Eye of newt and toe of frog

by Karin Mont

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Recently, there's been something of an 'about-turn' in the manner in which the homeopathy detractors have tried to spin their campaign. They have moved from 'there's nothing in homeopathic medicines, so they are only expensive placebo', to 'homeopathic medicines are full of dangerous ingredients, some of which are revolting'. This is partly linked to recent developments in the USA, where the Food and Drugs Administration (FDA) has been investigating alleged breaches of the regulations related to the manufacture and labelling of homeopathic medicines, with a view to replacing the current legislation with something far more draconian and restrictive. It seems that most of the breaches identified involved products which would not normally be regarded as homeopathic in the first place; however, they have provided the antis with yet another convenient media hook.

Logically though, they can't have it both ways; either homeopathic medicines have an effect, or they don't. And if ingredients are what it is all about, we would do well to take a closer look at what many conventional drugs contain, and ask who actually knows about their content, apart from the drug manufacturers themselves. Ironically, the colourful brew concocted by the three witches in act 4, scene 1 of Shakespeare's *Macbeth* alludes to some ingredients which are used in manufacturing both homeopathic and conventional medicines. However, there are some very significant differences. As we know, all homeopathic medicines go through a very precise process involving dilution and succussion, which ensures that they are safe and free from toxic effects. They are labelled according to their source substance, and the number of dilutions they have undergone. **Correctly manufactured homeopathic products contain what they say on the label.** The same cannot be said for pharmaceutical drugs, because the label only partially describes the complex processes which underpin their development and production.

As citizens living in a so-called democracy, we have a fundamental right to be properly informed, and make choices, about all issues which impact upon our lives. To ensure this right is upheld, we need to become far more demanding. We homeopaths have a tendency to think of ourselves as victims – victims of persecution, discrimination and suppression, mainly courtesy of the machinations of powerful, globally dominant, vested interests. We base that perception on two principal factors: First, we have witnessed numerous examples where the so-called scientific community has consistently ignored all evidence which shows homeopathy to be effective, **most especially if that evidence comes from patients themselves.**

Second, we regularly see the mainstream media actively seek out, or even deliberately create, opportunities to undermine and denigrate the practice of homeopathy – for these people, a good shock / horror story will always be more entertaining than the facts. So, it is true. As a profession we have the odds stacked against us. However, greed, ignorance, corporate corruption and institutional bias are problems facing many sectors of society so, if we are victims, we are certainly not alone. If we are serious about working through this seemingly impenetrable wall of prejudice, we need to adopt a different approach altogether – an approach where we celebrate and focus on our strengths, and actually challenge our detractors to match our outstanding record on improving the health and wellbeing of countless patients.

It would certainly be helpful if some of the patients who have benefitted from homeopathy became involved, and started to actively support us in our efforts to have homeopathy judged according to its real and actual merits. To date, we have fought the propaganda war waged against us, all on our own. Now, we really need patients to help us by engaging with this process. It all starts by encouraging our patients to ask their GPs / consultants far more perspicacious questions about the treatment being offered.

Most homeopaths probably know more about the medicines they prescribe than the average doctor knows about the pharmaceutical products they prescribe and, because we usually label our prescriptions, our patients can readily identify the medicine they have been given. Everything related to the homeopathic prescription is based upon individualisation and, if we don't understand the curative properties of each different medicine, we cannot make a truly bespoke prescription.

By contrast, conventional drugs are categorised according to the conditions they are supposed to treat, so they are prescribed solely according to their measurable, bio-chemical properties, which have nothing to do with individualisation. It would be reasonable to assume that many doctors know very little about the drugs they routinely prescribe and, if they had a better understanding of some of the ingredients used or processes involved in drug manufacture, they might be more open to considering alternatives to some drug prescriptions. However, given the pressures most doctors work under, they are unlikely to research drug ingredients of their own accord, and are even less likely to challenge the standard recommendations of the long-established National Institute for Health and Care Excellence (NICE), unless they are pressurised to do so by their patients.

A recent anti-homeopathy article was at pains to point out that the source material of some homeopathic medicines is either derived from diseased tissue,

or from revolting human discharges and, if patients knew the real origins, they would think twice before taking anything homeopathic – unsurprisingly, nosodes such as *Carcinosin*, *Medorrhinum* and *Syphilinum* are frequently used as examples of these 'revolting' homeopathic medicines. The fact that this argument directly contradicts the antis' other favourite put-down, 'homeopathy is only placebo, there's nothing in it', is conveniently ignored. Also ignored is the fact that most pharmaceutical product either contains, or has been in contact with, a multitude of 'unpleasant' substances and, unlike homeopathic medicines, these substances will not have been removed from the end-product via the process of potentisation.

HeLa cells are just one example of ingredients commonly used by the pharmaceutical industry, which not only come from diseased human tissue, but could also be described as having an ethically questionable origin. HeLa cells have been cultured continuously since 1951, and they originated from a sample taken from an adenocarcinoma of the cervix. The patient was a 31-year-old African American women called Henrietta Lacks (hence the cell-name, HeLa), and this tissue sample was taken without her knowledge or her consent. What made Henrietta's cells unique was the fact that they could be successfully cultivated in vitro, in perpetuity. This is because, in common with many cancer cells, HeLa cells contain telomerase, an enzyme which allows cells to multiply continuously. HeLa cells were the first 'immortal' cells to be cultured in the laboratory, and they have other useful characteristics for research purposes, such as their unusually rapid growth rate, and the fact that they are identical. They have been used by different industries to (for example) test the impact of toxins, radiation, zero-gravity, chemicals and cosmetics on human cells. HeLa cells were also used to develop the polio vaccine and, in 1984, virologist Harald zur Hausen identified the link between the human papillomavirus (HPV) and cervical cancer, through studying an original tissue sample taken from Henrietta's biopsy.

Sadly, Henrietta died in relative poverty, just a few months after she had become the unknowing focus of this major scientific breakthrough. Her surviving family only learnt about the importance of HeLa cells, and where they came from, in the mid-1970s – and they still await full and proper acknowledgement of the role Henrietta played in the creation of this important cell-culturing medium. By contrast, the discovery of HeLa cells has proved extremely lucrative for those involved with their cultivation, and their importance cannot be underestimated. HeLa cells have played a pivotal role in virology, leading to a better understanding of how viruses such as HIV, herpes, mumps and measles, manage to enter a healthy cell and proliferate. This in turn has led to the development of a number of vaccines, and vaccine effectiveness is frequently tested using HeLa cells. In the 1960s, HeLa cells were fused with mouse cells to produce the first documented animal / human hybrid cells. Because each hybrid cell exhibited a different assortment of human and mouse genes, researchers were able to identify precisely which gene produced which protein, a breakthrough which led to the mapping of the human genome.

Derivatives of the original HeLa cells continue to be used to this day, and thousands of patents have been applied to products originating from, or utilising, them. However, there are also some worrying problems associated with their wide-spread use because, without very careful handling, they are prone to both intra and interspecies cross-contamination. Simply put, this means that during culture, genetically different human cell lines can affect each other at DNA level and, perhaps even more alarmingly, animal cells can contaminate human cells. A normal, healthy human cell contains 46 reasonably stable chromosomes. By contrast, a HeLa cell contains between 76 to 80 chromosomes, many of which readily mutate. Henrietta suffered from syphilis, as well as HPV, so the HPV and syphilis genomes are present in HeLa cells, which is one of the reasons why they are prone to quickly outgrow and contaminate other cells lines with which they are cultured. Researchers are aware of this issue, often referring to HeLa cells as 'laboratory weed', but the true long-term ramifications of using cultures which may contain corrupt DNA, are unclear.

All drugs and vaccines have two main components: the Active Pharmaceutical Ingredient (API), which is designed to trigger a measurable bio-chemical response in the organism to which it is administered, and a chemically-inactive excipient, such as lactose or preservatives, which delivers the API into the system. It is the process of growing the API which involves some of the most questionable ingredients. They are all meant to be listed by the manufacturer, but often the names are obscure, and only readily recognised by a bio-medical researcher or pharmacist. For example, it is not straight-forward to determine if an API has been cultured using recombinant DNA technology. This is a process which involves taking molecules of DNA from two different species, then inserting them into a host organism to create new genetic combinations. The DNA selected for recombining can come from human cell strains, animal cell strains, or Genetically Modified Organisms (GMOs), providing almost limitless possibilities for altering the basic building blocks of life.

Some of the more outrageous ingredients mentioned by Shakespeare's witches include: 'Nose of Turk, and Tartar's lips; Finger of birth-strangled babe …'. This may sound horrific, but how many people know that aborted human foetal tissue is commonly used in medical research, and that foetal tissue has been central to the development and manufacture of vaccines against a number of diseases including mumps, measles, rubella and polio? In fact, many commonly prescribed conventional medicines contain ingredients derived from human or animal cells. APIs are often grown in host animals, or on fertilised hens' eggs, or in serum extracted from cows' blood. Add to this mix antibiotics, which may be used during the manufacturing process to reduce the risk of bacterial contamination, then add a couple of neurotoxins such as aluminium and thimerosal, and you have a perfect recipe for chronic disease.

We have an absolute right to know which ingredients are used in the development and manufacture of the medicines we are offered, and how these ingredients might play a role in creating some of the health challenges we face today. These challenges include dangerous levels of anti-microbial resistance, an unprecedented rise in incidences of allergies and food intolerances, and the alarming number of children now developing life-changing neurological disorders, such as autism. The information is there, but it is unlikely to be offered voluntarily. It is up to all of us to be proactive, and to start asking some very probing questions. □