaison psychiatry is a form of psychiatry in which the psychiatrist informs unsuspecting ordinary citizens who report to hospitals with organic illnesses that they are actually mentally ill. This diagnostic ability is particularly acute when the Liaison psychiatrist meets up with anyone who has suffered an environmental illness, a chemical insult, or any industry-related illness.

It was recently found³³ that Goldacre is speaking in February 2008 at the Liaison Psychiatry Faculty of the Royal College of Psychiatrists, at their conference in Newcastle, on 'The Hijacking of Scientific Language by Alternative Medicine'. Goldacre is listed as being from The Maudsley Hospital, which houses the Institute of Psychiatry. The first speaker at the conference is Professor Simon Wessely, whose paper is entitled: 'Medicalisation of Symptoms' – the imagining of medical conditions by people who discern symptoms of various illnesses.³⁴

Goldacre also spoke on 'Journalism and Science' on December 10th³⁵ 2007 at a section seminar at the Institute of Psychiatry. These seminars are explained on the IoP site as follows: 'The section holds regular research seminars on the second and fourth Mondays of every month. These are primarily internal seminars intended for members of the Section only'. The professor ultimately responsible for the seminars is James Rubin, the head of the Mobile Phone Research Unit. On the site, while all the other speakers gave their location as somewhere inside the Institute of Psychiatry, Goldacre was listed under his *Guardian* Bad Science column.

33 The information in the following two paragraphs was uncovered by John Stone.

34 <http://www.rcpsych.ac.uk/pdf/ProvProgLi08.pdf>.

35 <http://www.iop.kcl.ac.uk/search/results/default.aspx?cx=002978363588015686598%3Aavk4drrzqg0&cof=FORID%3A11&q=Ben+Goldacre&sa=Search#239>.

Wessely has previously had the task of developing other young and impressionable placements. In the late eighties he worked with Caroline Richmond, the founder member of the Campaign Against Health Fraud, promoting her and writing articles with her on ME and allergy. Richmond was plucked out of nowhere where she was a hack on trade magazines for the cosmetic and chemical companies. Then, over an extensive period in the 1990s, he helped, supported and advised Elaine Showalter on her lamentable contribution to Liazon psychiatry, the book *Hystories*, which recounts the hysterical origins of Gulf War Syndrome and Chronic Fatigue Syndrome. Showalter ended up sharing a stage with Wessely at the Royal College of Physicians Edinburgh conference in 2000, speaking about GWS, and then in 2002 she accompanied him at a NATO-Russian advanced research workshop which discussed the social and psychological consequences of chemical, biological, radiological terrorism. Showalter is a post-modern feminist literary critic, so it's easy to see how her analysis could add to our defensive and organisational capacity in the event of a biological or radiological terror attack.

KING'S AND RISK

For some time now, King's College has been deeply involved in the programme of spin designed by industry and the New Labour government. However, as is evident from the involvement of Goldacre there, the relationship between The Lobby, the University and the hospital, is not simple. As well as Wessely's role, ex-Revolutionary Communist Party members have also played a part in bringing vested interests to the college. Together with pseudo-scientific research into mental illness and environmentally caused illness, King's is deeply involved in risk analysis for various controvertial environmental factors.³⁶

Regester Larkin is a PR company, co-founded by Mike Regester and Judy Larkin, both of whom have appeared at events organised by the Institute of Ideas (IoI), the ex-RCPers (referred to here also as the

Living Marxism Network [LM]) front organisation funded by Pfizer.³⁷ The company specialises in ‘risk management’, quickly stepping in to manage media around a crisis, and hopefully salvaging the reputation of the company or industry.

It was from research jobs at Register Larkin that Tracey Brown and Ellen Raphael, both former graduate students in Frank Furedi’s department at the University of Kent³⁸ and ex-RCPers, moved on from their jobs to administer the newly set-up Sense About Science.

Judy Larkin is on the advisory board for King’s College’s Centre for Risk Management, where she advises on risk communication. The Centre opened in January 2002. It currently has nine academic and research staff, and eleven research students. Why does a University Hospital research department need one of the top Anglo-American public relations figures on its advisory board? The answer is simple, the Centre is in the business of playing down risk, not researching it scientifically, and their most noted player is therefore a PR, crisis management guru.

Clearly what industry wants is not objective scientific research, but a constant stream of disclaiming information that can be channeled out of King’s through the Science Media Centre to science journalists and politicians.

The Centre for Risk Management describes itself as rapidly

36 For a full account of the RCP involvement in Lobbying for industry and New Labour, see this author’s book *Brave New World of Zero Risk* and the GM Watch web site. The RCP were led in the 1980s and 1990s by Fred Furedi, the main risk academic whose theories were used to pour scorn on the feelings and experiential decisions of the public when they assessed the risk of such things as vaccination or serious illness from environmental factors.

37 In July 2000, Judy Larkin took part in ‘Interrogating the Precautionary Principle’, an Institute of Ideas event at the Royal Institution. This was billed as: ‘eminent scientists, social scientists and writers will question the premises of the precautionary principle’. The event was ‘convened’ by Susan Greenfield of the RI, and Tony Gilland and Helene Guldberg of the LM Network.

38 George Monbiot. Invasion of the Entryists, the *Guardian*, December 9 2003.

becoming ‘a centre of excellence for European risk management research’, which pursues a scientifically-based approach to risk (perception) management in environmental, technological, health, safety, food, business and terrorism contexts.

Regester Larkin were from the beginning deeply involved in New Labour’s contract with industry. They worked for the DTI on the perception of the nuclear industry, which has attracted low esteem over the years.³⁹ Harry Swan, a previous press officer for Monsanto, was taken on board by RL to fight Monsanto’s corner for GM crops in Britain. One of Swan’s main clients was the BioIndustry Association. When Swan was a risk Management Consultant for Regester Larkin, he represented the company at a Science Media Centre meeting at the Royal Institution.

Judy Larkin, who is now a senior partner in Risk Principals, is a Fellow of the Royal Institution (RI)⁴⁰ and a board member of the Washington DC-based Issue Management Council, whose members include AstraZeneca, and GlaxoSmithKline. Its ‘partners’ include Shell and the Philip Morris Management Corporation.

A former head of corporate relations for Logica plc, she has held board level positions with a number of major UK and US consultancies, and has worked extensively in Europe, the United States and Australasia. Her client experience includes working for Shell, GSK, IBM, Vodafone, Cable & Wireless, Bayer, Baxter, 3M, and British Nuclear Fuels. Larkin is also a member of the Bioscience Innovation and Growth Team (BIGT). This team is deeply located within pharma territory. In 2003 it produced 'Bioscience 2015: Improving National

39 See *Reputation, perceptions and the ‘vanishing workforce’: a report on a study of young attitudes to oil & gas, nuclear industries*, February 2005, by Andrew Griffin, managing director, Regester Larkin Ltd. This study and the report resulted from a contract with Cogent SSC, the Sector Skills Council for the Chemical, Nuclear Oil & Gas, Petroleum and Polymer industries, which was funded by the DTI.

40 An organisation that highly favours ex-RCP members and organisations and which has worked with the Royal Society on a number of its science propaganda exercises.

Health, Increasing National Wealth'.⁴¹ This report suggested the way forward for the pharmaceutical industry and recommended the creation of a Bioscience Risk Assessment Forum, now called the Bioscience Futures Forum (BFF), under the auspices of the Bioscience Leadership Council (BLC), a child of New Labour's industry liaison programme, which is headed by Sir Richard Sykes. Sykes, the previous head of GSK, is one of the senior advisors to the Science Media Centre, along with Wessely.

Judy Larkin is also on the advisory board of another Anglo-American risk management PR company called ECHO. ECHO is very large, with an extensive client list that includes AstraZeneca and Zeneca Agrochemicals, Bayer, Glaxo Wellcome, Hoffman LaRoche, Merck Sharpe & Dohme, Novartis, Novo Nordisk, Hill and Knowlton, Dow Chemicals, Cellnet, Pfizer, Parke Davis and Rhone Poulenc. ECHO has worked for a number of government departments, including the DTI, the Ministry of Defence, Industrial Development Board for Northern Ireland and the Advertising Standards Authority.

Given that two RL employees became the organisation's first administrators, and that Larkin herself is involved in a whole series of organisations and institutions linked to the LM network, it seems most probable that one of the main organising intelligences behind Sense About Science was originally Regester Larkin and that Judith Larkin is not just Larkin's about at King's but playing an important role in the distribution of denial information about the health damaging effects of industrial and high tech production.

Other unbiased advocates of a balanced view of risk, on the King's Centre advisory board include: Dr Richard Taylor, head of health, safety and environment at British Nuclear Fuels and the Centre's senior advisor on UK regulation; Katie Wasserman, vice-president, marketing, Audiovox Corporation and the Centre's senior advisor on mobile telephone corporate affairs; Martina Bianchini, director, EU

41 See: Walker, Martin. *The Ghost Lobby*.

Government Affairs and Public Policy, Dow Chemicals Europe and one of the Centre's senior advisors on European Affairs; and Dr David Slavin, senior director, Pfizer Global Research and Development and the Centre's senior advisor on pharmaceutical affairs.

RISK AND ENVIRONMENTAL HEALTH

The Institute of Psychiatry also houses the Mobile Phone Research Unit and research projects on electromagnetic sensitivity. The mobile telephones and mast-siting controversy is covered by the Mobile Telephones, Risk and Communications project that Goldacre must interact with on the days that he attends the IoP.

The MPRU says that its 'Researchers working in the Unit want to find out if some people are highly sensitive to these signals, and have previously tested whether those people who report sensitivity to mobile phone emissions experience adverse symptoms when exposed to them under 'double-blind' conditions. Some of the work of the unit is supported by research grants from the industry/government funded UK Mobile Telecommunications and Health Research programme (see below).

According to the KCRM site, there are three main areas of research in relation to mobile phones and masts:

- Assessment of the use of 'precaution' in regulatory policy, its impact on regulatory decision-making and public acceptance of risk.
- Evaluation of the success of the UK government and mobile phone industry attempts to communicate the risks associated with mobile communications technologies.
- Analysis of policies aimed at modernising the UK planning system and resolving mobile telephone mast-siting conflicts in terms of risk.

However, the projects at KCRM have nothing to do with epidemiology or the real measurement of physical illness. The starting point is

how people ‘perceive’ the effect upon themselves of mobile phones and the relationship of this to their perception of risk. The object of all research is to convince the public that they are involved in acceptable levels of risk. What centres of this kind are measuring is *what industry can get away with*. And then in a secondary sense how industry can combat bad stories of environmental ill health, from other scientists.

CONFLICT OF INTEREST?

Can there be any doubt that the industry directed research at King’s, with which Goldacre is associated, or his association with Professor Wessely, whose research on ME, Gulf War Syndrome and EMF never benefits patients but always government or industry, constitutes a conflict of interest that should from the beginning have been declared by Goldacre, every time he says anything about science in the *Guardian* or anywhere else?

One of the problems with quackbusters is that they usually take a different perspective to their own conflict of interest than that of their sworn opponents. While they declare greedily that anyone who has an autistic child should declare this as a vested interest if they write about MMR, they forget to declare drug company or government funding when they themselves write about environmental illness.

In 2003 Professor Wessely gave his own considered opinion on the important matter of conflict of interests. I wrote the following in *SKEWED* at this time:

The level of the debate around vested conflicts of interest is so low in Britain that hardly any mention is made of anything other than overt financial vested interests. One exception to this was a letter from David Horrobin in the *BMJ*.⁴² Horrobin pointed out that some non-financial interest conflicts could be more serious than financial ones. He cited four types of non-financial conflict: single issue fanaticism, politi-

cal commitment, philosophical bias and a pre-determined commitment to a particular theoretical framework. 'Health fraud' activists and members of the psychiatric profession involved in constructing a psychiatric aetiology for ME and CFS, GWS and EMF might be accused of being mired in at least the last two of these interest conflicts.

In June 2003, Professor Wessely wrote to the 'quick response' site of the *BMJ* with his view about conflict of interests. While some of the best professional minds in both North America and Europe have made this issue a priority, Professor Wessely suggested, with typically English understatement, that it was a non-issue.

And what about the blandishments from industry? Have they perverted my clinical practice over the years? A meticulous search of the wreck that is my desk reveals nine pens, including, miraculously, a Parker pen long thought lost, two of which have clear company logos on them. As an academic I travel a lot – I attend academic meetings, usually overseas, at least once a month (personal communication from my wife, made between gritted teeth.) I think that means over 200. I am certain that on at least four occasions I have been sponsored by industry – Pfizer, Lilly and two others that I can't remember, since you ask – possibly slightly more. I am not sure.

42 Horrobin DF. Beyond conflict of interest. Non-financial conflicts of interest are more serious than financial conflicts. *Br Med J* 1999; 318: 466.

Dr. David Horrobin, a brilliant and hard working English 'alternative' nutritional scientist, died on April 1st 2003. The editor of the *BMJ* gave his obituary to Caroline Richmond, a friend and colleague of Professor Wessely and a long-standing detractor of alternative medicine, its researchers and practitioners. The obituary in the 19th April 2003 *BMJ* sparked off a considerable debate on conflict of interests, after Richmond did an awful hatchet job, stating for example, that Horrobin might prove to be 'the greatest snake oil salesman of his age.' It is ironic that Horrobin should have written such an evidently honest letter to the *BMJ* about conflict of interest and his life should have been summed up in the same journal by a woman who set up the Campaign Against Health Fraud, an organisation which is only transparent in one thing, the obfuscation of its motives and arguments.

I can remember the cities (Copenhagen twice, Vienna once and somewhere else), but not always the company. Has that made me into a drug company lackey, slavishly promoting their products? Who can say, but I doubt it.

It is time we all grew up. Everyone has conflicts. Everyone has agendas. Everything affects patient care. Our own personal prejudices, likes and dislikes, the time pressure we are under, the number of patients left to see, family and cultural backgrounds, the influence of our teachers for good or ill, how tired or jaded we are, the volume of paperwork we still have to complete, fear of litigation, the list is endless – there is very little in our lives that does not affect how we manage patients. A few pens, a sponsored sandwich lunch for our weekly research meeting, and even a trip to another forgettable conference, probably are rather low in the list of things that affect our decision making.

Why should Professor Wessely have pitched the level of intellectual debate about conflict of interest so embarrassingly low? Why should he have made a jokey personal narrative out of a growing structural problem in scientific research? By equating conflict interests with free pens and making a direct correlation between funding source and trips to conferences, he is evidently minimising the nature of the problem.

What about the relationship between government funding and policy towards defence department personnel with Gulf War Syndrome? What about British and US government research grants and bio-markers for Gulf War Syndrome? What about the relationship between ME and CFS researchers and the insurance industry? What about the reluctance of the major chemical companies and their insurance experts to agree upon the existence of Multiple Chemical Sensitivity? What about the power which medical research workers have to determine the treatment of thousands of powerless patients? (And today [2007], we can add

to the list: What about claims by people to be damaged by EMF and research funding from the mobile phone industry? What about low cost herbal and homoeopathic health care and research funding from pharmaceutical companies? What about the parents of vaccine damaged children and the unavailability of independent medical research and their children's condition?)

Professor Wessely's letter presents a bizarre picture of a society which works by accident, where things happen as they might on the Magic Roundabout, without reason or personal motive, absent of any ultimate adverse effect upon the powerless. In this world, a personal joke about his wife's gritted teeth and lost Parker pens appears to have more meaning to him than a real analysis of the power of corporations in the modern world. Grown up, I should coco!

British health care and medical research, especially in its upper reaches, has been honeycombed with conflicting vested interests for decades. Whether it is research into migraine or research into pesticides, some pecuniary or commercial interest is invariably pulling strings, deciding levels of patient care and determining scientific outcomes.

One of the problems is that a complex modern world presents no venue for open public and genuine debates about the integrity of science. In a global society, however, a single unverifiable article or paper arguing the position of the chemical companies can be spun round the world in seconds by those whose vested interests it protects, later to seep authoritatively into books, journals, papers and policies. In the great majority of cases, the argument that scientific method is unaffected by funding is specious and those who use it are either blind to their own prejudices or insincere.⁴³

* * *

None of these questions have seeped down into British Newspapers or into the minds of British journalists or editors.⁴⁴ While Ben Goldacre is running amok with his Bad journalism, the *Guardian* editorial and

management network simply stand aside and occasionally pat him on the back.

Of course none of this would matter in the slightest if it were the case that Goldacre were expressing an independent and individualist point of view. It only begins to matter when we understand that when writing about people's health, he is supporting the arguments and the denials of the massively powerful drug cartels, mobile phone and mast manufacturers and the State's mono-therapeutic support for the massively profitable vaccine industry.

THE FRONT LINE: MMR

No quackbuster or pharmaceutical company lobbyist can be bloodied in contemporary Britain without giving the prostrate and heavily-damaged body of Dr Andrew Wakefield a good kick (Appendix Seven).

Looking at Goldacre's coming of age vaccine piece in 'Bad Science', it is easy to see that he got most of his information, if not the whole article, straight from the horse's mouth of Dr Michael Fitzpatrick. Fitzpatrick, an ex-Revolutionary Communist Party member, is one of the founder members of Sense About Science and the Science Media Centre, both of which organisations are part funded by the pharmaceutical industry.

From its first initiatives, Fitzpatrick was involved with the Science

43 Op. cit. *SKEWED*.

44 In 2006, I wrote to Sarah Boseley on the *Guardian*, pointing out that an article that she had written about some research which showed the benefits of HRT and that she had trumpeted in an flattering few paragraphs, actually described research funded by Wyeth, the major manufacturer of HRT. Her answer to me was that she didn't have time to look into people's conflict of interests. Which just about says it all for the British press: 'Why should we worry if a few thousand more women die of breast cancer, having been led to think that HRT is only beneficial, by their favourite newspaper or magazine?'

Media Centre in building the campaign against Wakefield and broadcasting the public health concerns about non-vaccination. Dick Taverne, the founder of Sense About Science, has written aggressively about the madness of giving legal aid to people who want to make claims against pharmaceutical companies.⁴⁵ All aspects of The Lobby have supported New Labour in its intimate intercourse with the vaccine manufacturers, giving them maximum commercial and competitive protection.

The Channel Five film *Hear the Silence*,⁴⁶ about Dr Andrew Wakefield, hit right at the heart of the Sense About Science / Science Media Centre message: it was a fictionalised account of a real medical battle, which gave the parents' side of their children's illnesses. Under the new totalitarian media regulations promoted by The Lobby, this is absolutely *verboden*. There are to be no fictionalised renditions of medical narratives, and particularly no self-expression of adverse reactions suffered by patients or their relatives. Everything medical has henceforth to be reported by bona fide scientists in glowing terms.

Because of this, it is worth looking at Michael Fitzpatrick's review for the *BMJ* of *Hear the Silence*, but please, whatever you do, don't take it seriously; this is pure *pastiche*, that contains neither art nor science. You might, however, cast a more analytical eye over one of the *BMJ*'s responses to the review, a letter from the older brother of two autistic children (Appendix Six).

As for Goldacre's version of what Andrew Wakefield has been up to and what the film represents, the article that appeared in the *Guardian* on December 11 2003 might just have been written for him by the Science Media Factory.⁴⁷ The article is introduced with the disingenuous words; 'Channel Five's new drama about the link

45 Legal aid was withdrawn from parents who were claiming against the manufacturers of MMR some six months before their case came to court. The case had been nine years or so in its development,.

46 *Hear the Silence*. Channel 5, 15 December. 9 pm.

between MMR and autism makes great TV. But it gets the story, and the science, disastrously wrong. How did *we* get to such a level of confusion and hysteria about this vaccine? Ben Goldacre unravels the *real* MMR story.⁷⁴⁸

It really isn't worth even quoting from it, because only people with a high degree of knowledge about the situation would be able to see how he manipulates the facts. It is, however, worth repeating a few short sentences, which are indicative of the way in which quackbusters intersperse sarcasm and vitriol in an apparently rational discourse. The key to recognising quackbuster-speak, is to appreciate the art of Orwellian newspeak. The quotes below from Goldacre's article do not deal with the misrepresentations in the article, which are legion, just the selective use of bile as a weapon of propaganda.

- Channel Five's new drama about the link between MMR and autism makes great TV. But it gets ***the story, and the science, disastrously wrong.***
- There is an interesting story here ... [about] ... how the standard of reporting, and public understanding of science, has deteriorated to the point where Channel Five ***feels entitled to broadcast the poisonous and biased*** drama on the triple vaccine for measles, mumps and rubella ...
- ***The only things that the writers of Hear the Silence get wrong, to be fair, are the science and the story.***

47 The *Guardian* was generally scathing about the drama: the review that appeared on December 8 2003, by Mark Lawson, was headed 'Saint Mum, Saint Doctor and the evil MMR.'

48 But this wasn't the *real* story, nor was it even Goldacre's story, it was The Lobby's story. Michael Fitzpatrick put their case succinctly in the opening paragraph of his Spiked article: This paragraph contains the seminal lie of The Lobby's case, that the results of Wakefield's research caused distress to parents of children with autism. Wakefield's case has never even been an anti-vaccination case, he has only ever said that there appears to be a link between the measles virus delivered with two other viral strains in MMR, gastrointestinal problems and disintegrative disorder. (*Cont.*)

- There was more tabloid coverage, and the coverage began to suggest, incorrectly, that medical opinion was equally divided on whether MMR was safe. ***The journalists who wrote these stories were presumably as capable as you are of understanding the science, but they didn't bother trying.*** The *Daily Telegraph's* Lorraine Fraser had an exclusive interview with Wakefield, 'a champion of patients who feel their fears have been ignored', and wrote a dozen similar articles over the next year. ***Her reward came, astonishingly, when she was made British Press Awards Health Writer of the Year 2002.***
- Pieces on GM food, or cloning, were twice as likely to be written by specialist science reporters as stories on MMR. With MMR, 80% were written by non-specialist reporters. ***To name a few, Nigella Lawson, Libby Purves, Suzanne Moore, and Lynda Lee-Potter have all written about their ill-informed concerns on MMR.***⁴⁹
- This created the erroneous belief that there was a large body of medical opinion suspicious of MMR, ***rather than one maverick*** (author's note: and around 3,000 parents with vaccine-damaged children).
- A pharmacist in Sunderland called Dr Paul Shattock was

48 (Cont.) The majority of parents of children with this autism spectrum disorder sought the help of Dr Wakefield because no other doctors had anything positive to offer in terms of diagnosis or treatment and it was the parents and not Dr Wakefield that identify the onset of the illness with their child's MMR vaccination.

Fitzpatrick's account: *Hear the Silence* is a scientifically dishonest and emotionally manipulative film which can only compound the distress already experienced by families affected by autism as a result of the anti-MMR campaign. This campaign has made parents feel guilty that, by giving their children the MMR vaccine, they may have contributed to the development of autism - a notion for which there is, after more than five years, still not a shred of scientific evidence. It has also dragged more than 1000 families into a prolonged process of litigation (now halted by the Legal Services Commission), which could only lead to disappointment and disillusionment. (<http://www.spiked-online.com/Articles/00000006DFFD.htm>).

reported on the *Today* programme and in several national newspapers to have identified a distinct subgroup of children with autism resulting from MMR. **He is very active on anti-immunisation web sites. But he still doesn't seem to have got round to publishing this important work, 18 months later.**

- I am told you will also see Evan Harris MP (in a discussion aired after the film), a scientist by training, **rightly interrupt to stop him** presenting this unpublished research.
- The drop (in vaccine uptake) after next Monday's drama **will contribute to measles outbreaks, and that will cause distress, disability and probably deaths. That's not the small risk of a small risk, like MMR and autism. It's just simple maths.**⁵⁰

In November 2005, Melanie Philips, one of the only journalists not to be threatened into deserting her post, put up on the internet the article "Evidence-based" ignorance over MMR⁵¹ which was published in the *Guardian* on November 8 2005. This article is a clear defence of her position, and it immediately grasps the nettle of the authoritarian nature of the *faux* science used by Goldacre and his chums. Again, I

49 Drinking at the same trough? Here is Fitzpatrick's list of 'gullible' journalists duped by the anti-MMR campaign (he says: not an exhaustive list): Heather Mills, *Private Eye*; Lorraine Fraser, *Daily Telegraph*; Melanie Phillips, *Daily Mail*; Justine Picardie, *Daily Telegraph*; Beezy Marsh, *Daily Mail*; Robert Sandall, *The Sunday Times*; Camilla Cavendish, *The Times*; Nigella Lawson, *The Times*; Allison Pearson, *Evening Standard*; Libby Purves, *The Times*; Suzanne Moore, *Mail on Sunday*; Lynda Lee-Potter, *Daily Mail*; Quentin Letts, *Daily Mail*; Peter Hitchens, *Mail on Sunday*; Lucy Johnston, *The Sunday Express*.

Reminds me of that old Lancashire joke: Mike and Ben are sitting in a pub talking and Mike says, 'I sometimes think that apart from me and thee, everyone in the world is a bit queer, and sometimes I have my doubts about thee.' How many journalists Goldacre or Fitzpatrick would have to put on their list before they realized that they constituted the minority?

will only repeat here the core statements of Philips's article, which gets to the nub of the quackbusting style of Goldacre and FitzPatrick.

- At the heart of the MMR vaccine controversy is an attempt to blind people with science. Proponents of the vaccine say science has proved it is safe and that those who deny this are scientifically illiterate.
- Since then, the government has pointed to a succession of epidemiological studies which, it claims, prove that MMR is safe. A recent meta-study by the Cochrane Library was likewise reported to have said that fears about the vaccine were based on 'unreliable evidence'. But the study itself did not say this. On the contrary, it found that nine of the most prominent epidemiology studies that are employed to attack Wakefield's research were unreliable.
- When I pointed this out in the *Daily Mail* last week, I was attacked in these (*Guardian*) pages by Dr Ben Goldacre, who claimed that I did not understand how science worked. On the contrary, it is Goldacre who is ignoring the evidence, and his errors go to the essence of the MMR controversy.
- Like the government, Goldacre believes clinical findings are trumped by epidemiology, which he says is 'evidence-based' medicine. But the attempt to refute Wakefield by

50 This is becoming a stock response to dissenting views in medical science. It was levelled at Professor Peter Duesberg, one of America's most renowned virologists, that in dissenting from the view of scientific orthodoxy that HIV was a sexually transmitted virus and the sole cause of Aids related illnesses, Duesberg was responsible for the deaths of thousands of young people.

51 <http://www.melaniephillips.com/articles/archives/001476.html>. The way in which The Lobby has gone about trying to discredit Melanie Phillips is interesting. Relying on old ideological loyalties, they have assumed that if they drew public attention to her 'right wing' politics, everyone would rally to their side in the conflict over MMR and Dr Wakefield. In a 'post political' world where ideological 'lines' have disintegrated and issues are assessed individually, few people are, however, willing to blindly agree on the basis of past political records.

epidemiology is a category confusion. Epidemiology looks at patterns of disease in a population. It cannot prove or disprove cause and effect in individual patients.

- Having accused me of misunderstanding 'real' science, Goldacre then claims that I have fallen for pseudo-science by believing evidence that has never been peer-reviewed. What on earth is he talking about? The devastating finding of measles virus in the cerebro-spinal fluid of some autistic children who had been vaccinated with MMR has been peer-reviewed in the *Journal of American Physicians and Surgeons*.
- He claims that Wakefield's term 'autistic enterocolitis' has appeared in no other studies that have endorsed it. But Wakefield's core finding of a unique gut-brain disease has indeed been replicated in peer-reviewed papers in the *Journal of Paediatric Neurology*, *Neuropsychobiology*, the *Journal of Paediatrics*, the *Journal of Clinical Immunology* and the *American Journal of Gastroenterology*.
- Goldacre's case boils down to evasiveness, ignorance, misrepresentation and smear. Are these really the attributes of a scientific vocabulary? Is this really 'evidence-based medicine'?

When it does come to arguing science, Goldacre is in a privileged position, able to lob suspect opinions into the public domain while being protected by his editors at the *Guardian* from any criticism or challenging debate.

John Stone, a tenacious investigator, supporter of Dr Wakefield and campaigner for research into the medical causes of autism, has found it impossible to draw Goldacre out into a fair public debate about the claims made in his writing. 'I, personally, have attempted to challenge Dr Goldacre on numerous occasions in the *Guardian's* 'Comment is Free' (CiF) about his views, but he seems unwilling to pick up the gauntlet. There is a lot to probe here still.'⁵²

Stone wrote to Roger Alton, the editor of the *Observer*, in the

wake of a sympathetic article that came out on July 8 2007, a week before the GMC hearing opened.⁵³ He was particularly aggrieved at the way in which Goldacre cited the results of various studies to show that children in receipt of MMR showed no higher rates of autism than those who did not have the vaccination. Stone begins by quoting from Goldacre's major article written after the showing of the Channel 5, drama, *Hear the Silence*.

So here we go, checking out our hunch on big populations. Dr Kreesten Madsen, of the Danish Epidemiology Science Centre, compared 440,000 children who had MMR with 97,000 children who didn't. The children who had MMR were no more likely to develop autism than the children who didn't. In Finland, one group looked at 3 million MMR vaccinations, found only 31 cases of related gut symptoms, and not one of these children went on to develop autism in the next 10 years. A group in London looked at 498 children with autism, to see if they developed it after MMR. They looked at when they had the MMR jab, and when they developed the symptoms or the diagnosis, and found no sudden blip after immunisation. Another paper shows no increase in GP consultations in the six months after immunisation. Two hundred children in London and Stafford with autism were studied to see if there was a new type of autism related to MMR, featuring bowel problems and sudden regression, a bit like in the drama: half had the jab, half didn't, and there was no difference in type of autism between the groups. In California, looking at 1,000 children a year, over 14 years, the number of cases of autism increased by 373%, while the number of children getting MMR increased by only 14% (from 72% to 82%). There's plenty more.⁵⁴

52 Correspondence between John Stone and Roger Alton, *Observer* editor. in July 23. 2007.

53 Ibid.

Stone goes on to quote critical observations from the 2005 Cochrane review, which concluded that the necessary research that could disprove the connection made by Wakefield, between MMR and autistic spectrum disorders had not yet been done.⁵⁵

Three of the above quoted studies were found significantly wanting by Cochrane 05.

Taylor 1999: 'The study demonstrates the difficulties of drawing inferences in the absence of a non-exposed population or a clearly defined causal hypothesis'.

Fombonne 2001: 'The number and possible impact of biases in this study was so high that interpretation of the results was difficult.'

Madsen 2002: 'The interpretation of the study by Madsen was made difficult by the unequal length of follow-up for younger cohort members, as well as the use of the date of diagnosis rather than onset of symptoms of autism'.⁵⁶

The Cochrane Studies Review process is a clearly authoritative and usually relatively orthodox test of medical-social research, and their comments would inevitably have been brought up and given considerable weight in any fair and accessible academic debate. If he was independent and fair-minded, why had Goldacre failed to mention these views that seriously detracted from his argument? While ignorance may be forgivable, mendacity is not.

Stone then points to what he terms 'the most outrageous misuse of data' in Goldacre's article:

Goldacre quoted the Peltola study, which was the first attempt to discredit Wakefield, in the *Lancet* in 1998,⁵⁷

54 Ben Goldacre. Never Mind the Facts. The *Guardian*, December 11, 2003. <http://www.guardian.co.uk/life/feature/story/0,,1103958,00.html>.

55 The Lobby blatantly lied about the Cochrane Review, claiming the papers results were an endorsement of their arguments, despite the fact that they were no such thing.

56 Stone quoting from the Cochrane review of 2005.

and was widely publicised at the time. Goldacre should surely have known that this was nonsense: 3 million doses of MMR and not a single case of autism or inflammatory bowel disease. Of course MMR had not eradicated these conditions; they simply were not included in the original follow-up criteria.⁵⁸

Finally, Stone reveals information about Madsen's research, which, quoted uncritically as it is by Goldacre, seems to cast a definitely unhealthy pallor over the whole article, which, you will remember, was titled 'Never Mind the Facts'.

Madsen's data seems to have been mis-analysed in a way that obscures a possible MMR effect. When it was published, Samy Suissa of McGill University, noting the same biases as Cochrane, recalculated the raw data and, instead of MMR subjects being 8% less likely to have autism than unvaccinated, they were 45% more likely. *New England Journal of Medicine* refused to publish Prof Suissa's letter, and he later made it available to Stott and Wakefield.⁵⁹

Stone points out the fact that Professor Suiss is not known, in this context, as a committed member of the Wakefield camp. Stone ends his correspondence by suggesting that there could be a degree of press manipulation of studies that are said to refute Wakefield's clinical findings.

There are several other instance of epidemiological studies released amid high publicity which turn out not to be

57 Heikki Peltola, Annamari Patja, Pauli Leinikki, Martti Valle, Irja Davidkin, Mikho Paunio. No evidence for measles, mumps, and rubella vaccine-associated inflammatory bowel disease or autism in a 14-year prospective study. Research Letter appeared in *The Lancet* Vol 351 - May 2, 1998. pg 1327-8.
<http://www.vaccinesafety.edu/mmrandidb.htm>.

58 Correspondence to Roger Alton.

59 Carol Stott, Ph.D.; Mark Blaxill; Andrew J. Wakefield, M.B., FRCS. MMR and Autism in Perspective: the Denmark Story. (*Cont.*)

what they seem when the media spotlight is off.⁶⁰

ELECTROMAGNETIC SENSITIVITY

I titled my book about The Lobby, *Brave New World of Zero Risk*, because The Lobby determinedly propagates the idea that technological advances can cause no damage to citizens or consumers. On the other hand, the other part of its message are equally clear: anything that is alternative or represents a movement against the competitiveness of the pharmaceutical, medical technology, or communications industry's is likely to cause harm.

The centre of the organised fraudulent defence of industry is, as I have said above, at King's College London. There professor Simon Wessely (see Appendix Twelve) and a team of clinical psychological researchers spend their time proving that people who think they have been damaged by environmental factors are suffering from 'false illness beliefs.' It was to King's College University that the British Academy sent Ben Goldacre; to finishing school as it were.

It is probably not surprising, therefore, that Goldacre, if he didn't before, now embraces all the classic nons(c)ience views of the quackbusters. One of these is that Electromagnetic Fields (EMF), the kind that come from mobile phone relay masts, for instance, are incapable of causing harm to humans. There are no long-term studies to attest to this negative, blind and irrational assertion.

The Lobby is deeply involved in research projects to prove that those who claim to be affected by electromagnetic fields have a mistaken perception of their illnesses. According to Mark Anslow in *The Ecologist*,⁶¹ the researchers who conducted the latest of these studies failed to disguise their obvious methodological blunders. Nevertheless

59 (Cont.) 89 *Journal of American Physicians and Surgeons* Volume 9 Number 3 Fall 2004. <http://www.jpands.org/vol9no3/stott.pdf>.

60 Correspondence to Roger Alton.

the study carried out at Essex University was given a high-profile launch at the Science Media Centre, the public organisation of New Labour/industry science spin.⁶²

The Lobby has in the past used this public launch of research to add validity and authority to findings which when questioned, collapse like the body of Dracula caught in sunlight. In September 1990, for example, the Imperial Cancer Research Fund (ICRF) held a national press conference to unveil what turned out to be ‘interim results’ of a bogus research project set up by HealthWatch members and others into the Bristol Cancer Help Centre. By the end of the day, the world was flooded with the completely untruthful message that ‘Women who attended Bristol Cancer Help Centre were three times more likely to die more quickly of their cancer than those who didn’t attend’.⁶³

Amongst the obvious methodological flaws in this study, was the fact that a number of women who had ‘attended the Centre’, had done nothing more than sign in and make enquiries but received no treatment whatsoever. A large percentage of the subjects had, of course, been receiving orthodox treatment from a hospital for years before they sought complementary treatment at the Centre. Facts such as these and the way in which the statistics had been skewed, led to Sir Walter Bodmer then head of research at ICRF having to issue a public retraction of the research paper that had appeared in *The Lancet*.⁶⁴

THE ESSEX STUDY

The Science Media Centre announcing the Essex study results took their policy on media censorship to its ultimate conclusion, and banned ‘representatives of pressure groups and non-mainstream

61 The Gathering Brainstorm. Mark Anslow. *The Ecologist*. December 2007.

62 Op. cit. *Brave New World of Zero Risk*.

63 Op. cit. *Dirty Medicine*.

media from the research launch'.⁶⁵ The research had apparently found that those who suggested they suffered from electro-magnetic sensitivity had false illness beliefs. Professor Elaine Fox,⁶⁶ the leader of the research team, and an experimental psychologist, later told *The Ecologist*, 'It now seems more likely to start looking for other causes given the growing evidence (that argues against any effect)'. The paper became mired in controversy on publication.

Previous research of this kind has been carried out at the Mobile Phone Research Unit at King's College Institute of Psychiatry, where professor Simon Wessely is the principal researcher and where Goldacre appears to be a clinical research worker.⁶⁷ Wessely has a long history of suggesting that most illnesses are imagined by their sufferers – let's face it, apart from taking the blame off industry, this model of illness is of very low cost to the NHS. A founder member of HealthWatch and more recently on the advisory panel of the American Council of Science and Health, Wessely has in the past claimed a psychiatric aetiology to allergy and food intolerance, the Camelford toxic chemical disaster, Myalgic Encephalomyelitis (ME/CFS) and Gulf War Syndrome.

64 Chilvers, Clair et al. Survival of patients with breast cancer attending the Bristol Cancer Help Centre. *Lancet* 1990;ii:606 – 10.

65 Op. cit. *The Ecologist*.

66 Prof. Elaine Fox, Director of the Affective Science Laboratory at the University of Essex, and Visiting Scientist at the MRC Cognition & Brain Sciences Unit, Cambridge; cognitive and neural correlates of anxiety disorders; emotion; attention. Associate editor of *Emotion*.

The results of the Essex study into electro magnetic hypersensitivity suggest that the many health problems attributed to mobile phone transmitters - including nausea, headache and flu-like symptoms - are probably caused by something else, says Elaine Fox, a psychologist at the University of Essex in Colchester, who led the research. She suggests that the problems may well be psychological.

67 Rubin GJ, Cleare AJ, Wessely S. **Psychological factors associated with self-reported sensitivity to mobile phones.** *Journal of Psychosomatic Research* 2007; e-publication ahead of print DOI:10.1016/j.jpsychores.2007.05.006. Das-Munshi J, Rubin GJ, Wessely S. Multiple chemical sensitivities: Review. (*Cont.*)

THE PANORAMA PROGRAMME

The Essex study and those conducted by Simon Wessely at King's College were brought up in the quackbuster created row that followed the excellent Panorama programme, *WI-FI A warning signal*. The BBC programme was shown in May 2007 and its clear aim was to give voice to the arguments - censored from the British media, mainly by The Lobby - that there was a possible health risk associated with Wi-fi, and perhaps the wisdom of introducing it into schools to help run computers used in some class rooms, should be questioned.

At the end of November 2007, the BBC's Editorial Complaints Unit (ECU) upheld two complaints apparently sent in by viewers about the Panorama programme. The complaints unit said the programme 'gave a misleading impression of the state of scientific opinion on the issue'. The programme, however, didn't set out to describe the state of scientific opinion on the issue.

This wasn't the first time that the BBC's ECU upheld a complaint in line with Sense About Science and the Science Media Centre policy. In 2006, they upheld one single complaint, amongst tens of laudatory letters, against an episode entitled 'Heart of Darkness' in the sixth series of the Judge John Deed drama series. The episode presented a well-balanced view of the arguments around the MMR vaccination. Having found in favour of the complaint, the BBC banned a repeat showing of the episode anywhere in the world.

WI-FI A warning signal, like the Judge John Deed dramas, was

67 (Cont.) *Current Opinion in Otolaryngology & Head and Neck Surgery* 2007; 15:274-280. Rubin GJ, Hahn G, Everitt B, Cleare AJ, Wessely S. **Are some people sensitive to mobile phone signals?** A within-participants, double-blind, randomised provocation study. *British Medical Journal* 2006; 332:886-889. Rubin G, Das Munshi J, Wessely S. **A systematic review of treatments for electromagnetic hypersensitivity.** *Psychotherapy and Psychosomatics* 2006; 75:12-18. Rubin GJ, Das Munshi J, Wessely S. **Electromagnetic hypersensitivity: A systematic review of provocation studies.** *Psychosomatic Medicine* 2005; 67:224-232.

one of those rare, dissident views programmes that clearly stated the doubts and concerns of the people in contradistinction to the gung-ho approach of the government and the vested interests of the wi-fi communications industry.

THE QUESTION OF BIAS

Goldacre was much troubled by the programme and what he considered its bias. But before we get into any detail, let's look at a couple of factors that might affect any discourse about bias.

First, one has inevitably to look at the surrounding context of other programmes that depict the communications industry in a positive and ascientific manner. To examine bias, you would have to analyse all the uncritical depictions of Wi-Fi use on all television channels.

Second, one has to somehow work into the equation the fact that in reality, communications media and the industry that produces them are a real and not a virtual presence in society and that their power goes virtually unquestioned.

Today it is easy to see this position in relation to science in our society. If we look at the first matter of surrounding context of other programmes, very few criticize on any level the taken-for-granted scientific programme of The Lobby and the government. In relation to vaccination for example, fictional doctors in *Doctors*, *Holby City* and *Casualty*, castigate patients for their failure to get their children immunized. Young people in every drama, use mobile phones, without anyone ever saying to them, 'Don't you think you should read the research from Australia that suggests there has been an increase in brain tumours in children constantly using mobile phones?'

However, in all these cases, it needs only one episode of a good drama such as *Judge John Deed* or *Fields of Gold* and industry representatives are up on their hind legs baying for censorship. Taking the second point of this argument in relation to wi-fi in the prevailing environment, its reality and its power is everywhere, today you can

hardly find a person walking in the street in London who is not speaking mindlessly and unnecessarily to someone on a mobile phone. The mobile phone companies have installed thousands of masts throughout Britain's cities, without any public debate or a second glance at the precautionary principle.

Finally in relation to issues of bias. Quackbusters have a stock argument that there are hundreds of studies that show there are no adverse health effects associated with this or that. When they claim this, they should be asked to produce all these references and those that they do produce should be scrutinized for vested and conflict interests amongst their authors. Industry has been working hard for years to bias the results of research.

A 2005 article in the *Toronto Star* commented on mobile phone studies, that one University of Washington analysis of 252 published studies worldwide that looked at the health effects of cellular radio frequencies showed a clear difference in results between independent research and studies directly funded by industry.⁶⁸ Among the peer-reviewed, published studies with no direct industry funding, biological effects from cell phone frequencies were noted 81 per cent of the time.⁶⁹ When corporate money directly funded the science, effects were noted only 19 per cent of the time.

Despite this obvious effect of vested interest funding independent studies showing biological effects, or hinting at possible health effects, usually faced a barrage of industry criticism. According to the *Toronto Star*, such studies are typically dismissed as anomalies among an 'overwhelming' body of evidence showing no health risks.

The *Toronto Star* article ends with a quote from a well known cell phone researcher in the U.S. Dr. Jerry Phillips; 'There's so much money involved, that the only thing industry sees is the money. They

68 Robert Cribb and Tyler Hamilton Staff reporters, *Toronto Star*, Is her cellphone Safe? *Toronto Star*. 12.7.05.

69 Recent studies (1995-2000) on the biological effects of radiofrequency and cell phone radiation.

couldn't give a damn about basic science.’⁷⁰

VESTED INTERESTS AT THE HEALTH PROTECTION AGENCY

Beneath the surface of this juvenile discussion about bias, there was another quite unbelievable narrative centering on a battle that was going on between proper scientists and The Lobby, within the Health Protection Agency (HPA). Of course, commentators like Goldacre were unwilling to approach this narrative because any analysis of it would disclose the conflict between independent scientists and vested industrial interests.

One of the oddities of the programme was the fact that the person putting the case for the prosecution was actually Sir William Stewart, the chairman of the Health Protection Agency. It might have occurred to some viewers to ask why Ben Goldacre didn't make anything of the fact that the case against Wi-Fi was presented not only by a government appointee but one of the most knowledgeable scientists, on this subject, in Britain.

The HPA is the government Agency that looks after the public health of the British population. Set up by New Labour to push the government line on Bird Flu, anti-terrorist measures in the case of some catastrophe and to manufacture vaccines in partnership with the drug companies, the government obviously didn't expect a rebellion

70 In May 1999 two leading EMF (electromagnetic field) and health experts, Professor Ross Adey and Dr Henry Lai, revealed that multi-national companies had tried to influence the results of their research. -Professor Adey, a biologist, said he had had his funding withdrawn by Motorola before completing his research which showed that mobile phone emissions affected the number of brain tumours in animals. -Dr Lai who has been studying the biological effects of electromagnetic fields for well over twenty years was asked three times to change his findings on how such fields caused DNA breaks in rats. -Dr Jerry Phillips' experiments, being conducted as good science should, in order to check Dr Lai's experiments, led to his contract with Motorola being terminated when he published his results. -Dr George Carlo, who was actually a mobile phone industry spokesman, and in charge of their research, bitterly criticised the industry for failing to act on his findings and for not taking safety seriously. (<http://www.electrosensitivity.org.uk/danger%20what%20danger.htm>).

on any of the political or economic issues charged to the body.

Sir William Stewart could well have accepted the job of Chairman, without fully realizing how powerful and unitary in their view The Lobby was. By the time the Panorama programme was made, however, there were clearly great breaches in the agency. The HPA was from the beginning been set up as a kind of partnership agency which worked in concert with industrial interests. In relation to the pharmaceutical industries, this didn't seem to bother anyone because they were, no doubt, proceeding on the basis that drugs and vaccinations are good for you.

But on the matter of mobile phones, masts and Wi-Fi there was from the beginning clearly the possibility of serious conflict. Although the Stewart Report hadn't really delivered the goods for anti mobile phone and mast activists, it had professed considerable disquiet about moving forward at such a pace paying no attention to the precautionary principle. And it had expressed an especially strong reaction with respect to the use of mobile phones by children and young people.

At the other end of the scale, was Professor Simon Wessely, whose views about the psychiatric cause of illness, seemed to suit industry like a bespoke jacket. But what, I hear you ask, might Simon Wessely have to do with the HPA?

PROFESSOR SIMON WESSELY, WI-FI AND THE HPA

Following the Stewart Report,⁷¹ the Link Mobile Telecommunications and Health Research Programme (MTHR), was set up to look into the possible health impact of Mobile Telecommunications. The research programme began in 2001, initially with funding of £7.36M that later grew to £8.8M, the money was given equally by Government and industry. According to the 2007 Report of MTHR the project was

given an independent management committee to ensure that it was not influenced by industry.

The MTHR project came under the authority of the HPA and the Chairman for the first short year of the project was Sir William Stewart. In November 2002 Stewart, who was also Chairman of the HPA was replaced by Professor Lawrie Challis.

In 2003, the psychiatric lobby insisting that ME/CFS was a product of mental illness, managed to scoop up all the research funding given to the MRC for the funding of research into ME and CFS, following the suggestion of further research made by the Chief Medical Officer Working Group on ME. This was despite the fact that the psychiatric contingent had walked out of the CMOs Working Group in its last months, claiming that the group was biased against its views. All funding was then sunk into useless projects across the country set up only to look at psychiatric diagnosis and suggestions of psychiatric therapy like Cognitive Behaviour Therapy. No money went to biomedical research.⁷²

There is clearly a plan at work here. After the £8M was given to the HPA for allocation, the lions share of the funding that was to go to looking at electromagnetic sensitivity, ended up with the psychiatric lobby. Professor Simon Wessely was able to keep himself and his department at the Institute of Psychiatry in continuous employment for the next six years. But how was Professor Wessely and his colleagues able to influence the allocation of this research money?

Professor Wessely is one of the Advisors to the Science Media Centre, one of the main organisations most responsible for pushing the idea that no form of modern technology can be a danger to health. By 2002 when the funding came through to the HPA, for research into

71 The report of The Independent Expert Group on Mobile Phones (The Stewart Report), published May 2000.

72 Op. cit. *SKEWED*.

illness and mobile phones, Wessely also had his feet under that table.

Maybe, Wessely didn't have to work too hard to ensure that funding was given to psychological research at King's College. Previous members of the MTHR, have included, the lead writer on the *Lancet* paper about Bristol Cancer Help Centre, Dr Clare Chilvers; Professor Simon Wessely's friend from the MRC, leading British vivisector, and sometime head of the MRC Colin Blakemore; and Professor Michael Repacholi, advisor to the WHO on electromagnetism and previously a research worker for the mobile phone industry.

Professor Wessely is nothing if not a consummate professional and after the grant funding had been secured for psychiatric research, he added his authority to a 'denial' group within the HPA. Wessely found a perfect home working alongside Professor Sir Kenneth Calman, the former Chief Medical Officer.

After his stint as CMO, Professor Calman went as Vice-Chancellor and Warden to Durham University, positions that he held until 2007. Calman also began sitting on the Advisory panel to the All Party Group on Health steering pharmaceutical policy through the outskirts of parliament, together with two highly placed vaccine company executives.⁷³

Extending his life of spin, Calman also became Chairman of the Radiation, Risk and Society Advisory Group (R,RSAG), at the HPA that was set up in 2001 and of which Wessely is also a member.⁷⁴ The purpose of the group was originally to spin the work of the National Radiological Protection Board (NRPB).

Perhaps more frightening than the fact that the HPA has built in communications units or spin groups, is the oddly alienated and thoroughly patronizing manner in which the R,RSAG talks about its role: 'R,RSAG assesses, on a continuing basis, *what the public wants to know about radiation*, risk and how society will be affected by such issues.'

73 Op cit. Walker, *The Ghost Lobby*.

One of the bullet points that explain what the R,RSAG actually does, has an ominous ring which we have heard before: 'Developing a series of guidelines, testable by the HPA, on ways of responding to risk issues.' The R,RSAG is keen to get into schools to explain science and risk to schoolchildren, and to this end it has been holding meetings with various education bodies'.

The R,RSAG reports only to the board of the HPA, which is studied with members who have industry interests. In October 2004, after a meeting between the R,RSAG chair and secretary and the communications director of the HPA, it was decided that the group was handling spin for the RPB so well that with the inclusion of other representatives, it could now handle spin for all the other departments of the HPA. The new group would be managed by Lis Birrane the HPA communications director. So Wessely became involved in spinning all matters of public health and science in Britain; quite an achievement.

GOLDACRE AND WI-FI

When one understands that there is a whole industry at work, ensuring that no criticism ever attaches to Britain's science and technology products, even a superficial reading of Goldacre's fallacious drivel makes you angry at the level of deception both he and the *Guardian* are involved in.

The Lobby's criticisms of the Panorama programme, centered on a number of issues. First, the perspective of the programme didn't reflect the science, which, as with all science today, proved conclu-

74 Other members of the R,RSAG are, Ms Lis Birrane, HPA, Ms Deborah Cohen, BBC, Professor William Gellately, University of Surrey, Mr Edward McConnell, The Marlborough School, Professor Jim McQuaid, Royal Academy of Engineering, Dr Michael Murphy, University of Oxford, Professor Nick Pidgeon, University of East Anglia, Professor Lynda Warren, University of Wales Aberystwyth, Dr Hilary Walker, Department of Health.

sively that the technology, in this case Wi-Fi, could not possibly be detrimental to human health. Second, the programme showed bias in interviewing three researchers who were in favour of the precautionary principle and only one who thought that we shouldn't raise any questions about the possibilities of health damage. Third, while the programme made a great deal of this last witness' vested interests it didn't question those of the other three speakers – perhaps because they didn't have any. Fourth, and this was something that only Goldacre made a meal of; when electromagnetic readings were taken in a school classroom, Goldacre says they were taken in the wrong place. There was a final criticism that again seemed to come mainly from Goldacre and that was that the electro-magnetically sensitive subjects interviewed on the programme might have been ill – if indeed they were ill – for a number of reasons other than any contact with EMF.

Amidst his rambling criticisms of the Wi-Fi programme, Goldacre went to great lengths on his blog, 'Bad Science', to make clear that he had never said that those who claimed to suffer from electromagnetic sensitivity were not actually ill. Of course, in the words of Mandy Rice Davies, 'He would say that, wouldn't he', after Professor Simon Wessely spent two decades trying to extricate himself from his idiotic assertions that those who said they had ME, Gulf War Syndrome, Multiple Chemical Sensitivity, allergy and food intolerance all suffered from false illness beliefs.⁷⁵

In fact, Goldacre's rebuttal of the programme,⁷⁶ set medicine back a couple of decades when it repeated with the same derision, the same criticisms of the electromagnetically sensitive that quackbusters had thrown at the Multiply Chemically Sensitive throughout the 1980s and 1990s. It is important to realize that this level of sarcastic derision is not only manufactured at the behest of industry but is also consequent upon the medical profession having not the slightest idea of how to treat those who suffer from these conditions.

Another of Goldacre's criticisms of the programme was that the

75 See Williams, Margaret, *Denigration by Design? A review with references, (cont.)*

Essex study was put in a bad light and did not appear to be taken seriously by the programme.

Obviously the truth behind conflicts involving multimillion-pound industries and citizen consumers is very complex and something that Mr Goldacre rarely touches upon. When we understand that the government itself is deeply involved in this propaganda glut and utterly committed to the cause of industry profits; that it has deserted workers, consumers and citizens, it comes as no surprise that the trickle down effect reaches all the major cultural institutions in society. The BBC, which seems currently to be in thrall to New Labour and its industry backers, is way out ahead, its head thrown back and its mouth open, drinking up that trickle down.

* * *

The web site ElectroSensitivity-UK, which represents the Association for the Electrically Hypersensitive (EHS), is one of the organisations that have recently been at odds with Goldacre. John Fox posted the following on their weekly news section the first week in January 2007:⁷⁷

Ha! Don't you have to laugh, now we have medical Doctor Gro Harlem Brundtland, only the former Prime Minister of Norway and Secretary-General of the World Health Organisation, AND this First Class Honours Graduate in Mathematics and Physics, from my old Alma Mater the University of Cambridge, BOTH coming out against the "absolutely no evidence" background as electrosensitives

75.. (Cont.) of the role of Dr Simon Wessely in the perception of Myalgic Encephalomyelitis (ME). 1987 – 1996. Published privately.

Also: Williams, Margaret, *A review with references, of the role of Dr (now Professor) Simon Wessely in the perception of Myalgic Encephalomyelitis (ME)* Up-date 1996 – 1999.

76 Bad science:Through the tube darkly. Ben Goldacre. *The Guardian*, Saturday May 26 2007.

– or possibly psychotically deluded.

How delightful, sorry if I sound maniacally bitter but for two years we have been hammering on at the likes of the disgustingly unscientific Dr Ben Goldacre with his 'Badscience' in the *Guardian*, with an ego the size of a mountain destroying ordinary mortals, calling not only our credibility but our morals and motivation into question. So where to now Ben?

In another long essay on the same site, entitled Logjam and described as 'a political, social and economic analysis/deconstruction of the immovability we encounter in ES-UK over the issue of health effects caused by electromagnetic fields, and particularly microwaves', Rod Read again picks up Goldacre; while in his next paragraph he draws attention to the psychological tests carried out at King's College, under the guidance of Simon Wessely. The essay is a cry of the most terrible frustration, stemming from the fact that ordinary people with describable illness are not listened to by doctors.

We have tried to open the eyes of the 'Bad Science' *Guardian* columnist Dr Ben Goldacre to this aspect, but he is too narrow and blinkered, sociologically uninformed, to take it on board. Nor does he see our ES science is not performed in a vacuum, but a shifting value-laden social context ...

The recent funding provided for our issue through the Health Protection Agency (HPA) and industry has been perverted into studies by *psychologists*, at King's College and Essex University. Hardly the best orientation when it could have been by biologists, biophysicists and medics, it is a physical health problem in living organisms after all ... Some want it to be seen as a mental health problem, that much is very clear.⁷⁸

The view that the only people who have electromagnetic sensitivity

77 ElectroSensitivity-UK <http://www.electrosensitivity.org.uk/thisweek.htm>.

are those who say they have it - to paraphrase Wessely on ME - has been repeatedly challenged by actual scientists working in the field. In June 2007, Goldacre, in one of his bad columns offended one of the most respected research workers in the field of electro-hypersensitivity, Dr George Carlo, and, one imagines, tens of other real scientists throughout the world.⁷⁹

Carlo's views are particularly important in the debate about the adverse effects of electro magnetic radiation because, in the early 1990s, he was given a \$25 million research and surveillance budget by the industry to investigate whether or not mobile phones caused cancer. In 1999, Carlo resigned from the research after being asked by the industry to manipulate his findings on adverse health reactions.⁸⁰

Since then Carlo has devoted himself to wireless safety, trying to find ways of guarding against the worst health effects of phones and their masts.

On June 2 2007 he published his usual 'Bad Science' column, claiming in the classic King's College-Wessely tradition that those who suggested that they were electro-sensitive were deluded and probably mentally unwell. Carlo was quick to offer a letter to the *Guardian*, drawing on his research and putting Goldacre and the newspaper right:

To the Editor of The *Guardian*:

I am appalled by the insensitive, mean-spirited and fac-

78 The same thing happened with research money granted to the Medical Research Council to undertake research into ME following the Chief Medical Officer's Working Group on ME. Instead of the money going to projects which were to test the biological bases of the illness, all the funding was given to followers of Professor Simon Wessely, to test psychological propositions that people who thought they had ME suffered from 'false illness beliefs'.

79 <http://www.safewireless.org/SWIMemberContent/DrCarlosBlog/tabid/239/ctl/ArticleView/mid/696/articleId/407/The-Radiation-Blob-Indeed.aspx>.

80 Carlo, George and Schram, Martin. *Cell Phones: Invisible hazards in the wireless age*. Carroll & Graf Publishers, New York 2001.

tually incorrect opinion put forth by Andrew (sic) Goldacre in *The Guardian* (Saturday, June 02, 2007). His premise, that patients suffering from symptoms of electro-hypersensitivity are misinformed hypochondriacs, reeks of the adage: "Those who are saying don't know; and those who know, aren't saying." Goldacre does not know. It is time for those who know to speak up.

For the past five years, through our Safe Wireless Initiative project, we have operated the only post-market surveillance database in the world systematically collecting symptom information from thousands of patients suffering from the effects of various forms of electro-magnetic radiation (EMR). In addition, we coordinate a network of clinicians who regularly share information about their experiences treating patients with these conditions, another important and unique resource. Thus, we do not rely solely on self-reported information but have corroboration from treating doctors. It is noteworthy that our health concerns registry will open in the UK through a new local Safe Wireless Initiative branch within the month. This is an important public health step because in the UK there are absolutely no reliable data on the incidence and prevalence of EMR-related conditions. Thus, Goldacre's speculations are all the more mis-informed, but clarity is forthcoming.

In the Safe Wireless Initiative, we have a number of scientific papers in various stages of the peer-review process expected to be published by year's end addressing this emerging medical problem. However, in the interim, we continue to share summary information from our registry database in various forms around the world, including a February 2007 presentation at the House of Commons, for the benefit of clinicians and patients alike.

Overall, our data show the following:

- There are symptom and pathology similarities among patients suffering from electro-hypersensitivity, multiple chemical sensitivities, alcohol-related disease as well as neuro-behavioral and learning disorders. We refer to the symptom constellations as Membrane Sensitivity Syndrome (MSS) and the increase in reports of symptoms consistent with MSS associated by patients with various EMR exposures has dramatically increased over the past 24 months.
- It is noteworthy that concurrently in the past 24 months, the penetration of mobile phones has tripled globally, from one billion to three billion. WiFi has reached the highest penetration in history. Satellite radio is not far behind. All of these technologies rely on information-carrying radio waves, the trigger for non-thermal adverse biological responses and the cascade toward MSS.
- In a majority of MSS cases, when EMR is removed from the patient's environment, their acute symptoms subside. This is an important observation and indeed represents one of the Koch-Henle postulates for causation: If when the exposure is removed, the effect is diminished, there is evidence for cause and effect.
- Pathology and experimental findings support a mechanistic underpinning: an environmentally induced genetic change that renders daughter cells to carry membrane sensitivity characteristics with most symptoms directly or indirectly the result of consequent disrupt of intercellular communication.
- Therapeutic intervention regimens designed around known EMR mechanisms of harm have positively shown varying degrees of clinical symptom amelioration, another support for the causal hypothesis, but more importantly, a ray of hope for those afflicted and debilitated by these conditions.

It is a fact that every serious public health problem man

has faced has first been identified through clinical observations, the historically confirmed first line of evidence for preventing epidemic spread of disease. It is a disservice to the public when uninformed speculation serves to lessen the acuity with which important early signs that can save lives are seen and heeded.

Carlo's letter is exactly the kind of information that Goldacre needs to steer clear of – after all, it's stiff with science. Consequently the letter did not appear in the *Guardian* or in any other public forum.

HOMOEOPATHY

Nowhere is the odium of quackbusters more focused than against homoeopaths, and nowhere is the language more recognisable as a collective campaign than in the written and verbal attacks on this therapy.

The reasons for this are obvious. Homoeopaths agree that there are no molecules of the treatment substance in the homoeopathic remedies that they give to their patients. This fact inevitably breeds scepticism, which always falls short of rational discourse or further enquiry. Secondly, of course, homoeopathic remedies are very cheap to produce compared with chemical medicines. Finally, the practice of homoeopathy demands that every patient is seen and treated as a unique individual, a concept that flies in the face of the orthodox, centralised state concept of unique medicines for the patient masses.

In September 2006, the Medicines and Healthcare products Regulatory Agency (MHRA) introduced a new National Rules Scheme for homoeopathic medicines. In effect, homoeopathic remedies could now be registered and sold with a specific claim made for them. Predictably, the quackbusters were up in arms, accusing the MHRA of being leant on by a Royal Family that had suddenly developed the characteristics of a mafia crime family, of giving in to quacks, of registering sugar pills as medicines, and of flying in the

face of science by ignoring the *thousands of studies which show clearly* that homoeopathic remedies are simply placebos.

The barren nature of the Lobby's argument, that is actually about market competitiveness, shines through the debate on homoeopathy. Goldacre stamped his feet to order, in the *Guardian*, on the advent of these new regulations, using over one-and-a-half centuries of stale and unsupportable arguments against the therapy.

'In Friends In High Places', the *Guardian*, September 1, 2006, Goldacre made all the usual suspect statements about homoeopathy:

- *The MHRA plans to change regulation of homoeopathic remedies, and allow them to make medical claims with no evidence.*

In fact, all homoeopathic remedies have to go through a process of 'proving', in which human 'trial subjects' make extensive notes over long periods about every effect that the remedy has upon them.

- *The statutory instrument got slipped in to Parliament a couple of days before the recess, so nobody could scrutinise it.*

Is this conspiracy theory or is this conspiracy theory?

- *There are meta-analyses examining vast numbers of papers which show it is no better than placebo.*

But I can't lay my hands on them at the moment.

- *The statement from the MHRA offers to put you in touch with some friendly homoeopaths: I fail to see what business that is of the Medicines and Healthcare Products Regulatory Authority (sic).*

Certainly one has to admit that this *is* odd. Why is a Government Trading Agency such as the MHRA, which is totally funded by the pharmaceutical industry, giving out information about homoeopaths? Ever get the feeling that your friends in Big Pharma don't really

believe with the same passion you have, Ben?

- This change will be exploited by quacks to suggest that their treatments have received tacit endorsement, as has happened many times before.

Yes, it has happened many, many, times before that pharmaceutical companies, in connivance with the regulatory agencies, have persuaded the public that medicines are safe while they have later gone on to kill thousands of people.

Just to relive the high quality of scientific debate that Goldacre generates on his Bad Science web site, readers might find the following comments published on the site of interest.

On September 1, 2006, at 2:09am. superburger (Yes, they have anonymising call-sign names, which reek of self-indulgence and moronic chat-line culture) said, 'Go after homoeopaths hard ... They have the veneer of respectability – GP referrals, homoeopathic hospitals, B S fucking Cs in it. Yet the whole thing is utter bullshit. The performance by Mel Oxley on *Newsnight* sums up everything that's wrong with their charade. A lot of CAM is obvious bollocks and just for the wealthy to indulge themselves in, but state-funded homoeopathy in 2006 is a disgrace.'

I have to say it, I really do: Do you think that it is even vaguely possible that superburger and his plainly inadequate compatriots might be employees or even executives of pharmaceutical or processed food corporations?

Another person incensed about the new provision was Michael Fitzpatrick. He showed a faint spark of his earlier Revolutionary Communist Party class-consciousness when he said on the *Today* programme that the MHRA had 'just given a Kite Mark for the Emperor's new clothes, or rather the Prince of Wales' new clothes'.

Obviously seriously alarmed about the growing support for homoeopathy, in the early months of 2007, the quackbusting lobby, led to the barricades by Michael Baum,⁸¹ launched a full-out assault on the London Homoeopathic Hospital. Their strategy was to pressurise Primary Health Care Trusts to vote against funding patients to the hospital. Nothing shows more clearly the absolute contempt that the Lobby has for patients than this totalitarian attempt to deprive patients of medical choice.

In November 2007, Goldacre returned to flog the horse that, if he had his way, would by now be good and dead. In a cover story in the *Guardian's* G2, titled 'A Kind of Magic?', he extended himself over four pages, to rehearse his favourite arguments, in a riposte to a measured defence of homoeopathy by novelist Jeanette Winterson. To the uninitiated, he produced what might appear to be a thoroughgoing, devastating critique of a bogus therapy, but the article is at best a far-rago of truth, half-truth and downright dissembling. Given the lengths that the *Guardian* and other British newspapers go to be apparently objective on any vaguely radical subject, one can't help wondering why the *Guardian* is happy to let Goldacre romp through, and tread down, all previous standards of fair debate.

Homoeopathy might, he allowed, have a placebo effect. There was a model trial for homoeopathy which, time and again, showed that people given a sugar pill did just as well. Time and again? When? No doubt there are such trials, so why don't we get the references. Oh, I remember now, it's 'the *Guardian* is a newspaper and not an academic journal', argument. No need for references then.

Moving on, he suggests that exponents of homoeopathy, 'and indeed all alternative therapists', play 'the same sophisticated tricks that big pharma still sometimes uses to pull the wool over the eyes of doctors'. The trials that seemed to favour homoeopathy were

81 Op. cit. See *Dirty Medicine* for information on Michael Baum and his early role in the Campaign Against Health Fraud.

‘sneaky’, and simply not ‘fair tests’. This is tiresome Ben, either you are ‘a serious fcuk-off academic ninja’, or you’re a shoddy hack. Which is it, name names, refer to references. Or is even a loose academic method just too much trouble?

By the time Goldacre reaches his conclusions, having worked himself up to a froth, he goes so far as to accuse homoeopaths of ‘killing people’ – not, of course, by the administering of their useless pills, but by omission, or by misleading them in the advice of necessary and vital pharmaceuticals, such as the MMR vaccine, anti-retrovirals and asthma inhalers. How many times have we heard this hoary old story; the alternative cancer therapist who treats a patient almost at death’s door as a consequence of chemotherapy, is charged with killing the patient.⁸²

Although he claims to look like a 12-year-old (bless!), Goldacre took his usual, gratingly patronising tone (‘I’m teaching you now ... Congratulations. You now understand evidence-based medicine to degree level.’) In one particularly ripe paragraph, he writes: ‘There are bad trials in medicine, of course, but here’s the difference: in medicine there is a strong culture of critical self-appraisal. Doctors are taught to spot bad research ... and bad drugs.’ According to a list published by the *BMJ*, he continued, the most highly accessed and referenced studies from the past year were on the anti-inflammatory Vioxx, and the SSRI’s, in particular paroxetine. ‘This,’ he opined, ‘is as it should be.’

No, this is *as it should have been!* If doctors were so quick to spot bad drugs, would Merck now be facing a \$50 billion lawsuits, on behalf of 47,000 dead or damaged people in the US alone, with hundreds more pending around the world? And what, meanwhile, of the continuing, frequently inappropriate prescribing of highly-addictive anti-depressants, which have been shown to cause bizarre and suicidal behaviour in susceptible patients? Do we see a ‘strong culture of crit-

82 Op. cit. *Dirty Medicine*.

ical appraisal' at work in all this?

The truth is that allopathic doctors are both unable and unwilling to recognise or respond to bad drugs. They will go on prescribing frequently proven dangerous drugs, until the law intervenes. Allopathic medicine is globally the least open and self-critical profession. When every other profession in developed countries has come to terms with a degree of democratic accountability, doctors hang-on-in-there forsaking their independent critical judgement to protect pharmaceutical company profits.

Homoeopaths and their like, says the 'boy-scientist', secrete away in their drawers, files that show that their therapies are duff; 'This is called cherry-picking.' In contrast, we must suppose, Merck was utterly transparent about the life-threatening side-effects when pushing Vioxx.

Like all quackbusters, Goldacre always glosses over the 'sophisticated tricks of big pharma', the 'bad trials in medicine', as though they were mere aberrations, and not a major, ongoing and murderous scandal. It is standard practice in this style of journalism, to ball up in a throwaway sentence or two, all arguments that run counter to the theme, then to simply bin them, along with any inconvenient findings in favour of CAM.

But whatever we do, lets not forget that Goldacre is not on his own up to his neck in this brown coloured farrago. Behind him stands the *Guardian* the paper that has developed a severe case of ethical intolerance.

* * *

On December 6th 2007 the science correspondent of the *Guardian* reported that the government's chief scientific advisor Sir David King criticised the BBC's *Today* programme and named John Humphreys personally as being a danger to the public health. King, as well as being the science advisor to New Labour, is an advisor to the Science Media Centre.

He chastised the *Daily Mail* over what he called their ‘campaigns’ against GM food and the MMR vaccines. King spelt out the price for this opposition. According to him, in the case of GM crops, the cost to the economy would be between £2bn and £4bn. In relation to MMR King said, ‘My charge there is that your highly successful campaign has potentially led to a situation where we could have 50 or 100 children dying of measles in the UK.’ He added, ‘all the evidence now shows that ‘MMR does not cause autism’.⁸³

The Department of Health came in for further criticism over its decision to allow homoeopathic remedies to be licensed by the Medicines and Healthcare Products Regulatory Agency, the public body that licenses drugs.

‘How can you’ ranted King, ‘have homoeopathic medicines labeled by a department which is driven by science?’ Then he came out with a statement straight from The Lobby’s handbook, ‘There is not one jot of evidence supporting the notion that homoeopathic medicines are of any assistance whatsoever.’

Britain is awash with ominous sentiment at the moment. To think that a government science advisor can make public statements that hint at media censorship fills any democrat with dread, but what manna to the ears of members of the ex-Revolutionary Communist Party. Perhaps we should ask ourselves, has King been a sleeper for many years?

* * *

One of the fundamental tricks of The Lobby, in relation to homoeopathy, is to discount any historical account of the ongoing war that has taken place between the profession of medicine and homoeopathic practitioners for two centuries. Any analysis of this history shows that

83 Chief scientist attacks health reporting by *Today* and *Daily Mail* · Rejection of GM crops costs billions, adviser says: Falling MMR uptake could cost lives of 100 children. James Randerson, science correspondent. *The Guardian*, Thursday December 6 2007.

the opposition to homoeopathy has nothing to do with science and everything to do with a grubby professional turf-war.

Goldacre makes his writing seem post modern, creative and intelligent, full of keen observations that pit the irrational against real science in the post industrial world.⁸⁴ In fact, Goldacre's writing is oft-repeated stale ideology that has been spouted since the time of Samuel Hahnemann, the German doctor of Medicine who created the method of homoeopathic preparations and therapies.

Hahnemann graduated as a physician in Germany in 1779, at that time Germany was the centre of scientific medicine. The great majority of remedies that he researched, 'proved' and produced where the same natural substances used by allopaths, the main difference being in their minimal quantities of prescription. Throughout the 19th and 20th centuries homoeopathy proved itself superior to allopathy in many clinical interventions. In the successive cholera epidemics that crossed Europe after 1830, the records of numerous hospitals show that homoeopathy saved thousands of lives that were lost in hospitals that depended upon allopathy.⁸⁵

Hahnemann was attacked from the first and his followers and fellow therapists were constantly derided by allopathic practitioners whose crude chemical therapies proved more than useless in tackling many of the illnesses of developing industrial societies. With the formation of professional associations in the mid 19th century, the American Medical Association and the British Medical Association did everything possible to exclude from practice those doctors who had done extra training to become homoeopaths.

84 The struggle in North America between alternative medicine and the emerging medical profession, is recorded in detail by the real writer Harris L. Coulter in his lifetime work, *Divided Legacy (Science and Ethics in American Medicine 1800-1914 - the battle between homeopaths and the AMA)*. Volume III of *Divided Legacy* gives a definitive account of attempts by the AMA to force homeopaths out of the medical profession and criminalise their practice. This is perhaps the ultimate text about quackbusters that spares no detail in describing how the AMA organised their classic turf war.

Historically, many followers of allopathic medical ideology, like Goldacre, showed themselves as their very worst in their emotional, irrational and ideological attacks on homoeopaths, while others having witnessed the success of the discipline have been honest enough to make concessions. In 1825, one of the most influential medical doctors and writers of the day, Christoph Wilhelm Hufeland, a man not generally in favour of homoeopathy, wrote the following:

I consider it wrong and unworthy of science to treat the new doctrine with ridicule and contempt ... persecution and tyranny in scientific matters are especially repugnant to me ... Besides, several estimable and unprejudiced men had testified to the truth of the system ...⁸⁶

Despite fair-minded pundits like Hufeland, the equivalent of the modern drug companies, the apothecaries, were quick to introduce laws in Germany aimed directly at homoeopathic medical practitioners, banning physicians from creating their own remedies.

Throughout the whole of his life, Hahnemann shrugged off the constant attacks upon him, having complete faith in his system of medicine and those practitioners who would follow him:

What is true cannot be minted into a falsehood, even by the most distinguished professor.⁸⁷

85 'In conclusion, I must repeat to you what I have told every one with whom I have conversed, that, although an allopath by education, principle, and practice, yet, were it the will of providence to afflict me with cholera, and to deprive me of the power of prescribing for myself, *I would rather be in the hands of a homœopathic than an allopathic adviser.*'

From a letter written by Dr Macloughlin, the Medical Inspector of Stepney, Poplar, St Andrews, St Giles, and St George's, Bloomsbury, who undertook to watch the practice at the London Homœopathic Hospital during the epidemic of 1854. Quoted from *British Journal of Homœopathy*, vol. xiii. P. 681in, Cholera, Diarrhœa and Dysentery. Part I. - Asiatic Cholera. Chapter I. - What is cholera? Hahnemann and microbes in Cholera, Diarrhoea and Dysentery: Homoeopathic Prevention and cure John Henry Clarke, M. D.

Later, in 1836, Hahnemann, perhaps over optimistically, wrote:

When it is necessary for the defence of our divine art, or personal honour, to engage in controversy, my disciples will take this duty upon them. *For my own part, I require no defence.*⁸⁸

PART IV

86 Quoted in J. Rutherford Russell, MD, *The History and heroes of the Art of Medicine*. John Murray, London 1861.

87 Ibid.

88 Ibid.

Returning to Holford

It's a wonder that you still know how to breathe.

Bob Dylan¹

It was, as I said in Part I of this essay, inevitable that Holford and Burne would be roundly condemned by all kinds of quackbusters, following the publication of their book *Food is Better Medicine than Drugs*. It is unlikely, however, that either author understood exactly to what lengths quackbusters would go to destroy Patrick Holford's professional reputation.

When trying to understand the relationship between quackbusters and nutrition, and the relationship between corporate nutrition and independent nutritionists, it is important to grasp the fact that the processed food industry and all its interlinked chemical interests represent one main leg of the quackbusting triumvirate, the other two supports being comprised of the pharmaceutical industry and professional medicine.

Quackbusters fight a continuous rearguard action, duping the public with the message that people who believe in organic, pure food, vitamin supplements, non-chemical and sustainable agriculture, alternative medicine and alternative practitioners are the bad guys; the charlatans.

In relation to nutrition, the battle between the pharmaceutical car-

¹ Bob Dylan. Idiot Wind from *Blood on the Tracks*. Sony Entertainment Inc. 1975.

tels and raw food producers has become so bloody that, last year in Spain, for example, large posters issued by the Department of Health and Consumers went up all over Madrid, warning consumers not to be conned by sellers of vegetables and fruit who might suggest that fruit and vegetables were beneficial to their health.

The posters depicted a rather greasy-looking young greengrocer wearing a white lab coat, with a stethoscope around his neck. He was offering a cut melon to an unseen buyer, while obviously extolling its virtues as a health-giving food.²

In England, in 2004, prosecutions were begun by two Trading Standards Offices in Shropshire and Swindon, against Asda and Tesco, two leading supermarkets. Both chains had suggested inside their stores that regular consumption of fresh fruit and vegetables could help to protect consumers against cancer. In so doing, they were apparently following the cancer prevention campaign policy of the British government.³

In North America in 2007, pharmaceutical interests and the FDA,

2 These were followed in the autumn of 2007, by a whole set of posters, showing different pharmaceutical medicines such as antibiotics, which said the posters, should be used with care to only treat certain conditions. It was difficult to tell what these posters were getting at, as it is anyway only doctors who can recommend or prescribe antibiotics. In November 2007, the Ministry of Health and Consumers produced another series of posters and magazine and newspaper advertisements, exhorting *madrileños* that they should eat more fresh fruit and vegetables – one picture on this poster showed a young man looking longingly at a greengrocers shop and a young woman eating an apple. The slogan proclaimed the dangers of heart disease and the best prevention, consumption of fresh fruit and veg. So who's confusing who?

3 From the *Daily Mail*: Supermarkets are being prosecuted for telling shoppers that fruit and vegetables are good for them. - Tesco is being taken to court for running a promotion in partnership with a leading charity encouraging people to eat healthily in a bid to prevent cancer. Asda faces a similar prosecution. Tesco, in association with Cancer Research UK, printed labels on millions of pre-packed fruit and vegetables advising: "Eat at least 5 different portions of fruit and veg a day to help prevent cancer." - Asda's prosecution surrounds marketing material stating: "Mangoes are a great source of vitamin C and beta-carotene, which are good for healthy eyes and skin. Their anti-oxidant properties help to fight cancer." (*Cont.*)

threatened to force cherry producers to go through the licensing process and declare cherries a medicine if the cherry growers continued to make public new scientific information that suggested cherries had anti-cancer properties.

The American Council on Science and Health (ACSH) is perhaps the major US organisation that defends the interests of the pesticide, herbicide, farming and food chemical companies, as well as the preservative, food additives and food colouring chemical companies. Its massive board of advisors lists many who have vested interests in these areas, as well as those who are established members of skeptical and quackbusting organisations.

The Council was set up in 1978 by Professor Frederick Stare. Stare was a doctor and the founding chairman of the Department of Nutrition at Harvard University School of Public Health. From his early years, Stare accepted considerable grant funding from the food industry, and did research on its behalf. ACSH, has, since its inauguration, supported and argued on behalf of all chemical and processed food causes.

3 (*Cont.*) Trading standards officers claim the supermarkets are in breach of the 1939 Cancer Act, which was brought in to stop people selling quack cures, and the 1996 Food Labeling regulations. Tesco, which is being prosecuted by Shropshire County Council, has been forced to water down the health message on its labels. However, the council will continue with the prosecution next month at West Mercia Magistrates Court. The store's marketing director, Tim Mason, said: "It is crazy that we are being prosecuted for promoting a responsible health message." Asda, which is being prosecuted by Swindon council, said: "We are disappointed that the local authority is continuing to pursue the matter, given that we have sought to follow one of the Government's policy objectives."

A spokesman for Swindon council said: 'Our view is that there is a clear breach of both the Cancer Act and Food Labeling regulations. You cannot make health claims suggesting a product will prevent cancer.' The stores could be fined £1,000 for each breach of the Cancer Act and £5,000 for each offence under the Food Labeling regulations. The Government claimed in a 2000 NHS Plan that 'increasing fruit and vegetable consumption is the second most effective strategy to reduce the risk of cancer'. (*Mail Online* - 11:04am, 17th May 2004).

In Britain, things turned out differently because the most notable British nutritionist, desperate after the Second World War to found an independent Nutritional Institute, wanted to regulate the industry with independent research rather than simply protect paid-for vested interests. Hugh Macdonald Sinclair, whose major contribution to nutrition came with work on the development of essential fatty acids, occasionally visited Frederick Stare in North America.⁴

Sinclair had tried hard from the late 1930s to raise the money in Britain to build a national nutritional institute, but had little success, being shunted from one failing university department to another. He was surprised on visiting Stare in 1943, to find that his research facilities at Harvard were massively funded by the food companies. Project budgets of over a quarter of a million dollars were not unknown, and budgets of 100,000 dollars relatively common. Sinclair failed to understand, that in order to obtain this funding, Stare was endorsing and helping to produce processed foods, rather than policing their public health consequences.

Sinclair continued trying to raise money on the assumption that the food companies would be glad of a regulatory institute that determined the public benefits of foodstuffs on a scientific and nutritional basis. This, of course, was the last thing the post-war processed food industry and its developing army of advising dieticians wanted. With the progress of industrial and novelty food, the processed food industry wanted more than anything to make it quicker and easier to produce food in large quantities.

From the beginning, Stare raised funding from industry to run his Harvard department, and when Elizabeth Whelan was given the job of managing ACSH, she called on the resources, among others, of Monsanto, Coca-Cola and the sugar industry.⁵

* * *

4 Jeanette Ewin. *Fine Wines and Fish Oil: The life of Hugh Macdonald Sinclair*. Oxford University Press. Oxford 2001.

5 Op. cit. *Dirty Medicine*.

A good example of the denaturing of basic foodstuff by industrial processes, is the story of white bread. In his two excellent books about the chemical pollution of everyday food, the far-sighted Dr Franklin Bicknell, who was both a doctor and a member of the Royal College of Physicians, describes what happened to bread in the post-war years. It is worth looking at his account, in two books, *Chemicals in your Food*, first published in 1961, and *The English Complaint*, first published in 1952.⁶ What happened to bread is an excellent example of how technology and company profits slashed the nutritional value of a previously nutritious foodstuff. In *Chemicals in your Food*, Bicknell includes a chapter entitled 'Perverted foods; Bread; Margarine; Cooking Fats'.

Following the Second World War, the millers and bakers, determined to introduce speedy, cost-cutting processes to industrial bread-making, claimed that consumers were unhappy with the dark bread produced before and during the war, and wanted something that was lighter and whiter. It was so well understood that bread was a nutritious and wholesome food (called, colloquially, 'the staff of life'), that Parliament had to vote the right to millers to strip it of its health-giving qualities.

With the introduction of the 'Chorley Wood' manufacturing process in the early 1960s, low-protein wheats were used with chemical 'improvers'. The intense mechanical working of the dough by high-speed mixers meant that the fermentation period was substantially reduced, which increases the production speed of each loaf.

A number of chemical 'improvers' and bleaches were added to bread in the 1950s and 1960s, not just chlorine dioxide, but nitrosyl chloride, nitrogen peroxide, chlorine, potassium persulphate, ammonium persulphate, potassium bromate, benzoyl peroxide, calcium acid

6 Bicknell, Franklin. *Chemicals in Your Food and in Farm Produce*. Emerson Books, Inc. New York 1979. (This is a US edition, there is a British edition.)

Bicknell, Franklin. *The English Complaint or Your Fatigue and its Cure*. William Heinemann. London, 1952.

phosphate, calcium sulphate, ascorbic acid, succinic acid and chalk. These chemicals, emulsifiers, which were known to be a danger to the digestive system and the liver, and which were banned in the US, were introduced to British bread.

THE OLD AND NEW SCHOOLS OF NUTRITION

The war between the processed food industry and independent nutritionists began soon after the Second World War ended. Between the end of war and the late Seventies, the idea of nutritious food had become an anathema to the British public and all those agencies from which they sought nutritional advice. The processed food industry spawned an army of dieticians who blatantly sang the praises of sugar, chemical pesticides and fertilisers, advocated formula milk for babies and pushed everything refined, apparently luxurious, soft, pastel-coloured and without nutritional value.

Coming to market along with these denatured foods, were warehouses full of non-foods, novel foods and what might be called recreational substances. The new confectionary industry swept everything before it, and many children of the urban poor, grew up in a post 1950s environment at the top of a slippery slope that was to take them, as they grew up, further and further away from real food.

The development of industrial food following the second world war, was overseen and encouraged by what we now consider the old school nutritionists and dieticians. Although in the 1970s and 1980s there was already a gathering movement against the excessive use of sugar, refined carbohydrates, additives, white bread, bad oils and various models of food processing, old school nutritionists were usually on the side of industry when these conflicts arose and it wasn't until the 1990s that coalescing movements in favour of nutrition separate from industry began to have more authority.

Although what is left of the old school, claim still to be guided by science, their theoretical position usually consists of highly generalised assumptions. Because industrial production is production for

the masses, the nutritional arguments of the old school are not individual-specific. At the heart of old school nutrition is the argument that we are basically all the same, regardless of environment, health at birth, occupation, or early experience of illness. The old school of nutrition assumes that we all need roughly the same amount of nutrients daily for our bodies to function with the same efficiency. At the centre of these assumptions is that of the 'balanced diet'.

The old school looks at nutritional elements in isolation, generally unconcerned with the biological processes that occur once a substance has entered the body. Were they to enter this terrain, they would be forced to face relative questions about the bio-availability of different vitamins, metals and minerals. The old school are absolutists, concerned with general trends and absolute quantities.

Many nutritional scientists and doctors of the new school, despite having diverse philosophies, agree upon one thing: industrialised processed food is often food stripped of its nutritional integrity. And perhaps more complex than this, once the pre-industrial nutritional balance is overturned, by man's intervention, it cannot be simply recreated by adding synthetic vitamins.⁷

Whereas the old school looks at singular nutrients and their effect, the new school has a more holistic approach, looking at the reverberations of that one nutrient throughout the whole being. More than this, the new school nutritionists will be feeding data into the equation relating to such things as environmental pollutants, different combinations of foods, smoking, drinking and stress.

Because of modern technology, the nutritionist is now able to have a more detailed understanding of the make-up of the individual body and the complex interaction which takes place between elements within it. It is now possible, by testing body fluids and blood, to examine

7 Although this is a charge often levelled at contemporary nutritionists who advocate vitamin supplements, it can be seen at its most absurd by looking at the food industry's trend of adding random quantities of synthetic vitamins to denatured processed foods. Such products have come to be called 'nutraceuticals'.

the various quantities of vitamins and minerals present in the body. It is also possible to discuss what is termed 'nutritional status'.

Rather than relying upon generalised considerations such as Recommended Daily Allowance (RDA) levels, new school nutritionists draw upon information which shows that many nutrients, in amounts considerably higher than RDA levels, have positive or beneficial effects in certain states of ill health. Alternatively, some conditions of ill health can be caused by a deficiency of vitamins and minerals.

Specific nutritional circumstances identified by the new school of nutritionists demonstrate just how individual people are. The person who works at a painstaking or stress-producing job, or the person who internalises emotional conflict, or who smokes cigarettes, will inevitably burn up different nutritional fuel from the person who is of a calmer temperament or in more relaxed employment. The stressed person will need advising upon a different vitamin balance from the calmer person.

Chemical toxins, whether they arrive in the body through the ingestion of food, or through the absorption of ambient environmental substances or even an excessive use of particular vitamins, minerals, or drugs, all draw upon and to some extent counteract the body's nutritional balance. This is simply demonstrated by the examples of tea and coffee. It has been shown that heavy consumption of either of these, and the caffeine they contain, can reduce the bio-availability of vitamin B1 (Thiamine) by as much as 60%.⁸ Continuous B1 deficiency, like all important vitamin or mineral deficiencies, can lead eventually to degenerative disease.

Caffeine affects other vitamins and minerals in the body; it destroys or depletes potassium, calcium, zinc, magnesium, vitamins A and C. It can have an adverse effect upon the nervous system, the heart, the pancreas and the adrenal glands - and it is a factor in as

8 Griggs, Barbara. *The Food Factor*. London: Viking, 1986.

many as two dozen degenerative diseases.⁹

It is evident from such information, that a 'balanced' diet for a person drinking large amounts of tea or coffee is different from a 'balanced' diet for the person who drinks neither. Alcohol and sugar are other 'taken for granted' foods which have an effect upon vitamin and mineral absorption, de-stabilising an otherwise 'balanced' diet.

New school and independent nutritionists have moved on far beyond the simple slogans of the old school and are now in a position to understand much more about the catalytic effect of a wide range of vitamins, minerals and foods generally. Given the complex state of our present knowledge, anodyne advice about 'square meals' and 'balanced' diets is about as useful as passing a hacksaw to a micro-surgeon.

DOCTORS AND NUTRITIONAL MEDICINE

Because we are, on the whole, what we eat, there are some doctors of the new school of nutrition who maintain that one of the very first tests which a doctor should carry out on patients is to measure their nutritional status. Those doctors who do not assess the nutritional status of their patients, rarely take it into account during diagnosis.

The training of orthodox doctors has consistently failed to take nutrition into account. Even when dealing with food-based problems such as allergy and intolerance, many orthodox doctors steer their way carefully through any discussion of nutrition. Some doctors would not consider it a part of their role to give patients authoritative advice on the consumption of certain foods. These same doctors tend to avoid making judgments about nutrition. The idea of nutritional treatment conflicts with their training and the culture of modern medicine,

⁹ Somogyi, John. *International Journal for Vitamin and Nutrition Research*. February 1976.

Goulart, Frances S. *Nutritional Self-defence: Protecting Yourself from Yourself*. Lenham, Maryland: Madison Books, 1990.

which has been largely shaped by pharmaceutical interests.

The avoidance by orthodox practitioners of nutrition has meant that nutritional practice and advice have been relegated to a sub-professional area of healthcare which tends to be populated by often female, ancillary workers, answerable to doctors: an area which tends to be dominated and controlled by the processed food, chemical and pharmaceutical companies.

Increasingly, general practitioners have been de-skilled in the 'healing arts'. Gradually, they are losing any understanding of the biological effects of the drugs which they prescribe and the foodstuffs and chemicals which their patients consume. In a world in which doctors become detached from the basic skills of healing, issues of nutrition tend to be approached, if at all, in only the crudest terms.

* * *

The most consistent approach in the critical writing about quackbusters and skeptics looks mainly at science, irrational phenomena and alternative health.¹⁰ However, if we take Goldacre's writing as divining the interests of quackbusters, we have to accept that criticism of independent nutritionists, who owe nothing to either the processed food industry or the pharmaceutical industry, represents a major part

10 **P. J. Lisa:** *Are You a Target for Elimination? An inside look at the AMA conspiracy against chiropractic and the wholistic healing arts* (1984); *The Great Medical Monopoly Wars* (1986). **James P. Carter:** *Racketeering in Medicine: The suppression of alternatives* (1992). **Christopher Bird:** *The Persecution and trial of Gaston Naessans* (1991). **Sylvie Simon:** *La Dictature Médico-scientifique - The Medical and Scientific Dictatorship* (1997); *Vaccination, l'Overdose - Vaccines, Already at Overdose* (1999); *Exercice Illegal de la guerison - Healing, An Illegal Practice*, Ed. Marco Pietteur (2002). **Guylaine Lancot:** *The Medical Mafia: How to get out of it alive and take back our health and wealth* (1995). **Martin J Walker:** *Dirty Medicine: Science, big business and the assault on natural health care* (1993); *Loic le Ribault's Resistance: The creation of a treatment for arthritis and the persecution of its author, France's foremost forensic scientist* (1998); *SKEWED: Psychiatric hegemony and the manufacture of mental illness in multiple chemical sensitivity, Gulf war syndrome, myalgic encephalomyelitis and chronic fatigue syndrome* (2003).

of The Lobby's platform.

The modern links between the processed food industry and attacks on environmental campaigners can be easily traced back to the early 1960s. When Rachel Carson published *Silent Spring*, the book that first warned about the effects of pesticides on the natural environment and in the food chain, the industrial fight-back came not only from the pesticide manufacturers but also from the American Medical Association and the American Nutrition Foundation (ANF), at that time, an organisation supported by 54 chemical and industrial food companies.¹¹

The ANF put together a 'fact kit' on *Silent Spring* which was sent to thousands of public officials, university departments, doctors and citizens. A letter in the kit from the president of the Foundation stressed the independence of Carson's critics and described her book as 'distorted': 'The problem is', he said, 'magnified, in that publicists and the author's adherents among the food faddists, health quacks and special interest groups are promoting her book as if it were scientifically irreproachable and written by a scientist'.¹²

The links between quackbusters and processed food corporations over the last twenty years are substantial and overt, rather than slight and covert. Regardless of the reality of the denaturing of contemporary industrial food, the American National Council Against Health Fraud (NCAHF) has always tried to criminalise those who take an independent view of nutrition. In a 1989 National Health Fraud Conference in Kansas City, William T. Jarvis, the founder of NCAHF, listed 'those who believe that the food supply is (nutritionally) deplet-

11 Walker, Martin J. The Unquiet Voice of 'Silent Spring': The legacy of Rachel Carson. *The Ecologist*. Vol. 29, No 5, August/September 1999.

12 In fact, *Silent Spring* had some 600 references from contemporary scientific literature, while her critics usually failed to produce references for their critical writings. John Maddox unbalanced view of *Silent Spring*, written six years after he became the editor of the science mag *Nature*, contained the following sentence: 'In reality DDT is no more poisonous to people than aspirin ...'

ed and contaminated' as 'people that had fallen victim to quackery'.

From its inception, the British Campaign Against Health Fraud boasted two major names in old-school corporate nutrition, John Garrow¹³ and the late Arnold Bender, who died in 1999.¹⁴ Both these nutritionists had spent substantial time with industrial food producers working on and advising about nutrition.

In 1991, Vincent Marks¹⁵ a founder member of CAHF and a long-time consultant for the sugar industry, wrote *Is British Food Bad For You?*¹⁶ for the Institute of Economic Affairs (IEA), a free market think tank rooted in British industry, that was responsible for floating many of Thatcher's monetarist policies. The booklet was a defence, not of British food but of industrial food. Of those who feel uncomfortable with the involvement of corporate science in food production, Marks says:

These, mainly middle-class, scientifically ill-informed individuals feel more comfortable with things that are naive-

13 Professor John Garrow, MD, PhD (St Andrews), FRCP(Ed), FRCP(Lond) has been the chairman of HealthWatch 1991-1993, 1997-1999, 2003-2005. He was editor of *European Journal of Clinical Nutrition* 1988-1999. Formerly Professor of Human Nutrition, University of London, Honorary consultant physician St Bartholomew's Hospital, St Mark's Hospital, Royal London Hospital and Northwick Park Hospital. Was the head of Nutrition Research Unit MRC Clinical Research Centre, Harrow, and member of Department of Health Committee on Medical Aspects of Food Policy (COMA); Chair of Joint Advisory Committee on Nutrition Education and Chair of Association for the Study of Obesity.

14 They say: Professor Arnold Bender, a founding member of the committee of HealthWatch. He left academic life in 1947, initially to lead a research team at Crookes Laboratories Ltd where he and the late Derek Miller developed what is now the almost universally accepted method of assessing protein quality and nutritional value. In 1953 he moved to become Head of Research at Bovril Ltd, and then in 1961 to become Head of Research and Development at Farley's Infant Foods. In this post he claimed to be possibly the only nutritionist to have formulated and brought to market a commercially successful and nutritionally sound infant weaning food. In 1964 he returned to academic life, initially as a senior lecturer in the Department of Nutrition at Queen Elizabeth College; he was appointed to a personal chair in (*cont.*)

ly or exploitatively referred to as 'natural' – without understanding quite what that term means – than they are with products they perceive as being manufactured or synthetic.

Stephen Barrett, a leading member and founder of the North American progenitor of CAHF, the American Council Against Health Fraud, also professes an expertise in nutrition.¹⁷ Barrett has written extensively and superficially, disputing all claims of environmental influences on health. He has championed campaigns against the use of vitamins and alternative medicine of all kinds.

Populist books Barrett has edited or written, some published by Prometheus, the CSICOP publishing house, include: *Vitamins and Minerals: Help or Harm?* (I bet you can't guess the answer to that question!); *Dubious Cancer Treatment*, published by the Florida

14 (Cont.) 1971, and to the established Chair of Nutrition and Dietetics and Head of Department in 1978. He retired from academic life in 1983, but remained active in scientific and professional affairs, and scholarship and writing until a few weeks before his death. He was the author of some 150 research publications and major academic reviews, and 14 books, many of which have become major reference works and standard textbooks at school and university level. In addition he wrote prolifically for the non-specialist audience, both articles in magazines and journals, and also such books as *Health or Hoax: The Truth About Health Foods and Diets*.

15 Marks has recently excelled himself academically with a true-crime book titled *Insulin Murders*, which he wrote with HealthWatch founder Caroline Richmond. Very much a family affair, the book is introduced by Nick Ross the chair of HealthWatch. For more information about Vincent Marks, see *Dirty Medicine*.

16 Marks, Vincent. *Is British Food Bad For You?* London: health and Welfare Unit, Institute of Economic Affairs, London 1991.

17 They say: Stephen Barrett, M.D., a retired psychiatrist who resides in North Carolina, has achieved national renown as an author, editor, and consumer advocate. In addition to heading Quackwatch, he is vice-president of the National Council Against Health Fraud, a scientific advisor to the American Council on Science and Health, and a Fellow of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP). In 1984, he received an FDA Commissioner's Special Citation Award for Public Service in fighting nutrition quackery. In 1986, he was awarded honorary membership in the American Dietetic Association.

Division of the American Cancer Society; *Health Schemes, Scams, and Frauds*, published by Consumer Reports Books, and *The Vitamin Pushers: How the "Health Food" Industry Is Selling America a Bill of Goods*, published by Prometheus Books.

Barrett, who runs the *Quack Watch* web site that attacks everything alternative or environmental, has been in a state of ongoing warfare with Tim Bolen, one of the leading investigators, writers and legal defenders of such quackbuster targets as independent research scientist and naturopath Hulda Clark, for the past few years.¹⁸

Another link between quackbusters and the processed food industry can be found in the work of John Renner, until his death in 2005, one of the founding and most active members of the American National Council Against Health Fraud. Although the US Health Fraud movement was mainly bankrolled by pharmaceutical interests, Renner's corner of the movement was linked to the rich Speas Foundation, the money for which came from the Speas processed food empire. Renner began the Kansas City Committee on Health and Nutrition Fraud and Abuse in 1985, the same year as the American National Council Against Health Fraud came into being.

Quackbuster attacks on nutritionists have consistently been a part of the HealthWatch strategy and although Goldacre presents his exposés as if they were fresh off the press, they are in fact boiler plate presentations which have been continually repeated since the mid 1980s.

Following the publication of *Dirty Medicine*, I began collecting illustrations of incidents and attacks by HealthWatch and I wrote up a number of these involving nutritionists. These accounts are worth going back to. We can learn from them that the same strategies and even the same phrases are being used by Goldacre today as were used by Health Fraud activists over a decade ago.

18 You can follow this ongoing battle by going to: www.quackwatch.org/11Ind/bolen.html and www.quackpotwatch.org/

I am presenting these accounts, below, as they were written. The first one about Foresight was published in *Dirty Medicine* in 1993, while the following three accounts were written up in the mid 1990s.

NUTRITION FOR TWO: BELINDA BARNES AND FORESIGHT

Even some of the most conservative ‘old school’ nutritionists agree that there are certain categories of people who may need to supplement their diet with vitamins. One of these categories has, in the past, been pregnant women. Many doctors and therapists now believe that the health and nutritional status not only of the pregnant woman, but of both prospective parents for some time prior to conception, affect both the chances of conception and the health of any new-born child.

The relatively recent understanding of the various ways in which the nutritional status of the future parents affect the health of a child has led to a growth of practice in the field of pre-conceptual care.

For those doctors and practitioners who use nutritional status as a guide to health, pre-conceptual care is one of the most important areas of work. If we are what we eat, for a period of nine months at least so are our children. It is the circumstances of conception and the medical history of the two parents, which will lay the foundations for many of the life-long health complexes of the child.

All the nutritional deficiencies and the chemical toxicities which affect the adult have an effect upon foetal development. Cigarette smoking, consumption of alcohol and chemical interventions such as the contraceptive pill have an effect on the nutritional status of the adult and therefore the baby.

Work by Professor Michael Crawford of the Institute of Brain Chemistry and Human Nutrition, in London, has shown that poor nutritional status of the mother can result in low birth weight and small head circumference. Small head circumference can mean also that there are disorders in brain development, ranging from brain damage to poor learning ability.¹⁹ Professor Crawford believes that

'between eight and ten per cent of the population fail to reach their full genetic potential because of poor nutritional status'.²⁰

One of Professor Crawford's studies of 500 babies in Hackney, a low income inner-city area of London, showed that 96% of low birth-weight babies (below 5lb 8oz) involved in the study were born to mothers having inferior diets.

Many orthodox doctors have a one-dimensional view of pre-conceptual nutrition. It has, for example, been common until recently for doctors automatically to prescribe an iron supplement to pregnant women. Research now shows, however, that this supplement is likely to inhibit the absorption of zinc. As British and American women tend to have a poor zinc intake, the prescription of such supplements could be counter-productive.

Belinda Barnes, the founder of Foresight (The Association for the Promotion of Pre-Conceptual Care), comes from a long tradition of exceptional and informed British amateurs. She has extended her own education through extensive reading, correspondence and frequent meetings with experts. She has the amateur's determination to prise information from professionals and then put it to use in the public domain. She has no faith in the mystique of professional opinions nor any regard for the hallowed institutions of academia. She believes first and foremost in information for the people. She and the doctors who work with Foresight have been giving nutritional advice for over a decade to pregnant women and providing medical help to couples who have difficulty in conceiving or who have frequent miscarriages.

Like others in the field of pre-conceptual care, Belinda Barnes found herself committed to the subject following her own bad experience with child health and orthodox medicine.

19 'Prevention of brain disorder associated with low birth weight in City and Hackney'. London: Institute of Brain Chemistry and Human Nutrition, 5 Sep 1991.

20 Mathews, Robert. 'Putting bounce back into baby.' *Daily Telegraph*, 2 Sep 1991.

My first son had coeliac disease. It took a long time to get that diagnosed. We nearly lost him. We had a number of poor interventions in his case and I suppose that it was at that time that I began to query conventional medicine.

Then my daughter was born with a tumour on the spinal cord; this partially paralysed her. For a long time I couldn't get any doctor to agree that there was anything wrong with her. It wasn't until she was 19 months that they agreed there was something seriously wrong. This experience again gave me an insight into the limitations of the orthodox medical profession.

My son had a lot of problems as a consequence of his coeliac disease. I now know that these were deficiency illnesses, he had eczema, bad dyslexia and hyperactivity.²¹

Belinda Barnes learnt serious lessons from the births of her three children. After her third child started school, she began trying to help others by dispensing the dietary information she had learnt while treating her first son's coeliac disease.

We lived near one of the Cheshire Homes; we used to go up there and take fruit and things. One day after reading an article by Roger McDougal, the playwright who overcame his own MS, I suggested that I could help them to produce a gluten free diet for the people who had Multiple Sclerosis. There was a lot of opposition and negativity about it. This was around 1973.²²

The need for nutritional advice for coeliac disease was evident, but just as Dr Jean Monro had found, Belinda Barnes began to suffer the irrational hostility of some orthodox doctors.

21 Interview with the author.

22 Ibid.

By the mid-seventies, Belinda Barnes was getting more deeply involved in learning about nutrition. She was corresponding with people, meeting experts privately and at conferences, and she was reading voraciously. In the introduction to a book published in 1990²³ Barnes explains how a friendly and inquisitive letter to an American doctor, whose paper she had read in the *Journal of Orthomolecular Psychiatry*, set her off on the serious quest for knowledge about nutrition.

Dr Elizabeth Lodge-Rees flew into Heathrow one memorable dawn: 'I've got arms the length of an orangutan, honey, from carting all those darned books in my hand-luggage - I've nearly dislocated both shoulders!' The hand-luggage contained education for life! Amongst those 'darned books' were Dr Weston Price's epic *Nutrition and Physical Degeneration*,²⁴ the works of that brilliant and witty nutritionist Dr Roger Williams,²⁵ Wilfred Shute on Vitamin E,²⁶ Linus Pauling on Vitamin C,²⁷ Carl Pfeiffer on trace minerals,²⁸ and Adelle Davis.²⁹ Despite having Beth as a house guest, I read until 4.30am that night.³⁰

Belinda Barnes' enthusiasm to turn her knowledge into practical help for people made her many friends and throughout the seventies she met and read about an increasing number of people who were beginning to do work on deficiencies and toxicity.

23 Barnes, Belinda and Bradley, Susan. *Planning for a Healthy Baby*. London: Ebury, 1990.

24 Price, Weston. *Nutrition and Physical Degeneration*. New York: Hoeber, 1939.

25 Williams, Roger. *Nutrition against Disease*. Toronto: Bantam, 1971.

26 Shute, Wilfred. *The Complete Updated Vitamin E Book*. New Haven, CT: Keats, 1975.

27 Pauling, Linus. *How to Live Longer and Feel Better*. New York: Freeman, 1986.

Pauling, Linus. *Vitamin C, the Common Cold and Flu*. New York: Berkeley, 1970.

28 Pfeiffer, Carl C., *Nutrition and mental illness: an orthomolecular approach to balancing body chemistry*. Rochester, VT: Healing Arts Press, 1987.

29 Davies, Adelle. *Let's Eat Right to Keep Fit*. London: Unwin, 1979.

30 Interview with the author.

I met Professor Sir Humphry Osmond's sister Dorothy and then got to know him by letter. He was working in the USA with vitamins and minerals and the effect which they have on people's mental efficiency or difficulty.

I was in touch with people in America and Canada where different people were working on different things, like Oberleas and Caldwell on zinc,⁷¹ and David Horrobin,⁷² and Lucille Hurley.⁷³

Mrs Barnes also began to meet the people who would form the supportive structure of Foresight - the doctors and scientific analysts on whom Foresight would depend to formulate programmes. She was in touch with the Schizophrenia Association of Great Britain and on the committee of Sanity.

By the late nineteen seventies she became convinced that the majority of early child health problems were the consequence of vitamin and mineral deficiencies or a high intake of toxic metals and pesticides. She met Professor Derek Bryce Smith who at that time was working on the damaging effects of lead in petrol.

As her commitment grew, Mrs Barnes began to notice that certain areas of her work were, for one reason or another, being suppressed. She interprets this now as the product of professional jealousy. In America, Elizabeth Lodge-Rees, who was using hair analysis and working on vitamin and mineral deficiencies, was also having a hard time. Belinda Barnes found that so much of the original work in the field of nutrition, like that done by Pfeiffer on zinc, was quickly relegated to a sub-culture of alternative health practice. Barnes saw also

71 Oberleas, D., Caldwell, D. F. 'Trace minerals in pregnancy.' *Int'l J Envir Stud* 1981; 17: 85-98.

72 Horrobin, David. (ed) *Clinical Use of Essential Fatty Acids*. Montreal: Eden Press 1982.

73 Hurley, Lucille. *Developmental Nutrition*. Engelwood Cliffs, N.J: Prentice-Hall 1980.

that Dr Jean Monro, with whom she was now working, found it very difficult to get her work published in journals. Dr Ellen Grant, who was doing extensive scientific work on the deleterious effects of the birth control pill,⁷⁴ was being shunted to the margins of science and medicine.

Nutritional advice for future parents was considered ‘cranky’ by most doctors. Belinda Barnes, despite being an amateur, has, however, a more rigorous and intellectual attitude than many orthodox professionals.

The history of nutritional medicine is real history, the history of a real movement which has gained knowledge since the 1930s. It is a scientifically serious movement, one which is documented in scientific and medical research papers. We are not talking about some quack treatment which a few cranks have tried.

Belinda Barnes, commenting on the contemporary state of child health, makes the point that there is today, often a connection between the medical profession and industry which creates a self-serving circle, from which real science is excluded.

Because of pesticide residues in food, there are now many more allergic conditions amongst children and children are getting them even sooner. The situation is deteriorating all the time. We now know for instance that pesticides reduce the bio-availability of magnesium. The number of children born with complaints like eczema, epilepsy and asthma is increasing all the time, seemingly in relation to the increased use of chemicals in the environment. Miscarriages, malformations and cot death are also increasing.

In relation to chemical solutions to these problems, there is a kind of circular pattern. A chemical company may

74 Grant, Ellen. *The Bitter Pill*. London: Hamish Hamilton, 1985.

make a crop spray which gives people allergic, cold-type symptoms, and the same company will market an over-the-counter remedy for such illness.⁷⁵

In 1986, Foresight published a pocket-sized booklet,⁷⁶ ‘designed for the handbag’. It listed all chemical food additives and colour coded them, so that they could be easily identified as those which might be dangerous (red), those about which there were conflicting views (orange) and finally those which appeared to have no adverse side effects (green). The gradual development of Foresight into this more combative area of nutritional advice, together with an emphasis on the problems caused to mothers and babies by pesticides, have taken it out of the ‘interested amateur’ category and thrown it into the thick of the battle with the chemical and pharmaceutical companies. Also in 1986, Foresight produced its own wholefood cookery book⁷⁷ and Belinda Barnes wrote *The Hyperactive Child*,⁷⁸ a book which has become a classic.

The cynicism of many orthodox doctors and a lack of patient participation made it more or less inevitable that Foresight would be pushed to the margins. However valuable its work, Foresight was part of an underclass of health organisations. Access to media is always restricted, and there are few windows in the prevalent medical ideology through which it was able to voice its opinions.

Foresight originally sent hair to America for hair mineral analysis, but in 1985 Dr Stephen Davies and Biolab began doing their analysis in London. By this time, thirty or forty nutritional doctors were working with would-be parents on a wide range of problems. Belinda

75 Interview with the author.

76 *Foresight Index Number Decoder*. Godalming: Foresight, 1986.

77 Jervis, Norman, Jervis, Ruth. *The Foresight Wholefood Cookbook*. London: Aurum Press, 1986.

78 Barnes, Belinda, Colquhoun, Irene. *The Hyperactive Child*. Wellingborough: Thorsons, 1984.

Barnes was still a long way from her ultimate goal of getting pre-conceptual care integrated into the National Health Service, but at least Foresight had a regular following and appeared to have been accepted by many professionals in the field.

In 1989 HealthWatch began a campaign against Foresight, firstly by an odd diversionary tactic. Out of the blue, Belinda Barnes received a letter from Professor John Garrow, one of the original members of CAHF. Garrow's letter suggested that Foresight's results were not as well documented as they might be. He would be prepared to help with a double blind trial, if Foresight were to fund it. The request was bizarre. As well as having spent his working life in the food industry, Garrow did research for a major multi-national company, whilst Foresight was a small voluntary charity.

Belinda Barnes found Garrow's offer repugnant, mainly on ethical grounds. People who turn to Foresight are often suffering great anxiety and unhappiness because they are unable to conceive. In many cases, Foresight doctors are able to resolve these problems through the clinical application of nutrition and other natural interventions. A double blind trial would have involved refusing treatment to half of those who turned to Foresight for help.

Belinda Barnes dealt carefully and diplomatically with the letter, discussing the problems and politely but firmly declining the offer which disclosed a not-so-hidden agenda. She was somewhat surprised, therefore, to see her private correspondence with Garrow published in the fourth CAHF newsletter in April 1990, under the heading, 'The Foresight Saga'. The article poured scorn on Foresight and tried lamentably to find criticisms of its aims and methods, drawing mainly upon the letters exchanged with Garrow. Although Belinda Barnes did not know it at the time, she had fallen for one of the Campaign's classic con-tricks. Having drawn an individual or an organisation into a dialogue, it then distorts and manipulates the information gained, and places it in the public domain.

In 1990, twelve years after starting Foresight, Belinda Barnes

wrote *Planning for a Healthy Baby: essential reading for all future parents*, with Suzanne Gail Bradley.⁷⁹ This book managed to do something which the whole of orthodox medicine had been unable to do, about a subject as simple and as popular as pregnancy and pre-conceptual care. The book maps out the steps that possible parents may take prior to conception to ensure the optimum health of their child.

In 1991, members of HealthWatch, which was by then a charity, were involved in a major attack upon Foresight, also a charity. Belinda Barnes picked up the phone one day to find herself talking to a truculent and aggressive Thames Television research worker called Cillian de Boutlier. He was, he said, going to 'expose' Foresight. He asked for an interview, saying that the programme would be done anyway and it would be better for Belinda Barnes if she did an interview. Faced with that, Barnes felt that she did not have much option, and so Cillian de Boutlier came to Belinda Barnes' house with an interviewer, a producer and a camera team.

In the pre-interview discussion, the first question that the interviewer asked her reflected the crew's view of the subject: didn't Mrs Barnes think the world would be a terrible place if all babies were healthy? On this level of Darwinian erudition the interview began.

Belinda Barnes found it impossible to voice her opinions in response to the kind of questions which she was asked and, following the interview, the programme came as no surprise to Belinda Barnes. Foresight was attacked because it advocated the use of vitamins and food supplements and because its view of pre-conceptual care was in conflict with the views of the multi-national chemical and pharmaceutical companies.

To bolster the case of the Thames Television programme, a Company magazine journalist, Margaret Hendricks, visited three of the doctors who work with Foresight, as a bogus patient. Hendricks gave a false name and address to two of the three doctors, and pre-

79 Barnes, Belinda and Bradley, Susan. Op. cit.

sented all of them with a set of widely differing medical family histories. As in other 'bogus patient' cases, the starting assumption for the three consultations was that the doctors were doing something wrong.

The Thames Action programme on Foresight was broadcast on February 15th 1991. The programme made a number of allegations against Belinda Barnes and Foresight. However, it was most critical of the three doctors whose time the journalist had wasted. Each doctor, the programme claimed, had given the patient different regimes. This was not true.

Margaret Hendricks had given a different medical history to each doctor and then because of her subterfuge had been unable to go back to the doctors for a follow-up appointment. Much to the programme makers' chagrin, all three doctors had written in their notes for the bogus patient: 'This is a basically healthy young woman'. Given this, Hendricks was forced to try to bully one of the doctors into prescribing her vitamins; she was offered only a multivitamin supplement.

The doctors upon whom the programme dwelt were the same ones whom HealthWatch and Duncan Campbell had already criticised: Dr Stephen Davies, Dr Damien Downing and Dr Belinda Dawes, all doctors active in the British Society for Nutritional Medicine.

The overall view given by the programme was that Foresight was a sinister and disreputable organisation which was charging people, who were at their most vulnerable, large amounts of money, for experimental and ineffective treatments. None of the doctors nor the research director of Foresight had been approached by the programme to give a medical view. Later, before the Broadcasting Complaints Commission, the programme makers claimed that it was not a programme for experts, but one for lay people and they had therefore interviewed Mrs Barnes. However, to dispute her lay views, the programme presented two qualified 'experts', a gynaecologist and Dr Andrew Taylor, a colleague of Professor Vincent Marks at Surrey University. The BCC was later to say that those consulted by Thames Action, were not 'known for their strong beliefs either for or against'!

Andrew Taylor's office on the Surrey University complex is, coincidentally, just a hundred yards from the office in the Chemistry Department of Foresight's research director, Dr Neil Ward. Dr Ward is an ebullient, well-qualified and populist lecturer, a man eminently suited to talk to a lay audience. Mrs Barnes had suggested from the outset that Dr Ward be asked to appear on the programme.

In her later criticism of the programme to the Broadcasting Complaints Commission (BCC), Belinda Barnes makes the point that if the programme makers wanted to accuse Foresight doctors of unethical practice in prescribing and charging for vitamin and mineral supplements, then they should have made a complaint to the General Medical Council. As it was, this 'slur by television', which did not even allow the doctors a right of reply, made the common practice of both the doctors and the charity for which they worked appear to be sinister and crooked.

The BCC, in a typically equivocal manner, found partially in favour of the programme, and partially in favour of Foresight, saying in part: 'In the Commission's view, the overall tone of the programme was, however, unfairly derogatory to Foresight, particularly in the section relating to the prescription by Foresight doctors of vitamin and mineral supplements and of the charges made by doctors for them. An impression was given - by the showing of bank-notes changing hands and the accompanying commentary - that the doctors, and perhaps Foresight, were benefiting unjustly at the expense of their patients. The Commission understand that the charging by doctors in private practice for prescriptions of this sort is, in fact, sanctioned by the BMA ... The programme was unfair in that it did not give Foresight a proper opportunity to explain to viewers that there was substantial scientific backing, in the form of earlier research, for their approach to pre-conceptual care'.⁸⁰

LINDA LAZARIDES AND THE SOCIETY FOR THE PROMOTION OF NUTRITIONAL THERAPY

Linda Lazarides⁸¹ is one of the most committed and knowledgeable of the new school of nutritionists; she trained at a London nutritional organisation, but says now that she has learnt most from her regular clients. After her training in 1988 she established the Society for the Promotion of Nutritional Therapy (SPNT).

Like a number of other organisations, SPNT puts enquirers in touch with qualified practitioners of nutritional medicine. Over the years it has grown to be one of the foremost nutritional organisations in contact with a large number of practitioners, who deal with a wide diversity of health problems.

The other aspect of SPNT is described by Linda Lazarides as ‘producing PR on nutritional therapies’. There is no corporate membership of SPNT, only personal membership with a lay and professional board. Linda Lazarides has always had her sights firmly set on education and SPNT has consistently worked with universities to set up educational courses in nutrition.

Separately from her work inside SPNT, Linda Lazarides has become one of the most accomplished campaigners against European directives on vitamins and food supplements. The Save Our Supplements (SOS) campaign, which she organised, managed to bring to a halt the first moves towards a European directive on vitamin and food supplements in 1990.

On 2nd November 1992, the BBC broadcast a Watchdog Special about the healthfood trade. At that time, Watchdog was being produced by Sarah Caplan, the partner of Nick Ross, the long-standing Chairman of HealthWatch. Like some other consumer-type pro-

80 The Broadcasting Complaints Commission adjudication on the complaint from Foresight, Sep 1991.

81 Today Linda Lazarides is a practicing nutritional therapist with her own website, Health-Diets.Net. She founded the British Association for Nutritional Therapy, and has authored many publications on self-health, nutrition, diet and weight control.

grammes of this period, Watchdog was often a gimcrack magazine programme, with very low journalistic standards, put together from vested interest stories and guided by the personal prejudices of its reporters.

The present generation of Watchdog programmes has changed the format radically. The programme now keeps viewers continuously in contact with the complainants by live phone link: this method makes for a programme in which viewers are kept in touch with the genuine concerns of consumers and lay complainants.

The Watchdog Special on November 2nd 1992 concentrated on dietary supplements, herbal products and nutritional therapists. The programme was wholly informed by the health fraud movement and its main thesis was that, due to inadequate controls, the public at large was not only being duped but taking serious risks by purchasing products from healthfood shops. Professor John Garrow, one of the founder members of HealthWatch, was the 'nutritionist' consulted by the programme.

'Scientific' tests carried out on some food supplements were done by Professor Vincent Marks' colleague Dr Andrew Taylor at the Robens Institute. These tests claimed to show that a number of food and dietary supplements were not metabolised in the body and therefore were not made bio-available; the programme used the term 'bedpan bullets' to describe these supplements, which they claimed passed straight through the body!

The Broadcasting Complaints Commission received a large number of complaints following the programme. One member of SPNT described the programme as a 'litany of blatant misinformation, half truths and innuendo'. SPNT singled out a number of areas in which it considered the programme was unfair, saying that it was biased in its selection of advisors and that it failed to inform viewers that the programme's main advisor, Dr Garrow, was a member of HealthWatch. By its badly researched innuendo, SPNT suggested, the programme fostered fear and anxiety.

Eight months after it had made its complaint to the Broadcasting Complaints Commission, SPNT was still waiting for a date to be set for a hearing. The BBC disputed every date suggested by the Commission. One company cited in the programme, Bio-Health, did receive an apology from the programme when it became apparent that the programme's chosen consultant had used the wrong 'scientific' test to assess its product. When eventually the BCC hearing was held, it found in favour of SPNT.

KATHRYN MARSDEN AND THE HAY DIET

The concern of the health fraud movement, that anyone might want to change the traditional British diet of meat and two veg, is manifest at its most extreme in its gratuitous attacks upon alternative diets and nutritional programmes.

The Hay diet has as its central rubric, 'don't eat foods that fight'. The suggestion that it is beneficial to health to eat only certain foods in combination is a relatively well accepted idea. If only certain foods are eaten in tandem, digestion and absorption of food are made easier. This principle is particularly important in individuals who suffer from allergies, which may originate, not with one food but with a reaction between foods and digestive enzymes. The metabolic consequences of certain combinations of foods can be putrefaction and fermentation in the gut. Clearly, this information could be important to people suffering from certain types of chronic illness.

Dr Hay, an American, developed the idea and the diet in the 1950s and since then it has moved in and out of public favour, although the basic principle of the diet has been adhered to in a number of 'alternative' nutritional programmes for chronic illness.

In 1994, Kathryn Marsden, a nutritional therapist, wrote an updating book about the Hay Diet, which was published by Thorsons.⁸² As soon as the book was published she came under attack from HealthWatch.⁸³ Eventually, the strain of combating a campaign of press articles and telephone calls to her and her publishers became too

much for her to cope with.

One part of this apparently gratuitous assault has to be understood in the context of ongoing arguments within the medical profession about allergies and food. HealthWatch members, from Caroline Richmond onwards, have always argued vociferously against the idea that industrially produced food might cause ill health. Another aspect of the assault can be contextualised by the attitude of medical orthodoxy towards preventative health programmes. HealthWatch appears to believe that medical conditions have no contextualising antecedents; consequently ill health, which is inevitable, can only be treated and never avoided.

IAN STOAKES, DR KINGSLEY AND THE NUTRON DIET

The crude prejudices of HealthWatch in relation to allergy and diet were manifest in its attacks on the NuTron Diet. This diet was the idea of Dr Patrick Kingsley and Ian Stoakes. Some doctors and practitioners who believe in widespread effects of food allergy have consistently put forward the argument that allergy, which creates a breakdown of cells in the affected parts of the body, can lead to substantial water retention, which often looks like weight gain.

It is clear from the case of Stoakes and Kingsley that HealthWatch, like some malign fury, pursues and targets individuals, rather than the work in which they are involved. Both Stokes and Kingsley had been attacked by HealthWatch before they worked together on the NuTron diet. Dr Patrick Kingsley is an allergy specialist and a founder member of the two British professional bodies representing nutritional and environmental medicine; he was also the chief medical officer of Foresight. Duncan Campbell drew attention to Dr Kingsley in an issue of the BBC Food and Drink Programme, in

82 Marsden, K. *The Food Combining Diet*. 1994.

83 The Newsletter of HealthWatch.

which he was accused of taking commission from vitamin companies on the vitamins which he prescribed.⁸⁴

Ian Stoakes had always had an interest in diet and behaviour and chose the rocky course of attempting to practise his ideas first in a training unit for mentally handicapped adolescents and later in a Home Office secure unit. In 1989, he became Chief Executive of the Dietary Research Foundation which ran a multi-national two years' study researching diet and delinquency. This study attracted the attention of Duncan Campbell and HealthWatch. Campbell published a long critical article on the study in the *Independent on Sunday*.⁸⁵

Dr Kingsley and Ian Stoakes were convinced that almost every individual was intolerant to some food and they decided that if they could determine which substances individuals were intolerant of, they could systematically warn people against eating these substances and so promote weight loss. After some research, they began using a haematological analyser to test blood and food substances. When a blood sample, mixed with a small quantity of food, passed through the machine, it recorded on a computer screen any degranulation of neutrophils, an inevitable cellular effect of food intolerance.

The work of Stoakes and Kingsley and the development of what they came to call the NuTron Diet, were soundly based upon considerable work done previously by immunologists, allergy doctors and researchers. Throughout their development work, they sought the advice of doctors and haematologists, to ensure that their tests were scientifically rigorous.

Ironically, when HealthWatch finally did decide to attack them, the company was visited by Professor Vincent Marks, who arrived full of scepticism about the 'diet', but left asking if shares could be bought in the company! The high technology, scientifically verifiable work that Kingsley and Stoakes were doing was very close to the assay and

84 Food and Drink Programme which questioned commissions, Duncan Campbell.

85 Article on international vitamin study in *The Independent on Sunday*, Duncan Campbell.

testing work which Marks himself had been doing in his various companies.

Other members of HealthWatch were not so charitable as Professor Marks. The organisation contacted the Consumers' Association, which has always been antagonistic to anything which challenges orthodox allopathic medicine and the more conservative views on diet and nutrition. The Association ran two 'pulp fiction' attacks on the NuTron Diet, accusing Kingsley and Stoakes of being charlatans intent upon ripping off vulnerable overweight people. Following these articles, Dr David Pearson appeared on a BBC1 chat show facing Ian Stoakes. Dr Pearson found it difficult to control himself and the item ended in an unseemly verbal brawl.

Despite the fact that these attacks had little scientific, or even logical integrity, within a month the number of people interested in the NuTron Diet fell dramatically and the company, which had been involved in considerable capital outlay, was only just able to survive.

* * *

In his contemporary attacks on independent nutritionists, Goldacre uses the strategy common to all quackbusters, which is to choose one nutritionist, or a statement from a particular nutritionist, and use it to attack all nutritionists. This is, of course, like suggesting that when one allopathic doctor makes a mistake that kills his patient, all doctors are murderers.

Goldacre spins his material to reflect the fact that science does not support the claims of particular people. This can be done at times only by ignoring the science that does exist or hinting at science that does not.

In a series of articles in his 'Bad Science' column, since 2004,⁸⁶ Goldacre has campaigned against Gillian McKeith, the TV nutritionist who coincidentally became the target of HealthWatch's John Garrow, the British Dietetic Association and the MHRA at the same time.⁸⁷ However, it was Goldacre's story, 'A Menace to Science', that

appeared in the *Guardian* in March 2007, that stirred the journalist and author Jerome Burne to try placing a response in that paper. Here is Burne's account of failing to secure the right of reply.

* * *

Following the Gillian McKeith article by Goldacre, I was sufficiently irritated by it to contact the *Guardian* to write some sort of response. I first spoke to their blog section, who asked me to write something (Appendix Eleven). However, they said that it didn't fit with their style and I was passed on to the comment page editor, who said he was interested.

He asked for a piece that did not just attack Goldacre but made some general points – this is obviously not a limitation put on Goldacre himself. So I wrote a second piece (Appendix Eleven), but the editor came back to me to say that there were some problems with it. When I asked what they were, he said that he had shown it to Goldacre, who had pointed out errors.

The first concerned an analysis of one of the trials that Goldacre had quoted as showing that antioxidants were ineffective. This had been written by myself and Patrick Holford, and was posted on the Food is Better Medicine than Drugs web site. You can see what the point was in the piece. However, Goldacre had told the editor that it was wrong – no

86 Goldacre, Ben. "Dr Gillian McKeith (PhD) continued", *The Guardian*, September 30, 2004.

Goldacre, Ben. "Brought to book: the poo lady's PhD", *The Guardian*, February 3, 2007.

Goldacre, Ben. "Tell us the truth about nutritionists", *British Medical Journal*, vol 334, no. 7588, February 10, 2007, p. 292.

Goldacre, Ben. "A Menace to Science", *The Guardian*, February 12, 2007. Accessed March 7, 2007.

87 It is a common strategy of HealthWatch and other quackbusters to drag in as many regulatory bodies, such as the Advertising Standards Authority, as possible into their campaigns against individuals. See *Dirty Medicine* on these strategies.

further details.

The second point said by Goldacre to be wrong was my claim that 200,000 Alzheimer's patients in the UK were currently being given antipsychotic medication. This was even though these drugs are not licensed to treat this condition (ie, it is given without being supported by clinical trials); not only that, but there were trials to show that they are both dangerous and ineffective in this patient group. Again, Goldacre's claim was accepted, even though the details I had uncovered had been done with the co-operation of the main Alzheimer's charity.

I am a competent and experienced journalist. I think the pieces make points that I have not seen made about Goldacre before. It is hard to escape the conclusion that they were making judgements about whether or not to publish on some basis other than the quality of the copy. My third piece (Appendix 11) was sent to the *BMJ* following the publication of a version of the McKeith article. It was published.

* * *

THE BRITISH DIETETIC ASSOCIATION AND THE DEFENCE OF INDUSTRIAL FOOD

A common tricks of quackbusters when they target someone, is to spread the information round to colleagues and aligned organisations so that everyone can have a go. This broad frontal attack, gives the public the impression that not only is the person in question, a thoroughly bad lot, but so think a large number of qualified professionals. However, it takes only a superficial look at the vested interests of those who crawl out of the woodwork for attacks of this kind, to see that they are really coming from only one source.

In January 2007, *The Independent on Sunday* carried an article entitled *Doctors warn against food fad dangers*, written by Sophie Goodchild and Jonathan Owen. The article was a clear re-hash of

Goldacre's 'bad' writing. Apart from anonymous 'experts' the main interviewee for the article was Catherine Collins. Collins is chief dietician at St George's Hospital in London and one of the foremost spokeswomen for the British Dietetic Association (BDA), she is not a doctor but lets skip over that unintended inaccuracy in the articles headline.⁸⁸

The article made a completely gratuitous attack on Patrick Holford, all the details of which were wrong. But then, so what, since when have journalists been concerned with the truth?

The article is a general attack on Holford, supported by one specific case. The following sentence seems to cram in all the phobic fears and obsessions of the vested interest campaign for processed food:

It (the BDA) says it is a "massive concern" that people are relying on supplements that have no proven health benefits or following extreme diets in the mistaken belief that they are intolerant to certain types of food.

Here are all the underpinning strategic bullet points of the quack-busters campaign against Holford, illustrated in that one long sentence.

88 Catherine Collins about herself: Catherine Collins is a Registered Dietician (RD) who has worked full time in the NHS since graduation in 1983, currently specialising in the fields of intensive care nutrition and rheumatology within a tertiary care hospital. As an active spokesperson for The British Dietetic Association she is frequently quoted in the written and broadcast media as an objective and impartial expert on nutrition and dietary matters. She was previously dietitian for the 'Behind the Label' column in *The Times*, scrutinising the validity of nutritional claims made by food manufacturers and retailers.

Catherine is an external lecturer on nutrition for Kingston/ St Georges, King's College and London universities, and an editorial board member for the BDA dietetic reference book, the *Manual of Dietetic Practice*. She has presented clinical research at several national and international conferences, and has published widely on nutrition related issues in specialist health journals.

- Experts and professionals (in what?) are massively concerned.
- People are ‘relying’ on supplements (rather than what?)
- Supplements have no proven health benefits.
- People are following ‘extreme diets’ (extreme in what sense?)
- People who fall for this nutritional therapy are suffering from ‘false illness beliefs’.
- No one has food intolerance, certainly not those who claim themselves to have it.

With respect to this particular article only one basic rubric is not included in that sentence and this is a specific rather than a general criticism.

- Treating autism has nothing to do with diet.

In the more detailed example of the iniquity of Patrick Holford, Collins told *The Independent on Sunday* that she is so concerned about the case (of the advice given to the parents of a young autistic girl), that she intended to write to the British Association for Nutritional Therapy about Holford.

According to Catherine Collins, following a *seven-month experiment Mr Holford carried out on children* at a school in Merton, south London, the weight of one girl whose parents were advised by Holford to remove soya milk and cow's milk from her diet, dropped dramatically. These claims, the paper said, had been denied by Mr Holford (... but we're not going to print what he's said because we don't give space to frauds in this paper – added by the author.)

The article continues:

"The tests that were carried out were misleading, and this child suffered sleep problems and her weight dropped as a result of the advice [Mr Holford] gave. It's extremely worrying when it involves children with special educational needs," said Ms Collins, who has more than 20 years'

experience as a dietician.

People are making themselves ill by following the advice of untrained and unqualified diet doctors, according to the British Dietetic Association (BDA).⁸⁹

Experts are warning that the "Gillian McKeith effect" is having a negative impact on the nation's health. Ms McKeith has achieved huge popularity with Channel 4's *You Are What You Eat*, but this has encouraged others to set themselves up as diet and lifestyle gurus although many have no training. Anyone can call himself a nutritionist, unlike dieticians who need a degree and a state-registered licence.

Those under fire include Patrick Holford, who has built up a diet empire based on his alternative approaches to nutrition. Experts are calling for the GMTV nutritionist to be investigated by his professional body over advice he gave to a young autistic girl.

Before we look at Patrick Holford's letter to *The Independent on Sunday* that refutes everything said by Collins, lets take a quick look at the BDA, just to see whether or not there might be any hint of vested interests that have not been declared in *The Independent on Sunday*.

Of 17 member BDA Council only two are men, one of these predictably is the Chair of the Trade Union Committee. The BDA leans heavily towards the food and medical industry. A large number of dieticians are nurses and many of the council members work in hospitals and in specialist health centres with doctors.

One way of seeing who supports organisations like the BDA is to look at their conference reports to see who has given funding. The

⁸⁹ Doctors warn against food fad dangers. Nutrition experts 'massively concerned' over unqualified and unregulated diet gurus. Sophie Goodchild and Jonathan Owen. *The Independent on Sunday*, 07 January 2007.

June 2007 conference of the BDA held in Belfast was assisted by amongst others: Abbott Nutrition,⁹⁰ Birds Eye, Canned Food UK, Ferring Pharmaceuticals, Flora, Food & Drink Federation, Kellogg's, Nestlé Healthcare Nutrition,⁹¹ Novartis Medical Nutrition,⁹² and Procter & Gamble.

The Food and Drink Federation plays a big part in supporting the BDA. As the professional federation of the food and drinks industry, it obviously has its membership at heart in its support of the BDA.

The FDA is advised and 'supported by a number of senior figures from across the industry who, in their roles as our elected officers, provide the strategic input and leadership that shapes the work we do in our priority areas.'

The present elected officers of the FDF, helping to steer the FDF

90 Abbott is a pharmaceutical company, they say about themselves: We are a global, broad-based health care company devoted to discovering new medicines, new technologies and new ways to manage health. Our products span the continuum of care, from nutritional products and laboratory diagnostics through medical devices and pharmaceutical therapies. Our comprehensive line of products encircles life itself – addressing important health needs from infancy to the golden years.

91 Nestlé in a self-congratulatory mood: **September 2007** - We are pleased to inform you that Nestlé has completed the acquisition of the Gerber Products Company announced in April 2007. We will now start the integration of Gerber into the Infant Nutrition business unit of Nestlé Nutrition. **July 2007** - We are pleased to inform you that Nestlé has received the regulatory approvals required to complete the acquisition of the Novartis Medical Nutrition business. We will now start the process of integrating the Novartis Medical Nutrition business into the HealthCare Nutrition business unit of Nestlé Nutrition. The Nestlé boycott: The Nestlé boycott is a boycott launched on July 4, 1977 in the United States against the Swiss based Nestlé corporation. It soon spread rapidly outside the United States, particularly in Europe. It was prompted by concern about the company's marketing of breast milk substitutes (infant formula), particularly in less economically developed countries (LEDCs), which campaigners claim contributes to the unnecessary death and suffering of babies, largely among the poor. Among the campaigners, Professor Derek Jelliffe and his wife Patrice, who had contributed to establish the World Alliance for Breastfeeding Action (WABA), were particularly instrumental in helping to coordinate the boycott and giving it ample visibility throughout the world.

to greater things, include: Iain Ferguson, Group Chief Executive, Tate & Lyle; Ross Warburton, Director of Warburtons, Chairman of Richmond Foods; Fiona Dawson, Managing Director, UK Snackfoods; Salman Amin, the President of Pepsi Co UK who Chairs the Health and Wellbeing Steering Group.

The BDA is involved in a number of campaigns, and in each of these they are partnered by commercial organisation. Past partners have included Canned Food UK, the Food & Drink Federation, Kelloggs, Masterfoods, Sainsburys and Slimming World.⁹³

The Independent on Sunday immediately printed the letter that Patrick Holford wrote to them following the article.⁹⁴ The letter needs no further explanation.

I write in response to the article "Doctors warn against food fad dangers" in your edition of 7 January.

91 (*Cont.*) **Current Status of the boycott:** The boycott is now coordinated by the International Nestlé Boycott Committee, the secretariat for which is the UK group Baby Milk Action. Company practices are monitored by the International Baby Food Action Network (IBFAN), which consists of more than 200 groups in over 100 countries. In parallel with the boycott, campaigners work for implementation of the Code and Resolutions in legislation and claim that 60 countries have now introduced laws implementing most or all of the provisions. Many European universities, colleges and schools have banned the sale of Nestlé products from their shops and vending machines. In the United Kingdom, hundreds of businesses, faith groups, health groups, consumer groups, local authorities, trade unions, education groups, politicians, and celebrities support the boycott. But not the BDA (http://en.wikipedia.org/wiki/Nestlé_boycott).

92 Just taken over by Nestlé, see above.

93 Slimming World is the most advanced slimming organisation in the UK. It was founded in 1969 by Margaret Miles-Bramwell, who remains the driving force behind the company to this day. With the experience of a lifetime's weight problem (sic), it is her enthusiasm and unique vision that has made the Company so successful. In over 36 years, over 5 million slimmers have attended our groups and lost a total of 60 million pounds (sterling? Surely can't be!!!!) There are now over 5,500 groups held weekly on a nationwide basis via a network of 2,500 Slimming World trained Consultants. (*Cont.*)

Catherine Collins claims that the autistic child “suffered sleep problems and her weight dropped as a result of the advice Mr Holford gave” and that “her parents were told to remove soya milk and cow's milk from her diet”. In fact, before we even started this project, the child had been diagnosed by her doctors as milk allergic and was already on a dairy-free diet, additionally refusing to have soya milk. She was also a very poor and fussy eater and was sleeping very little, waking up throughout the night.

Since the project started we have expanded the foods she'll eat, improved her diet and given her supplements. As a result of our intervention she is now less hyperactive, sleeping much better, has reduced her asthma and consequently her need for asthma medication.

Behaviour-wise she has, on independent behavioural tests, made significant improvements in her attention deficit hyperactivity disorder, social difficulties, shyness and anxiety. Her mother is extremely pleased with the results. “Before she woke up a lot in the night. Now she sleeps the whole night without waking,” she says. “She is behaving better and has calmed down a lot.”

Her psychiatrist actually called us to find out what we had been doing to bring about these obvious improvements.

The temporary weight loss may have occurred when we put her on a gluten-free diet following a food intolerance test which identified that she was gluten sensitive. Unfortunately she wouldn't eat the gluten-free options so

93 (Cont.) In 1997, Slimming World became the first slimming organisation to qualify for the Investors in People Award. The award was renewed in 2006. SMILES, Slimming World's very own charity, was born in 1997. SMILES stands for SLIMMERS MAKING IT a LITTLE EASIER for SOMEONE, and each year the SMILES committee chooses a special charity to benefit from our Consultants' and members' amazing generosity. *No fad diets here then* (added words in italics, by the author.)

94 Doctors warn against food fad dangers - a clarification. Published: 18 March 2007, *The Independent on Sunday*.

we put her back on pasta, for example, which she would eat. Wheat gluten and dairy allergy is quite common in autistic children. She has since regained the weight she lost.

The results of the project, which is proving highly successful, can be found on our web site.

Patrick Holford – Food for the Brain Foundation

London SW18

* * *

Other dieticians besides Collins have been drawn into the fray by Goldacre's insidious scribbling and have tried to score a couple of quick points in favour of industrial food. As far as dieticians are concerned, Goldacre should come with a health warning; anyone less tolerant than Holford would undoubtedly have taken legal action against the dietician below.

On the day that Holford's Food for the Brain research was to be featured on *Tonight* with Trevor MacDonald, Friday 13th July 2007, a Dietician Services Co-ordinator in Bradford, and Team Leader of Bradford Nutrition & Dietetics Service at StLuke's Hospital, Jackie Loach, circulated the following note with a covering letter:

Below is some information that has been circulated today at Bradford College and so presumably to many other areas of education. It is publicising a food for the brain programme to improve attainment in schools and is being featured in *Tonight* with Trevor MacDonald tonight at 8pm. Food For the Brain is a programme being promoted by self styled nutritionist Patrick Holford who set up the Institute of Optimum Nutrition (awarding himself a diploma in nutrition from it!) The programme is the cause of much concern to registered dieticians and Nutritionists and **many** others as it can involve food restrictions, various supplements (selling them appears to be a large part of his business) along with some healthy eating (which is

of course probably the cause of any improvement seen) but he seems to be a convincing salesman. It has been said that he is looking for a market for his 'graduates' to work in and schools (particularly in vulnerable areas) seem good! There is no evidence base or good research protocol behind these interventions and they are not published anywhere. (You may be interested to know that another one of his ideas is that Vit C supplements are better than drug treatments for HIV and he has recently been touring S Africa to promote this.)

Dieticians like Loach obviously understand the damage that they are doing to Holford's reputation, after all they are adults ... I think. What do they imagine gives them the right to malign honest citizens? Ben Goldacre can get away with it because he is supported and protected by the *Guardian's* power and money, but what magical powers does Jackie Loach imagine place her beyond the legal normal social rules of civil society?

Her hospital was quick to respond to Holford's letter of complaint of July 19th sent to Sarah Finnigan, the Complaints Officer of Bradford Royal Infirmary.

Dear Ms Finnigan,

I am writing to you regarding the inappropriate circulation of highly defamatory and libellous information, based on false allegations about myself and the work of the educational charity, Food for the Brain, of which I am CEO, by Dr Jackie Loach, your community dietician and services coordinator. I have not cc'd her in on this letter and leave that to your discretion. I have no objection.

Apart from giving grounds for legal action, as a health professional I suspect that this contravenes your hospital's code of conduct and that of the dietetic profession.

The false allegations are as follows:

1. I did not award myself a diploma in nutrition. The

Institute I founded in 1984 in a bona fide educational charity that offers degree-accredited training in nutritional therapy. This false allegation was made by Ben Goldacre, a journalist in the *Guardian* with a particular point of view regarding nutrition, and corrected in the *Guardian* (see attached).

2. The project referred to relates to that carried out by the educational charity Food for the Brain Foundation, of which I am CEO. I am both attaching the press release (see attached) giving the outline and results of this project, shown on Tonight with Trevor MacDonald on Friday 13th. If you need any more information I suggest you speak to the Chairman of our Scientific Advisory Board, Professor David Smith, former Vice Dean of Oxford's University's faculty of medical science. If required, please give me a time and a number he can call.

3. In this project we gave children a multivitamin and an essential fat supplement. These were donated. No one profited in any way from this. I personally have no involvement with, or financial gain from the products used.

4. The reason we recommended vitamin and mineral supplementation, as well as dietary changes, is that there have been thirteen randomised-controlled trials on the effects of giving multivitamins to schoolchildren, ten of which have been positive (see attached). Generally, the worse the child's nutrition and the worse their academic performance, the greater the response. This school was the eleventh worst SAT results when we selected them, and had 31% of children classified as special educational needs.

5. The reason we recommended essential fat supplementation was that there have been three RCTs giving EPA/DHA/GLA fatty acid supplementation (Omega 3 & 6) to children with ADHD type problems and learning or coordination difficulties, all of which have proven benefi-

cial, and considerably more supportive evidence of the need for essential fats in brain development, mood and behaviour (see attached). Many children in this school had similar issues to those that had benefited, never ate oily fish or seeds, and did not like it. We have, through the process of this project, achieved one serving a week of oily fish for some, but not all, and more children now eat seeds, but their intake alone is not likely to be sufficient in relation to what is known about optimal essential fat intake – hence supplementation.

6. The results of this project will be published in a scientific journal, with peer review. The project only finished this month. Apart from the information issued in the press release, and shown in the documentary, we are restricted in how much information we can disclose prior to publication. Please note the comment of Professor of Nutrition, Helga Refsum, who kindly agreed to check the preliminary results.

7. I have never stated that 'Vit C supplements are better than drug treatments for HIV'. Nor have I 'recently been touring S Africa to promote this'. This false allegation was made in the *Guardian* by Goldacre, and corrected by the author of the research I cited (Dr Raxit Jariwalla) (see attached), whose letter was published in the *Guardian* on Jan 20th, 2006. Also see www.patrickholford.com/hiv

8. Our nutritional therapists are all members of the British Association of Nutritional Therapy (see www.bant.org.uk). The difference between this and the British Dietetic Association is the former involves voluntary registration and the latter involves state registration. This does make them not 'bona fide'.

All these points are a matter of public record. For example, see my entry in Wikipedia and also see the information on the web site www.foodforthebrain.org. I do not imagine that Jackie Loach was not aware of this.

Provided you can give me the assurance that this will not happen again, and that all people circulated this information are re-circulated an agreed statement of apology neither I, nor the Food for the Brain Foundation, of which I am CEO, intend to take this matter further.

The hospital replied quickly with a straightforward apology to Holford, below. However, one has to ask oneself if mud sticks, and whether or not the quackbuster tactics of Goldacre are working when an honest person is forced to spend endless amounts of time, defending their character from the weasel words of a nobody.

"On 13 July 2007, Jackie Loach, Community Dietician/ Services Co-ordinator, circulated an email which alleged that Patrick Holford had awarded himself a Diploma in Nutrition from the institute of Optimum Nutrition and that one of his ideas is that Vitamin C supplements are better than drug treatments for HIV. Mr Holford has since written to the Complaints Officer at Bradford Royal Infirmary refuting Dr Loach's allegations. In the interests of fairness and balance, we are pleased to circulate Mr Holford's letter dated 19 July 2007 in which he sets out his response to Dr Loach's letter and we are pleased to offer our apologies to Mr Holford for any distress which may have been caused to him."

* * *

Despite his MA in philosophy, Goldacre appears completely ignorant of any sociological appraisal of science and nutrition. Just as quackery apparatchiks lambaste alternative medicine while saying nothing about adverse reactions to pharmaceuticals, so Goldacre pours scorn on independent nutritionists and their lack of scientific understanding, while discarding reports of conflicts of interest in scientific research.

Goldacre never mentions the studies which conclude that industry-funded research in many areas is far less likely to come to conclusions critical of products or therapeutic approaches. The *BMJ* of

January 16 2007, reports a review that looked at 206 interventional and observational studies and scientific reviews relating to milk, soft drinks and juices, published between 1999 and 2003. The study found that ‘none of the interventional studies supported by industry reached a conclusion unfavourable to the industry’.⁹⁵

In reality, Goldacre knows all this. While he might rant about populist media nutritionists in the *Guardian*, he is not beyond lending his name to PR companies to help to sell processed food. One wonders what fees he received for his appearance in the forums that produced *Obesity 2006 – Strategy, Communication and Implementation*, for the Westminster Diet & Health Forum, one of the PR conglomerates that live like cockroaches in the outbuildings of the mother of all parliaments?

Obesity 2006 – Strategy, Communication and Implementation, was published in June 2006. The publication reflects proceedings at the Westminster Diet & Health Forum Seminar on Obesity 2006. Initial copies are priced at £85.00 for 112 pages. The seminar and publication were supported by an educational grant from Sanofi-Aventis, the global GM and pharmaceutical corporation.

According to the advertisement from the Westminster Diet & Health Forum, *Obesity 2006 – Strategy, Communication and Implementation* aimed to move forward thinking on one of the central themes in the 2006 policy agenda: communicating the risks to the most vulnerable groups. Sessions focus on the scale of the problem, the reality of the risk, approaches to obesity management and the way forward for public policy. Could it, one asks, have anything to do with anti-obesity drugs and vaccinations?

Goldacre, gave his ‘evidence’ at the forum, hardly noticeable among the usual mishmash of commercially-orientated pharmaceutical and processed food representatives supported in the main by cor-

⁹⁵ Influential nutritional research is often funded by industry, study finds. *BMJ* 13 January 2007. Volume 334. P62.

porate funding (Appendix Nine). Oddly he didn't give his evidence, as you might imagine, as a doctor who knew something about nutrition or obesity, but as the *Guardian's* 'Bad Science' columnist – Could this again be journalistic quackery?

The ultimate objective of the quackbusting lobby's strategy on nutrition is to ensure that personal, alternative, subjectively-reported or independent nutritional health information that has its origins beyond the golden circle of professional medicine and industrially-processed food, whether it is right or wrong, microcosmic or macrocosmic, does not reach the public. All media comments on health, food and therapies will in the future have to be backed by corporate scientists.

Independent suggestions for a healthy lifestyle, whether it be culinary or medical, will be censored. Not that there is far to go along these lines. Do we presently get food programmes that talk about lactose intolerance, or which point out that certain vegetables commonly have heavy pesticide residues? When did you last see a food programme that talked about the dangers of sugar or refined carbohydrates and their role in diabetes?

* * *

What gives reality to a massive and connected but hidden network of lobbyists, is the way in which Goldacre's stories and his targets were suddenly replicated on the internet and other media.

Within nine months of Holford's and Burne's book coming out, the internet was crowded with blogs and web sites attacking Holford. A process of intense propaganda, which had been rejuvenated by Ben Goldacre, had spread out to utilise the dodgy and mainly anonymous talents of various 'science' propagandists, skeptics, 'rationalists', 'quackbusters', 'dieticians' and bloggers, who argued that food was food and medicine was medicine, and never the twain should meet.

In the first half of 2007, three apparently-disinterested individuals set up HolfordWatch, an internet blog site. Only one of these people

gives a name – if, in fact, it *is* a name and not a pseudonym. The only added information we know about them are such interesting things as their favourite films; fascinating! This site and others that attack Holford can be easily traced through their links pages to the such doyens of quackbusting as Stephen Barrett and to the US organisations that are the mainstays of the ‘quackbusting’ industry. Nothing, however, about vested interests or the rather odd commitment to randomly attacking honest people such as Holford is disclosed.

The attack on Patrick Holford moved far beyond matters of nutrition and health. In some of the most blatant propaganda pieces, Holford became a criminal, a liar, a fraud and even a scientologist. The most unfounded, unbalanced, libellous, cowardly and untruthful things are said about him in the full knowledge that to mount a legal action, by which he could defend his professional identity, would cost hundreds of thousands of pounds.

Some bloggers stoop so low that one wonders at the intellectual contortions necessary for them to make their case. Take Damian Thompson, editor-in-chief of the *Catholic Herald*, who has a blog in the *Daily Telegraph*. On November 5, 2007, seemingly apropos of absolutely nothing, Thompson, a supporter of the newly-emerged Holfordwatch site, ran the following:⁹⁶

Finally, no list of top 20 health gurus would be complete without Patrick Holford and, sure enough, here he is:

Are men of almost 50 meant to look so youthful and trim? Holford's pioneering nutritional theories evidently work brilliantly for him and beautifully preserved women hang hungrily on his every word at packed seminars around the country. A founder of the Institute of Optimum Nutrition, he has an impressive track record as an early advocate of Omega-3 oils and antioxidants. [MW: I have no idea where or who this quote comes from because Thompson

96 <http://counterknowledge.com/>

doesn't reference it.]

Yes, indeed, how does Holford look so young and trim? I put it down to never having had to go through the stress of acquiring university qualifications in medicine or nutrition. And, while we're on the topic of Holford's theories, let's just remind ourselves of one of them: 'AZT, the first prescribable anti-HIV drug, is potentially harmful and proving less effective than Vitamin C.' Meaning what? You'd better not speculate, or you'll be hearing from Patrick's lawyers.

The *Telegraph* supplies a link to one of Holford's websites. Let me suggest an alternative: Holford Watch.

This desire to attack Patrick Holford is apparently insatiable. But can Thompson claim to be a bona fide quackbuster when he's obviously a follower of the Pope, the richest quack in the world? At least the original sceptics were atheists, eschewing mystical health redemption not just from homoeopaths but also from the great Quack in the sky. So where is Thompson coming from? Is he attacking Holford because Holford is attractive to women? Because he looks young for his age? Or because he's a threat to GlaxoSmithKline, the producers of AZT?⁹⁷

In the last months of 2006 and the first months of 2007, Goldacre passed the baton to his colleagues and acquaintances eager to make their small mark in quackbusting circles. During this time, Holford also travelled to South Africa on a speaking tour. South Africa has become problematic as far as pharmaceuticals are concerned. The President of South Africa, Thabo Mbeki, accepted the council of the AIDS dissident movement not to give his people up to drugs experimentation. Instead, Mbeki took the informed line that good nutrition,

⁹⁷ It isn't only Patrick Holford who has questioned the efficacy and the dangers of AZT. Before Glaxo Smith Klein began a second round of marketing in Africa to try and bring in more profit from the drug, it had been generally discredited by the majority of medical therapists working in England. Some of those doctors who had been most outspoken in its support originally were the most critical of its use and lack of benefits.

clean water and hygienic living conditions had to be the first objectives in any campaign to contain illness. Inevitably, Mbeki has spent the past seven years of his presidency under siege from multinational pharmaceutical interests.

When Holford happened to comment before leaving England that Vitamin C had been shown *in vitro* to have a more powerful effect on the human immune-deficiency virus than AZT, Goldacre was evidently instructed to jump on him from a great height. This was despite the fact that AZT had become one of the biggest drug failures in modern history, more capable of replicating the symptoms of AIDS-related illnesses than curing any known human illness. Perhaps one of the few products for human consumption the box of which is emblazoned with the traditional sign for deadly poison: a skull and crossbones.

Goldacre also expressed serious concern that Holford was consorting with the Rath Foundation, an organisation run by the man who, following a recent stunning legal victory against the *BMJ*, has become the most bitter enemy of the whole medical universe.⁹⁸

AZT was first manufactured by the Wellcome Foundation, and when this was taken over first by Glaxo and then by Smith Kline, to become GlaxoSmithKline, these companies continued its production. Despite the falling graph of its authorised use in Britain, companies have continued experimenting with the drug in trials in North America and Africa. The biggest market for AZT is now Africa, where the drug companies have frightened governments into buying it in large quantities.

98 Dr. Rath's biography: Dr. Rath was born in Stuttgart, Germany, in 1955. After graduating from medical school he worked as a physician and researcher at the University Clinic of Hamburg, Germany, and the German Heart Center in Berlin. His research focused on the causes of arteriosclerosis and cardiovascular disease. In 1987, Dr. Rath discovered the connection between vitamin C deficiency and a new risk factor for heart disease - lipoprotein(a). After publication of these research findings in the American Heart Association journal "Arteriosclerosis," Dr. Rath accepted an invitation to join two-time Nobel Laureate Linus Pauling. In 1990 he went to the (cont.)

Goldacre lambasts Holford for quoting research carried out *in vitro*; in fact he makes such research sound like a school exercise carried out by someone with no expertise in research. He fails to tell readers that *in vitro* research is often the first step in any kind of testing, or that HIV itself was only apparently found after years researching cultures in petri dishes. In quoting the research, Holford was simply pointing out that no advanced research into the therapeutic effects of vitamin C in relation to AIDS-related illnesses has ever been carried out with human subjects.

Between 2005 and 2007, Goldacre mentioned Holford and then Raxit Jariwalla, whose research into vitamin C and HIV Holford quotes, in six articles.⁹⁹ Goldacre began his assault on Holford for quoting Jariwalla's paper in 2005. In this first *Guardian* article¹⁰⁰ Goldacre steers clear of any criticism of Jariwalla, deciding instead to criticise Holford for misinterpreting Jariwalla's science. By 2007, however, Goldacre, having grasped the instructions of his master's voice, now makes Jariwalla out to be some kind of ignoramus.¹⁰¹ He

98 (*Cont.*) United States to become the first Director of Cardiovascular Research at the Linus Pauling Institute in Palo Alto, California. Dr. Rath worked together with the late Nobel Laureate in various areas of nutritional research. The two scientists became close personal friends who shared common humanistic values, including their determination for peace and justice. In 1994, shortly before his death, Linus Pauling stated: "There is no doubt in my mind that I was thinking about Dr. Rath as my successor." Today Dr. Rath heads a research and development institute in Nutritional and Cellular Medicine. His institute is conducting basic research and clinical studies to scientifically document the health benefits of micronutrients in fighting a multitude of diseases. Dr. Rath is the founder of the scientific concept of Cellular Medicine, the systematic introduction into clinical medicine of the biochemical knowledge of the role of micronutrients as biocatalysts in a multitude of metabolic reactions at the cellular level. Applying this scientific knowledge in the fight against diseases, he and his research team have identified a number of common health conditions as being primarily caused by chronic deficiencies of micronutrients. Dr. Rath, has authored a number of peer-reviewed papers that have appeared in different Medical Journals and he has written a number of popular books. He is a member, amongst other organisations of the New York Academy of Sciences and the American Heart Association. His popular science books "Why Animals Don't get Heart Attacks – but People Do" and "Cancer" have sold several million copies in ten languages. (*Cont.*)

ends this article by calling Holford a fool, or worse: ‘So Jariwalla I have no opinion on, his paper is just a paper, and Holford is a fool or worse. Or am I wrong?’

As if Goldacre’s biased and nons(c)ience articles in the *Guardian* were not enough, someone alerted the press in South Africa to the story, and scathing newspaper articles followed Holford around on his workshop tour.

On March 22, 2007, another British quackbuster and lecturer at University College London, wrote an, undisciplined and unscientific article in *Nature*, said by the cognoscente to be the world’s most prestigious science mag.¹⁰²

Professor Colquhoun FRS (see above) presently heads the UCL pharmacology department. He has been a research fellow since October 2004, having previously been the chair of pharmacology at

98 (Cont.) Goldacre libellously on Rath: ‘Matthias Rath is the multimillionaire vitamin salesman who aggressively sells his message to Aids victims in South Africa that Rath vitamin pills are better than medication. He has contributed in large part to a madness that has let perhaps hundreds of thousands of people die unnecessarily.’

The idea that anyone (apart that is from successive British government leaders), let alone Dr Rath, has contributed to the madness that has led to hundreds of thousands of people dying unnecessarily (some must have died necessarily then?) in Southern Africa is so incredible, intellectually untenable, illegitimate and libellous that one wonders how Goldacre has the front to write it.

In April of 2007, Rath won an action against the *BMJ* which forced them to pay £500,000 towards his research and issue a singular apology.

99 January 6th, 2005 *Guardian* Bad Science Column - Vitamin deficiency (on AIDS). May 20th, 2006 *Guardian* Bad Science Column – Nothing to declare (allergies/EMR). January 6th, 2007 *Guardian* Bad Science Column – Doctoring the records (qualifications). January 20th *Guardian* Bad Science Column – Working papers (on AIDS). February 17th, 2007 *Guardian* Bad Science Column – Enough Patrick Holford (on AIDS). Saturday May 19th, 2007 *Guardian* Bad Science Column.

100 Ben Goldacre. Thursday January 20, 2005. *The Guardian*.

101 Goldacre on Jariwalla in 2007: ‘Who is Holford's saviour, Jariwalla? According to the Rath Foundation website, he is a "senior researcher" at the "Dr Rath Research Institute in California". Nice friends, Patrick.’ (emphasis added) Ben Goldacre. Saturday February 17, 2007. *The Guardian*.

UCL. Colquhoun's web site invite you to click into the web ring for a famous US anti-quackery web sites. He also runs stories about quackery. These are strong texts against homoeopathy and herbalism and any other form of alternative therapy. They contain not a scintilla of science. He also runs, from his university department, his own 'DC's IMPROBABLE SCIENCE' web page, which he described as being:

Devoted to giving publicity to assorted dubious, erroneous, nutty, or downright fraudulent claims about drugs¹⁰³ and other sorts of treatment. It includes, but is not restricted to, so-called Complementary and Alternative Medicine (acronym, SCAM). In particular, it is about the incursion of such ideas into universities.

These pages were originally vast and covered all contemporary news items relating to 'quackery' (Appendix Four). How Colquhoun found the time to service this web site, science only knows. Did he do it on his university salary in university time?

In his *Nature* article of March 2007, Colquhoun added his own gobbledegook to the attack on Holford.¹⁰⁴ Colquhoun writes about university courses in alternative medicine being unworthy of a BSc because they do not deal with science.

In the most ignorant passage about nutritional therapy, Colquhoun addresses the subject as if the effect of food on the human organism is no more a matter for science than is witchcraft. In so doing, he simply exposes his own fragile and intellectually limited knowledge of biol-

102 *Nature* hosted the pathetic and childish attack on the late Jaques Benveniste carried out by the children's party entertainer James Randy, *Nature's* editor at the time, John Maddox, and a little known US regulatory scientist, Walter Stewart. *Nature* was also the magazine which refused publication of papers and articles from Professor Peter Duesberg, one of the world's leading virologists, because what he had to say was in conflict with the marketing of AZT and the unproven science of HIV and AIDS-related illnesses.

103 You might think on reading this that he is referring to pharmaceuticals but he is really referring, in a derogatory manner, to herbal treatments and other alternatives.

ogy, anatomy, chemistry and many other aspects of life science. To call the study of nutrition anti-science is to display the most amazing and facile ignorance. Where, one wonders, would Colquhoun place the mainstream nutritional scientists who since the 1920s have been leading us to an understanding of how the human body utilises all the major food groups, vitamins and minerals?

Colquhoun is a pharmacologist and we have to assume that once in a while he wonders about the effects of chemical and biological drugs on the human body – but then, perhaps not. It might be such a research blind spot among pharmacologists, that leaves us with so many bad drugs and vaccines, which create deadly adverse reactions.

While doodling his eccentric thoughts about nutritional therapies, he can't help but make a few base comments about Patrick Holford. 'The British nutritionist', he writes, 'Patrick Holford, infamously recommends vitamin C as a remedy for HIV and AIDS.' What is Colquhoun's reference for this assertion? None other than Ben Goldacre, the great expert on nutrition, journalism and Patrick Holford.¹⁰⁵

Colquhoun ends his sixth-form piece with the most unbelievable statement about academic independence: 'After the foundation of the University of London in 1826, universities became places where people sought, as best they could, to discover the truth. They became places you could turn to for independent thought and opinions, undistorted by financial interests. The best still are, but that independence of thought has never been more at risk ... [from] ... corporatisation'.

It does seem a shame that some scientists don't get a more rounded education, perhaps even a smattering of history or politics might on occasions come in handy. I wonder who Colquhoun imagines funded

104 Science degrees without the science. David Colquhoun, *Nature* Vol. 446/22 March 2007.

105 See Holford's reply to Colquhoun in Appendix Ten.

the education system for the new bourgeoisie in the early 19th century? Could it possibly have been the ascending industrial class? Here's an essay title for you David, 'In what sense could the new industrial funders of University education at the start of the 19th century be described as independent seekers after truth?' A subsidiary question might be, 'What is truth?' To which you would no doubt answer, in one word ... 'science'.

On another argument entirely might it be possible that Colquhoun has been fast asleep since 1979 and the accession of the Thatcher government, which set about privatising almost everything. Most sociologists and political commentators deduce that it was this government, armed with the *laissez faire* economic policies of Milton Freidman, that introduced privatisation to great swaths of what had previously been public Britain. It was this privatisation that led further to the corporatisation of public education. But then again, how can you argue with a man who runs a university research department even minimally subsidised by pharmaceutical companies but complains about corporatisation? What's more, Colquhoun seems to be using the word corporatisation to refer to producers and promoters of alternative and nutritional therapies. Weird and Orwellian or what?

Colquhoun's article shows yet again that scientists are like footballers: on occasion, they can talk a quite sensible game, but it can be painful listening to them talk about anything else. Scientists associated with quackbusting seem blissfully unaware that it is their utter ignorance of society, people, politics, culture and human emotions, which calls down such reprehension on them from observers of their antics.

Inevitably, when Holford contacted *Nature*, to ask for a right of reply, he was refused (Appendix Ten). The article wasn't the last that Holford heard of Colquhoun. Surfing his web site a few weeks later, he noticed that Colquhoun had coined the name *Pilltrick Holfraud*. David Colquhoun seems to be a man who regardless of a fine sense of humour, finds it hard to learn from experience, and it took advice from Holford's lawyer to persuade him to take down this obvious libel.

In June 2007, Goldacre offered his condolences to Colquhoun, whom, in a *Guardian* article entitled 'The Mighty David Colquhoun',¹⁰⁶ he described as 'one of the most eminent scientists in the UK'. Colquhoun had had his web site toys threatened by the university provost, after the university had been inundated with offers of libel actions and a high number of complaints from practitioners and supporters of complementary and alternative medicine.

Goldacre and his friends were up in arms. Fists raised, they ran to the barricades and shouted slogans about academic freedom. After they had finished protesting and quaffed a couple of pints, they got together again in the evening to figure out the next step in shutting down the Royal London Homoeopathic Hospital.

* * *

The fact that Goldacre's campaign on behalf of the drug companies against Patrick Holford is failing, can be judged by the fact that, in the autumn of 2007, one of the most deeply-embedded supporters of The Lobby, who has weathered countless storms and wind changes over 20 years, came back on stage. Patrick Holford found that quackbuster Dr Charles Shepherd was sniffing around the north of England university where Holford is a visiting Professor.

It has always been my feeling that it is reassuring when the other side shows its true colours. I was, for example, overjoyed when the late Sir Richard Doll and then Professor Simon Wessely, after years of claiming they were unaffected by any conflict of interests, joined the American Council for Science and Health, the ultimate refuge of those whose lives are in tune with the most powerful chemical, pharmaceutical and processed food corporations.

The reappearance of Dr Charles Shepherd in the battle against Patrick Holford, vitamins and food supplements¹⁰⁷ clears up any doubt

106 The Mighty David Colquhoun. June 9th, 2007, Ben Goldacre in *Bad Science*, the *Guardian*.

we might have had about the nature of the attacks begun in the *Guardian* by Ben Goldacre and continued by Colquhoun. Shepherd was, with Simon Wessely, one of the founder members of the Campaign Against Health Fraud in the late 1980s. At that time, although he was also concerned with defending the psychiatric model of ME, he took time out to work with Duncan Campbell in attacking nutritional doctors of the high calibre of Dr Stephen Davies and Dr Damien Downing.

In the late 1980s and early 1990s, Shepherd was a clinical advisor to the Media Resources Service (MRS), run from the CIBA Foundation.¹⁰⁸ The drug company Ciba Geigy became Novartis in 1996, when it merged with Sandoz. The MRS was a clear precursor to the Science Media Centre; its objective was to put journalists in touch with corporate scientists so that they ‘got the story right’.

At the height of his absurdities, Dr Shepherd was responsible for writing one of the most bizarre, alarmist anti-vitamin articles in the history of British anti-quackery. I wrote about it in *Dirty Medicine*:¹⁰⁹

The January 18 1991 issue of *GP* carried an article by Dr Charles Shepherd, a long-standing member of the CAHF and a clinical advisor to the Media Resources Service of the CIBA Foundation. Under the title ‘“Natural Health” pills can be lethal’, a centre column sub-heading reads ‘many of the remedies can have bizarre and disturbing toxic effects’. The article is one of the most climactic anti-vitamin articles ever published; a kind of ‘vita-disaster’ article.

After pointing out that ‘nutritional supplements’ are actually drugs disguised to avoid the costly regulation that affects all proper medicines, Shepherd goes on to list the baroque adverse reactions of every-

107 Op. cit. *Dirty Medicine*.

108 Op. cit.

109 Op. cit. *Dirty Medicine*. Pages 341, 342.

thing vaguely alternative.

Far from being natural and safe, remedies sold in health food shops can have disturbing toxic effects. Aromatherapy can result in allergic reactions and burns to the skin. Selenium is toxic and excess zinc can depress the immune system. Excessive intake of both fat- and water-soluble vitamins can result in severe toxic effects. Vitamin A accumulates to cause encephalopathy (swelling of the brain). Vitamin B3 can produce severe hepatotoxicity (poisoning of the liver). Vitamin B6 causes peripheral neuritis (inflammation of the nerve endings) at daily doses above 200mg: and vitamin C is known to increase the bioavailability of oestrogen, so converting a low-dose contraceptive pill into a high-dose one.

Thank God for science! I notice that Shepherd doesn't have much faith in his fellow doctors, feeling the need to explain to them quite elementary and self-explanatory medical terms in brackets. Perhaps he knows something about a doctor's education that we don't!

Throughout the 1990s, Shepherd was firmly embedded in the ME 'community', where he steered the ME Association. Throughout the decade, he has taken time out to mount critical attacks against those who have campaigned for recognition of an organic aetiology of ME and like illnesses. The strategies he has used in undermining and trying to destroy the professional reputation of a number of activists have been similar.

In attacks on individuals associated with universities, he has carried on long mischievous correspondence with the administration, trying to prove unprofessional behaviour and calling for the sacking of the person concerned. He has, as they say, more front than Blackpool, and he hasn't shrunk from the most subversive attacks on such highly-reputable academics as Malcolm Hooper, the Emeritus Professor of Medicinal Chemistry at the University of Sunderland. Hooper has worked ceaselessly on behalf of both ME sufferers and the victims of Gulf War Syndrome, trying to overturn the myth propagated by chem-

ical and pharmaceutical companies, that those who have suffered from these illnesses are mentally ill.¹¹⁰

Shepherd's campaigning throughout the 1990s, reached their pinnacle with fetid attacks on the One Click Campaigner Jane Bryant, 'the last person standing' and the only substantial and principled resistance to ME arm of The Lobby.¹¹¹ Jane Bryant and her then campaign partner Angela Kennedy, were hounded by Shepherd, who wanted to see Bryant sent to prison and Kennedy sacked from her employment with the Open University – Oh! I almost forgot, he wanted the ME-suffering children of both women taken from them.

Shepherd's assault on One Click peaked with a foaming-mouthed personal harangue of Jane Bryant at a House of Lords reception that Bryant attended with her son Ben. At the time, Bryant wrote the following account, which went up on the One Click site.

I was standing with my son, carrying out a conversation with two of Ben's teachers from a long-distance e-learning company. Dr. Charles Shepherd literally barged into our group and, with absolutely no provocation whatsoever, began to attack me and verbally abuse me. With his gaze fixed at some point just above my left shoulder, the flecks of spittle nesting in the corners of his mouth flew out as he ranted. I was so shocked. I turned my head to call for the House of Lords security. At which point Shepherd fled the room. The woman teacher turned and put her arm around me. 'Are you all right?' she asked. The man looked after Dr Shepherd retreating into the distance. 'Is this man crazy?' he asked. My son Ben, ME/CFS patient age 13, stood completely still, chalk white.

Shepherd is presently medical advisor to, and a trustee of the moribund ME Association.

110 See Walker, Martin J. *SKEWED*, Slingshot Publications. London.

111 With the possible exception of Paul Humm and his Campaign for Research into Myalgic Encephalomyelitis (RiME).

PART V

Conclusions

CONCLUSIONS I: ABOUT SCIENTIFIC DEBATE

There is one serious discussion about strategy involving Skeptics and Quackbusters; Should we discuss science with them and prove our case in rational argument or should we adopt a strategy based on our political analysis of him and associated individuals and organisations? Another question, should we ignore him and his bogusly-constructed case and fight harder and more independently on behalf of our own philosophy?

Agreement, disputation and progress in science should take place within the scientific community, through academic discourse in peer-reviewed papers published in independent journals and at presentations given at public venues where the presenters can be questioned by their peers. This approach to the presentation of science has been tested over centuries of scientific endeavour, and relies upon definite methods of gathering and publicly presenting evidence.

However, even the rubrics that govern discourse within academia can only work if the people involved are ‘real’ scientists, sincere in their views and their objectives, independent and unaffected by vested interests. Academic discourse has only recently begun to develop rules in relation to conflict or vested interests. These rules have to be considerably extended, and much more work should be put into unearthing the conflicts of interests of industry-sympathetic groups.¹

¹ See: Hardell, L, Walker, M.J., Walhjalt, B., Friedman, Lee S., Richter, E.D. Secret Ties to Industry and Conflicting Interests in Cancer Research. *American Journal of Industrial Medicine*. 2006.

Once the discourse about a particular branch of science spills over into the public domain, and into the hands of lobby groups, all bets on sense and ethics are effectively off, the discourse becomes a brawl, completely ungoverned by honesty or even decent behaviour. Journalists never declare even basic interests; newspapers and television programmes never declare interests or even state sources or provide references.

Academia also has rules about the disclosure of information or data with respect to studies or published papers. These can be asked for, examined and tested by peers. Is it possible for readers to question Goldacre, to view his notes, to question him about his conclusions? Of course not. Not only Goldacre but the newspaper editors who behave like little public information czars, and corporate executives of the *Guardian* would be horrified at this idea, and would begin to spout the most unbelievable cobblers about freedom of the press if it was ever suggested that Goldacre should give up his notes, memos of meetings and sources of information, or appear in public to answer to his more learned peers.

It is easy to see the logic, the intelligence and the patent honesty implicit in the argument that we should defend ourselves against attacks from quackbusters by arguing the science. However, because we know where these people are coming from, and we are aware of their higher goals and their common practice of manipulating facts, I think it is best not to discuss science with them. In fact, I would say that arguing science with un-reconstituted quackbusters is like arguing reality with Alice as she falls through the looking glass. Quackbusters have the profitability of industry, the profession of medicine and the technological objectives of capitalism and nothing else at heart. Discussing scientific method with them is a waste of time.

I can't help but believe that they want us to become involved in convoluted arguments and in this process waste hours, days and weeks of our time unprofitably, without actually being able to affect the very institutions that are seriously likely to make the practical policy decisions that may adversely affect us as citizens or consumers.

If we move on past science to the other aspect of this important discussion about strategy, we might look at the question of the moral or ethical debate around science and in whose hands this should be. Quite clearly, although The Lobby has also included this debate in the 'restricted to scientists' arena, nothing could be more profoundly untrue. In fact, one might even say that scientists are the last people who should lead any debate about the ethics or the morality of scientific issues.

The debate about the ethics and morality of science should extend to the widest shores of the public. It was in extending this debate into the public domain that the GM Watch campaign was so successful in influencing policy. While in Germany, campaigners managed to engage the whole society through many different media and institutions during the debate on the industry generated European Convention on Bioethics and Human Rights.²

Rather than open up debate, Goldacre and the *Guardian* have managed to seriously restrict the debate on the ethics and morality of science in relation to a whole series of issues. In relation to MMR, for example, it would be difficult to find a more subservient media acting at government behest, outside the historical examples of the communist bloc, or the Spanish press under Franco.

Again, however, the responsibility for building a public forum that debates matters of scientific developments that may affect the future of the whole society, lies *in the first instance* with scientists. They must tear themselves away from any vested interests for which they work, and, adopting a popular approach, begin to present the core of the debate to the public. Who the debate is passed on to is an open question, but clearly local and county authorities and institutions of higher education could play an important and more extensive role in

² Walker, Martin J. Biotechnology, Ethics and Vested interests: The European convention on bioethics and human rights, in *Biology, Biologists and Bioethics: Concerns for scientists, politicians and consumers*. (ed) Stefano Dumontet and Horst Grimme. Foxwell & Davies Italia S.r.l. Italy. 2004.

displacing the old politics of ideology with public debates on medicine, science and such issues as nutrition and biotechnology.

CONCLUSIONS II: ABOUT GOLDACRE

According to his own biographical allusions, almost ten years ago, while was training to be a doctor, Goldacre was already a convinced skeptic, a person familiar with The Lobby's institutions, their motives and designs, and someone who adhered to a set and unquestioning ideology of science. It could be, of course, that Goldacre has been 'given' a background retrospectively. Nevertheless, we are expected to believe that he was a convinced skeptic in his mid-twenties.

Having qualified as a doctor and apparently spent a year in Italy, as discussed above, he co-authored the only academic paper with which he is credited. This utter paucity of academic work is surprising, to say the least. In fact, it could be said that a person trained as a doctor, with next to no other academic achievement, must have considerable front to pose as one of Britain's most knowled-geable science pundits. Or are we just expected to accept Goldacre as some kind of overgrown child prodigy?

In 2003, following sterling work by George Monbiot writing against GM crops, which stirred up the bile of lobbyists and unleashed considerable anger against the *Guardian*, from the science establishment, Goldacre suddenly landed a prestigious position as an embedded quackbuster on that newspaper. He has used his column, presumably with the full support of the *Guardian* owners and editors, to pillory, attack, libel and undermine the professional reputation of a number of people.³ One thing that appears to have changed in this relationship between the press and the public, is that one of Britain's

³ On July 8 2007, just before the beginning of the GMC fitness to practice hearing held against Dr Andrew Wakefield, the *Observer* published an article by Denis Campbell, 'I told the truth all along, says doctor at heart of autism row'. The article contained a relatively objective interview with Dr Wakefield accompanied by a story of his case. The journalist involved was hauled over the coals during the next (*cont.*)

greatest newspapers has adopted the posture of the cheapest and most yellow journalism.⁴ The cynicism, implicate in Goldacre's writing tends to reflect the aspirations of the new managerial middle class that now control the *Guardian*.

During his four years with the *Guardian*, Goldacre has displayed an intimate grasp of the strategies of corporate lobby groups, and has fallen in with the British and US quackbusting campaigns. In common with other quackbusters, Goldacre has absolutely no sense of fair play or democratic rights. He is the worst and most mercenary kind of dogmatist. Very few of those who are attacked by him are allowed access to the pages of the *Guardian* to refute the attacks, or Goldacre's illusory grasp of science. (Melanie Philips was a rare and worthy exception, given space to claim that she had been smeared in the matter of MMR.) On his web site, he publishes only sycophantic crap from apparently illiterate followers.

One grows wearily accustomed to the sound of the pot calling all kettles black. While Goldacre does not engage in dialogue with his critics, he pleads (in his rubbishing of homoeopathy as 'A kind of magic?') for 'clear and open discussion of the problems', while charging those he abominates with refusing to engage. Alternative therapists, he claims, when you point out a problem, 'don't engage with you about it, or read and reference your work.'

One thing can be said with some certainty: Ben Goldacre is not a journalist in the great tradition of British journalism as we know it, nor, for that matter, is he your average doctor. When considering Goldacre's views on science, one has to bear in mind that, whatever

3 (*Cont.*) week and the ensuing months saw a bitter row develop between the *Observer* and its sister paper the *Guardian*. In October the editor of the *Observer* Roger Alton announced his resignation and the editorship was handed to the paper's deputy editor John Mulholland.

4 Yellow journalism is a pejorative reference to journalism that features scandal-mongering, sensationalism, or other unethical or unprofessional practices by news media organisations or journalists. It has been loosely defined as "not quite libel". Ref: Wikipedia.

he says, he is not a scientist either by training, profession or reputation. Before being defined as any of these things, he must first be defined as a quackbuster, boy soldier for corporate science; and these, today, are two a penny.

CONCLUSION III: A BRIEF SUGGESTION FOR ACTION

Ultimately, there is no point in fighting The Lobby, either legally or individually, as has happened in the past. The alternative health movement has to organise nationally, physically, and not virtually. We are past the stage where exchanges of opinions are relevant. Disputing science with the enemy is like discussing how weapons are constructed with the other side during a battle.

It is my hope that this essay will give people ideas about how to fight back against the corporate science lobby and defend their particular areas of 'alternative' expertise. The supposition underlying the essay is that we already have at our fingertips all the information that we need about corporate science activists such as Goldacre, and that, having established their role and objectives, we have to defend ourselves against them by militantly attacking their position, their interests and those of their patrons.

I believe that we can only organise a resistance against The Lobby by setting up many small committees, in cities and large towns, 'in defence of alternatives'. The task of these units would be to gather information and intelligence on quackbusters, skeptics and science lobbyists in their area. They would publish leaflets and posters and write letters to the media about them, and picket their meetings and events. Local committees in every corner of the country should organise a year's timetable of public meetings on health and alternative therapies, with up-to-date information about quackbusters and their individual professional record.

Our movement needs to be proactive, committed and professional. Small committees and groups should lobby local and county councils as well as members of Parliament. Each area should provide

libraries and data bases on therapies such as homoeopathy and nutrition, shiatsu and herbal treatments. Primary health care trusts and individual GPs should be bombarded with information about drug-free therapies. Local libraries should be pushed to take books on these subjects. Therapists and others should set up Saturday street stalls in towns and villages, giving out leaflets, selling books and advertising therapists. Stickers with slogans against the *Guardian* and Goldacre, should be as common on envelopes as are stamps. Alternative therapists should stand in local council elections.

Therapists and practitioners, must join with workers likely to be affected by environmental toxicity, as well as people suffering from adverse reactions to pharmaceuticals, and contribute campaigning work in some measure, however small. At this time, alternative practitioners have to fight for the collective whole, a simply professional life is a luxury that they will soon be unable to afford unless they fight for their cause.

How ironic it is that many middle-class liberals, who support alternative medicine, for example homoeopathy, should find themselves buying a newspaper that rabidly supports corporate science, the pharmaceutical industry and their dirty war against alternatives generally and homoeopathy in particular! In Goldacre's case, a defence of our position should begin with an outright attack on the *Guardian* newspaper.

Why do we spend money that pays the salary of a nasty, cynical little twerp who is lining his pockets by attacking the parents of vaccine-damaged children, progressive nutritionists, and practitioners who work with a therapeutic system that has no adverse reactions? And why, after all, do we give money to a newspaper that defends the killing industry of pharmaceuticals, an industry that, even in the most conservative terms, is responsible for the third-highest cause of death in North America and that causes enough adverse reactions in Britain each year to fill up five large hospitals?⁵

5 *Journal of the American Medical Association*, vol 284, July 26, 2000. (Cont.)

5 (Cont.) Dr Barbara Starfield of the John Hopkins School of Hygiene and Public Health suggests that 250,000 deaths a year are caused by orthodox medicine and its doctors. By far the highest death rate category are those deaths caused by non-error, adverse reaction to drugs, estimated to be 106,000 a year.

Death by Medicine, Gary Null, PhD; Carolyn Dean MD, ND; Martin Feldman, MD; Debora Rasio, MD; and Dorothy Smith, PhD. *Life Extension magazine*. August, 2006. This paper suggested that medical mistakes and adverse drug reactions together created the prime cause of death in North America.

The findings of Professor Munir Pirmohamed's study in Liverpool suggested that the equivalent of up to seven 800-bed hospitals may be occupied at any one time by patients with adverse drug reactions (ADR), and that ADRs upon admission may be responsible for up to 5,700 hospital deaths a year.

See also Lazarou J, Pomeranz BH, Corey PN. 'Incidence of adverse drug reactions in hospitalized patients: a meta-analysis of prospective studies'. *JAMA*. 1998 Apr 15; 279(15):1200-5.

Appendices

APPENDIX ONE

Some notes on Skepticism

This long, brilliant, but anonymously written essay,¹ is probably the best thing written about the intellectual deceit of the skeptics' it mentions the main characters in the movement as well as their fields of interests. But most valuably, the piece argues cogently how the Skeptics movement disguises its prejudices and ideologically laden arguments as 'scientific reasoning'. The only slight fault with the essay, from my point of view is that it's author doesn't reference *Dirty Medicine*,² which although it doesn't take these expertly argued points any further, does try to bring together all the facets of the Skeptics movement to give a slightly more whole picture of their campaigns. *Dirty Medicine* was first published in 1993 and contained information on the case of Jacques Benveniste, for instance, that I had written after conducting extensive interviews with him.

1 *Some notes on Skepticism* from the suppressed science site. www.suppressed-science.net/skepticism.html. This site is completely anonymous and yet contains some of the best and most erudite information about the suppression of science available.

2 Op. cit. *Dirty Medicine*.

Some notes on Skepticism

Many who loudly advertise themselves as *skeptics* are actually *disbelievers*. Properly, a *skeptic* is a *nonbeliever*, a person who refuses to jump to conclusions based on inconclusive evidence. A disbeliever, on the other hand, is characterized by an *a priori* belief that a certain idea is wrong and will not be swayed by any amount of empirical evidence to the contrary. Since disbelievers usually fancy themselves skeptics, I will follow Truzzi and call them *pseudoskeptics*, and their opinions *pseudoskepticism*.

ORGANIZED (PSEUDO-)SKEPTICISM

The more belligerent pseudoskeptics have their own organizations and publications. In Germany, there is an organization called the **Gesellschaft zur wissenschaftlichen Untersuchung von Para-wissenschaften e.V.**, or GWUP, ("society for the scientific evaluation of parasciences") which publishes a magazine called *Der Skeptiker* ("The Skeptic"). In the United States, there is the so-called "Committee for the Scientific Investigation of Claims of the Paranormal", or short, CSICOP. The name suggests a serious, unbiased institute or think tank whose mission is to advance human knowledge by sorting out true anomalous discoveries from erroneous or fraudulent ones. Indeed, that was what some of the original members of CSICOP envisioned when they founded the organization in 1976. But in the very same year, CSICOP faced an internal crisis, a power struggle between the genuine skeptics and the disbelieving pseudoskeptics that was to tilt the balance in favor of the latter.

At issue was the **Mars Effect**, an extraordinary claim made by French statistician and psychologist Michel Gauquelin. Gauquelin had discovered an apparent statistical correlation between the position of Mars in the sky with the odds of becoming a sports champion, producing a genuine piece of empirical evidence that astrology might not be nonsense after all. This dismayed the pseudoskeptics, who until then had been comfortable dismissing astrology on purely theoretical

grounds and were unwilling to even entertain the hypothesis that Gauquelin's analysis might be correct. In 1976, in an attempt to make this embarrassment go away once and for all, Harvard professor of biostatistics and CSICOP fellow Marvin Zelen proposed a simplified version of the original Gauquelin study which he subsequently performed with the assistance of CSICOP chairman and professor of philosophy Paul Kurtz and George Abell, a UCLA astronomer. In order to get the result they wanted, the trio had to commit a total of six statistical blunders, which are discussed in detail in the article **The True Disbelievers: Mars Effect Drives Skeptics to Irrationality** by former CSICOP fellow Richard Kammann. Proper analysis showed that the new study actually supported the Gauquelin effect.

But Kurtz and his fellow pseudoskeptics had never been interested in performing proper science. Their minds had been made up long before the study was performed, and they adamantly refused to admit their mistake in public. This led to the resignation of many fair-minded CSICOP members, among them Richard Kammann and co-founder Marcello Truzzi. Truzzi wrote about his experience in **Reflections On The Reception Of Unconventional Claims In Science**:

Originally I was invited to be a co-chairman of CSICOP by Paul Kurtz. I helped to write the bylaws and edited their journal. I found myself attacked by the Committee members and board, who considered me to be too soft on the paranormalists. My position was not to treat protoscientists as adversaries, but to look to the best of them and ask them for their best scientific evidence. I found that the Committee was much more interested in attacking the most publicly visible claimants such as the "National Enquirer". The major interest of the Committee was not inquiry but to serve as an advocacy body, a public relations group for scientific orthodoxy. The Committee has made many mistakes. My main objection to the Committee, and the reason I chose to leave it, was that it was taking the public position that it represented the scientific community, serving as gatekeepers on maverick claims, whereas I felt they were simply unqualified to act as judge and jury when they were simply lawyers.

After the true skeptics had been purged from the committee, CSICOP and its magazine, the *Skeptical Inquirer*, degenerated into little more than a propaganda outlet for the systematic ridicule of anything unconventional. Led by a small, but highly aggressive group of fundamentalist pseudoskeptics such as chairman and humanist philosopher Paul Kurtz, science writer and magician Martin Gardner and magician James Randi, CSICOP sees science not as a dispassionate, objective search for the truth, whatever it might be, but as holy war of the ideology of materialism against "a rising tide of irrationality, superstition and nonsense". Kurtz and his fellows are fundamentalist materialists. They hold the non-existence of paranormal phenomena as an article of faith, and they cling to that belief just as fervently and irrationally as a devout catholic believes in the Virgin Mary. They are fighting a no holds barred war against belief in the paranormal, and they see genuine research into such matters as a mortal threat to their belief system. Since genuine scientific study has the danger that the desired outcome is not guaranteed, CSICOP wisely no longer conducts scientific research of its own (such would be a waste of time and money for an entity that already has all the answers), and instead largely relies on the misrepresentation or intentional omission of existing research and the ad-hominem - smear, slander and ridicule.

Eugene Mallove, editor of *Infinite Energy Magazine*, relates the following telling episode in issue 23, 1999 of his magazine:

On the morning of July 14, 1998, I called *Skeptical Inquirer's* editor, Kendrick Frazier, to ask him, among other things, what research or literature search he had done on cold fusion. He rebuffed me, saying that he was too busy to talk, because he was on deadline on an editorial project. We spoke briefly; he was transparently irritated. He said, "I know who you are." He said that he did not want to talk to me because, "We would have diametrically opposed views." I said, "Oh, what research have you done to come to your conclusions about cold fusion." I had thought that the careful investigation of "diametrically opposed views" was part of the work of CSICOP. Perhaps I was mistaken. Frazier said, "I'm not an investigator, I'm an editor." The con-

versation ended with Frazier stating that he had nothing further to say.

The entire article is available online: **CSICOP: "Science Cops" at War with Cold Fusion.**

Even though it is largely run by scientific lay people, and its practices are anathema to true science, CSICOP has enjoyed the support of a number of highly prestigious scientists such as Stephen Jay Gould, the late Carl Sagan, Glenn T. Seaborg, Leon Lederman and Murray Gell-Mann. This support has enabled it to project an image of scientific authority to the opinion shapers in the media and the general public.

For a detailed study of pseudo-skepticism in general, and CSICOP in particular, I refer the reader to George P. Hansen's article **CSICOP and the Skeptics: An Overview** (published in the *Journal of the American Society for Psychological Research*), in which CSICOP's history, goals, tactics and membership structure are discussed in some detail. In his conclusions, Hansen finds that

CSICOP's message has often been well received, particularly among scientific leaders. The growth of CSICOP, the circulation figures of "SI", and the academic credentials of its readership prove that there is wide interest in the paranormal among the most highly educated members of our society. Many readers of "SI" undoubtedly assume that CSICOP presents the best available scientific evidence. The readers are rarely told of the existence of refereed scientific journals that cover parapsychology. The effect of CSICOP's activities is to create a climate of hostility toward the investigation of para-normal claims; indeed, at one CSICOP conference, the announcement of the closing of several parapsychology laboratories was greeted with cheers.

The remainder of this text is devoted to a detailed discussion of pseudoskeptical arguments and debating tactics.

IF IT WAS TRUE, THERE IS NO WAY THAT SCIENCE COULD HAVE MISSED IT!

This is a variation of the *end of science argument* - since science already knows everything, and does not recognize the unconventional phenomenon, it cannot be real. Besides being based on a mere belief - that science has discovered everything there is to know - this argument ignores the nature of human perception. Even scientists tend to see only what they want to see, and that is how phenomena that we find completely obvious today, such as **Wegener's** plate tectonics - look how South America fits into Africa! - went unnoticed for a long time, and were violently opposed when they were finally pointed out. As Arthur C. Clarke put it:

"It is really quite amazing by what margins competent but conservative scientists and engineers can miss the mark, when they start with the preconceived idea that what they are investigating is impossible. When this happens, the most well-informed men become blinded by their prejudices and are unable to see what lies directly ahead of them."

True skeptics appreciate that the principal flaw of human perception - seeing what one wants to see - can afflict conventional as well as unconventional scientists. Their opinions are moderated by the humbling realization that today's scientific orthodoxy began as yesterday's scientific heresy; as the December 2002 editorial of *Scientific American* puts it:

All scientific knowledge is provisional. Everything that science "knows," even the most mundane facts and long-established theories, is subject to re-examination as new information comes in.

CONFUSING ASSUMPTIONS WITH FINDINGS

Pseudoskeptics like to claim that the assumptions underlying modern science are empirical facts that science has *proved*. For example, the foundational assumption of neuroscience, that the functioning of the brain (and, therefore, the mind) is explainable in terms of classical

physics as the interaction of neurons, is said to be a scientific fact that is proved by neuroscience, despite the embarrassing and long-standing failure of this assumption to explain the anomaly of consciousness.

In a recent **BBC program on homoeopathy** Walter Stewart (the same one who was part of the *Nature* team that visited Benveniste in his laboratory in 1988) is quoted on the subject of homoeopathic dilutions:

Science has through many, many different experiments shown that when a drug works it's always through the way the molecule interacts with the body and, so the discovery that there's no molecules means absolutely there's no effect.

But science has shown no such thing. That the functioning of biological organisms is reducible to the physical interaction of molecules is not the *result* of decades of bio-molecular research, it is the *assumption* underlying this research. The fact that homoeopathy confounds that assumption refutes the latter, not the former.

"DEBATE CLOSED" MENTALITY

Since Pseudoskeptics have by their nature made up their minds on any question long before the evidence is in, they are not interested in participating in what could become an involved, drawn-out debate. On the contrary, their concern is with preserving their own understanding of how nature works, so discordant evidence has to be disposed of as quickly as possible. When sound evidence to that end is unavailable, anything that sufficiently resembles it will suffice. Pseudoskeptics like to jump to conclusions quickly - when the conclusion is their own, preconceived one. Once the pseudoskeptical community has agreed on an "explanation" that is thought to debunk claim X, that explanation then becomes enshrined in pseudoskeptical lore and is repeated ad infinitum and ad nauseam in the pseudoskeptical literature. Subsequent rebuttals are ignored, as is new data that support claims X. Examples are legion.

* Gurwich's 1932 discovery of mitogenetic radiation is still derided by pseudoskeptics as a classical example of "pathological science" (Irving Langmuir, who coined the term, used it as an example), even though it has been vindicated by three decades of biophoton research.

* Pseudoskeptics continue their ridicule of Cold Fusion as a mistake, even use "cold fusion" as a metaphor to refer to what they deem pathological science in general, ignoring a full decade of successful replication of the effect.

* Parapsychology continues to be attacked by the hard-core pseudoskeptics with criticisms that were addressed and resolved long ago, leading Radin to remark that:

(..) skeptics who continue to repeat the same old assertions that parapsychology is a pseudoscience, or that there are no repeatable experiments, are uninformed not only about the state of parapsychology, *but also about the current state of skepticism!*

OVERREACHING AND ARMCHAIR QUARTERBACKING

Faced with contradictory or inconclusive evidence, the skeptic will only say that *the claim has not been proved at this time*, and give the claimant the benefit of the doubt. The pseudoskeptic will make the (incorrect) counter-claim that the original claim has been disproved by the evidence (and usually follow up with generous amounts of name-calling and other extra-scientific arguments discussed below).

This distinction between simply not accepting a claim and making a counter-claim is important because it shifts the burden of proof. The true skeptic does not have to prove anything, because she is simply unconvinced of the validity of an extraordinary claim. Pseudo-skeptics, on the other hand, making the claim that the extraordinary phenomenon only appears to be extraordinary, and has a conventional explanation, have to bear a burden of proof of their own. Do they? The general answer is no. Most of the professional pseudoskeptics engage

in mere 'armchair quarterbacking', conducting no research of their own. As far as parapsychology is concerned, Radin sums this situation up as follows:

The fact that most skeptics do not conduct counter studies to prove their claims is often ignored. For example, in 1983 the well-known skeptic Martin Gardner wrote:

How can the public know that for fifty years skeptical psychologists have been trying their best to replicate classic psi experiments, and with notable unsuccess [sic]? It is this fact more than any other that has led to parapsychology's perpetual stagnation. Positive evidence keeps coming in from a tiny group of enthusiasts, while negative evidence keeps coming in from a much larger group of skeptics.

As Honorton points out, "Gardner does not attempt to document this assertion, nor could he. It is pure fiction. Look for the skeptic's experiments and see what you find." In addition, there is no "larger group of skeptics." Perhaps ten or fifteen skeptics have accounted for the vast bulk of the published criticisms.

ASSUMING FALSE SCIENTIFIC AUTHORITY

Many high-profile pseudoskeptics pass judgement based on scientific expertise they don't have. James Randi, for example, shares the following tirade in a **July 13, 2001 commentary** on his web site:

Just so that you can see how pseudoscience and ignorance have taken over the Internet merchandising business, I suggest that you visit www.hydrateforlife.com and try to follow the totally false and misleading pitch that the vendors make for this product, magically-prepared "Penta" water that will "hydrate" your body miraculously. A grade-school education will equip you to recognize the falsity of this claim, but it's obvious that the purveyors are cashing in on ignorance and carelessness. Just read this as an example of pure techno-claptrap:

Normally, the water you drink is in large clusters of H2O [sic]

molecules. That's because its [sic] been affected by air, heat, and modern civilization. Penta™ is water that, through physics, has been reduced to its purest state in nature — smaller clusters of H₂O [sic] molecules. These smaller clusters move through your body more quickly than other water, penetrating your cell membranes more easily. This means Penta™ is absorbed into your system faster and more completely. When you drink Penta™, you're drinking the essence of water. You get hydrated faster, more efficiently, and more completely than with any other water on earth.

Folks, water is water. It's burned hydrogen, no more, no less. The molecules of H₂O — not "H₂O" as these quacks write — do not "cluster," under any influence of the dreadful "air, heat, and modern civilization" that you're cautioned to fear. True, water exhibits surface tension, and the molecules do "line up" to an extent, though almost any foreign substance in there disturbs this effect — soap/detergent "wets" it readily. But water molecules in "clusters"? No way! The illustrations you see here are totally wrong and fictitious. There's no such thing as "essence of water," by any stretch of scientific reasoning, or imagination. This is total, unmitigated nonsense, a pack of lies designed to swindle and cheat, to steal money, and to rob the consumer. And "through physics" has nothing to do with it. I await objections to the above statements. There will be none, because the sellers of "Penta" know they're lying, they do it purposefully, and they know they can get away with it because of the incredible inertia of the Federal agencies that should be protecting us against such deception and thievery. Those agencies just can't do the job, and they bumble about endlessly while the public continues to pay through the nose. But notice: the Penta people, on their web page, beneath a family picture of the founders, clearly assert that: At first, [the Penta engineers] tested Penta on plants. They discovered that test seeds would germinate in half the time as the control seeds. Bingo! Hallelujah! We have the means for a test! A simple, inexpensive, clearly demonstrative, test! Such a demonstration would clearly establish the claim these folks are making. Ah, but will Penta™ apply for the million-dollar prize? Dear reader, with your experience of Tice, DKL, Quadro,

Josephson, Edward, and all the parade of others who have declined to be tested, I think that you expect, as I do, that Penta™ will apply as promptly as Sylvia Browne did. The Penta™ page advises us to "Penta-hydrate — be fluid." Translation: "Believe this — be stupid."

Randi could not be more wrong. Water is not simply "water-burned hydrogen, no more no less". It is a **highly anomalous substance**, and its fundamental properties are still the subject of basic research. Admittedly, the claims made for "Penta-Water" are scientifically extravagant. But can they be dismissed out of hand? Contrary to what Randi asserts with such rhetoric force and finality, water clusters are discussed in the peer-reviewed scientific literature. The interested reader may want to visit **Martin Chaplin's web site** for an overview of scientific work on water clustering. Chaplin is not a stage magician, but a Professor of Applied Science at South Bank University, London and holds a degree in chemistry. He is also an active researcher in the field of water clustering, and concludes that:

(..) there is a sufficient and broad evidential base for its existence [the existence of the icosahedral water cluster], including the ability to explain all the 'anomalous' properties of water.

The existence of scientific evidence for water clusters does of course not imply that "Penta" and similar products have any merit, but it does caution against outright dismissal of these kinds of product. Randi's sweeping negative statements betray lack of knowledge on the subject and qualify him as a blundering pseudo-scientist. His petty, adolescent criticism of a simple typographic inaccuracy on the "Hydrate for Life" web site and his use of ridicule (he asserts that "Penta" is "magically-prepared" and works "miraculously" while the manufacturer simply states that the process is "proprietary") support that impression. And yet, Randi rhetorically assumes an air of scientific authority, even infallibility.

Pseudoskeptic Michael Shermer makes the following ignorant argument in "Baloney Detection" (*Scientific American* 11/2001, p. 36):

The biggest problem with the cold fusion debacle, for instance, was not that Stanley Pons and Martin Fleischman were wrong. It was that they announced their spectacular discovery at a press conference before other laboratories verified it. Worse, when cold fusion was not replicated, they continued to cling to their claim. Outside verification is crucial to good science.

The argument against "science by press conference" is a good one, but it would be more credible if Shermer applied it to accepted science too. A prime example is Robert Gallo's announcement of the discovery of the "probable cause of AIDS" in a press conference in 1984 that preceded publication of his research in *Science* and secured a political commitment to his alleged facts before critical scientific discussion could take place.

What makes Shermer's argument ignorant is his use of cold fusion as an example. Real scientists who have actually studied the evidence for cold fusion have come to very different conclusions. In February 2002, the Space and Naval Warfare Systems Center of the United State Navy in San Diego released a 310 page **report** titled *Thermal and Nuclear Aspects of the Pd/D2O System* that discusses the overwhelming experimental evidence that the cold fusion effect indeed exists. Dr. Frank E. Gordon, the head of the center's Navigation and Applied Sciences Department, writes in the foreword:

We do not know if Cold Fusion will be the answer to future energy needs, but we do know the existence of Cold Fusion phenomenon through repeated observations by scientists throughout the world. It is time that this phenomenon be investigated so that we can reap whatever benefits accrue from additional scientific understanding. It is time for government funding organizations to invest in this research.

Yet Shermer, a psychologist by trade, feels called upon to pass summary negative judgement on this field of research.

DOUBLE STANDARDS OF ACCEPTABLE PROOF AND AD-HOC HYPOTHESES

The true skeptic will apply her skepticism equally to conventional and unconventional claims, and even to skepticism itself. In particular, the true skeptic recognizes an ad-hoc hypothesis regardless of the source. The pseudoskeptic, on the other hand, reserves her critical facilities for unconventional claims only.

William R. Corliss, the author of **The Sourcebook Project** (a comprehensive collection of anomalies and unexplained phenomena reported in scientific journals) gives a salient example of that kind of behavior in the *Journal of Scientific Exploration* (Vol. 16, 3 p.446):

One would expect a lively interface between the Sourcebook Project and the several groups of skeptics, as typified by the Committee for the [Scientific] Investigation of Claims of the Paranormal (CSICOP). After all, my catalogs do challenge those paradigms the skeptics defend so ferociously. Actually, there has been no traffic whatsoever. While mainstream *Nature* has reviewed five of my books, the skeptics have shown no interest in evaluating any of the Sourcebook publications. The skeptics, it seems, are never skeptical of *established* paradigms, *only* those observations that threaten to dis-establish them.

The **Skeptic's Dictionary**, a leading pseudoskeptical online resource, gives us a great example of this selective blindness. Under the heading "ad hoc hypothesis", we find the following definition:

An ad hoc hypothesis is one created to explain away facts that seem to refute one's theory. Ad hoc hypotheses are common in paranormal research and in the work of pseudoscientists.

What Todd Carroll, the author of the Skeptic's Dictionary does not see fit to share with his readers is that some of the most celebrated "discoveries" of mainstream science are mere ad hoc hypotheses designed to cover the failure of theories to agree with observational evidence. Some of these ad hoc hypotheses, such as the hypothesis

that almost all of the matter and energy of the universe exists in a form undetectable by the instruments of science, that there is a particle that causes mass (the Higgs Boson), and that people who fail to improve on AIDS drugs must be infected with a resistant mutation of HIV, are then taken as *facts*, with the strongest evidence for the existence being that *accepted theory requires them!* And yet, you will search skeptical publications in vain for truly skeptical discussion of these subjects (as opposed to ones that agree with the mainstream consensus). "The Mainstream Consensus Is Always Right" seems to be the motto.

The following is an anecdotal example of an ad-hoc theory in established science. In its June 2002 issue, *Scientific American* ran an article on AIDS that contained a chart titled "World AIDS Snapshot" (p.41). Combining the absolute numbers of people who are HIV positive with population figures from the CIA world factbook, I found that in Australia/New Zealand, only one person in 1548 was HIV positive, while in North America (Mexico counts under Latin America, according to the UNAIDS web site), 1 person in 329 was. Given that the predominant strain of HIV is the same in both regions (clade B), how can the rate of infection be almost 5 times higher in North America than in Australia/New Zealand? Sexual (mis)- behavior in both regions is comparable, as evidenced by the fact that incidence rates for classical STDs are virtually identical (according to WHO figures for 1999):

STD	North America	Australia/New Zealand
Gonorrhea:	1 in 196	1 in 192
Trichomoniasis, men	1 in 78	1 in 79
Trichomoniasis, women	1 in 71	1 in 72
Chlamydia:	1 in 78	1 in 77
HIV (prevalence)	1 in 329	1 in 1548

I emailed Sciam staff writer Carol Ezzell and inquired what the cause of this discrepancy could be. I received the following reply:

Our statistics come from the UNAIDS (see the web site at www.unaids.org). Australia/New Zealand has a 0.1 percent adult prevalence rate, whereas North America has a rate of 0.6 percent. Most of the cases of HIV infection in Australia/New Zealand occur in men who have sex with men. A key tipping point in the broadening of HIV infection occurs when the virus rages through IV drug abusers and then enters people (men and women) who have sex with those drug abusers. For whatever reason, this hasn't happened in A./N.Z.

Actually, the alleged broadening of HIV infection into a general epidemic that effects large numbers of heterosexuals has not happened anywhere in the developed world, even though it was widely predicted by experts in the 1980s. The claim that it somehow exists nonetheless, and, for some unknown reason, more so in North America than in Australia/New Zealand, is a perfect example of "a hypothesis created to explain away facts that seem to refute one's theory". Skepticism towards the prevailing view of "HIV/AIDS" seems to be called for, but you will find none in the pages of the *Skeptical Inquirer* and other "skeptical" publications.

Skeptic has published an **article** on this subject titled *The Aids Heresies - A Case Study in Skepticism Taken Too Far* (vol. 3, no. 2, 1995) by Steven B. Harris, M.D. that seeks to affirm the correctness of the conventional viewpoint and, in typical pseudoskeptical fashion, ignores at least one key argument of the AIDS critics. That is the argument that HIV tests are completely invalid. The Perth Group had already made that case in 1993 in a **paper** published in *Bio/Technology* (Vol.11 June 1993). Their claims were reported in a headline story on June 1, 1993 in the *Sunday Times* of London. Yet, over one year later, Dr. Harris does not even mention this critical component in the skeptical case against the conventional theory of HIV/AIDS in his article. Instead, he misleads his readers into believing that AIDS skeptics recognize the validity of HIV tests in the first place by stating that "critics of the HIV/AIDS hypothesis have had to struggle to keep up with sensitivity increases in HIV testing".

To discuss an example in physics: University of Michigan physicist Gordon Kane writes about the Higgs Boson on the **Scientific American Web site** under the heading "ask the experts".

There are currently two pieces of evidence that a Higgs boson does exist. The first is indirect. According to quantum field theory, all particles spend a little time as combinations of all other particles, including the Higgs boson. This changes their properties a little in ways that we know how to calculate and that have been well verified. Studies of the effect the Higgs boson has on other particles reveal that experiment and theory are consistent only if the Higgs boson exists and is lighter than around 170 giga electron volts (GeV), or about 180 proton masses. Because this is an indirect result, it is not rigorous proof. More concrete evidence of the Higgs came from an experiment conducted at the European laboratory for particle physics (CERN) using the Large Electron Positron (LEP) collider in its final days of operation. That research revealed a possible direct signal of a Higgs boson with mass of about 115 GeV and all the expected properties. Together these make a very convincing — although not yet definitive — case that the Higgs boson does indeed exist

A researcher making that kind of case for an unconventional phenomenon would be laughed out of town. A single sighting, so the skeptics would say, is anecdotal evidence and proves nothing. And that a theory requires it merely means that the scientists saw what they wanted to see. But particle physics is conventional science, hence different (i.e. much less stringent) standards of proof apply. Results are accepted, even said to be "convincing", based on relatively weak and purely indirect evidence, and because a handful of experts vouch for their accuracy.

Another example of established science that should not be so established is the neutrino. Neutrinos are ghostlike particles that were introduced by Pauli as an ad-hoc hypothesis to save the relativistic law of energy conservation (which fails to correctly describe radioactive beta decay otherwise). Neutrinos can not be detected directly, and require giant detectors for indirect (statistical) detection. Decades of

neutrino detection experiments have failed to detect the correct number of solar neutrinos. To account for the discrepancy, physicists have come up with the idea of neutrino oscillations. In other words, the neutrino meets several of Langmuir's criteria of pathological science: the maximum effect that is observed is produced by a causative agent of barely detectable intensity, the effect is of a magnitude that remains close to the limit of detectability or, many measurements are necessary because of the very low statistical significance of the results and criticisms are met by ad hoc excuses. Maybe there is no neutrino, and the relativistic law of energy conservation is simply wrong? **Autodynamics** is a proposed theoretical alternative to relativity that correctly describes beta decay without a neutrino, but you won't find it mentioned in physics journals or the pseudoskeptical literature.

So pseudoskeptics often fail to apply their skepticism to conventional wisdom. But worse yet, when confronted with evidence of unusual phenomena, pseudoskepticism itself will take refuge to outrageously arbitrary ad hoc hypotheses: swamp gas, duck butts and temperature inversions can create the appearance of flying vehicles in the sky, pranksters are able to produce elaborate geometrical designs in crops within seconds, in complete darkness, and without leaving footprints (but somehow changing the microscopic structure of the crops in a manner consistent with microwave heating), and shadows can conspire to make a mesa on Mars look like a face, an illusion that persists under different viewing angles and lighting conditions.

Critics of Alternative and Complementary Medicine (such as self-appointed "quackwatcher" **Stephen Barrett**) habitually employ this double standard. They will piously denounce alternative medical procedures for not having 100% cure rates, but ignore the fact that the side effects of conventional drugs kill over 100,000 in the US alone each year. They will condescendingly point to a lack of proper (i.e. double-blind) scientific studies supporting certain alternative procedures, and simultaneously ignore the fact that many conventional surgical procedures and drug protocols are equally unproven by the same standard. Worse yet, they will hold alternative medicine responsible

for every case of malpractice that has ever been committed in its name, but they would not dream of applying the same standard to conventional medical practice.

The Friday, May 14, 2004 edition of Robert Park's *What's New* Column contains the following gem:

"Evidence-based Complementary and Alternative Medicine (eCAM) is a new international journal that seeks to encourage rigorous research in this new, yet ancient world of complementary and alternative medicine ... particularly traditional Asian healing systems." So begins an Oxford University Press announcement <http://www.oup.co.uk/jnls/list/ecam/>. All eCAM papers are available online at no cost and without subscription. Unlike other open-access journals there are no author submission fees. Who pays, skeptics might ask? The "generous support of Ishikawa Natural Medicinal Products Research Center, co-owner of the journal with OUP." Yes, it's the ancient-wisdom scam. (...) Other industries might be equally generous. Perhaps the Journal of Gambling Studies, which deals with gambling addiction, could cut a deal with the slot-machine industry. And perhaps Join Together Online, which opposes gun violence, could team up with the National Rifle Association. On the other hand, maybe not.

Park's double standard with respect to medical ethics boggles the mind. Corruption and violation of scientific ethics is **endemic** in the mainstream medical system. Drug companies are permitted to write their own studies or to pay allegedly independent researchers to produce results, and to suppress results that are not favourable to their products. Medical journals receive significant funding from the pharmaceutical industry through advertising. In an interview with the *Los Angeles Times* published on August 9, 2004, Marcia Angell, a former editor of the *New England Journal of Medicine*, made the following statement:

Research is biased in favor of the drugs and drug makers. The pharmaceutical industry spends a great deal to influence people in

academic medicine and professional societies. It does a super job of making sure [that] nearly every important person they can find in academic medicine [who] is involved in any way with drugs is hired as a consultant, as a speaker, is placed on an advisory board - and is paid generous amounts of money. Conflicts of interest are rampant. When the *New England Journal of Medicine* published a study of antidepressants, we didn't have room to print all the authors' conflict-of-interest disclosures. We had to refer people to the web site. I wrote an editorial for the journal, titled "Is Academic Medicine for Sale?" Someone wrote a letter to the editor that answered the question, "No. The current owner is very happy with it." That sums up the situation nicely.

Dr. Park has evidently heard of Dr. Angell, because he mentions her as a skeptic of CAM in his **May 11, 2001 column**. But when the same person makes public statements that confirm that conventional medicine is suffering from a large-scale epidemic of the very same disease that Park finds intolerable in the field of CAM, he shows no interest, at least not in his *What's New* column. If CAM studies are invalid because of financial conflicts of interests, should not the same ethical standard be applied to mainstream medicine? They should, but Dr. Park is apparently more interested in making a system of medicine he doesn't like look bad than in applying ethical standards even-handedly and dispassionately.

Marcello Truzzi, one of the original founders of CSICOP, deftly exposes the hypocrisy of pseudoskepticism when he writes:

Those who leap to call parapsychology a pseudoscience might do well to look more closely at the social sciences in general. Those who laugh at the implausibility of a possible plesiosaur in Loch Ness should take a close look at the arguments and evidence put forward for the Big Bang or black holes. Those who think it unreasonable to investigate reports of unidentified flying objects might do well to look carefully at the arguments and evidence of those who promote current attempts at contacting extraterrestrial intelligence allegedly present in other solar systems. Those who complain about the unscientific status

quo of psychic counsellors should be willing to examine the scientific status of orthodox psychotherapy and make truly scientific comparisons. Those who sneer at phoney prophets in our midst might also do well to look at the prognosticators in economics and sociology who hold official positions as "scientific forecasters". Those who concern themselves about newspaper horoscopes and their influence might do well to look at what the "real" so-called helping professions are doing. The scientist who claims to be a skeptic, a zetetic, is willing to investigate empirically the claims of the American Medical Association as well as those of the faith healer; and, more important, he should be willing to compare the empirical results for both before defending one and condemning the other.

Cremo and Thompson, in *Forbidden Archeology*, p. 24, write under the heading "The Phenomenon of Suppression":

One prominent feature in the treatment of anomalous evidence is what we could call the double standard. All paleoanthropological evidence tends to be complex and uncertain. Practically any evidence in this field can be challenged, for if nothing else, one can always raise charges of fraud. What happens in practice is that evidence agreeing with a prevailing theory tends to be treated very leniently. Even if it has grave defects, these tend to be overlooked. In contrast, evidence that goes against an accepted theory tends to be subjected to intense critical scrutiny, and it is expected to meet a very high standard of proof.

Skeptics, both of the genuine and the pseudo variety, have elevated this double standard to a principle of science: *extraordinary claims require extraordinary evidence!* But this principle does not hold up to logical scrutiny, because a claim is only ordinary or extraordinary in relation to a theory. For the sake of making this point, let us assume a scenario in a hypothetical new science in which there are two pieces of evidence to be discovered, A and B, each equally credible, each one suggesting an obvious, but incorrect explanation (call them (1) and (2)). (1) and (2) are mutually incompatible, and a third, highly non obvious explanation (3) that accounts for both A and B is actually correct.

As chance would have it, one of the two pieces of evidence A,B will be discovered first. Let A be that piece of evidence, and further suppose that the scientists working in that hypothetical field all subscribe to the principle of the double standard. After the discovery of A, they will adopt explanation (1) as the accepted theory of their field. At a later time, when B is discovered, it will be dismissed because it contradicts (1), and because A and B are equally credible, but A is ordinary relative to (1) and B is extraordinary.

The end result is that our hypothetical science has failed to self-correct. The incorrect explanation (1) has been accepted, and the correct explanation (3) was never found, because B was rejected. I therefore submit that *extraordinary claims require extraordinary evidence* is not suitable as a guiding principle for sound scientific research. All evidence, whether it supports accepted theories or not, should be given the same level of critical scrutiny.

Pseudoskeptics of course would argue that they simply do not have the resources to be skeptical about everything, so they have to concentrate on the obvious targets. But that doesn't get them off the hook. Pseudoskeptics apply the "extraordinary evidence" standard *only selectively* to controversial phenomena - namely, precisely when they fit their ideological preconceptions! When Doug Bower and David Chorley made the extraordinary claim that they had created all of the thousands of crop circles that had appeared in English fields between 1978 and 1991 (some of which had appeared on the same night in different regions of the country), there were no armies of skeptics loudly insisting that "extraordinary claims require extraordinary evidence". Apparently, as long as the extraordinary claim is one that agrees with what the pseudoskeptics have "known" all along, it does not even require ordinary evidence. Bower and Chorley were never able to substantiate their claim, let alone prove it, but the "skeptical" community accepted it on faith - and without a trace of skepticism.

RESPONDING TO CLAIMS THAT WERE NOT MADE aka DEMOLISHING STRAW MEN

Benveniste (who showed that ultradilutions, i.e. homoeopathic preparations not containing a single molecule of the original substance can still have a biological effect) was attacked by *Nature* editor John Maddox with the argument that dilutions of the kind used by Benveniste can simply not exist because they would require "1074 world oceans" (that is more water than contained in the entire universe) to manufacture. That is correct, if the definition of "dilution" requires that at least one molecule remain, but Benveniste (and generations of homoeopaths) have readily conceded that very point! *Everyone* agrees that high homoeopathic dilutions do not contain a single active molecule, so Maddox's argument is nothing but the ritual dissection of a straw man. He is not alone - "skeptical" discussions of homoeopathy invariably spend a lot of time making this completely uncontested point.

Our favourite resource for invalid criticisms, the Skeptic's Dictionary, tries to downplay the importance of the Gauquelin data by stressing that correlation does not imply causation. But astrologers do not claim causation! Both adherents and skeptics agree that astrology is a branch of magic, and as such is based on the principle of correspondences. This principle claims that nature exhibits meaningful, not necessarily causally mediated analogous behavior on all levels. The Gauquelin data shows correlation between the movements of the planets and certain aspects of human behavior; nothing more is claimed by astrology.

In a personal note published on **James Randi's Web site**, Robert Park makes the following statement about the "Motionless Electromagnetic Generator", a claimed free energy device:

I've been following the MEG claim since Patent 6,362,718 was issued in the spring (What's New 4 Apr 02). The claim, of course, is preposterous. It is a clear violation of the conservation of energy.

But Park is only demolishing a straw man. The first law of thermodynamics states that the energy of a *closed* system is conserved. But the inventors of the MEG claim that their device takes energy from the zero-point field of the vacuum, thereby conserving the energy of the total system (which in this case would be the MEG and the surrounding vacuum). Whether it can actually do that is an open question. But the existence of the Casimir force proves that *in principle* such extraction of energy from the vacuum is possible (even though the potential energy gained from the Casimir force between two plates is negligible). Therefore, one cannot dismiss claims for free energy devices such as the MEG on a priori grounds of energy conservation. Since Park is a physicist, he could not possibly be unaware of this. By making this argument, he is therefore intentionally misrepresenting the claims of the MEG inventors. They do not claim to have found a way around the first law; they merely claim to have accessed a source of energy not previously accessible to human technology.

[Note: The author is aware of no legitimate scientific evidence that the MEG works as claimed. The purpose of this example is not to suggest that it is a legitimate "free energy" device, but simply to point out the invalid nature of some of the arguments against it.]

TECHNICALLY CORRECT PSEUDO-REFUTATION (credit for the term goes to Daniel Drasin):

Pseudoskeptics are fond of arguing that hundreds of respectable scientists believe that a certain idea is bunk, and therefore, it must be. When one points out to them that many scientific breakthroughs were ridiculed and dismissed by the scientific establishment of the time, they retort that not every idea that has been ridiculed or dismissed turned out to be correct. Correct, but completely irrelevant, because it responds to an argument that was not made. The argument was not that ridicule or dismissal by scientific experts is sufficient grounds for accepting an unorthodox claim, simply that it is insufficient grounds for rejecting it.

Robert T. Carroll, a Professor of Philosophy at the Sacramento City College no less, falls into this logical trap when he writes in his **Skeptic's Dictionary** about what he calls "selective thinking":

Let's begin with his version of the "they laughed at Galileo, so I must be right" fallacy, a non sequitur variation of selective thinking.

In his book *Alternative Science*, and on his web site under what he calls *Skeptics who declared discoveries and inventions impossible*, Milton lists a number of inventors and scientists who struggled to get their ideas accepted. Many were ridiculed along the way. But, like many others who commit this fallacy, Milton omits some important, relevant data. He does not mention that there are also a great number of inventors, scientists and thinkers who were laughed at and whose ideas have never been accepted. Many people accused of being crackpots turned out to be crackpots. Some did not. Thus, being ridiculed and rejected for one's ideas is not a sign that one is correct. It is not a sign of anything important about the idea which is being rejected. Thus, finding large numbers of skeptics who reject ideas as being "crackpot ideas" does not strengthen the likelihood of those ideas being correct. The number of skeptics who reject an idea is completely irrelevant to the truth of the idea. Ideas such as alien abduction, homoeopathy, psychokinesis, orgone energy, ESP, free energy, spontaneous human combustion, and the rejection of evolution--all favored by Milton - are not supported in the least by the fact that these ideas are trashed by thousands of skeptics.

True, but irrelevant! Milton's argument shows precisely what it is supposed to show: that the skeptic's knee-jerk dismissal of unorthodox claimants as "pseudo-scientists", "fringe-scientists" and "crackpots" simply carries no evidentiary weight one way or another. In his skeptical zeal to convict Milton of blundering in the realm of logic, Carroll commits a much more elementary error than selective reasoning: he responds to an argument that is not being made. Milton's argument is not "they laughed at Galileo, therefore every unconventional claimant is right", it is merely "they laughed at Galileo, therefore unconventional claimants cannot be presumed wrong."

Carroll's attempt to hold Milton responsible for an argument not made is a variation of the popular pseudoskeptical technique of *Demolishing a Straw Man*.

MAKING CRITICISMS THAT APPLY EQUALLY TO CONVENTIONAL AND UNCONVENTIONAL RESEARCH

It should be obvious that a criticism is invalid if it applies just as well to established science as it applies to an unconventional claim (such a criticism is called *uncontrolled*). But pseudoskeptics get away with using this technique anyway. What follows are some common examples of uncontrolled and therefore invalid criticisms.

DEMANDING AN UNREASONABLE DEGREE OF REPRODUCIBILITY

Reproducibility means that a phenomenon can be demonstrated on demand, anywhere, at any time. Pseudoskeptics believe that an unconventional phenomenon can safely be considered nonexistent unless it is reproducible in this sense. But the same standard of evidence would invalidate much of accepted science. Discoveries in archaeology are by their nature unique, non reproducible. Astronomy and geology are not reproducible in the strictest sense - astronomers cannot produce a supernova on demand, nor can geologists an earthquake. Even physics, the "hardest" of all sciences, is less and less reproducible in practice. Cutting-edge discoveries of high-energy physics, such as the discovery of the top quark are accepted by the physical community and then the public largely on faith, because no one else has the facilities to replicate them. The top quark is simply one of those discoveries whose experimental verification is beyond amateur science.

Similarly, the complete inability of ordinary humans to influence macroscopic systems with their minds alone, even in the slightest, strongly suggests that mind-matter interaction, if it exists, will be hard to demonstrate experimentally. A skeptic who rejects the conclusion of statistically sound meta-analysis of decades of mind-matter exper-

iments because she feels that the phenomenon should be proven directly, by producing a person who can consistently, say, levitate objects, should similarly reject the discovery of the top quark until such time as a demonstration kit be made available that allows any physics high school teacher to produce said particle on the kitchen top. Either demand is unreasonable and denies the difficult nature of the subject matter.

PROFIT MOTIVE

Pseudoskeptics try to invalidate unconventional claims by pointing out that the claimants derive financial support from their research (through books, newsletters or speaking engagements), blithely ignoring that conventional scientists derive their livelihood from their work as well. If a *cold fusion* researcher who is trying to commercialize his discoveries is a priori suspect, should not by the same token the hot fusion physicist's 1989 dismissal of the cold fusion discovery be viewed with extreme suspicion, since their very livelihood depends on the continued flow of billions of federal research dollars into their field, a field that has produced no tangible results, despite 50 years of research?

To mention an anecdotal example, I have personally observed skeptics of the claim of adverse biological effects from microwave radiation produced by cellular devices having the gall to argue that critics of cellular technology cannot possibly be taken seriously because they make money from publishing their criticisms, while the same skeptics do not find fault with studies funded and written by the multi-billion-dollar cellular industry!

STATISTICS CAN PROVE ANYTHING!

Such is essentially the argument that the spokesman of the American Physical Society, Robert L. Park, makes against psychokinetic research in his book *Voodoo Science* (p. 199). In the context of a dis-

cussion of an obviously pseudoscientific *Good Morning America* report on anomalous phenomena (debunkery by association: as if TV shows were the principal outlet for reporting the results of psi research!), Park writes:

Why, you may wonder, all this business of random machines? Jahn has studied random number generators, water fountains in which the subject tries to urge drops to greater heights, all sorts of machines. But it is not clear that any of these machines are truly random. Indeed, it is generally believed that there are no truly random machines. It may be, therefore, that the lack of randomness only begins to show up after many trials. Besides, if the mind can influence inanimate objects, why not simply measure the static force the mind can exert? Modern ultra-microbalances can routinely measure a force of much less than a billionth of an ounce. Why not just use your psychokinetic powers to deflect a microbalance? It's sensitive, simple, even quantitative, with no need for any dubious statistical analysis.

There are many things wrong with this statement, and I refer the reader to my **review of Park's book** for details. For the purpose of this argument, I am interested in Park's assessment that effects that are only indirectly detected, by statistical analysis, are suspect. Where does that leave conventional science? Deprived of one of its most powerful tools of analysis. The cherished 1992 COBE discovery of minute fluctuations in the cosmic microwave background radiation would have to be thrown out, since it was entirely statistical in nature, and therefore by Park's argument, 'dubious'. The most celebrated discoveries of particle physics, such as the 1995 discovery of the top quark, or the results of neutrino detection experiments, or the synthesis of superheavy, extremely short-lived elements, would have to be thrown out, since they, too, are indirect and statistical in nature. Modern medicine would have to be invalidated as well because it relies on statistical analysis (of double-blind trials) to prove the efficacy of drugs.

For comparison: the American Institute of **Physics's Bulletin of Physics News, #216, March 3, 1995** gives the odds against chance for

the top quark discovery as a million to one. A 1987 meta-analysis performed by Dean Radin and Roger Nelson of RNG (random number generator) experiments between 1959 and 1987, on the other hand, shows the existence of an anomalous deviation from chance with odds against chance exceeding one *trillion* to one (see Radin, *The Conscious Universe*, p. 140).

Park's argument is the quintessential uncontrolled criticism: accepted scientific methods that constitute the backbone of modern science suddenly become questionable when they are used on phenomena that don't fit his ideological predilections.

FRAUD CANNOT BE RULED OUT!

The pseudoskeptical argument of last resort. If a body of research supporting an unconventional claim is airtight, the pseudoskeptic will argue that since the conclusion contradicts established theories of nature (she will call them "facts"), and all other alternative explanations have been exhausted, the results must therefore be due to fraud. Of course, such an argument from theory turns the scientific method on its head (unless the skeptic can prove that fraud has *actually been committed*), but what is more important, the same argument can be made for any research. Indeed, when funding or scientific prestige are at stake, results are frequently faked in the conventional sciences, probably much more frequently than in, say, parapsychology where skeptical scrutiny is intense.

IN MEDICINE: IT'S UNSAFE!

A favourite argument of the professional "quackbusters" like Stephen Barrett is that an alternative procedure is unsafe. On the **Acupuncture** page of his site, Barrett states that:

Improperly performed acupuncture can cause fainting, local hematoma (due to bleeding from a punctured blood vessel), pneumothorax (punctured lung), convulsions, local infections, hepatitis B

(from unsterile needles), bacterial endocarditis, contact dermatitis, and nerve damage. This, of course, misses the mark of controlled criticism by a wide margin. Why not similarly list the dangers of improperly performed surgery and then denounce the whole field as quackery?

ACCUSATIONS OF SELECTIVE REPORTING (THE "FILE DRAWER EFFECT")

One of the standard criticisms levered by pseudoskeptics against unconventional research that relies on statistics (primarily parapsychology) is that only successful experiments were reported and the unsuccessful ones were suppressed (by burring them in the "file drawer"). Unlike the previous criticisms, the file drawer criticism is valid in principle, but I mention it in this list anyway because pseudoskeptics obsess only about the (**largely imaginary**) file drawers of the parapsychologists while ignoring the large file drawers of suppressed conventional science.

To cite just a few examples of what has been buried in those file drawers: fundamental criticisms of relativity are *a priori* ineligible for publication in the mainstream scientific journals. That's why most physicists are not aware of experimental evidence that apparently refutes special relativity. Positive results on cold fusion are similarly banned from publication, as are papers that radically question the accepted time line of human evolution. Cremo and Thompson's *Forbidden Archeology* contains several hundred pages of archeological discoveries that have been left to be forgotten in that particular file drawer. Veteran astronomer Halton Arp, who has been made a persona non grata in astronomy due to his discovery that modern cosmology is catastrophically wrong, describes how most of his own papers ended up in the astronomical "file drawer" instead of the astronomical journals as follows (Arp, *Seeing Red*, 1998):

"In the beginning there was an unspoken covenant that observations were so important that they should be published and archived

with only a minimum of interpretation at the end of the paper. Gradually this practice eroded as authors began making and reporting only observations which agreed with their starting premises. The next step was that these same authors, as referees, tried to force the conclusions to support their own and then finally, rejected the papers when they did not. As a result more and more important observational results are simply not being published at the journals in which one would habitually look for such results. The referees themselves, with the aid of compliant editors, have turned what was originally a helpful system into a chaotic and mostly unprincipled form of censorship."

Anecdotal evidence suggests that the file-drawer of medical and other profit-oriented research that has been suppressed due to economic conflicts of interest is at least as thick as the body of published research. The tobacco industry had suppressed evidence that smoking causes cancer for decades, and the chemical industry has likewise suppressed evidence of public-health risks caused by its products. Examples of manipulated drug trials in medicine are legion. On July 25, 2002, *The Nation* published a special report titled **Big Pharma, Bad Science** that gives the following devastating assessment of the quality of modern medical research:

"In June, the *New England Journal of Medicine*, one of the most respected medical journals, made a startling announcement. The editors declared that they were dropping their policy stipulating that authors of review articles of medical studies could not have financial ties to drug companies whose medicines were being analyzed. The reason? The journal could no longer find enough independent experts. Drug company gifts and "consulting fees" are so pervasive that in any given field, you cannot find an expert who has not been paid off in some way by the industry. So the journal settled for a new standard: Their reviewers can have received no more than \$10,000 from companies whose work they judge. Isn't that comforting? This announcement by the *New England Journal of Medicine* is just the tip of the iceberg of a scientific establishment that has been pervasively corrupted by conflicts of interest and bias, throwing doubt on almost all

scientific claims made in the biomedical field."

"Unknown to many readers is the fact that the data being discussed was often collected and analyzed by the maker of the drug involved in the test. An independent 1996 study found that 98 percent of scientific papers based on research sponsored by corporations promoted the effectiveness of a company's drug. By comparison, 79 percent of independent studies found that a new drug was effective. This corruption reaches from the doctors prescribing a drug to government review boards to university research centers. "

"Increasingly, the industry has converted academic research centers into subsidiaries of the companies. The billions of dollars of academic government funding essentially pays to flush out negative results, while private industry gets to profit from any successful result. "

"And the results are expensive and sometimes tragic for the public. Experimental clinical drug trials are hazardous to participants and, more broadly, critical to those with life threatening conditions who need to know which treatments are fruitless to pursue. Yet researchers on industry payrolls end up pressured to suppress negative results. At the most basic level, researchers who defy their corporate sponsors know they may lose their funding. "

Writer John Anthony West and geologist Robert M. Schoch have uncovered commanding geological evidence that the Egyptian Sphinx is thousands of years older than conventionally assumed, but their data has been, and is still being ignored by conventional Egyptology. When confronted with this research, Egyptologists have no explanation for it, but they insist that it cannot possibly be correct, because it contradicts their theories.

This site contains many more examples of suppressed and ignored discoveries spanning virtually the entire spectrum of human sciences. By the standards set by the pseudoskeptics themselves, therefore, almost all of science would have to be invalid. Pseudoskeptic Michael Shermer writes in "Baloney Detection" (*Scientific American* 11/2001, p. 36).

Watch out for a pattern of fringe thinking that consistently ignores or distorts data.

But "Consistently ignoring and distorting data" is pervasive in physics, astronomy, biology, medicine, psychology, archeology and paleoanthropology. The "file drawer effect", while not uncontrolled per se is therefore in practice an uncontrolled criticism. Due to the broken peer review system and massive conflicts of interest in commercial science, it applies to and invalidates much of accepted science.

TRYING TO END THE RACE WHEN THEIR SIDE IS AHEAD

In any scientific controversy, there will be confirming evidence from some scientists and disconfirming evidence from others. Otherwise, there would not be a controversy. Resolving such controversies takes many iterations of new and better experiments, publication and criticism. In a head-to-head race, the lead will change often. Sometimes, the confirming evidence will gain the upper hand, and then the disconfirming evidence is ahead again. Pseudoskeptics are always trying to end the race prematurely, when they're ahead, and declare victory. As an example, consider Randi's never-ending tirades against homoeopathy. If you study his web site, you will see that all he ever quotes is disconfirming medical studies, while **the ones that confirm homoeopathy** are conveniently ignored.

Try it yourself. Use **Google** to search Randi's web site for *Madeleine Ennis homoeopathy* and see how many hits you get. One. And that one just mentions Ennis' name in the context of discussing a disconfirming study, and calls her a "pharmacist from Belfast." Relying solely on Randi's site, a reader would never know that the woman is a professor of Immunopharmacology at Queen's University, Belfast, and that she and others have produced a ground-breaking replication of Benveniste's seminal work on ultradilutions.

This kind of biased, selective reporting of evidence cannot be excused by ignorance. It is indicative of malice and constitutes intellectual fraud.

*

THEORY OVERRIDES EVIDENCE: the pseudoskeptic holds a firm belief that certain phenomena are *a priori* impossible, regardless of the evidence. This belief is contrary to the scientific method were theory always yields to the primacy of observation. A theory that is contradicted by evidence must be modified or discarded, no matter how aesthetically pleasing or prestigious it is. If an observation is made that cannot be accounted for by any existing theory, then the observation must be carefully checked and double-checked for errors. If no errors are found, then the observation must enter into the canon of scientific fact, regardless of whether it is explained by theory.

Most pseudoskeptics operate on assumptions about science that are precisely contrary to this principle. Carroll makes a typical argument when he **writes about homoeopathy**:

The known laws of physics and chemistry would have to be completely revamped if a tonic from which every molecule of the "active" ingredient were removed could be shown to nevertheless to be effective.

Indeed they would. This process is known as science, as opposed to the pseudoscientific dogmatizing of the fact-resistant pseudo-skeptics.

In his August 6, 2004 *What's New* column, Robert L. Park delivers the following example of theory-over-evidence reasoning:

COINCIDENCE: IS YOUR RANDOM NUMBER GENERATOR SPEAKING ARABIC?

If it is, you may want to take cover, or seek professional help. In the August issue of *Psychology Today*, parapsychologist Dean Radin is quoted as claiming random number generators (RNGs) were uncharacteristically coherent in the hours just before the 9/11 terrorist attack on the World Trade Center and again before Madrid. Coincidences

like that don't just happen; "events with worldwide impact focus consciousness and that influences the functioning of machines." Radin heads the Global Consciousness Project, with 75 totally deluded researchers around the world monitoring RNGs to see if they predict terrorist attacks. Are RNGs the only machines that act up? What about elevators and missile launchers? This is scary. No, not the machines, the fact that there are that many researchers that haven't got a clue about how things are, and people with money willing to fund them.

The argument is simple. Theologist Park just knows "how things are", and no amount of empirical evidence to the contrary can sway him. His argument consists solely of the application of ridicule and the ad-hominem, and is entirely devoid of scientific reasoning.

MISAPPLYING OCCAM'S RAZOR

In science, the simplest explanation tends to be the best. Pseudoskeptics usually insist that this heuristic rule of thumb is an immutable law of nature! In addition, they usually confuse *simplicity* with *familiarity*, and *explanation* with *rationalization*. For example, given that for over 50 years, observers from all walks of life including university professors, airline pilots, military personnel, policemen, Senators and US presidents have witnessed unidentified flying objects with operational characteristics that far surpass current aircraft designs (such as ability to make right-angle turns at high velocities), that many of these unexplained sightings are backed up by radar observations, photographic, video or physical evidence, and given that UFO pseudoskeptics have to resort to far-fetched logical contortions, highly improbable coincidences and laughable ad-hoc hypotheses to explain away these observations (such as the idea that swamp gas can create the appearance of flying objects in the sky), one must conclude that the hypothesis that some UFOs represent real flying objects is the simplest explanation. The complicated ad-hoc "explanations" (really rationalizations) of the UFO pseudoskeptics cannot compete with the unified explanatory power of that simple hypothesis.

DISLIKE OF THE CONSEQUENCES

Sometimes, pseudoskeptics will make the argument that a certain phenomenon cannot be actually occurring because the consequences would be too unsettling. For example, on CNN's *Larry King Live*, UFO Skeptic Philip Klass once responded to an argument that the alien abduction phenomenon is real by stating that "if these things were true, the social consequences would be intolerable"!

Park's argument quoted above is another example. He finds the research generated by the Global Consciousness Project wholly unpalatable because it scares him. The claim that the correct functioning of sensitive equipment that we entrust our lives to is subject to subtle mental effects is indeed frightening. But that does not refute the claim.

REFUSAL TO SEE THE TOTALITY OF THE EVIDENCE

Any single case of an anomalous phenomenon, no matter how strong, can always be disposed of by claiming that the observer involved is a fraud, or was suffering from hallucination. But when there are hundreds, or thousands of similar cases, this explanation clearly becomes inadequate. There is a low, but nonzero probability that any single UFO sighting is fraudulent, but the combined probability that thousands and thousands of UFO sightings by credible, highly educated observers over five decades are all bogus is next to zero. There is a low, but nonzero probability that a single paranormal researcher might be a fraud, and reporting the results of fictional experiments, but the probability that there is a global conspiracy of scientists who spend whole lives counterfeiting research, which has been going on for over a century, is clearly next to zero.

The pseudoskeptic strictly refuses to appreciate the evidence as a whole. Every time she dismisses a case on the grounds that the evidence is not strong enough (because the probability of chance or fraud is technically nonzero), the pseudoskeptic forgets all about it and approaches the next, similar case as if there was no precedent. Or

worse yet, the skeptic dismisses a new case solely on the ground that she has dismissed similar cases in the past! The pseudoskeptical case against *cold fusion* seems to rest almost entirely on this kind of attitude these days.

Allen Hynek wrote about this pseudoskeptical fallacy:

Probabilities, of course, can never prove a thing. When, however, in the course of UFO investigations one encounters *many* cases, each having a fairly high probability that "a genuinely new empirical observation" was involved, the probability that a new phenomenon was *not* observed becomes very small, and it gets smaller still as the number of cases increases. The chances, then, that something really new is involved are very great, and any gambler given such odds would not hesitate for a moment to place a large bet... Any one UFO case, if taken by itself without regard to the accumulated worldwide data [...] can almost always be dismissed by assuming that in that particular case a very unusual set of circumstances occurred, of low probability [...] But when cases of this sort accumulate in noticeable numbers, it no longer is scientifically correct to apply the reasoning one applies to a single isolated case."

F.C.S. Schiller remarked on the same subject:

"A mind unwilling to believe or even undesirous to be instructed, our weightiest evidence must ever fail to impress. It will insist on taking that evidence in bits and rejecting item by item. As all the facts come singly, anyone who dismisses them one by one is destroying the condition under which the conviction of a new truth could ever arise in the mind."

SETTING ARBITRARY STANDARDS OF PROOF AND MOVING THE GOALPOSTS

Changing previously agreed upon standards of evidence when those standards have been met.

This is how pseudoskeptics have been able to say with a straight

face *that there is not a shred of evidence for extraterrestrial visitation* for almost six decades. When there were only eyewitness reports, they wanted *credible* eyewitnesses, such as university professors, doctors or law enforcement officers. When they got that, they wanted photos. When they got photos, they wanted videos and physical evidence. When they got both, they reverted to the safe demand of the *landing on the White House lawn*.

What is wrong with that demand? Every hypothesis must be tested on its own predictions. If a hypothesis requires a certain event to happen, and that event is not observed, then the hypothesis is falsified. But there is no logical basis for the conclusion that if extraterrestrials exist, they would want to make their presence generally known. Extrapolating from the way that human zoologists use stealth to observe wild animals, we would tend to expect extraterrestrials to behave in the same fashion towards us. The 'White House Test' for ETs is therefore illogical, because the ET hypothesis does not predict this event to happen. That the ET hypothesis has so far failed this arbitrary and unreasonable test means nothing.

Park's demand for a psychokinetic who can deflect a microbalance (in *Voodoo Science*) is of a similarly arbitrary nature. Even if it were met, ample historical precedent teaches us that the skeptics would dismiss this ability as a stage magician's trick, or as anecdotal evidence that proves nothing. The pseudoskeptics would, in other words, move the goalposts.

Former nature editor John Maddox "moved the goalposts" in an attempt to get rid of Benveniste's paper. Even though Benveniste's research was solid, he would not publish it until it had been replicated by three independent laboratories. But when that condition had unexpectedly been satisfied, and Maddox had been forced to publish it, he remained convinced of the invalidity of the research and abused his position of power to discredit it.

DEBUNKERY BY ASSOCIATION

If paranormal phenomena are real, then we might just as well believe in werewolves, fairies and unicorns! To rhetorically imply, by means of direct suggestion or innuendo, that attempts at serious research into anomalous phenomena are no more credible than psychic hot lines, tabloid reports of miracles and newspaper horoscopes. James Randi is very fond of this rhetorical technique, as he uses it ad nauseam and beyond:

(...) cold fusion is a dead duck, the earth is not flat, and the fault lies not in our stars, but in ourselves.

Effectively, Randy is suggesting that there is some kind of connection between research into anomalous energy production associated with hydrogen and astrology and the belief that the earth is flat. A variation of this technique is to associate serious unconventional research with mass media outlets that report on it - Park's grotesque discussion of parapsychological phenomena *as reported by a sensationalist, unscientific ABC program* in his book *Voodoo Science* (p. 195-200) was already mentioned above.

Another variation on this theme is to associate an unconventional claimant with convicted frauds who are associated with the field. Of course, there is incompetence and fraud in every profession. There are surgeons who cut off a wrong leg and scientists who falsify data, but that does not lead skeptics to conclude that every surgeon is a quack and all of science is bogus. But exactly that kind of wild, slanderous generalization is commonly employed by pseudoskeptics to discredit unconventional fields of inquiry. When it comes to free energy, they discuss free energy con-man Dennis Lee. To discredit parapsychology, they devote much time and effort to Uri Geller, Miss Cleo and John Edward. To ridicule UFO research, they keep going back to Adamski and his claims of arian dream women from Venus. To discredit crop circles, they emphasize stories of crop circle researchers who were fooled by hoaxers, as if that somehow forbade the existence of the real thing. The possibility of health benefits from magnetic

fields is repudiated by emphasizing obviously worthless charms and bracelets advertised in the yellow press. Acupuncture is dismissed as unsafe because it has lead to serious injury in the hands of unqualified practitioners.

To illustrate, here comes an excerpt from Robert L. Park's "What's New" column of Friday, April 5, 2002. Under the title "Free Energy: Perpetual Motion Scams Are At An All-Time High", Park attempts to discredit the **Motionless Electromagnetic Generator** by associating it with Dennis Lee:

In 1999, I went to Columbus, Ohio for ABC News to witness Dennis Lee demonstrate a permanent-magnet motor that was "more than 200% efficient." Actually, he didn't really demonstrate it. He stuck a magnet on the side of a steel file cabinet; turning to the audience he asked, "How long do you think that magnet will stay there?" He answered his own question, "Forever. That's infinite energy." Don't laugh, this week, Patent 6,362,718 was issued for a "Motionless Electromagnetic Generator" that "extracts energy from a permanent magnet with energy-replenishing from the active vacuum."

The truly skeptical reader might wonder why Lee's 1999 "demonstration" is "new" on April 5, 2002. The answer, of course, is that it isn't. It just needed to be exhumed because the MEG is too difficult to ridicule, given that (unlike Lee) its team of creators are physicists, its function is described in the peer-reviewed literature (Foundation of Physics Letters, 2001), that it has apparently been independently replicated by French inventor **Jean-Louis Naudin** and that no attempts are being made to solicit investments from individuals. To still effectively discredit the MEG (which Park, of course, has never examined in person), he talks about a known free-energy scam-artist in order to get the reader into a suitably dismissive mood, and then switches the target of his criticism at the last second, coupled with an appeal to emotional consensus implied in the phrase "don't laugh". [For clarification: I do not claim to possess any knowledge or evidence that the MEG actually works as claimed, or that the theory behind it has any

merit whatsoever. My point is to illustrate the nature of Park's merely rhetorical dismissal of the MEG.]

Yet another outfit of scientific arrogance that practices debunkery by association to ridicule unconventional research is **IG Nobel**, an organization that awards its "IG Nobel Prize" annually for "achievements that cannot or should not be reproduced". Browsing through the list of past winners, we find a long list of recipients who were more than deserving of this dubious honor. In 1991, Dan Quayle, "consumer of time and occupier of space", is being recommended for demonstrating "the need for science education", and Edward Teller "for his lifelong efforts to change the meaning of peace as we know it". But the same year also sees Jacques Benveniste attacked and ridiculed for what future historians of science will come to recognize as one of the greatest scientific breakthroughs of the 20th century, the experimental proof that water can carry information. The precise phrasing of the award also uses other pseudoskeptical techniques such as the ad-hominem ("prolific proseletizer") and misinterpretation of the actual claim (Benveniste never claimed that water is "intelligent").

DISMISSING CLAIMS BECAUSE OF THEIR PHILOSOPHICAL PEDIGREE

Where debunkery by association seeks to discredit claims by linking them with similar, but unrelated, claims, this technique seeks to discredit ideas by discounting their empirical merits in favor of their philosophical origins. The *Skeptic's Dictionary* gives us once again a prime example. Under the heading "**alternative health practices**", we find the following definition:

Health or medical practices are called "alternative" if they are based on untested, untraditional or unscientific principles, methods, treatments or knowledge. "Alternative" medicine is often based upon metaphysical beliefs and is frequently anti-scientific.

But doctors of alternative medicine are frequently more scientific than their conventional colleagues. While the former employ modali-

ties whose safety and efficacy has been demonstrated by decades (nutrition), centuries (homoeopathy) or millennia (acupuncture) of clinical practice, the latter frequently derive their "scientific" knowledge from biased information and rigged drug studies communicated by pharma lobbyists. Death from alternative medicine is unheard of, but side-effects of conventional treatments are estimated to kill 100,000 people in the United States every year. It is therefore hard to dismiss alternative medicine on empirical grounds.

Yet for the pseudoskeptics, alternative medicine remains "unscientific", even "anti-scientific", because much of it is inspired by ancient beliefs and metaphysical ideas, such as the notion of a vital energy that animates the body, or the idea that thoughts create physical reality, not the other way. Pseudoskeptics find the notion that ancient civilizations could have known things that are still beyond the understanding of our current civilization deeply offensive. As rationalists, they believe that our ancestors were without exception superstitious, ignorant savages, and that our current understanding of nature represents the highest level of scientific knowledge that has ever existed on this planet. They are therefore categorically unwilling to entertain the notion that there could be any truth or validity to medical practices that were not developed by mechanistic, reductionist Western medicine. Whether or not alternative medicine has any merit is not at all a scientific question for them - it's personal.

Truly scientific thinking, of course, accepts truth based on evidence alone, regardless of the philosophies and beliefs of the messenger. To a scientific mind, the question of why Samuel Hahnemann came up with the idea of curing people with medicines that are so highly diluted that little or no trace remains of the original substance, has no bearing on the question of whether homoeopathy has therapeutic value.

Another example of "dismissing claims because of their philosophical pedigree" is how academic paleoanthropology reacted to the challenge posed by Cremo and Thompson's *Forbidden Archeology*. Critics like to point out that the authors are "Hindu creationists" as if

that somehow implied that their scholarly achievement was without merit. But from a logical point of view, the value of the arguments made and evidence presented by Cremona and Thompson is completely independent of the religious beliefs that motivated the research in the first place, just like the big bang theory is not automatically false because it is compatible with the Christian religious belief that our universe was created.

SLURS AND RIDICULE

the true skeptic refrains from ad hominem attacks and name calling while the pseudoskeptic elevates them to an art form. Examples abound in pseudoskeptical books and periodicals.

I conclude this little phenomenology of pseudoskepticism with an extensive quotation that reads like a compendium of invalid criticisms. It is taken from *The Memory of Water*, an account of the scientific witch hunt against Jacques Benveniste. Its author, French biologist Michel Schiff gives a list of phrases directed by scientists at Benveniste and his research, which I quote in its entirety:

A 'bizarre new theory', a 'unicorn in a back yard', a 'Catch-22-situation', 'some form of energy hitherto unknown in physics', 'cloud-cuckoo-land', 'unbelievable research results', 'sticking to old paradigms', 'defying the rules of physics', a 'hypothesis as unnecessary as it is fanciful', 'data that did not seem to make sense', 'discouraging fantasy', 'unbelievable circumstances', 'circus atmosphere', 'spurious science', 'magical properties of attenuated solutions', 'unbelievable results', the 'product of careless enthusiasm', a '200-year-old brand of medicine that most Western physicians consider to be harmless quackery at best', 'dilutions of grandeur', the 'egotism and folly of this man who rushes into print with a claim so staggering that if true would revolutionize physics and medicine', 'mystical powers', 'magic', 'quackery', 'charlatanism', a 'therapy without scientific rationale', 'unicorns revisited', an 'explanation beloved of modern homoeopaths', a 'circus atmosphere', 'spurious science', 'belief in the magical properties of

attenuated solutions', 'what seems to be an aberration', 'results that could not be explained by current theory', 'respectful disbelief of Nobel prizewinner Jean-Marie Lehn', the 'cavalier interpretation of results made by Benveniste', 'interpretations out of proportion with the facts', 'magic results', 'high-dilution experiments and much of homoeopathy with their notions of alchemy', 'revolutionary nature of this finding', 'generally efficient physicochemical laws being broken', 'throwing away our intellectual heritage', 'how James Bond could distinguish Martinis that have been shaken or stirred', a 'delusion about the interpretation of the data', the 'extraordinary claims made in the interpretation', 'Cheshire cat phenomenon', 'no basis for concluding that the chemical data accumulated over two centuries are in error', the 'circus atmosphere engendered by the publication of the original paper', the 'fact that it still takes a full teaspoon of sugar to sweeten our tea', 'existing scientific paradigms', 'throwing away the Law of Mass Action or Avogadro's number', 'original research requiring a general science background sufficient to recognize nonsense', 'reports of unicorns needing to be checked with particular care', 'not believing that no-more existent molecules can leave an imprint in water', 'the first issue of *New Approaches to Truly Unbelievable and Ridiculous Enigmas*', 'speculating why water can remember something on some occasions and forget it on others', 'outlandish claims', 'not publishing papers dealing with nonsense theories', 'data grossly conflicting with vast amounts of earlier well-documented and easily replicated data', 'extraordinary claims', 'shattering the laws of chemistry', 'divine intervention being probably about as likely', 'findings that contravene the physicochemical laws known to science', 'data that purport to contravene a couple of centuries of chemical data', a 'whole load of crap', '1074 oceans like those of the Earth needed to contain only one molecule of the original substance', the 'usual rules of interactions in biology or in physical chemistry where the molecule is the basic vector of information', the 'failure of fundamental principles', 'defying all laws of physical chemistry and of biology', 'unbelievable results', 'observations without any objective basis', one prominent scientist pointedly not reading Benveniste's paper 'because it would be a waste of his

time', 'standard theory offering no explanation for such a result' and 'a priest stating during mass that water keeps the memory of God'.

The anger and outrage these scientists are feeling as they are trying to come to terms with the cognitive dissonance generated by the Benveniste results is palatable. Gone are sweet logic and reason, and gone is the scientific method that says that evidence can never be dismissed on theoretical grounds. The gut feeling that such results are simply 'unbelievable', no matter what, dominates the response. The existing physical models are confused with eternal laws of nature, and their apparent inability to account for the results is taken as a personal insult. The church fathers who refused to look through Galilei's telescope could hardly have been any more irrational than the highly educated scientists who produced these outbursts of scientific bigotry.

Other online references that might be of interest are:

- * Online Articles by George P. Hansen.
- * Distinctions Between Intellectuals And Pseudo-Intellectuals (Sydney Harris).
- * Zen . . . and the Art of Debunkery (article by Daniel Drasin).
- * On Pseudo-Skepticism (article by original CSICOP co-founder Marcello Truzzi).
- * Extraordinary Claim? Move the Goal Posts!.
- * sTARBABY article by Dennis Rawlins.
- * Myths of Skepticism.
- * Folklore and the Rise of Moderation Among Organized Skeptics.
- * CSICOP Scare!
- * Debunking the Debunkers.
- * CSICOP Takes Stock of the Media.
- * True Disbelievers: Mars Effect Drives Skeptics to Irrationality.
- * CSICOP: The Paradigm Police.
- * The Right Man Syndrome: Skepticism and Alternative Medicine.
- * Cognitive Processes and the Suppression of Sound Scientific

Ideas.

- * Symptoms of Pathological skepticism.
- * The Logical Trickery of the UFO Skeptic.
- * Skeptical Inquirer Smears Wilhelm Reich (Again): A Rebuttal.

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APPENDIX TWO

Beware the Ambassadors of Science

FELLOW SCEPTICS

Attending my first 'Skeptics in the pub' meeting last week, I was troubled to find Lord Taverne presenting the session about his organisation Sense About Science. While Lord Taverne, befitting his distinguished career, was an entertaining and persuasive speaker, he did not strike me as an appropriate figure to lead a sceptics meeting. It was more discouraging, then, to hear him introduced as an "old friend" of the society and to hear he'd presented before. I was begin-ning to wonder what I'd gotten myself into.

The cause of my disquiet was this: Taverne's organisation is part of an increasingly infamous network of scientific disinformation groups which subscribe to a quasi-religious faith in unrestrained technological dominance of nature. They are hostile to the environmental movement and seek to discredit it through a recognizable rhetorical formula and selective use of scientific reports.

In his presentation, Taverne sought to tar anti-GM and pro-Organic campaigners and scientist with the same brush used to dismiss psychic claimants, astrologists, and homoeopaths. To any reasonable audience it should be clear that the controversy of each does not sit on the same level.

He described the defenders of organic farming and critics of GM as "anti-science people" perpetuating an "anti-science mood" in the

general public. Yet despite Lord Taverne's claims, the environmental benefits of organic food are well documented scientifically and are recognized and recommended by the UN Food and Agriculture Organisation, hardly a quack organisation

Rather than encouraging productive discussion, Sense About Science consistently seeks to relegate legitimate positions within controversial scientific debates to the province of delusional fantasy, whether the issue is GMOs or nuclear power. The techniques used by the GM lobby, now familiar to the attendees of the December skeptics in the pub, have been neatly documented in the book *Genetically Modified Language* by Guy Cook, a Professor in Language and Education at the Open University. Essentially Cook demonstrates that the GM lobby consistently paints a picture of a hapless, ignorant and emotional public, prone to manipulation through a media hijacked by NGOs who are extremists, terrorists or even unscrupulous sensationalists trying to increase their funding and membership. The wise and benevolent proponents of GM can then "educate" the simpleton public, and the truth will set them free into the brave new scientific future. Attendees will recall how closely Taverne adhered to this core script.

Surely, by maintaining these biased attitudes and rhetorical techniques, Sense About Science should lose any of its credibility as an objective organization or impartial educative body.

In the discussion following the presentation I proposed that, as skeptics we are prone to becoming excessively incensed by the public's comparatively harmless indulgence in commonplace superstitions, when what should make us truly indignant and afraid is the cooption of the language and authority of science itself by organisations with a dubious political agenda.

Creation science is an example now familiar to all of us, but more insidious still are the proliferating organisations seeking to discredit or trivialize the dangers of climate change and other environmental dangers by citing obsolete, selective or imaginary scientific data and posuring as scientific authorities. The Sound Science coalition and its

"junk science" web sites are perhaps the most notorious of these.

The arrival of these organisations presents a new sophisticated challenge to the skeptic. They force us to recognize the fetishistic aspects of science by their abuse of them. Most recently environmentalists have noted how they agree or even champion facts such as climate change which the public have finally come to accept, only to promulgate a series of micro-denial positions which serve to keep the public politically inert. We should remember how painstakingly won this public acceptance of climate change has been, and who by. Where was Sense About Science when the individuals and campaign groups he vilifies were educating the public?

Taverne made it clear that Sense About Science is preparing to officially join the ranks this new-look, climate-denial lobby: after saying many sensible things supporting the authenticity of the climate threat, he went on to make a series of outright silly claims about the moderating effects of thickening Antarctic ice on global ice-melt, the high energy costs of recycling and, my personal favourite, extolling the global dimming benefits of now banned aerosols like CFCs (which apart from creating the Ozone hole have a warming effect 10,600 times stronger than CO₂!). Ultimately this is not so surprising as Sense About Science is closely affiliated with the Scientific Alliance, Spiked, LM and the Institute of Ideas, whose web sites are a cornucopia of daft and outrageous statements (polar bear numbers are on the rise, no need to curb greenhouse gas emissions). There was even an outright declaration by the Scientific Alliance of their willingness to reject the scientific consensus generally and that of the Royal Society and the Intergovernmental Panel on Climate Change in particular.

Contrary to the way Sound About Science represent themselves, they are not the under-represented voice of reason against the irrational hordes, they are part of an enterprising network of anti-environmental campaigners and biotech PR people who over-represent their views in the media with support by a narrow but vocal band of scientists. I refer interested skeptics to the web site www.gmwatch.org

and to George Monbiot's *Guardian* article 'Invasion of the entryists' for a detailed critical treatment of them.

While I was stimulated by the discussion which followed Lord Taverne's presentation, and pleased with the critical reception he was given by many attendees, I must question the appropriateness of inviting him or Rob Lyons of Spiked to repeatedly preside at a Skeptics meeting. This cult/cliq̄ue of climate-deniers does not deserve any more pulpits than it has already secured for itself, quite the contrary. Surely one chance to scorn their views is enough.

Having said that, Taverne's presentation has inspired a valuable shift in my skeptical priorities for which I must thank him. It has also had the surprising consequence of reinvigorating my confidence in the general public, who I'm beginning to feel we skeptics, in common with Taverne, are too prone to dismiss in our readiness to put ourselves on a pedestal. We must embrace the idea that we are that general public and that – to whatever extent we distance ourselves from it – we underestimate our own all-too-human capacity for folly. If history has taught skeptics anything, it is that even the most eminent, intelligent and critical minds can subscribe to the most outrageous nonsense.

Yours sincerely,

Damien Morris

APPENDIX THREE

The Skeptic Connection

If we look on the web sites, blogs and other pages relating to anti quackery, we can see very clearly which groups and which individuals are linked.

Don't expect anything near to rationality from the skeptics or any of their aligned organisations. If they are not actually funded by the pharmaceutical and processed food industry or other corporate concerns themselves, they are aligned with groups which are. Their views are narrow and ideological, they have nothing to do with the normal, historically accepted investigation of knowledge.

And if it enters your head to wonder whether these people are sincere, forget it. In the main they are professional agents for corporate medicine and health.

Look at these pages from Syracuse University: Resources for Selected Areas of Pseudoscience and Paranormal Phenomena, and for Skeptical Perspective: Science for the 21st Century.¹

I have summarised the compendium of contacts on these pages, so as to show the most important associations. It should be noted that all the information below relates to a skeptical view of alternative medicine, while none of it is in any way independent or for that matter written by accepted academic authorities on the subjects.

¹ http://www.phy.syr.edu/courses/modules/PSEUDO/pseudo_main.html

http://www.phy.syr.edu/courses/modules/PSEUDO/pseudo_main.html

ALTERNATIVE MEDICINE, PSEUDOMEDICINE, AND QUACKERY

QuackWatch, Your Guide to Health Fraud, Quackery, and Intelligent Decisionmaking. Operated by Stephen Barrett, M.D.

Alternative Health Practices (Skeptic's Dictionary).

Office of Alternative Medicine National Institutes of Health (USA).

National Council Against Health Fraud home page.

Alternative Medicine and Faith Healing - Skeptical Bibliography (annotated) ,Stephen Barrett, M.D., Consumer Advocate.

The Health Robbers - A Close Look at Quackery in America (edited by Stephen Barrett, MD and William T Jarvis, PhD, Prometheus, 1993, 526 pp.)

Roundtable Interview - Dr. Stephen Barrett; another book of Dr. Barrett's: *The Vitamin Pushers*.

A Consumer's Guide to Alternative Medicine - A Close Look at Homoeopathy, Acupuncture, Faith Healing and Other Unconventional Treatments by Kurt Butler, edited by Stephen Barrett, Prometheus, 1992.

TRADITIONAL CHINESE MEDICINE

BCS Debates a Qi Gong Master (British Columbia Skeptics; includes the "16 questions".)

China, Chi, and Chicanery - Examining Traditional Chinese Medicine and Chi Theory by Peter Huston, *Skeptical Inquirer* (September/October 1995, vol. 19, no. 5.)

Traditional Medicine and Pseudoscience in China: A Report of the Second CSICOP Delegation (Part 1) by Barry L. Beyerstein and Wallace Sampson, *Skeptical Inquirer* (July/August 1996, vol. 20, no. 4).

Qigong - Chinese Medicine or Pseudoscience by L. Zixin, Y. Li, G. Zhengyi, S. Zhenyu, Z. Honglin, and Z. Tongling (Prometheus, 1996)

HOMOEOPATHY

Homoeopathy: A Position Statement by the National Council Against Health Fraud.

"Homoeopathy? Much Ado About Nothing" *Consumer Reports*, March 1994, pp. 201-206.

"Human basophil degranulation triggered by very dilute antiserum against IgE" by E. Davenas et al. (the notorious paper from Benveniste's lab in Paris published by *Nature* editor John Maddox, under the condition that a team be permitted to investigate; see next two items), *Nature*, 333, June 30, 1988, pp. 816-818.

"High-dilution experiments a delusion" by John Maddox, James Randi, and Walter Stewart, *Nature* 334, July 28, 1988, pp. 287-290 (see also Benveniste's reply on p. 291.)

"Dilutions of Grandeur" by Andrew C. Revkin, (Homoeopathic experiments of J. Benveniste and periodical *Nature's* investigation) *Discover* 10, January 1989, pp. 74-75.

CHIROPRACTIC

National Council Against Health Fraud, Inc. Position Paper on Chiropractic.

ICA Board Takes Emphatic Stand on "Orthopractic" and "Chiropractic Medicine" from the International Chiropractors Association.

Chiropractors - Healers or Quacks. *Consumer Reports*, 1975, 40:542-547, 606-610.

DIETARY SUPPLEMENTS, VITAMINS

Recommended book by Stephen Barrett, M.D., Consumer Advocate (see above), *The Vitamin Pushers - How the 'Health Food' Industry is Selling America a Bill of Goods* (Stephen Barrett, MD and Victor

Herbert, MD, JD, Prometheus, 1994, 536 pp.), Dr. Barrett's: *The Health Robbers*.

ARTICLES/WARNINGS ABOUT CERTAIN SUPPLEMENTS

FDA Warns Against Supplements That Contain Ephedrine (Reuters).

CDC Officials Cite Adverse Events Associated with Ephedrine-Containing Products (Reuters).

NIH Panel Seeks To Curb Melatonin Use (Reuters).

Data Lacking For Accurate Dietary Supplement Recommendations (Reuters).

HERBAL MEDICINE

Herbal Humbug by Elliott Marchant and Barry Beyerstein (*Rational Enquirer*, vol 3, no. 4, Apr 90).

False Tenets of Paraherbalism by Varro E. Tyler (from *Nutrition Forum*, a newsletter focusing on nutrition-related fads, fallacies, and quackery).

Herbal Roulette - The maker's of these 'natural' remedies don't have to prove they work and don't have to prove they are safe. You have to be very careful. *Consumer Reports*, November 1995, pp. 698-705.

CONVENTIONAL (SCIENTIFIC) MEDICINE AND HEALTHCARE

Centers for Disease Control and Prevention (CDC), located in Atlanta, Georgia.

National Institutes of Health, located in Bethesda, Maryland.

U.S. National Library of Medicine (NLM).

The Cochrane Collaboration - Preparing, maintaining and disseminating systematic reviews of the effects of health care.

THE ANTI-QUACKERY RING MANAGED BY PAUL LEE

This ring is for sites that combat & debunk health-related frauds, myths, fads, and fallacies, and are more interested in real, objective, scientific proof, than in the speculative, subjective, and unproven theories and anecdotes of so-called Alternative Medicine. If you are sympathetic to the aims of the National Council Against Health Fraud, and you consider Quackwatch to be a reliable source of anti-quackery information, then this ring may be just what you're looking for.

Welcome to WebRing! A WebRing Community is a group of web sites with a common theme connected by a NavBar providing you easy access to more sites with related content. Still don't see what you're looking for? Search WebRing or check out the WebRing Directory to find even more communities.

Quackwatch — Flag this site: Great site! Your guide to health fraud, quackery, and intelligent decisions. Free weekly newsletter.

Quackwatch Sites and Affiliates — Health care consumer protection when it is best!

Anne's Anti-Quackery & Science Blog (Danish/English) — A skeptical view of alternative treatments, science, new age, psychology, conspiracy, philosophical thinking, religion and faith.

Autism Watch — Your scientific guide to the diagnosis and treatment of autism. Operated by James R. Laidler, M.D.

Gary Posner's Web site — Gary P. Posner, M.D., is a medical software company executive, founder of Tampa Bay Skeptics, contributing editor to "The Scientific Review of Alternative Medicine," and investigator of paranormal and fringe-science claims.

JunkScience.com — Spotlights faulty science used to promote a special agenda.

Welcome into the Quackbuster's Lair! Here you'll find links to information and web sites that are skeptical of most so-called "Alternative Medicine" (sCAM), antagonistic to quackery, and favorable to objec-

tive scientific evidence and critical thinking, in contrast to sole reliance on anecdotes & testimonials.

The Quack-Files. Confessions of a skeptic who is concerned about healthcare consumer protection, quackery, healthfraud, chiropractic quackery, and other forms of so-called "Alternative Medicine" (sCAM). (An English / Danish blog).

The Heathen Hold: A Personal Blog by a Skeptical Secular Humanist.

Casewatch: Your guide to health fraud and quackery-related legal matters: including case reports, key documents, and laws.

APPENDIX FOUR

Subjects on Colquhoun's web site

Rose "trounces" Armitage on Radio | MHRA: "herbals are unproven" | Quantum shiatsu (!) | Nutribollocks: antioxidants | Learned societies condemn CAM | Fisher vs Goldacre | AIDS: a wicked scam | A cure for snoring? | MHRA does better with McKeith | MHRA allows false labelling of Arnica | Blair on science and anti-science | Homoeopathy regs in trouble | Voodoo applications up | Radio London talk show | Nonsense from Consumers' Assoc | Magnets: DoH documents | Conflict of interest at the RLHH | A letter from Dept of Health | The MHRA's disgraceful statement | Royal Society speaks | Acupuncture: inconclusive again | Homoeopathy: Holmes, Hogwarts, and the Prince of Wales | Homoeopathic hospital to close | Bad advice about cancer | More babble from the Prince of Wales | Truth about water 'memory' | Quack allergy tests | Why NCCAM is bad value | Not delusion, fraud | MMR history | Helios first aid kit | Psychiatrist promoted drugs for money | Beware: Institute of Science in Society | Homoeopaths give you malaria | Lewith's private clinic | Barry: a nice spoof (?) | Even worse than Barry | Sokal on pseudoscience | Homoeopaths & witchdoctors | Passive smoking | Prince of Quacks | Taxpayers' money for CAM | Times headline: No CAM in NHS | Prince Charles at WHO | the follow-up | the backlash | NHS Trusts Assoc and CAM | Aromatherapy in Scotland | Dr

struck off for using CAM | Boots the Chemists - miseducation |
 Big pharma and invented disease | The Melchizedek nonsense |
 Cherie's magic magnets on NHS | More on magic magnets |
 Magnets: Freedom of Information!! | Magnets: Unfreedom of infor-
 mation at the DoH. | Magnets: OFT injunction | B.Sc. 'degrees'
 in gobbledegook | University of Maryland quacks | Bristol
 quacks | University of Pennsylvania quacks | The cost of Dr
 Eccles | Submit to NICE | The Journal of Imaginary Genomics
 | Big Pharma: unethical trials | London quacks: Royal London
 Homoeopathic Hospital | Cost of homoeopathic hospital to taxpay-
 ers | Georgetown University quacks | Open university teaches
 quackery | BBC2/Open Univ series on alternative medicine.:Part 1.
 Part 2, and Part 3. | BBC2/OU the reviews | Singh on the
 BBC/OU series | Alt Med: Dirty tricks at the BBC? | Sutherland
 on Trudea | New age twaddle in the Independent | Prince
 Charles & Smallwood | Homoeopathy: relict of the past | Lancet:
 "The end of homoeopathy" | Ernst slams homoeopathy | The
 great noni juice scam | Bad advice on the internet Acupuncture tri-
 als: contradictory? | Latest on prayer | The (conventional) drug
 industry | Conservatives for quackery | And Tony Blair for
 quackery | Europe's toothless regulation | Académie de
 Médecine condemns homoeopathy | Florida State University of
 quackery | Wheen's delusions | Veterinary Voodoo Society |
 Doctor Detox | Pharmaceutical Industry, Clinicians and Money |
 Elsevier promotes quackery | Review of CAM teaching CD |
 Regulation of CAM (The Times) | Prince Charles (The Guardian)
 | Useless regulation | NADH scam | Faulty homoeopathy trial
 for fibrositis | Homoeopathist admits it is placebo? | Aha no,
 he doesn't.

APPENDIX FIVE

HealthWatch Weblinks

Advertising Standards Authority / American Council on Science and Health / Association of Broadcasting Doctor / Bad Science - Ben Goldacre's weekly column in The Guardian / Cochrane collaboration / CSICOP Committee for the Scientific Investigation of the Paranormal / Dieticians.co.uk - the web resource for UK dieticians, with many useful links / FAO Food and Agriculture Organisation of the UN / FDA Consumer - The consumer bulletin of the US Food and Drug Administration / HFEA - Human Fertilisation and Embryology Authority / Institute of Nanotechnology / James Randi's home page (James Randi demolished Benveniste's Nature paper on the memory of water) / National Council Against Health Fraud (USA) / Nutrition web sites reviewed from Tufts University / Ontario Skeptics Society - a general sceptics site, with some information on complementary and alternative medicine / Quack-Files - Paul Lee's skeptical quackbuster site, with many links to similar sites Quackwatch / Sense about Science / Social Issues Research Centre.

The Other Medicine

HEAR THE SILENCE¹

A Review by Michael Fitzpatrick²

A forthcoming drama about the MMR controversy has angered many doctors. A general practitioner and two child health experts, who have all seen a preview, explain why Channel 5, 15 December at 9 pm.

Hear the Silence is Channel 5's dramatisation of the case that the measles, mumps, and rubella (MMR) vaccine causes autism. Gastroenterologist Andrew Wakefield, whose 1998 paper (Lancet 1998;351: 637[CrossRef][ISI][Medline]) first led to claims of a link between MMR and autism, is played by actor Hugh Bonneville. We see him introduce himself as the caring, listening doctor to Nicky (Jamie Martin), a little boy with autism, and his mother, Christine (Juliet Stevenson). "Hello, I'm Andy," he says. At his positive response to Christine's conviction that MMR caused her son's bowel problems and his autism, she bursts into tears. "You believe me?" she says between sobs of joy and incredulity that she has at last found a doctor who endorses her claims. "Why wouldn't I believe you?" asks Dr Wakefield.

1 *BMJ* 2003;327:1411 (13 December), doi:10.1136/bmj.327.7428.1411.

2 Michael Fitzpatrick, general practitioner: London fitz@easynet.co.uk. Despite the rules of the *BMJ* about declaring conflict of interests, Fitzpatrick and Taverne are usually allowed to get away with failing to mention the corporate funding for their various lobby organisations.

This film presents the gospel according to St Andrew that is now familiar from numerous newspaper and television accounts. In this crudely propagandist drama, there is little scope for character development. In her fight for justice, heroic Christine loses her high-flying banking job and her aloof businessman husband, but not —after all, this is Channel 5— her sultry good looks. The medical professionals she encounters (apart from Andy) are unsympathetic, pompous, and patronising. Dr Wakefield's critics at the Royal Free Hospital, London, and the Department of Health are cynical and scheming, concerned about their own careers or influenced by the vaccine manufacturers. Dr Wakefield is a crusader for truth, a committed scientist, a conscientious physician, and a devoted family man.

At the preview earlier this year, writer Tim Prager indicated that Dr Wakefield had collaborated on the script. It appears that the creators of this drama have listened exclusively to Dr Wakefield and his anti-MMR campaign supporters. As the parent of an autistic child, I wish they would all look at the evidence and listen to the opinions of numerous serious scientific and medical authorities, and not compound the burdens of autism parents with the unwarranted fear that by giving their children MMR they rendered them autistic. As a general practitioner, I wish they would consider the consequences in death and disease that is likely to result from the return of measles, mumps, and rubella if this drama contributes to a further decline in the uptake of MMR.

Anticipating criticism of the decision to broadcast such a grossly one-sided account of the MMR controversy, Channel 5 organised a debate to follow on after *Hear the Silence* (MMR: The Debate, Channel 5, 15 December at 11 05 pm). However, in the days leading up to the debate (pre-recorded on 3 December) it became clear that viewers, after seeing more than an hour of anti-MMR propaganda, would then see a discussion giving equal weight to arguments for and against the MMR-autism link, when the division of medical and scientific opinion approximates to 99% for and 1% against. Outraged that the Wakefield campaign was going to get even more publicity, a

number of leading authorities, who had been invited to participate, decided to boycott the debate.

Although the debate is introduced with the statement that the discussion included experts in child and public health, not a single paediatrician, epidemiologist, microbiologist, or autism specialist appeared. However, I agreed to take part because I believe that the stakes are too high to allow the anti-MMR campaign to go unchallenged.

The debate was not even-tempered. Dr Wakefield made the same extravagant claims for his researches that have failed to impress numerous expert bodies in Europe and North America over the past five years. We did our best, within the difficult framework imposed by the organisers, to challenge some of the arguments and to expose some of the absurdities of the anti-MMR campaign.

16 December 2003

THE HYPOCRISY OF MICHAEL FITZPATRICK

Nigel J Thomas, Graduate

It is amazing to read a review of a film which the reviewer calls a 'crudely propagandist drama' when his own review is so blatantly a 'crudely propagandist review' that it is itself more a dramatisation than the film of which it was attempting a critique.

We'll skim over the patronising way Michael Fitzpatrick refers to Andrew Wakefield (who is, incidentally, a scientist more qualified than the general practitioner himself) as 'St. Andrew' and go straight on to the first mistake in the review in which Fitzpatrick states that the, 'heroic Christine loses her high-flying banking job' when in actual fact, she resigns. This is, I admit, a small point which I only mention as it makes me wonder how closely Fitzpatrick has paid attention to other 'minor' details in the rest of the film. He is obviously paying attention to something, as he notices that Juliet Stevenson does not lose her 'sultry good looks,' and seems to think that perhaps losing

your looks is something necessary in a film portraying a 'fight for justice.' Would Fitzpatrick have given the film more credit if the heroine were played by a less aesthetically pleasing person, or does he feel that Juliet Stevens is too glamorous to be a 'real' parent?

However Fitzpatrick does seem to think it a dramatisation that 'the medical professionals she encounters (apart from Andy) are unsympathetic, pompous, and patronising.' Perhaps if he had actually spoken to more parents himself, (or watched his own exchanges with a parent in the later debate) he would be less amazed. As the brother of two autistic children, I have experienced it first hand.

Fitzpatrick goes on to say that, 'It appears that the creators of this drama have listened exclusively to Dr Wakefield and his anti-MMR campaign supporters.' Why does he write about what simply 'appears' to be the case, when he could have contacted the makers of the show to ask them? How can he say that the film can 'compound the burdens of autism parents with the unwarranted fear' and then not demand for the research into the MMR to be properly, independently funded, so that the fears of parents may conclusively be found to be unwarranted or otherwise? He says he wishes that the makers of the film would, 'consider the consequences in death and disease that is likely to result from the return of measles, mumps, and rubella if this drama contributes to a further decline in the uptake of MMR.' and yet does not support single vaccines which would not only give parents the choice they deserve, but prevent the 'death and disease' which he fears.

Fitzpatrick then continues his hyperbolic review, claiming that the film is so 'grossly one sided' that 'a number of leading authorities' (note that he does not mention which) are not prepared to redress the imbalance! If these 'leading authorities' of which he speaks were so absolutely confident in the safety of the MMR, surely they would feel certain enough in their convictions to be able to talk about it on a pre-recorded late night Channel Five debate. Even if they were, as Fitzpatrick claims 'outraged that the Wakefield campaign was going to get even more publicity' it is laughable to suggest that anyone could seriously believe that their refusal to take part in a debate reduced the

publicity of so important an issue. Thus on one hand he laments the lack of, 'not a single paediatrician, epidemiologist, microbiologist, or autism specialist' and yet salutes their not being present for fear of increasing the publicity of Andrew Wakefield's research. Even here Fitzpatrick gets it wrong, as there was an autism specialist present, whose life's work had been studying autism.

Following the film, parents in the debate spoke of how much of the evidence in support of the MMR was based on statistics rather than scientific evidence. It was therefore rather amusing to see how Fitzpatrick claims that, 'the division of medical and scientific opinion approximates to 99% for and 1% against' the MMR, and I would be delighted to see his source for this particular 'statistic (or should I say 'evidence' as Fitzpatrick and his colleagues seems to find the two so interchangeable). I do agree with Fitzpatrick on one point however, when he states that the debate was, 'not even-tempered' as he himself seemed unable to listen to what anyone else had to say without interrupting.

Perhaps jealous of the 'heroic' status he has placed on Andrew Wakefield, Fitzpatrick ends his review with an almost apologetic statement that his team, 'did our best' in such a 'difficult framework imposed by the organisers' against the 'absurdities of the anti-MMR campaign.'

If a campaign to seek the truth and justice is called 'absurd' by Fitzpatrick, I wish him well in seeking a suitable term for his own review.

Competing interests: Brother of two autistic children.

APPENDIX SEVEN

Advertising Goldacre

GOLDACRE, MEDICAL MUCKRAKER

"Ok, hands up. I hate nutritionists and phony diet marketers. I hate them because they confuse evidence and theory. I hate them because they make sweeping assertions that something will work in the real world on the basis of tenuous laboratory data. And they either do not understand that, or they do and they are being dishonest. In either case, I hate them."

Thus the young physician Ben Goldacre began one of the Bad Science columns he writes weekly in Britain's the *Guardian* newspaper, one week last year. It was a fairly characteristic start to the column, which Goldacre has been penning since April 2003. The MMR vaccine fiasco had pushed him into action, he wrote in his manifesto. "My friends had always seemed perfectly rational. Now, suddenly, they were swallowing media hysteria, hook, line, and sinker. ... Many of these people were hard-line extremists, humanities graduates, who treated my reasoned arguments about evidence as if I [were] some religious zealot, a purveyor of scientism, a fool to be pitied. The time had clearly come to mount a massive counterattack."

And so he attacked, after outlining his "taxonomy of bad science." First to face the firing squad should be those who peddle shoddy science reporting. Next in line were new-age healers and fad diets, he went on, and then advertisers, with "their preposterous diagrams of molecules in little white coats. I'll pull the trigger."

Over the following weeks, Goldacre used his journalistic scalpel to cut strips off television nutritionists, spruikers of bottled water,

credulous newspaper reporters, diet fads, astrologers, and of course, homoeopathy. (It is important to note that he hasn't bitten the hand that feeds him by writing about the *Guardian's* medical reporters.) Recently, he has spent a number of column inches expressing shock at the way reporters from certain newspapers have repeatedly used a "bloke with no microbiology qualifications in an unaccredited garden shed 'laboratory' " to find supposed evidence of methicillin-resistant *Staphylococcus aureus* in UK hospitals.

In September 2004, the *Guardian* abandoned the weekly science supplement in which Bad Science had run. The column survived, however, and Goldacre, rather than going down with the ship, has flourished, emerging as a kind of one-man, multimedia, pseudo-science watchdog. In addition to the column, which he has contracted to do for another year, he's written *Bad Science* the book, due out later this year, and an upcoming BBC television program. His Web site (www.badscience.net) contains a fair number of well-populated discussion threads, plus he talks at science events, has discussions on the radio, and who knows what else.

For past columns, Goldacre scoured the media for source material; nowadays most of his columns evolve from tips he receives via E-mail. "The thing that's really heartwarming to me ... is that I've tapped into this wider community of disgruntled, nerdy scientists just like me," he says. "I almost feel like I'm a mouthpiece for a tidal wave of disgruntlement."

Fiona Fox, head of the Science Media Centre – an independent organization that aims to improve the relationship between science and the people who report on it – says Goldacre "is the champion of the scientific community, which says a lot about their frustrations with the news media." Fox says she'd like to see him take on more of the big issues within science, as he has done with recent pieces on the MMR vaccine. "Too often his critique can focus on the obscure, confining him to the margins of the newspaper."

Meanwhile, Goldacre has no intention of giving up his day job in

medicine. He studied medicine at Magdalen College Oxford, graduating in 1995. He spent some time as a visiting researcher in cognitive neurosciences at the University of Milan before going on to clinical medicine at University College London. Currently he's working as a hospital physician in London. Goldacre also points out on his Web site that the British Academy funded him to do a Masters degree in Philosophy at King's, adding that "he is, as you can see, a serious [expletive]-off academic ninja." Peddlers of pseudoscience, don't say he didn't warn you.

Another Placement

THE IRRESISTIBLE RISE OF REBECCA BOWDEN

The row which developed over the work of Arpad Pusztai at the Rowett Institute, brought to light, the beginnings of the organised Dirty Tricks which New Labour and the DTI were willing to use in order to defend the corporation with whom they were in bed. The Royal Society had taken in large amounts of corporate funding during the second half of the nineties receiving money from major corporations, including those (eg) with major biotechnology interests like Rhône Poulenc and Glaxo-Wellcome.¹

Outraged by what they saw as media 'misrepresentation' of the experiments of Arpad Pusztai, the Royal Society established a 'rebuttal unit' in 1999 to ensure that journalists more easily heard the wisdom of its elders. Almost immediately, however, its activities seemed to overstep the mark when it obtained Lancet proofs of Pusztai's paper and one Fellow called the journal's editor.

It was always to be the case that Rebecca Bowden PhD, would end up heavily supporting the cause of Genetically Modified everything. But perhaps not so inevitable that she would end up managing the organised opposition against the Governments science policy on behalf of Lord David Sainsbury; that was more a matter of being in the right place at the right time.

¹ The Royal Society Annual Review 1998-99.

Bowden, who was born in 1970, got her first BSc Hons. degree in Microbial Biotechnology in the School of Biological sciences at the University of Liverpool. She stayed on at Liverpool to take a three year Natural Environment Research Council (NERC) funded project in the Department of Genetics and Microbiology University of Liverpool on ecological impact of biological transfer of antibiotic resistant genes within natural populations of bacteria in the soil environment. She was awarded her PhD in 1995.

The NERC who Bowden was sponsored by work closely with amongst others the BBSRC and Astazeneca UK.² Its evident lack of concern about conflict interests, can be seen in this short story from GM Watch.

The NERC Sponsored a series of on-line debates run by SPIKED the exRCPers web site Magazine. One of this series was an on-line debate on GM, it was begun with the opinions of five experts and three other experts were involved.³ Of the eight experts were selected by Spiked, only one has been known to take a critical attitude towards the technology. When the history of those behind Spiked was drawn to the NERC's attention, their Press Officer, Marion O'Sullivan responded, 'NERC is satisfied that *there is no evidence suggesting*

2 The present Chairman of the NERC is Rob Margetts CBE FREng FICHEM currently Chairman of Legal & General Group plc and Chairman (Europe) of Huntsman Corporation. He is also non-executive Director of Anglo American plc. On 18 January 2002 he became Chairman of the BOC Group plc. He is a Governor and Fellow of Imperial College of Science, Technology & Medicine and a Fellow of the Royal Academy of Engineering and Institution of Chemical Engineers. He is a member of the Council for Science & Technology and of the Advisory Committee for Business & Environment. He has also been a member of the Foresight Steering Group.

3 Les Firbank, leader of the UK farm-scale evaluations of genetically modified crops. Tony Gilland, science and society director, Institute of Ideas. Robin Grove-White, professor of environment and society, Lancaster University. Gregory Conko, Gregory Conko is director of food safety policy with the Competitive Enterprise Institute. Dr Channapatna S Prakash is professor of plant molecular genetics at Tuskegee University. Alan Gray, director of the Centre for Ecology and Hydrology in Dorset, England. John Conroy, TV producer and journalist. Agricultural Biotechnology Council, knowledge and resource service of the UK agricultural biotechnology industry.

*that, on environmental matters, Spiked have any particular agenda.*⁴ In fact as you will see when you read on, Spiked and other organs and individuals attached to what was once the RCP are probably the most rabid anti environmentalists on the planet.

After getting her PhD, Bowden went to the Research Associate at Dep of Agriculture and environmental science University of Newcastle to do work on development and risk assessment of genetically engineered avian probiotics. Then to the post of a senior Scientific Officer at the Department of the Environment (now DETR) Manager of the administration section of the Biotechnology Unit, now called the GM Policy, Science and Regulation Unit - part of the Chemicals and GM Policy Division within the Environmental Protection section of Defray. In the department, a team of policy makers, scientists and regulators working on GM matters.

This Division controls the deliberate release of genetically modified organisms (GMOs) in England; developing national GM Policy and turning EU directives into national law; representing the UK in EU and international negotiations on the environmental safety of GMOs; commissioning and disseminating scientific research on GM; assessing the environmental risk of the contained use of GMOs. Bowden's job there was to review applications for contained use.

Working as she did in this regulatory Unit, Bowden must have come into contact with all these corporations and company scientists seeking licenses for the deliberate or contained use of GM products. DEFRA is advised in all these matters by the Advisory Committee on Releases to the Environment (ACRE). At this time, during 1997 and 1998, the Advisory Committee was made up of⁵ Professor John Beringer, Dr Philip Dale, Dr Ian Garner, Professor Alan Gray, Ms Julie Hill, Dr Julian Kinderlerer, Mr John MacLeod, Professor Bev

4 <http://www.gmwatch.org/profile1.asp?PrId=124>.

5 Fifth Annual Report of the Advisory Committee on Releases to the Environment (ACRE). 1 April 1997 to 31 December 1998.

Moseley, Professor David Onions, Professor Nigel Poole, Dr David Robinson, Dr Ingrid Williams, Dr Katherine Venables. In the majority these are individuals who side with the Bio tech industry.

Anyone watching Rebecca Bowden's career, might have assumed that she was heading for great administrative things in the field of Government Science Policy. She was, by 2002 she was working in the intimately close Office of Science and technology, the private office of both the Scientific advisor to the Government and Lord David Sainsbury the Minister for Science. There she was helping organise science policy and its communication to the public as well as organising it 'onflow' into Europe, where it was important that British Biotechnology gained poll position.

But first, a little deviation, Bowden came out of government in 1998, to take up a position at the Royal Society as a manager in the Science Advice Section. At the Royal Society, she met with a hotbed of pro GM scientists all corporeal with corporate money and deeply immersed in the battles for GM acceptability. Whatever she went to the Royal Society to do, she quickly became responsible for organising the pro GM lobby from those hallowed halls.

One of the first things Bowden did at the Royal Society was to form a group which would present a timely report on GM plants in September 1998 entitled 'Genetically Modified Plants for Food Use'. Its expert group broadly concluded that the use of GM plants had the potential to offer benefits in agricultural practice, food quality, nutrition and health.⁶

Almost every member of the group was a known supporter of GM foods. The chairman was Peter Lachmann - later accused of threatening the editor of *The Lancet* in an effort to prevent the publication of Dr Arpad Pusztai's research showing adverse effects on rats from GM potatoes.

6 GM Watch.

Other contributors holding positions within the Society were Aaron Klug (President), Brian Heap (Foreign Secretary). Others involved in drawing up the report included Ed Dart of Adprotech - the biotech company which Lachmann helped found - and also a former R&D Director of Zeneca Seeds, Neville Craddock of Nestlé, Phil Dale and Mike Gale plus two other colleagues from the John Innes Centre, Derek Burke, Chris Leaver, Alan Malcolm, and Noreen Murray.

But Bowden was doing more at the Royal Society than organising a report. Working to a plan resolved by OST she was organising the lobby for GM crops. Partly this involved creating a body of scientists, particularly those from the RS who could be put in front of the Media to support the government's position. It also involved setting up what the *Guardian* called 'a rebuttal unit'.

Between 1999 and 2002, the Royal Society and Rebecca Bowden were heavily involved in destroying the research work of Arped Pusztai, running constant flak against him and trying hard to destroy his reputation as a scientist. Over the year of 1999 and 2000, the Royal Society and Bowden produced their contributory 'white paper' on Transgenic Plants and World Agriculture, issued jointly by seven national academies of science. The paper emphasized the potential of GM crops to relieve hunger and poverty. The February 1999, nineteen Fellow condemned Pusztai, in a letter published in the national press. In May 1999 the Royal Society published a partial 'peer review' of Pusztai's then unpublished research. This review was based not on a properly prepared paper, but on a far-from-complete internal report. Culminating in the verbal attack on Richard Horton by Lachmann, in a phone call to *The Lancet* editor. In 2001, Bowden was described as senior manager of science policy at The Royal Society. Bowden was responsible for coordinating biotech policy for the society, reporting to the president, Sir Aaron Klug.

Clearly the Government or the Minister for Science had chosen the Royal Society as the public outpost of Government policy on bio-technology. And someone had chosen Rebecca Bowden as the command post co-ordinator of the corporate fight back against those who wanted a precautionary freeze on GM crops. Funders of the Royal Society include, Aventis Foundation, BP plc, The Wellcome Trust, AstraZeneca plc, Esso UK plc The Gatsby Charitable Foundation, Andrew W Mellon Foundation, National Grid Transco plc.

The organisations and individuals who wanted a proper democratic discussion on GM Crops, had by the beginning of the new Millennium, become highly organised. Most particularly because of the great muck raking writing of Andy Rowell and George Monbiot, the manipulation of corporate science had been revealed. On consideration, it must have occurred to Sainsbury and his colleagues that although a base at the Royal Society had been a good idea, there were too many old codgers swinging from the trees their fists full of money, for it to remain discreet for any time.

In September 2001, Fiona Fox had been appointed to run the Science Media Centre and between December 2001 and February 2002, a completely opaque consultation process was carried out. In November the 120,000 pounds worth of corporately funded work on new offices situated in the Royal Institute, was completed and in March 2002 the SMC opened for business.

By this time, Rebecca Bowden was back home at OST, where she was active in a series of cabinet level groups, again organising the government communication of science policy.

The Ministerial Committee on Science Policy, known as SCI, is the Cabinet Committee that provides the framework for the collective consideration of, and decisions on, major science policy issues. Its terms of reference are "to consider the Government's policies in relation to scientific advances and public acceptance of them". Membership of the Committee can be found on the Cabinet Office web site. The secretariat is provided jointly by the Cabinet Office and OST.

The Ministerial Sub-Committee on Biotechnology (SCI(BIO)) which includes, Foreign and Commonwealth Affairs, Environment, Food and Rural Affairs, Secretary of State for Health, Department for Environment, Food and Rural Affairs (Elliot Morley), Foreign and Commonwealth Office (Bill Rammell), Home Office (Caroline Flint), Scotland Office, Northern Ireland Office (Angela Smith), Under Secretary of State, Wales Office Department for Trade and Industry (Lord Sainsbury), Department for International Development, the Chief Scientific Advisor is invited to attend. The Chairman, Food Standards Agency will be invited to attend as appropriate. The sub-committee has a brief to 'consider issues relating to biotechnology - including those arising from genetic modification, biotechnology in healthcare and genetic issues - and their economic impact; and to report as necessary to the Committee on Science Policy.'

OST co-ordinates and provides the secretariat for the Foresight Official's Group which, amongst other things, considers how Foresight is taken forward across Government. OST participates in Inter-Agency Committees, on marine science and global environmental change, which maintain an overview of research in their respective fields. OST chairs and funds the first of these. In the field of biotechnology, OST provides the secretariat for IGGMOT. OST also has joint responsibility with the Cabinet Office for providing support and the secretariat for the Cabinet Committee on Bio-technology. Sir Robert May, in his capacity as Chief Scientific Advisor also attends this Committee as an observer. Other issues picked up and addressed by the OST have included resistance to antibiotics, Vitamin B6, sports science, science centres and herbal products.

The CSA provides advice to the Prime Minister, to Ministers collectively and to individual departments. The CSA is also responsible for advising the Prime Minister, the Cabinet, and the Secretary of State for Trade and Industry (in the latter's capacity as Cabinet Minister for Science) on S&T issues. As Head of OST, CSA is responsible for its transdepartmental functions which include advising Ministers on issues arising on S&T expenditure, co-ordinating activi-

ty on issues of a key cross-departmental nature, and taking forward a number of specific transdepartmental activities such as Foresight and LINK.

The Ministerial Science Group is chaired by Lord Sainsbury. Its membership comprises Ministers from each of the departments with significant S&T activity, including the devolved administrations. The secretariat is provided jointly by OST and the Cabinet Office.

MSG is an informal committee which aims to promote a co-ordinated and coherent approach to S&T policy-making across Government. Its role will include the review of departmental science strategies. It also has responsibility for considering issues relating to the Government's policy on science, engineering and technology, including the development of the Foresight Programme and implementation of the Chief Scientific Advisor's guidelines on the use of scientific advice in policy making.

The Chief Scientific Advisor's Committee (CSAC) is the main official-level cross-departmental forum for discussion of S&T issues, following devolution. The new arrangement meant that officials of the devolved administrations could no longer see Cabinet Committee papers or be involved in discussions which became Cabinet Committee advice. The terms of reference for CSAC are:

1. To consider issues of relevance to Her Majesty's Government and the devolved administrations in Scotland and Wales concerning science, engineering and technology (SE&T). In particular:
 - To provide advice to Ministers, primarily through the Ministerial Science Group.
 - To discuss and facilitate implementation of policy on SE&T.
 - To identify and promulgate good practice in SE&T-related areas, including the use of scientific advice in policy making.
 - To facilitate communication on particular high profile SE&T-related issues and those posing new challenges for Government.
2. Experts on specific issues may be invited to attend or address

CSAC when required. Invitations will be given by the Secretariat following consultation with members.

Discussions in the SCI Ministerial meeting of December 2001 on Public Confidence in Science and further discussions at the CSAC meeting in January 2002 had considered the need for 'proactive communication of the Government's approach to science, including controversial issues.

The spokesperson for the OST stated that there was a key role for the CSA and departmental Scientific Advisors, alongside Ministers to get the facts across in a balanced way.

The OST proposed that it should organise a workshop to be held in September 2002 to consider best practice in government communication of science and scientific issues. Amongst other things, the workshops would explore, existing relationships between science policy makers and scientific advisors and the media; aim to establish best practice code of guidelines for Government, drawing on the work already done by the Royal Society, Royal Institution & SIRC and to set up a continuing network to exchange experience and best practice in science communication by government and public bodies.

The workshop would be especially for members of Scientific Advisory Committees, Directors of Communications in government Departments, units or individuals, with experience of dealing with the media, members of the media, policy makers, in departments and others.

To develop the workshop, OST was to set up a Steering Committee to advise on content, target audience and outputs. It was proposed to include the following people on the Steering Committee:

Chair – Jo Durning (OST), Leonie Austin (Cabinet Office, Director of Communications, Monica Winstanley (Research Council) Ailsa White DoH, Fiona Fox (Director of the Royal Institute Media Centre, Pallab Ghosh (BBC Science Correspondent), Neil Martin (DEFRA Director of Com-munica-

tions and Graham Jordan from the MOD.

The First meeting was to take place in June. The contact at the OST for anyone who wanted to know more about the Steering Committee meetings or the eventual workshops, which would teach ministers to spin the news on science, especially in controversial circumstances was Rebecca Bowden.

In September 2002 OST held a workshop to discuss government communication on scientific issues. This allowed the participants from Science Advisory Committees, Government Departments, and journalists to discuss best practice in communication of complex issues on a 'lessons learnt' basis.

The Ministerial Committee on Science Policy (SCI) organised from within the Cabinet Office is comprised of the secretary of State from all the major departments, the Leader of the House of Commons, Minister for the Cabinet Office, Minister of State, Office of the Deputy Prime Minister (Keith Hill), Minister for Trade, (Douglas Alexander), Minister for Pensions, Minister of State, Department for Culture, Media and Sport (Estelle Morris) Economic Secretary, Treasury and three Parliamentary Under secretary's of State, Northern Ireland Office (Ian Pearson), Department for Trade and Industry (Lord Sainsbury) Department for International Development, The Chief Scientific Advisor and the Chief Medical Officer are invited to attend. The Chief Veterinary Officer and the Chairman, Food Standards Agency will be invited to attend as appropriate. Its terms of reference are absolutely explicit and not a thousand miles away from those of the SMC, "To consider the Government's policies in relation to scientific advances and public acceptance of them."

The European Science Foundation is the European association of 65 major national funding agencies devoted to scientific research in 22 countries. The European Science Foundation which pursues British science policy in Europe on behalf of the corporations, is co-ordinated by the MRC from the offices of OST, in the form of Rebecca Bowden. ESF has an ongoing interest in developing better interactions

between science and the media. To this end, ESF has supported the establishment of AlphaGalileo as an information site for science journalists. It also supports the activities of the EU Science Journalists' Association (EUSJA) whose secretariat it hosts.

If you thought that corporate control of science policy and its expression in the media was bad in Britain, take a look at it in Europe, there, a CIA funded organisation set up by the Americans in 1948 to handle the right side in the Cold War, dominates most decision making through the jerry built body the Council of Europe. The European Science Foundation on behalf of British tax payers, is pursuing science policy through this august body. And our end of it, you will be pleased to know is being organised by Rebecca Bowden, from her office in the DTI.

ESF is actively involved in the European Science Communication Network (ESCIN) whose web site is also hosted by ESF. In terms of enlarging the debate on science and the media, ESF has worked with the Council of Europe. A hearing of the Council of Europe Parliamentary Assembly's Committee on Science and Technology was jointly organised with ESF in Paris in October 1999. ESF will be devoting part of its 2001 Assembly in November to a debate on the media's role in transmitting public perception and culture of science.

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APPENDIX NINE

The Usual Dog's Dinner

Other contributors included:

Peter Baker, Chief Executive, Men's Health Forum.

Kierra Box, Founder, Hands Up.

Nigel Brooksby, Managing Director, sanofi-aventis, and President of the Association of the British Pharmaceutical Industry.

Dr Eric Brunner, Reader in Epidemiology and Public Health, University College London.

Claire Cater, Director, Bell Pottinger.

Robert Goodwill MP; Paula Hunt, Dietician, Weight Watchers.

Tabitha Jay, National Programme Delivery Manager, Physical Activity, Nutrition and Obesity Department, Department of Health.

Dr Susan Jebb, Head of Nutrition and Health Research, MRC Human Nutrition Research.

Melanie Leech, Director General, Food and Drink Federation.

Dr Peter Marsh, Director, Social Issues Research Centre.

Dr Jonathan Pinkney, Consultant Physician and Senior Lecturer, Royal Cornwall Hospital and Peninsula Medical School.

Hazel Ross, Chair, Dieticians in Obesity Management, British Dietetic Association.

Obesity 2006 also includes comments from Suzanne Edmond, Public Affairs Manager, Food Advertising Unit, and Jane Holdsworth, General Manager UK & Ireland, on behalf of Danone, Kellogg's, Kraft, Nestlé and PepsiCo; Dr Amelia Lake, Dietician and Public Health Nutritionist.

Nutrition attacks without science

PATRICK HOLFORD'S REPLY TO COLQUHOUN'S MAGAZINE ARTICLE IN *NATURE*, WHICH *NATURE* REFUSED TO PUBLISH

In pharmacologist David Colquhoun's attack on degrees in complementary medicine lacking hard science his only referenced point of comment is that 'Patrick Holford infamously recommends vitamin C as a remedy for HIV and AIDS'. The reference given, namely www.patrickholford/content.asp?id_Content=1778, clearly lists both my statement and the series of trials, published in peer reviewed journals, that clearly show that, in vitro, vitamin C outperforms AZT.^{1,2} I say that "AZT, the first prescribable anti-HIV drug, is potentially harmful and proving less effective than vitamin C (Ref 23). These 'in vitro' studies on human T-cells shows that vitamin C suppresses the HIV virus in both chronically and latently infected cells, while AZT has no significant effect. It is a tragedy that this simple, non-toxic treatment hasn't been further tested."

To date this vital research has never been done, probably to do with the fact that vitamin C, if proven effective, is both cheap and non-

1 S. Harakeh S, R. Jariwalla, L. Pauling 'Suppression of human immunodeficiency virus replication by ascorbate in chronically and acutely infected cells' *Proc Natl Acad Sci* (18):7245-9 (1990).

2 S. Harakeh, R. Jariwalla 'Ascorbate effect on cytokine stimulation of HIV production.' *Nutrition*, 11(5 Suppl):684-7 (1995).

patentable. However, in a small subgroup of advanced AIDS patients, administration of high-dose vitamin C and an antioxidant called NAC (N-acetyl-cysteine) reduced HIV viral load, improved immune cell (CD4) count and lymphocyte proliferation in a study published in 2000.³ Also relevant is a trial in Tanzania giving over a thousand HIV positive pregnant women a high strength multivitamin including 500mg of vitamin C.⁴ Although the amount of vitamin C is a fraction of that suggested as optimal for viral suppression by the in vitro trials the results were positive. There was a significant reduction in risk for women going into the later stages of AIDS and reduced AIDS-related mortality. There was also a big reduction in adverse pregnancy outcomes. Foetal deaths, for example, reduced by 39% and low birth-weight babies by 39%. Given that ARV medication does not reconstitute immunity in these immune compromised people the inclusion of high dose vitamin C is worthy of consideration.

It is precisely this kind of science that gets studied in science degrees in nutritional therapy, such as that of our Institute for Optimum Nutrition. It is the absence of a balance of consideration of the evidence for non-toxic nutritional medicine in medical degrees; the bias away from funding research into non-patentable nutrients; and the demand of patients for non-drug approaches that makes it imperative that degrees such as these are actively encouraged. For the record, I have never said that vitamin C cures AIDS, as implied by this article, nor that people should stop taking AZT. The reader should also be aware that David Colquhoun is the director of the Wellcome laboratory for molecular pharmacology. Wellcome make AZT.

Patrick Holford

Founder of the Institute for Optimum Nutrition

3 F. Muller et al 'Virological and immunological effects of antioxidant treatment in patients with HIV infection' *Eur J Clin Invest* 30: 905-14 (2000)

4 W. Fawzi et al 'Randomised trial of effects of vitamin supplements on pregnancy outcomes and T cell counts in HIV-1-infected women in Tanzania.' *Lancet*, 351(9114):1477-8.

APPENDIX ELEVEN

Jerome Burne's attempts to get a response to Goldacre published

FIRST ATTEMPT

Ben Goldacre's shock and awe assault on Gillian McKeith <http://www.guardian.co.uk/food/Story/0,,2011095,00.html> was a good example of kicking someone when they are not just down but are, rolled up and incinerated. But it leads me to wonder whether I would like to have Ben Goldacre as my doctor. He has, after all described himself as a "hard working NHS doctor" in a recent shorter version of this assault in the *BMJ*. So if I were to move house I suppose it's possible I might find he was my nearest GP – actually what do you when wearing your white coat, Ben? Since he is the embodiment of scientific rectitude, merciless with anyone promoting any treatment not backed up by double-blind etc controlled trials, and since he never seems to lay into drug treatments, I have to assume that he regards the drug model as firmly based in science. So at first consultation an obvious topic would be heart disease. As a male over 55, I should be on cholesterol lowering statins for the rest of my life, according to current guidelines. But is it that simple? As someone who believes statins have been massively over-hyped, I would point him to a very interesting paper in the *Lancet* entitled "Are lipid-lowering guidelines evidence-based?" http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17240267&query_hl=8&itool=pubmed_docsum. Among other useful bits of information it tells me that for men who haven't had a heart attack, 50 of you have to take statins five years for one to benefit. Statistical magic, at which the drug companies excel, allows both

that to be true and the claim that statins lower heart attack risk by around 25%. Which one do you imagine is used in the drug promotional literature? Then I'd throw in another reference from the *BMJ* entitled "Should we lower cholesterol as much as possible?" http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=16740566&query_hl=10&itol=pubmed_docsum, which answers by describing a few other examples of statistical magic, such as the fact that in at least two of the big recent statin trials the researchers deliberately excluded any patients who had suffered any adverse side effects in pre-trial tests and then claimed that the number of side-effects reported was low.

So already the nice clear division between fraudulent untested nutrition and scientifically based drug treatments is emerging as in the US were given to people on an off-label basis. What not so simple as Goldacre's rhetoric regularly makes it out to be. But it gets worse. Last summer a very fascinating paper appeared in another top journal – the Archives of Internal Medicine entitled: "Off-label prescribing among office-based physicians" http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=16682577&q.

The authors had looked at the prescribing habits of a representative 3,700 doctors around the country and found that on average, 21 per cent of the 160 most commonly prescribed drugs this means is that they were not licensed for that condition – all the evidence base that Goldacre lays such store by was not there.

Of course there is a good clinical case for off-label prescribing. Doctors should be allowed to use their experience and judgment to prescribe unlicensed drugs where other treatments have failed or where there is a reasonable case for it. But the really shocking part of the study – conducted at Stanford University – was that for nearly three-quarters of the off-label uses there was 'little or no scientific support'.

Do UK doctors, like Dr Goldacre, do it? Well we don't know precise details because no records are kept but we do know that HRT was prescribed for years to protect women's hearts without any evidence base (then it turned out it actually raised heart risk), and that UK doctors prescribed antidepressant SSRIs to 60,000 children a year until evidence was finally wrested from the drug companies which showed that all the brands save one were not only not effective on children but also doubled their risk of suicide. Somehow the division between silly unscientific non-evidence based McKeith and her ilk and proper doctors is becoming even more blurred.

And it gets worse. About 200,000 elderly patients with dementia are prescribed very heavyweight tranquilisers called antipsychotics that cause them to have muscle twitches, drool, such as shuffling gait, extreme tiredness and a worsening of memory and concentration. Given these severe effects you'd expect there to be a strong scientifically based case for using them. Not at all. They are not licensed for these patients, specific warnings have been given that they raise the risk of stroke and a recent in the *New England Journal of Medicine* found they were no better than a placebo http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17035647&query_hl=19&itool=pubmed_docsum.

I would not like Ben Goldacre as my doctor because he must either be dreadfully naïve or wilfully blind. If he is concerned about deliberate distortion of the scientific method, as anyone concerned with medicine should be, then the big beasts in this jungle are the drug companies. His weekly shooting of tiddlers in a barrel is little short of shameful.

Jerome Burne is a science and medical journalist and co-author of "Food is Better Medicine Than Drugs" (Piatkus October 2006).

Ends

SECOND ATTEMPT

Response to "A Menace to Science"

From Jerome Burne

Dr. Goldacre certainly does a thorough job of skewering the unfortunate Gillian McKeith but that's no grounds for claiming her failings condemn clinical nutrition in general.

Clinical nutrition is not a mixture of delusion and hope; it's based on many of the same biochemical pathways drugs use. Courses take three years vs. the 10 hours or so training in it doctors get. Practitioners are just as keen on science and evidence as Dr Goldacre. Specific diets, studies show, can reduce the risk of heart disease and diabetes more effectively and safely than the drugs on offer. Evidence supports the use of specific nutrients such as chromium and cinnamon to improve type 2 diabetics' blood sugar levels.

Goldacre's claim that supplementing with antioxidants not just useless but harmful is based on a misreading of two studies. The summary of one said that smokers given beta carotene were at a raised risk of cancer. However, the details showed that the increase risk was not significant and that those who stopped smoking during the trial had a lowered risk by the same amount (see: www.foodismedicine.co.uk/content.asp?id_Content=1695).

Equally misleading is the study that found heart patients did worse on vitamin E. Nutritionist know that for vitamin E to work, you need healthy levels of the enzyme CoQ10. They also know that that cholesterol-lowering statin drugs also lower CoQ10 and all the patients in the study were on statins. (Details at the link above.)

So why is Goldacre so rabid in his opposition? McKeith isn't just vain woman with poor grip on biochemistry she's: "a menace to the public understanding of science". That's obviously not true. Any more than a gynaecologist who damages dozens of women with botched operations is a threat to surgery.

But it provides a clue to Dr Goldacre's real agenda. As scientific medicine's self-appointed enforcer he gives a right good kicking to anyone making health claims without proper evidence. Good for him you may say. However enforcers work for the powerful - criminal, party-political or religious. The beneficiaries of the doctors' weekly drubbings are not "public understanding" but the drug companies.

One of the great strengths of the scientific method is that it is impartial. But Dr Goldacre is very partial about who he works over. We never see any of the drug companies being taken round the back for fudging their statistics as they did with the anti-inflammatory drug Vioxx that doubled the risk of heart attacks, or keeping inconvenient findings out of sight as they did with the anti-depressant SSRIs that doubled the risk of suicide in children. Those were serious cases of menacing public science but did we see the burly doctor dishing out a good hiding? We did not.

Clinical nutritionists don't have growing client lists because the public is stupid and don't know what's good for them. They're popular because people often feel better when they follow their recommendations without suffering the unpleasant and sometimes deadly side-effects of drugs. And that's bad for business, so call for the enforcer.

Of course I could be wrong, so here's a challenge. Antipsychotic drugs are not licensed for dementia patients. They raise their risk of stroke, have horrible side-effects and are no better than a placebo, yet 200,000 elderly people are prescribed them every year. Kneecap those responsible and I'll give up taking vitamin C for life.

Declaration of interests: I'm the co-author with Patrick Holford of "Food is better medicine than drugs" (Piatkus).

Ends

THIRD TIME LUCKY, BUT IN THE *BMJ* AND NOT THE *GUARDIAN*

Dr Goldacre's article must be applauded for identifying a number of the social factors leading to ill-health – inequality, food deserts created by supermarkets, a failure to implement taxes for bad food and the lack of an "enabling environment" to promote exercise. All things certainly worth trying to improve.

However it does seem bit unfair to blame "media nutritionists" for failing to tackle them, just as it would be unfair to blame "hard working NHS GP's for not campaigning for a local cycle track as part of their daily round.

More seriously in damning the "media nutritionists" actions, he fails to ask the two most basic questions about any form of treatment – Does it work and is it safe? There are certainly hundreds of thousands of people who would tell him that following dietary changes recommended in books or TV programs benefited them enormously. Not a randomised trial of course but surely worth considering. Furthermore even their sternest critics have failed to make a serious case that "media nutritionists" kill or maim people.

Unlike prescription drugs which, puzzlingly, are never the target of Goldacres' tirades. This is puzzling because the essence of his assault on all non-drug medicine is that it is unscientific. Look at the charges he levels at "media nutritionists" – they: "wear a cloak of scientific authority", "make up evidence when it is missing", "cherry pick the literature", "only quote favourable studies."

Is he really unable to see that every one of these is regularly done on a far larger scale and with far more damaging effects by the pharmaceutical companies? The concealing of evidence of problems with SSRIs, the marketing and distorting of evidence over Vioxx, the failure to issue warnings over anti-psychotic drugs - to mention just three – not only did harm to innumerable patients but also seriously and deeply "tarnished and undermined the meaningful research work of genuine academics.

A major reason why the social factors he is concerned about are regularly pushed to the margins in health policy is because there are heavily marketed drugs that claim to deal with some of the damage those factors cause. The reason why large scale trials are rarely done to back up the nutritionists' claims is because 90% of such trials in this country are run by drug companies.

If Dr Goldacre is genuinely concerned about ill health and bad science, he could far more usefully focus his obvious critical abilities on junk science practised by the drug companies. But then perhaps he prefers to remain a "branch of the entertainment industry" poking fun at people who for the most part can't fight back.

Professor Simon Wessely

Professor Simon Wessely plays an important part in a network of psychiatric medical professionals whose views and research are almost completely coincidental with those of the government policies of Britain and North America. He has access to funding, media and support, which enables him to shape and promote the prevailing view about a number of issues which are of importance to those States.

Professor Wessely is the leading chronic fatigue syndrome research academic in Britain, heading the CFS Research Unit at King's College Hospital, now part of Guy's, King's and St. Thomas' School of Medicine (GKT). There he also heads the Gulf War Research Unit and pursues the role of civilian advisor in psychiatry to the British Army. Since the end of the 1980s, Professor Wessely has steered a fine line, carefully avoiding categorising ME and CFS patients as mentally ill, whilst nevertheless working hard to classify their illness, against the prevailing trend, as a psychiatric condition.

Wessely has established an unrivalled position as a well-placed government advisor and peer reviewer in almost all the seminal journals. He has been involved with every serious inquiry into ME and CFS over the past decades, and his papers and those of his colleagues, produced in considerable number, dominate the field in any literature review.

Professor Wessely should be granted a dictionary of his own, so far has he stretched the meaning of the English language while attempting to explain that ME although a 'real' illness, is often first

imagined. He has trodden the tightrope of confusing semantics with the balance of Blondel and the focus of a train spotter.

In the late 1980s, as described in part one, as a member of the newly-formed Campaign Against Health Fraud, Wessely collaborated closely with former trade magazine hack Caroline Richmond, the campaign founder, who played a leading role in helping him to publicly demolish the scientific categorisation of ME and to redetermine it in the minds of the public as a sham illness. His collaboration with Richmond, and later with the feminist literary critic and professor of humanities Elaine Showalter, empowered both Richmond and Showalter to speak with spurious authority at conferences and seminars on ME, CFS and Gulf War Syndrome, despite their complete lack of medical expertise or education. Showalter has become deeply involved in Wessely's forays into military-funded research into GWS. Her atrociously muddled book, *Hystories: Hysterical Epidemics and Modern Culture*, suggests that ME, GWS and such things as claimed alien abductions are all equally part of a contemporary hysteria.

Wessely's research results and publicly-expressed views have stirred the ire of patient self-help groups. He has stated openly that members of such mutual support groups for ME and CFS are fooling themselves, refusing to face up to the reality that their illness is psychosomatic.

Wessely works in the most prestigious London units involved in psychiatric research. The GKT complex also encompasses the Institute of Psychiatry (IOP). The whole of Wessely's department in the IOP is committed to, and working on, issues relating to the psychiatric aetiology of illness. He is also involved in the King's College Risk Centre (KCRC), which is researching the perceived health risks of mobile phones and their masts, with the view, no doubt, to finding that there are none.

The IOP receives funding from, among others, Unilever, SmithKline Beecham and Pfizer, Novartis, NPS Pharmaceuticals; Lilly Industries Ltd (manufacturers of Prozac); Hoescht Marion

Roussel; GlaxoSmithKline (Seroxat); Bristol Myers Squibb; Bayer; Zeneca and Wyeth.

Professor Wessely has been employed or grant-aided by both the British Ministry of Defence and the US Defense Department. He has contributed to seminars and meetings at NATO on crisis management of public fears of terrorist incidents. His connections with the military clearly involve conflicts of interests, and his work on Gulf War syndrome is thus automatically more suspect than that of independent researchers.

Professor Wessely is an advisor to PRISMA Health, which was founded in 1999 and began establishing its programme in Europe and North America. Its head office and the corporate staff are based in Essen, Germany, and its president in the year 2000 was George F. Thoma, a German managing partner at Shearman & Sterling, a global law firm with more than 1,000 lawyers based in the world's financial capitals. Representatives of the US government and the most powerful corporations of North America, such as Monsanto, have visited the company's offices in New York. Thoma is a member of the company's Mergers & Acquisitions Group, and practises primarily in the areas of corporate law, mergers and acquisitions, corporate restructuring and privatisations.

Thoma, who has worked for banks, chemical and pharmaceutical companies, worked inside the Treuhandanstalt, the Berlin-based agency created by statute and charged with directing all aspects of the privatisation process in the federal states. He helped to privatise the East German shipyards, and became the principal counsel and coordinator representing the Treuhandanstalt for the privatisation and corporate reorganisation of the chemical, mining and public utility industries in former East Germany. His law firm worked for SmithKline Beecham in its \$189 billion merger with Glaxo Wellcome, creating the world's largest pharmaceutical company. Another partner at Shearman & Sterling was chosen by Bush to be Ambassador to China, while others can be found on the Council on Foreign relations.

Professor Wessely devised the programme on CFS that PRISMA is selling to insurance companies for people with chronic fatigue syndrome. Interestingly, he says nothing in the company introduction about patients suffering from any kind of psychological difficulties, although he lays emphasis on antidepressant drugs, the prescription of which, one imagines, must be preceded by some kind of psychiatric evaluation.

Professor Wessely played a leading part in the Chief Medical Officer's inquiry into ME/CFS, which was organised from 1998 to 2002. Very near the end of the inquiry, the psychiatric aetiology contingent walked out en masse, claiming that the final report of the committees would veer too close to suggesting that ME and CFS was a physical illness. Despite this juvenile protest, the final report advised that more funding should be given to the MRC to investigate ME and CFS.

The money for this further research was duly granted to the Medical Research Council, and then diverted, in toto, to Wessely's colleagues. The funding was used to finance what have become known in ME circles as the 'fraudulent PACE trials'. This research looked at the already-decided psychological treatments for the 'psychiatric' conditions of ME and CFS.

Wessely has also, recently, found a perfect home working alongside Professor Sir Kenneth Calman, the former chief medical officer, who initiated the CMO's report into ME/CFS, and to whom Dr Wakefield wanted to talk about the risks of MMR.

Calman now of Durham University, sits on the Advisory panel to the All Party Group on Health with two highly placed vaccine company executives.¹ He is also Chairman of the Radiation, Risk and Society Advisory Group (RRSAG), a body within the Health Protection Agency (HPA) that was set up in 2001 and of which

1 Op. cit. Walker, *The Ghost Lobby*.

Wessely is a member.² The purpose of the group was originally to spin the work of the National Radiological protection Board (NRPB). [At this point, the words, ‘all in it together’ drift through my mind].

The purpose of the R,RSAG is explained on the HPA web site in an obscure manner. The R,RSAG it says, was set up to ‘improve the ways it [the NRPB] heads public views and communicated with the public.’ A linguist would find the use of the word ‘heads’ in this context very interesting. The word that comes closest to explaining ‘heads’ is ‘leads’ which in turn means to guide or, as in ‘lead story’, *the items of news given greatest prominence in newspapers*. What it might have meant to say is that the R,RSAG ‘heeds’ public views, if so, this was an interesting Freudian slip.

Perhaps more frightening than the fact that the HPA has built in communications units or spin groups, is the oddly alienated and thoroughly patronizing manner in which the R,RSAG talks about its role; ‘R,RSAG assesses, on a continuing basis, *what the public wants to know about radiation*, risk and how society will be affected by such issues.’

One of the bullet points that explain what the R,RSAG actually does, has an ominous ring which we have heard before: ‘Developing a series of guidelines, testable by the HPA, on ways of responding to risk issues.’

The R,RSAG is keen to get into schools to explain science and risk to schoolchildren, and to this end it has been holding meetings with various education bodies.

2 Other members of the R,RSAG are, Ms Lis Birrane, HPA, Ms Deborah Cohen, BBC, Professor William Gelletly, University of Surrey, Mr Edward McConnell, The Marlborough School, Professor Jim McQuaid, Royal Academy of Engineering, Dr Michael Murphy, University of Oxford, Professor Nick Pidgeon, University of East Anglia, Professor Lynda Warren, University of Wales Aberystwyth, Dr Hilary Walker, Department of Health.

The web site goes on to say that the R,RSAG was set up to help the NRPB to achieve this leading of public opinion in practical ways. The group reports only to the board of the HPA, which is studded with members who have pharmaceutical and other conflict interests.

In October 2004, after a meeting between the R,RSAG chair and secretary and the communications director of the HPA, it was decided that the group was handling spin for the RPB so well that, with the inclusion of other representatives, it could handle spin for all the other departments of the HPA. The new group would be managed by Lis Birrane the HPA communications director. So Wessely is now quite close to being able to spin, all matters relating to public health and science.

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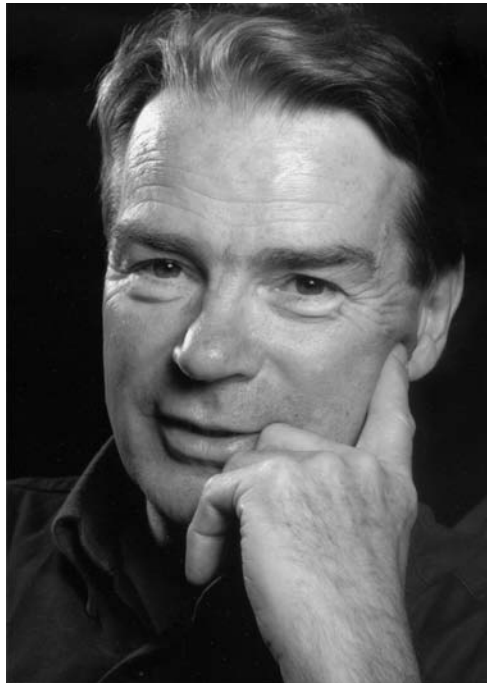
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Martin J Walker was born in 1947 and trained originally as a graphic designer. Over the last thirty years he has written nine books while working as an investigator, campaigner and researcher. Since *Dirty Medicine: Science, big business and the assault on natural health care*, he has written books mainly about the science lobby, its attacks on alternative medicine and its defence of bad medical practice and dangerous pharmaceuticals. His last published book, *HRT: Licensed to kill and maim*, was about the damage and adverse reactions suffered by many women who have taken Hormone Replacement Therapy. He can be contacted and his books can be bought from his web site: www.slingshotpublications.com.

Cultural Dwarfs and Junk Journalism is Martin Walker's fourth book charting the development of the corporate science lobby that has grown rapidly since New Labour came to power in 1997. One of the most recent exponents of this Lobby is Dr Ben Goldacre, who has regurgitated a bad 'science' column in the *Guardian* newspaper since 2003.

Like other quackbusters, Goldacre claims to write factually based and scientifically accurate articles about health, medicine and science, either supporting scientists and doctors or criticising individuals involved in alternative or nutritional health care. However, Goldacre's writing actually reflects the ideology of powerful industrial, technological and political vested interests.

Goldacre, who it is claimed is a junior doctor working in a London NHS hospital, is actually a clinical researcher working at the centre of New Labour's Orwellian spin operation that puts a sympathetic gloss on anything shown to create adverse reactions, from MMR to Wi-Fi, while at the same time undermining cost-effective and long-tried alternative therapies such as acupuncture and homoeopathy. Goldacre is involved with public health researchers well-known for trying to prove that those who claim to be adversely affected by pollutants in our modern high-technology society suffer from 'false illness beliefs'.

Cultural Dwarfs and Junk Journalism investigates Goldacre's role in industry lobby groups and puts another point of view in defense of some of the people whom he has attacked, belittled, satirized, castigated, vilified, maligned and opined against in his junk journalism.



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