Revised December 2008, after visiting UCLAN to give evidence

Submission to the University of Central Lancashire review committee

"To review the issues associated with Homeopathy, Acupuncture and Chinese Herbal Medicine."

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Firstly I shall reply concisely to the five "Key questions agreed by the Review Panel". Then I shall go on to amplify the reasons for my answers and to consider some broader questions concerning the ethics of CAM, about the effect of degrees on CAM on the reputation of the institutions that run them, and about new laws relating to false health claims.

The five key questions agreed by the review committee

(1) What should be the role of universities in today's society?

Universities have a dual role, partly to further knowledge and impart that knowledge to students, and partly to provide vocational training. They have always had both roles (medicine and law, for example, have always been largely vocational). The balance has changed, especially since 1992, so that a larger proportion of courses is vocational. I must make it clear from the outset that I think there is nothing wrong with that at all. I have no objections to degrees in Golf Course Management. I have no objection to a BSc degree in plumbing (actually I don't think there is one: perhaps there should be). A degree in plumbing would be entirely honest. It would be what it says on the label, and nobody would expect somebody with a degree in plumbing to be able to solve eigenvalue problems. But I regard degrees in alternative medicine as being in a totally different category from degrees in plumbing. Nobody doubts that there is a solid body of knowledge about plumbing and that good plumbing works. There is nothing in plumbing that is inconsistent with our present knowledge of physics or chemistry. Neither of those things is true of CAM.

On the other hand a great deal of what is taught about alternative medicine, homeopathy in particular, that is totally incompatible with our present knowledge of physics or chemistry. Many homeopaths admit that is the case, and the usual response is that perhaps in the future new principles will arise that would make homeopathy less absurd from the scientific point of view. If that does happen in the future, then by all means have a degree in homeopathy. Until then it makes no sense at all to have one department in a university teaching things that contradict directly what is taught in the physics and chemistry departments. All this would matter less if, at a purely empirical level, the treatments worked. This question cannot be avoided because it is absolutely central to both the scientific and the ethical objections to degrees in alternative medicine.

My action in suggesting that CAM degrees are inappropriate is not intended as a condemnation of post-1992 universities. Precisely the opposite is true, My intention is to defend the post-1992 universities from a self-inflicted folly which is highly damaging to them.

(2) What are the identifiable generic characteristics which categorise a programme as degree level?

Above all, critical thinking. A degree is about distinguishing truth from falsehood as best we can, and about thinking rationally.

It is almost universal for those who run CAM courses to claim that they teach critical thinking, but the evidence is overwhelming that they do not. They appear not even to understand the meaning of the word (the only alternative to that view is that they are lying, and I prefer not to think that).

You won't, of course, find out about the level of critical thinking that is taught by looking at formal course specifications or accreditation documents. In the case of CAM courses, such formal documents are designed to achieve accreditation by ticking the right boxes. What you have to do is to look at the writings of the people who give the course., The examples of course material that have leaked out, and the published writings of most CAM teachers are quite enough to persuade any rational person that the mind-set in CAM is more akin to magic than to reason. The evidence for this, and the reasons why it not more well-known, are considered below (pp 5 - 10).

(3) Do these characteristics apply equally to natural sciences, medicine, social sciences and the humanities?

Yes, critical thinking is every bit as important to a historian as it is to a physicist. It is simply a matter of not making things up. Making things up and wishful thinking are the stock in trade of the alternative medicine business. Indeed that is why they are labelled *alternative*. There is no such thing as 'alternative medicine', any more than there is any such thing as 'alternative physics'. There is medicine that works and medicine that doesn't (or has not been shown to) work. 'Alternative medicine' is merely a convenient label for the latter.

(4) For the award of BSc or MSc what proportion of the curriculum content should be science-based? Please provide rationale.

The interesting thing about this question is that it carries the admission that CAM is *not* science-based. That is a good start. I would maintain that the answer is 100%, but that does not mean that the content must all be 'hard science', but merely that content that is *anti-scientific* is unacceptable. In medicine, for example, students need to know about the doctor-patient relationship, care of the dying and other such things that can't be discussed in terms of physical laws. But that doesn't mean that they can't be discussed in a rational way, or that they are not able to be subject to empirical investigation.

I see two main reasons why CAM degrees can't be justified by including some physiology and pharmacology lectures.

(1) Firstly much of the scientific part of the teaching is in direct contradiction with the non-scientific vocational part rather than complementing or enlightening it.
(2) These are all vocational degrees so in the end it is the vocational, i.e the non-scientific part, of the courses that the students are required to believe to pass the exam.

Take a simple example. In pharmacology and biochemistry it is usually the case that the bigger the dose the bigger the effect. Dose-response curves with a positive slope are determined every day in student practical classes and in research. In some cases they can be well-understood in terms of physical mechanisms (adsorption equations, Markov processes etc). On the other hand, in homeopathy the doctrine is precisely the opposite, the smaller the dose the bigger the effect. In 200 years, homeopaths have not produced a single example of a dose-response curve in man that has a negative slope but that has not deterred them from teaching it, and it has not deterred them from treating sick patients on the basis of it.

Suppose then that a course has 60% science and 40% homeopathy (Pitillo's criterion). That means that on 6 days out of 10 the students are taught that the slope of dose-response curves is positive, and on 4 days out of 10 they are taught that it is negative (but it is the latter which they must reproduce to pass the exam). Arguments like this show that, in the context of CAM, the question that has been posed makes little sense.

Let's imagine the same question being posed about the teaching of astrophysics. On some days students are taught that the earth goes round the sun (physics). On other days the students are taught that the sun goes round the earth (alternative physics). What proportion of the first sort of lectures must there be before you can call it a BSc? The question is clearly absurd.

Incidentally, the attitude of CAM students to the science parts of their course was revealed with disarming frankness by someone who teaches on a CAM course. Elaine Aldred teaches on the "nutritional medicine" course that as validated by the

University of Wales. She has written a book, *Pharmacology. A Handbook for Complementary Healthcare Professionals.* In it <u>she says</u> that pharmacology is "considered by most students to be nothing more than a 'hoop-jumping' exercise in the process of becoming qualified".

Similar sentiments were revealed by an "insider" in a recent article in Times Higher Education (see page 9 below).

(5) Would you personally utilise any alternative therapies? If so, which? Please justify your answer

Never. I say that simply because the whole reason that they are labelled 'alternative medicine' is that there is no good reason to think that they work. If there were good reason to think that they worked, they'd just be 'medicine'.

This question does serve to bring out an important ethical point. People often turn to alternative medicine when they are desperate, because there is nothing that real medicine can do for them (a sadly common state of affairs). Two obvious examples are back pain and cancer. People in this category are exceedingly vulnerable, They will grasp at straws. And there is a vast (and very profitable) alternative medicine industry waiting to exploit their desperation. It has been described poignantly in John Diamond's book *Snake Oil and other preoccupations*. This book was written as Diamond was dying of cancer (and had to be completed by his brother-in-law, Dominic Lawson). Diamond relates the story of a 'kinesiologist' who agreed to have his methods tested in a proper trial. When they failed, he said "You see, that is why we never do double blind testing any more. It never works." That typifies the attitude of the alternative medicine industry to research. A review of this book by Ross Camidge (Edinburgh Cancer Centre) said,

"At present it is politically incorrect for doctors to criticize alternative medicine practitioners (though the favour is rarely returned), and everywhere they seem to have free rein to set up shop, mislead and extort money from the vulnerable. In *Snake Oil* John campaigns to redress this imbalance, to take the 'alternativists' apart with logic and to point out the idiocy of any philosophy that believes when standardized tests show ginseng-sucking not to work, it is the tests and not the treatment that should be thrown away."

Given that the Clinical Director of the Royal London Homeopathic Hospital himself agrees that there is not (he would say "not yet") enough scientific basis to homeopathy to justify offering BSc degrees in it (see page 10), one has to ask how it is that the authorities at UCLAN have allowed such a thing to happen.

Some relevant considerations concerning degrees in CAM

I believe that there are many grounds for objecting to degrees in alternative medicine. I have grouped them arbitrarily under four headings, (1) Critical thinking, (2) Evidence and truth, (3) Ethical problems and (4) Morale and reputation of the institutions that teach CAM

(1) Critical thinking.

Many of the principles that are taught are incompatible with everything we know about chemistry, physics and medicine. If the courses contain some of these scientific subjects, students are subjected to lectures that contradict each other (but for the purposes of the exam they must choose the unscientific answers)

Although such courses usually claim to teach critical thinking, there is abundant evidence that they do nothing of the sort. In fact they teach precisely the opposite.

It cannot be emphasized too much that it is quite useless to look at formal accreditation documents if you want to discover whether or not a course encourages critical thinking. Such documents are designed to achieve accreditation and, sadly, frequently misrepresent the nature of the course. I cannot tell to what extent the misleading nature of such documents is a result of lack of critical abilities on the part of the teachers and to what extent it constitutes more or less deliberate misrepresentation. The reasons are irrelevant anyway. What matters is to look at what is actually taught.

That is almost self-evident from the fact that they teach as true things that 99.9% of scientists and doctors regard as either meaningless or plain wrong. As it happens, there is a rather good local example, in your own Kate Chatfield. She has an article "In pursuit of evidence". It can be downloaded from the web site of the Society of Homeopaths. As it happens, this article has been scrutinised in great detail by a physicist, Adrian Gaylard, whose analysis can <u>be seen here</u>. A transcript is enclosed with this submission. His main conclusion about Chatfield's attitude to evidence is

"All in all, this piece is a 'dressed up' version of an argument commonly advanced by advocates of nonsense therapies. Instead of the usual cry that the *mumbo-jumbo* is "*outside of science*" Chatfield claims it's in a different, incommensurable, paradigm."

One might consider too Midge Whitelegg, who teaches 'concepts of energy' on course CT1000. Her use of the word 'energy' bears no relation to anything used in science, but is more akin to anthroposophy (the rather weird views of Rudolf Steiner)

She <u>herself wrote</u>

"The Journal of Alternative and Complementary Medicine Goethean Science: An Alternative Approach Midge Whitelegg, PhD, FNIMH

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This paper considers the science of the poet Goethe as furnishing a complementary epistemology for complementary and alternative medicine (CAM), standing alongside and very different from conventional scientific methodology. Through reference to key texts it explores the phenomenological "science of qualities" that aims to allow the scientist, through robust training, to appreciate and intuit the wholeness inherent in nature, so that Goethe could claim the human being to be the most sensitive instrument. Goethe's color theory—a challenge to Newtonian thinking—and his study of plants are explored to illustrate a profoundly different way of looking at nature that celebrates the subjective and relational as a route to perceiving the whole. Ideas toward application of Goethe's approach within CAM are considered and the relevance of this approach as an alternative methodological enquiry toward consideration of wholeness and healing are offered."

According to <u>a herbalist</u>

His [Goethe's] 'scientific method' was largely ignored in the nineteenth century, but has been resuscitated and today enjoys a modest following under the name "Goethean science" (Whitelegg, 2003, 311).

Views may vary about the value of such ideas for the treatment of sick patients (my own view is that it is pure nonsense). One thing that I am sure about is that it has nothing to do with science.

Although I have not yet been able to see any of her teaching materials, I would imagine that they are quite similar to those used in a similar lecture at the University of Westminster. I'll show a few of them here because I can think of no better way to illustrate my point that any attempt to judge a course without knowing its content is likely to be nonsense.

Vibrational Medicine

Vibrational medicine is an evolving field of healing research that focuses on the links between **body** and **mind**, and the **spiritual nature** of human beings.

It is a fusion of science and spirituality

Although the principles behind vibrational medicine are quite ancient, the development of modern technologies that can visualise and quantify the energetic nature of the links and our spiritual anatomy are very new.

Vibrational Therapies

According to Richard Gerber:

"Vibrational Medicine attempts to treat people with pure energy, being based on the concept that humans are beings of energy.

It works in the realm of repatterning the organising energy fields which direct the cellular expression of dysfunction".

The Human Energy Field

The human energy field or aura comprises numerous complex and interrelating layers of vibrational energy.

But it is more than just energy because

all that you are,

all that you have ever been,

and all you potentially may be

is patterned within your energy field.

Energy Signatures

All things are made of energy and have an energy signature or pattern.

Consequently all life events, experiences, happenings, feelings, and actions, are expressed as an energy signature.

Painful or traumatic experiences, stress patterns, negative thinking, distress, can all lead to distorted energy patterns which become 'trapped' in our energy field.

Distorted Energy Fields

This creates blocks to the flow of energy damage to our aura depleting, draining, creating imbalances, in our energy.

If not cleared, such imbalances of energies will ultimately lead to physical symptoms and feelings of mental and emotional disease

Dowsing

Dowsing is a very ancient practice dating back to pre-biblical times.

Most dowsers at that time and still today use an external physical tool such as a pendulum or dowsing rod to assist them in their work. We will also teach you to use your own body

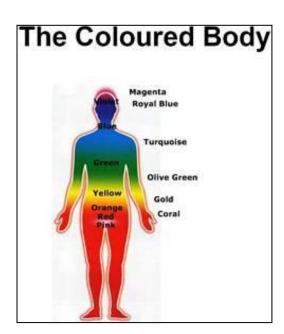
It is largely irrelevant what you use for dowsing. What matters is whether works for you, and therefore your mind set around it.

Crystal Therapy

Just like you, each stone has an individual purpose or gift to give

For this reason, stones show an **affinity** for particular **chakras** and/or **organs**

Crystal therapists are trained to recognise and attune to the crystal's ability and are able to use them as beautiful and powerful tools in healing work



Amethyst: The 'Transmutator'

A stone of spirituality and beauty. Emits high yin energy so transmuting lower energies and clearing and aligning energy disturbances at all levels of being. Very useful in healing environments



Things like this would be considered laughable if they appeared in the lifestyle section of a downmarket women's magazine. In fact they are taught in all seriousness to first year undergraduates of complementary therapies at the University of Westminster. I'd imagine that the UCLAN course does not differ substantially. We'll see.

How is it that the lack of critical thinking in CAM degrees is not better known?

Slides like those shown above illustrate a lack of critical think that is truly mindboggling. Hapless students are being taught, in all seriousness, that "amethysts emit high yin energy". How on earth has this gone unnoticed?

Partly because most academics are too busy to look (essentially 100% of the pharmacologists I know agree with my views but they are too busy doing their jobs to spend the time that I have done reading what passes for the literature in this area).

A major reason why the magical mindset of CAM is not better known is because those involved are desperately secretive about what they teach, and they actively misrepresent it in formal documents. At UCL it is the policy that all teaching materials should be made public on request (except in rare cases of patentable material), and many are available publicly on the web anyway. In contrast, every university that teaches CAM has refused to show any of its teaching materials to the outside world. That fact alone suggests that they would find embarrassing any revelation of what they teach: if not, why be so secretive? The University of Westminster, like UCLAN, refused to disclose any teaching materials: the slides shown above were obtained *via* a very dissatisfied former member of that university. I suppose, when one looks at them, it isn't surprising that the university wanted to keep them secret. Despite these efforts at secrecy, there are enough people (including some ex-students) who have more conscience than the officials of the university. I think it would be quite unwise of UCLAN to imagine that they can keep their teaching materials secret for ever from those who pay for them (taxpayers).

The fact that I have been asked to give evidence to a committee that is investigating the future of courses in Homeopathy, Acupuncture and Chinese Herbal Medicine, but have been denied access to what is taught in them will surely appear to the outside world to be secrecy taken to a *reductio ad absurdam*. It is not yet clear to me whether this material is available even to members of the committee.

The secrecy is taken to such limits that even students of herbalism are not allowed access to teaching materials in homeopathy at the University of Westminster (and, I believe, the same is true at UCLAN). In fact I was told by an ex-student of herbalism at Westminster that they were told to keep away from homeopaths on the grounds that homeopathy was superstitious nonsense! It is as though physicists were instructed not to talk to mathematicians. The situation resembles internecine warfare between rival religious sects more closely than it resembles science.

Another major problem arises as a result of the over-reliance that universities have come to place on formal validation and accreditation procedures. A degree in homeopathy is accredited by homeopaths. Insofar as homeopathy is a late 18th century myth rooted in vitalism, degrees in it will be accredited by homeopaths *only* if they teach late 18th century vitalism as fact. One example that came to light recently concerned the validation of a degree in "nutritional medicine" by the University of Wales (you can see the <u>details here</u>). The University of Wales produced a 256 page document setting down the rules for validation of external degrees in health care subjects. But the validation committee looked only at the documents presented to them and those documents ticked all the right boxes if only because the university had (for £500) sent someone to the Northern College of Acupuncture to show them how to write the submission. The validation committee, if they had spent 5 minutes with Google, could have found out very easily that the person running the course had

been excoriated in the National press a couple of years earlier, when she wrote "Implosion researchers have found that if water is put through a spiral its electrical field changes and it then appears to have a potent, restorative effect on cells." This, of course is preposterous pseudo-scientific nonsense. The vice-chancellor of the University of Wales, an electrical engineer, has so far declined to comment on this statement. The validation committee were unaware of it. They simply did not do their job properly.

It is a mistake to think that having some courses in real science during a CAM degree will induce critical thinking. Some reasons for that have already been mentioned. Consider also the "insider" quoted in Times Higher Education (30 October 2008).

"But concerns persist about the content of courses, even from those inside the CAM discipline. One lecturer, speaking on condition of anonymity, says he has seen practices such as the "tasting" of herbal medicine to determine whether it can treat illness, the use of pendulums to diagnose symptoms and even students being encouraged to treat cancer by using CAMs - despite it being illegal to claim CAM can treat cancer under the terms of the Cancer Act 1939.

He explains that the basic problem is that although students may be taught a core of medical science in the early years, it is then separated from the teaching of the CAM therapies and clinical work by a "massive damp-proof course".

"Once it has been studied and passed it is effectively dropped. There is almost nothing scientific in the teaching beyond the core modules. Lecturers in the complementary therapies rarely refer back to them and, students say, actively block discussion.

"And you can see why. It puts the mumbo-jumbo into total contradiction ... They get into clinic and they can do whatever they like. Diagnosing and treating are often based on pure fancy."

He says many students, like their practising lecturers, are also quick to shrug off their science. "It is the easiest thing to do when the subject is not only hard intellectual work but also challenges your own prejudices"."

I have now met the person who wrote this inside view and I think that they would be willing to give evidence to UCLAN directly, though they would probably not want their name to be revealed.

(2) Evidence and truth

In some form of alternative medicine there is now very good empirical reason to think they don't work other than as placebos (homeopathy, acupuncture) and in others there is very little evidence about whether they work or not (Chinese herbal medicine). It is perfectly true that such evidence might arise in the future, If it does, then by all means run degrees, But to run degrees *before* you know whether they work is simply an absurdity.

I should like to point out that I have a remarkable ally in this view in Dr Peter Fisher. Dr Fisher is Clinical Director of the Royal London Homeopathic Hospital and Homeopathic Physician to the Queen. In a debate with me on BBC1 TV News, following my article in *Nature*, the end of the interview went as follows.

Riz Lateef (presenter): "Dr Fisher, could you ever see it [homeopathy] as a science degree in the future?

Dr Peter Fisher: "I would hope so. I wouldn't deny that a lot of scientific research needs to be done, and I would hope that in the future it would have a scientific basis. I have to say that at the moment that basis isn't comprehensive. To that extent I would agree with Professor Colquhoun."

You can see the video here.

So the UK's most senior homeopath thinks that degrees in homeopathy are not justified, but UCLAN runs one anyway.

It should be pointed out that Dr Fisher is a medical doctor, and has attitudes quite different from the bulk of homeopaths who have (like those from UCLAN) no medical qualification. Although Fisher, like any other homeopath, has views which 99.9% of scientists and doctors would regard as seriously deluded, he is far more responsible than most medical homeopaths. When the Newsnight TV programme revealed that 9 out of 10 homeopaths were recommending homeopathic prevention of malaria, Fisher said that this made him very angry, and rightly so, because advice like that endangers lives.

Some of the statements made by (secretly-filmed) homeopaths in this programme defy belief.

The Nelsons adviser told the researcher that the homeopathic compounds would protect her. "They make it so your energy doesn't have a malaria-shaped hole in it so the malarial mosquitos won't come along and fill that in." "

In contrast the Society of Homeopaths, an organisation for non-medical homeopaths (including Ms Chatfield), took no action at all. They say that they regulate their

members but in fact never do anything about members who breach their 'code of practice'. This code appears to be there only for cosmetic purposes.

Well it is not quite true to say they took *no* action. The Society of Homeopaths sent to their members in an email that was not intended for public viewing a warning to its members to be careful how they respond to emails in case they are a 'sting', not from a real patient. That is an explicit admission that they encourage their members to say one thing in public and another to patients in private.

(3) Ethical problems

Of the three subjects under consideration, Chinese herbal medicine (CHM) is the most plausible. A substantial number of regular drugs are based on things found in plants, though often the structure has had to be modified to reduce toxicity etc. Herbal medicine is really nothing more than regular medicine as it was in about 1900. But 109 years later we can improve on that a bit. There are two crucial points to make. (1) CHM uses a large number of plants (and some highly undesirable things like rhinoceros horn, shark cartilage, tiger bone), and the vast majority of them have never even been subject to tests for efficacy or safety. What they do is simply unknown, (2) Some at least of the herbs will contain pharmacologically active molecules, but they are never standardised for their activity. Standardisation of the biological activity of substances of biological origin became standard practice in pharmacology in the 1930s, but herbalists haven't caught up yet.

So what are the ethics of dosing sick people with herbal concoctions of unknown efficacy and unknown safety in an unknown dose?

That is precisely what CHM practitioners do, and it seems to me to be utterly unacceptable from the point of view of ethics (and even from the point of view of common sense).

The ethical problems posed by homeopathy and acupuncture insofar are in some ways better, but in other ways worse. It is better insofar as little direct harm is likely to be done to patients by giving them sugar pills that contain no medicine whatsoever (homeopathy) or sticking needles in them (acupuncture). But the ethical problem is worse for homeopathy and acupuncture insofar has these two procedures have really been tested quiet well now, and just about every time they have been tested properly they have failed to show any therapeutic effect greater than placebos. Their practitioners, of course, deny this, but their ability to deny overwhelming evidence is just one more bit of evidence that these course are utterly lacking in any form of critical self-appraisal. I presume that the review committee will inform themselves of the current state of evidence in all three fields by reading a good summary such as that provided by Singh and Ernst (*Trick or Treatment*, Bantam Press, 2008).

The ethical problem caused by treating sick people with placebos, while pretending that they are not placebos, is obvious.

(4) The reputation of the university and the morale of its staff

The fourth main reason why CAM degrees are unacceptable is the effect of such degrees on the morale of the scientific staff who work in the rest of the university. It is no exaggeration to say that their existence brings into disrepute the universities that run them. Although alternative medicine is popular with the public, it is almost universally regarded by academics as superstitious nonsense. This view extends far beyond scientists. I find that my colleagues in History and English have much the same reaction as scientists.

John Sutherland (Prof of English Literature at UCL and chair of the Man Booker prize committee) said in his *Guardian* column (Jan. 2008)

"- our grandchildren - will look back and see our universities as having failed in their larger mission. "They balanced the books and lost the battle," they'll say. "They forgot what they were there for." "

"Superstition crows, rationalism cheeps. Faith healing, flat-earthism and creationism are rampant."

The consequence is that when the name of (say) the University of Central Lancashire is mentioned, the reaction is something like "oh yes, isn't that the place that gives degrees in black magic?" This is, of course deeply embarrassing to the many good scientists and other good scholars who work at the university.

In purely financial terns, this sort of reaction is also harmful to the university as a whole insofar as It is not likely to impress the funding agencies on which research depends.

There appears to have been an increase recently in the condemnation of universities that run degrees in alternative medicine. As one would expect, the use of unproven and disproved treatments has been criticised the Royal Society, the Pharmacological Society, The Physiological Society and the Biosciences Federation (which represents 40 different societies). Perhaps just as important, it has also been criticised very openly by journalists who are not scientists, but who write mainly on politics and economics and who are widely read and respected. Here are a few recent examples.

Dominic Lawson (Editor of Sunday Telegraph, 1995 – 2005) "So now we will have degrees in quackery) The *Independent* 24 June 2008 (copy attached),

"It [the Pittilo report] will be a particular boon to the University of Westminster, whose "Department of Complementary Therapies", teaches students all about such practices as homeopathy, McTimoney chiropractic, crystals, and 'vibrational medicine".

"Now here's another remarkable thing: the main body of the report produced for the Government last week does not contain the word "placebo" – and it crops up only twice in the appendices. One can understand why the various "stakeholders" who were consulted might have wanted to steer away from this fundamental question, but it's surprising that the chairman of the report, Professor Michael Pittilo, principal of Robert Gordon University, didn't insist upon it.

After all, Professor Pittilo claims that his report was an "echo" of the House of Lords' Science and Technology Committee report on the same subject – which had declared that the single most important question that any such investigation must address is: "Does the treatment offer therapeutic benefits greater than placebo?"."

Polly Toynbee (Guardian January 8 2008) "Quackery and superstition - available soon on the NHS" (copy attached).

"the burgeoning number of degrees and diplomas in complementary therapies offered by universities, such as the Thames Valley, Westminster or the University of Wales. Normal academic standards have been set aside for attracting new students. Legitimate fears that this gave a phoney scientific aura to humbuggery of all kinds are now proved right."

Mark Henderson (*The Times*). The Times chief scientific correspondent gave the front page of the Times to a commentary on our May 2006 letter that advocated that the NHS should not spend taxpayers' money on "unproven and disproved" treatments such as Homeopathy, Acupuncture and Chinese Herbal Medicine. This letter proved remarkably influential: it has already caused the closure of one NHS Homeopathic hospital (Tunbridge Wells) and a considerable contraction at the Royal London Homeopathic Hospital.

Damian Thompson is a writer who differs from me in many ways. He is a leader writer for the *Daily Telegraph* and editor in chief of the *Catholic Herald*, and his PhD was in the sociology of religion. Nevertheless, his 2008 book *Counterknowledge* is devastatingly scathing about universities that teach alternative medicine.

"Instead of requests to share their wisdom, alternative practitioners are being asked to produce double-blind randomised tests to support their claims. They try to shrug off the demands - but, if you look closely, you can see their ayurvedic auras vanishing into thin air." (Daily Telegraph, 26 April 2008)

John Kay is an economist who writes for the *Financial Times*. His most recent <u>column (12th November 2008)</u> (copy attached) singles out UCLAN. It ends thus.

"What then of the professors at the University of Central Lancashire, whose similar petition against the university's specialism in alternative medicine has led to the suspension of Britain's only degree course in homeopathy? The sensitivities of students and staff are easy to appreciate. Some students earn their degrees by studying elementary particles or by coming to appreciate the difference between claims in tort and in equity. Others obtain equivalent qualifications by studying pressure points on the soles of the feet or the difference between the yin and the yang. I sympathise with those who feel that the achievements of the physicists and lawyers are devalued when they graduate alongside the complementary therapists."

But to welcome divergent views is not to say that anything goes. There is a difference between accepting that there may be alternative interpretations of the same evidence and respecting a view for which there is no evidence simply because someone holds it. That difference is why the Friedman Institute is appropriate for a major university, and a school of homeopathy inappropriate even for a minor one."

It's a pity he refers to UCLAN as a "minor" university, because you have some first rate people. But it is precisely the existence of the sort of courses under discussion that conveys the impression of being "minor" to the outside world.

Even **The Daily Mail**, noted in the past for its promotion of new-age alternativism, had <u>an article</u> by health journalist Laura Clark (April 2008).

"Experts have drawn up a league table of the worse five institutions for offering "unscientific" degrees in complementary medicine.

The list shows they are offering at least three degree courses in therapies such as homeopathy, acupuncture, aromatherapy, Chinese herbal medicine, Ayurvedic medicine and Naad yoga, which involves healing through music.

The compilers of the table, commissioned by Times Higher Education (CRT) said it suggests some university dons are more interested in "earning money from students than retaining academic integrity", damaging the international reputation of British universities."

I think the university should consider seriously the effect of views like these, expressed by influential non-scientific columnists and journalists, on the funding agencies who are looking for good science

Equally you should consider the effect on the job prospects of your students of English or journalism. When they apply of a job on these newspapers, their *alma mater* is not going to be an advantage.

Finally, if UCLAN were, at some point in the future, to wish to have a School of Medicine, it would surely do a great deal of harm to their chances if their track record in medicine were to run BSc degrees in homeopathy, acupuncture or Chinese herbal medicine.

Addition December 2009

Some more evidence of what homeopaths really think

I have emphasised several times that it is useless to look at official documents if you want to know how alternative medicine practitioners actually work and think. I already referred to the claims made in private by homeopaths to be able to prevent malaria. Here is another very recent example. On a forum for discussion between homeopaths I recently found this.

"Cholera epidemic in Zimbabwe - a perfect proving ground for homeopathy? Where are the homeopaths in Zimbabwe? It seems it would not take much to train medics in leading remedy candidates and proper dosing for e.g. cholera. Or do a "homeopaths without borders" sort of thing. The proof would be nearly immediate and could be the seeds of a contemporary grassroots lowtech low-cost revolution in health care" *From a homeopaths forum, December 2008.*

Quite incredibly, they propose to cure cholera, a bacterial infection, with sugar pills, an idea that is every bit as dangerous as pretending they can prevent or cure malaria.

Claims like this are in direct contravention of their own publicly published codes of ethics but they are nonetheless routinely made in 'private'.

Here is another example.

The <u>Abha Light College</u> in Nairobi, Kenya, claims to be able to cure AIDS with medicines that contain no medicine. They refer to a <u>report about homeopathic</u> <u>malaria prevention</u> in 152 Tanzanian patients. This "study" had no control group with which to compare the effects of homeopathic neem leaves, and comments "Considering the exploratory nature of the study, no statistical significance testing was planned". It is not worth the paper it's written on.

Examples like these show that not only is homeopathy intellectually offensive. It is also, in some circumstances, a danger to public health and totally devoid of any ability for critical self-appraisal.

Another form of alternative medicine, "nutritional therapy" has recently been blamed for 300 000 deaths in Africa from AIDS by its pretence that Vitamin C is better than anti-retroviral therapy. Next to no condemnation of this evil pretence has come from the alternative medicine community.

Alternative medicine and the law

The law concerning claims to improve health was changed in May 2008. It applies not only to claims made for medicines, but any claims whatsoever, including diets, supplements, foods and any sort of alternative therapy. This law (see attached article from the BMJ) places the onus on the seller to show evidence that claims are true (rather than, as before, the complainant having to show they are false). The full legal document, *The Consumer Protection from Unfair Trading Regulations 2008*, can be seen here.

http://www.opsi.gov.uk/si/si2008/draft/ukdsi_9780110811574_en_1

There can be little doubt that this change in the law will result in many convictions of alternative therapists. I don't know yet whether making such false claims in a lecture would constitute an offence or not. I imagine that that question will tested in court before too long.