

## ICA Cranial Workshop

At BSO 2.00pm on 4<sup>th</sup> June 2011

### "Bringing Cranial Osteopathy into the 21st century - a platform for research" - Colin Dove

**Research** can be defined as the search for knowledge, or as any systematic investigation, with an open mind, to establish novel facts, solve new or existing problems, prove new ideas, or develop new theories, usually using a scientific method.

The primary purpose for basic research (as opposed to applied research) is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe.

**Scientific research** relies on the application of the scientific method, a harnessing of curiosity. This research provides scientific information and theories for the explanation of nature and the properties of the world around us. It makes practical applications possible.

**Scientific research** is usually funded by public authorities, by charitable organizations and by private groups. Scientific research can be subdivided into different classifications according to their academic and application disciplines.

**Applied research** is a type of research that is applied, accessing and using some part of the research communities' accumulated theories, knowledge, methods, and techniques, for a specific purpose. E.g. developing theory to replace Sutherland's.

Quotes are from Wikipedia

Start with RCCM in 1983– hospital doctors, consultants, professors (e.g. biomechanics, psychology and community medicine) as well as an osteopath, a chiropractor, an acupuncturist, a homoeopath and a medical herbalist.

2 early findings

1. Research was virtually absent from the activities of the teaching institutions in Complementary Medicine
2. The double-blind randomised controlled (D-BRCT) trial is completely unsuited if not impossible for complementary professions which major on individuality and the body's innate capacity to heal itself.

When we looked critically at the D-BRCT we came to certain conclusions. The (D-BRCT) is appalling science (even as a drug trial) since it homogenises the very individuality which is a major feature of all examples of life on earth and applies its findings to an extrapolated unit of this homogenous whole. Thus the treatment is ideally suited to a person who almost certainly does not exist! <sup>1</sup>

Shannon, Weil & Kaplan in a recent article point to a dichotomy between modern medicine and the complementary professions dating back to the early 19<sup>th</sup> century which is still played out today as efficacy vs. safety. Modern medicine continues to rely on a bio-medical model which excludes the concept of a self-healing body. They say *that “safety appears to fall secondary to efficacy in the treatment selection”....*

The result of this method, as commonly used, is a huge mountain of adverse reaction which is not looked for in the trial. The end point of this is that:

In the USA prescription drugs are now the **fifth largest cause of death** claiming a significant part of 225,000 iatrogenic deaths per year, **the third largest** cause of death.

In the USA in 2008 1,013 serious events were reported for natural products (the most risky form of complementary medicine) vs. 500,000 for pharmaceuticals which have passed the so-called efficacy test but are not required to pass a safety test.

Thus there were 8 deaths from natural products vs. 100,000 from pharmaceuticals.

*(As applied in drug trials it is only required that subjects be exposed to pharmaceuticals for 6 weeks when many drug reactions occur with long-term administration.)<sup>2</sup>*

Interestingly Sir Austin Bradford Hill, responsible with colleagues for the work which linked smoking and lung cancer, cited 9 factors to be used in establishing disease causality of which randomisation was only one.

Perhaps now you can imagine my horror when I learned in February 2009 at the G.Ost.C conference research day that the D-BRCT is considered the gold standard in osteopathic research. Is nobody out there thinking any more or is this a purely political decision to play to play the wrong tune to please the piper? **OR** are we not teaching our students the correct health model any more? **OR** do they think it politically expedient to forget it once they are in practice?

If so they are out of step. In an as yet unpublished article, Stephen Tyreman will be telling us many thinkers now believe the Western model of biological explanations is too narrow to explain the patients' experience of disease and that is leading to new ideas on the philosophy of medical practice. He quotes **Gadamer (1996)** as saying, with regard to health, that it “almost cries out to be understood in terms of the natural condition of equilibrium.” <sup>3</sup>

Incidentally it is paradoxical that as Andrew Weil points out in a recent article “the cutting edge of modern medicine anticipates that customised and individualised

care looms as a result of advances in understanding single nucleotide polymorphisms (SNPs) and the ability to create a specific genetic fingerprint for each individual.”<sup>4</sup>

Single nucleotide polymorphisms, frequently called SNPs (pronounced “snips”), are the most common type of genetic variation among people. Each SNP represents a difference in a single DNA building block, called a nucleotide. For example, a SNP may replace the nucleotide cytosine (C) with the nucleotide thymine (T) in a certain stretch of DNA.

SNPs occur normally throughout a person’s DNA. They occur once in every 300 nucleotides on average, which means there are roughly 10 million SNPs in the human genome. Most commonly, these variations are found in the DNA between genes. They can act as biological markers, helping scientists locate genes that are associated with disease. When SNPs occur within a gene or in a regulatory region near a gene, they may play a more direct role in disease by affecting the gene’s function.

Most SNPs have no effect on health or development. Some of these genetic differences, however, have proven to be very important in the study of human health. Researchers have found SNPs that may help predict an individual’s response to certain drugs, susceptibility to environmental factors such as toxins, and risk of developing particular diseases.

SNPs can also be used to track the inheritance of disease genes within families. Future studies will work to identify SNPs associated with complex diseases such as heart disease, diabetes, and cancer.

### **What has happened since the RCCM was started in 1983?**

The introduction of degree courses to schools of Osteopathy in the late 1980’s meant that exposure to the research method was now beginning to be part of the curriculum although four and five year degree courses ensured this was not common place until the early 1990’s. Interestingly the first project work requiring the introduction of data collection and processing was introduced by Derrick Edwards and me at the BSO in the 1980’s as part of the newly introduced Advanced Diploma. This experiment was rapidly superseded by the basic degree courses and then by the ‘Masters’ courses, the first of which used components of the advanced diploma as their building blocks to say nothing of the supervisors which we had trained.

However once graduates are let loose on the public they rapidly drop all interest in research and start doing what they were trained to do and what they always wanted to do. The odd ones out are those joining us from other disciplines where research was either their job or at least a significant part of their undergraduate training and experience.

There is another problem for osteopaths. Their chosen profession may have incorporated a lot of subjects into its curriculum such as anatomy, physiology, biochemistry, pathology and what are these if not sciences? It is also necessary for us to be familiar with the methods of modern medicine, the terminology, the drugs and other treatment modalities in regular use such as psychology and

psychiatry and particularly surgery where we are often called upon to advise our patients. I am amazed at the percentage of post-graduate meetings where orthopaedic surgeons are the speakers. It reminds me how far away from my concepts they are. Only a week ago the surgeon at 'Essex Osteopaths' had never heard of *tensegrity* and didn't know a fellow surgeon had put a needle between the joint surfaces of the knee in a **standing** patient demonstrating that knees, hips and other so-called weight-bearing joints are not weight-bearing at all in health, at least not in the truest sense of the word.<sup>5</sup>

All of this overlays the fact that our basic subject, osteopathy, was called into being by an eccentric lateral thinker some 137 years ago. We are not part of medicine; we are not strictly speaking complementary since our whole approach is at odds with the tenets of orthodox medicine. Our goal is the same as Hippocrates's, namely to find health! As Still said "Any fool can find disease!" The nearer we can get our patients' bodies (and minds) to their own unique pattern for health the more likely they are to recover from their present symptoms. So using methods designed to test disease models is **not** researching osteopathy. Irvin Korr said of osteopathic manipulation when practised divorced from osteopathic principles, as by US trained osteopaths.

"It has been torn from the comprehensive man-oriented strategy in which it arose , and of which it is an essential part, and has been set in a disease-oriented framework in which its use and development are seriously impeded, and in which it can not possible be properly evaluated."<sup>6</sup>

So as osteopaths we have less a science than an ancient and long held belief system backed up with a considerable amount of skill and a lot of knowledge derived from other sciences. However that skill is also extremely individual and that also makes it difficult to quantify for research purposes. Indeed Korr went on to say

"Too often therefore, the effect of osteopathic manipulative practice is judged by the indifferent results obtained by those who do not have the requisite skills."

Now I suggest many practising osteopaths know little about what Still actually wrote and what he actually proposed and see themselves very much as a complementary profession supplying manual skills in the diagnosis and treatment of musculo-skeletal ills.

That was certainly my position in the very early 1960's. However although I am not a scientist by training my natural inclinations have always been those of a scientist and so I made good notes, observed my patients carefully, questioned them and listened to what they had to say. I was surprised that many of them reported improvements in for example, minor gynaecological ailments, minor gastro-intestinal problems, minor respiratory ailments. I wasn't reversing severe pathology but I was getting them to a better level of health which enabled their self-healing mechanism to initiate recovery.

BUT I COULDN'T PROVE IT, HAVE NEVER PROVED IT AND NOW ALONG WITH ALL OF YOU I HAVE TO START FINDING WAYS OF PROVING IT

Korr 'health cake'.<sup>7</sup>

Tyreman In the article I referred to explains how wellness is not an absence of disease but of feeling comfortable in our world which relies on a whole web of experiences. He makes the point that health is not a prerequisite enabling us to engage with the world but a result of us *being able to confidently so engage*.

And this raises important questions. Are we doing research to learn more about our system, to help us be better osteopaths and therefore aid our patients indirectly or are we doing this for political reasons? Unfortunately the slogan '**evidence based medicine**' has come to haunt us even though much of what goes on in modern medicine is not evidence based and sometimes where the evidence was looked for but wasn't found no change was made!! Cardiac Resuscitation units are a case in point. (enlarge) Prof. Michael Marmot 2 trials.....

However we have to try and prove that what we do works.

I will come back to that in a minute because all of that was before I became a cranial osteopath.

Some of you will know the story of how I became a cranial osteopath against my will, fought it as illogical nonsense but eventually capitulated but have always been uncomfortable with much of the dogma. I was great friends with Professor Korr and one day he had confided in me that he had once written one of his allegories about the subject. In this story a microscopic being climbs through the foramen magnum and discovers that unlike anywhere else fluids have become magical and can cure even in places to which they have no access. Some even contain fluids within them or even liquid light. Some fluids have even become intelligent! Here fused bones move and all reason seems to have evaporated. Nonetheless he was encouraging because he said to me "I know cranial osteopathy works, it's just the explanations and beliefs are unacceptable." Indeed I treated him many times right up towards the end of his life on those occasions where we met up and he always claimed he felt benefit. In fact just before he delivered the Millenium address at the G.Ost.C. 'Millenium conference' in 2000 I had to treat him for an upper URT infection so he could speak!

When I was first involved in cranial osteopathy I was simply too busy running the BSO to be able to give much serious thought to such problems as language. I just swallowed hard and taught the dogma but it troubled me. I even discussed it with Sir Karl Popper the eminent philosopher who was a patient in his later years.

As an osteopathic politician I was soon involved with the Sutherland Cranial Teaching Foundation of America and became an Associate Board member in 1986. Here I found there was very little hope of encouraging anything in the way of revisionary thinking. And then in 1992 I became suddenly very ill and had heart surgery. Of course my world changed and I gave up much of my work outside of practice, even teaching but eventually came back to it after a few years.

**Nothing had changed**, fluids were still **intelligent**; they could contain **other fluids, the breath of life, liquid light**. These same fluids could be '**managed**', '**directed**' even. Tissues starved of CSF became "**withering fields**". We were still **compressing the 4<sup>th</sup> ventricle** even though we know fluids are not compressible! We still believed that bones continued to move throughout life and that sutures

could become locked when the evidence was clearly against us. (*By the way I don't doubt bones do move early in life, that is why the sutures develop as they do*).

I was even more embarrassed than before because I could not bring myself to use this language. I got out of it by playing the age card and not actually lecturing on courses but then in 2003 I began to do workshops abroad and started experimenting with some of the ideas I was developing which culminated in the "Rollin Becker Memorial Lecture", "Towards a new theory." In 2004

Not everything had stayed still. We had got into 'tensegrity' which changed for ever our view of how the body worked but *only because others like Levin and Ingber had done the research*. We were **too** heavily into embryology (another science) but whilst some of that is helpful I believe much of it is a distraction.

The problem is how can you write about something honestly when you have no language?

I was convinced younger colleagues like me were inhibited from writing about their work. What do you do when the language you have is late 19<sup>th</sup> early 20<sup>th</sup> century imagery; when nobody else in osteopathy, let alone the outside world, speaks this language? Still and Sutherland did their best to describe what they thought and what they observed and experienced and Sutherland attempted an explanation of his unique experience which was a remarkable achievement *but it won't do any longer*. It is a theory and a language no longer fit for purpose. It is not a language that can deliver a coherent 21<sup>st</sup> century message.

I remember hearing Nick Handoll talk in Bar Harbour, Maine about 1989. He was floating the idea that the power which produces the change comes from outside, from the universe if you like. This acted like a catalyst for me, never mind the fact that I now believe the body can generate all the energy it needs from within! (Think of the molecular cascades associated with transduction). Later he showed me the draft of a book which ultimately became "The Anatomy of Potency".<sup>8</sup> In it he explained that Rollin Becker had answered his question, "How can I find out how this really works" with the phrase, "Go and study quantum mechanics." So Nick did and a little later I began to do so too.

Now it is *not* the purpose of this talk to lecture you on quantum physics even if I could do justice to it in the time, or the finer details of tensegrity as applied from inside the cell outwards to the periphery including the extra cellular matrix but I do believe it is now possible to synthesise a hypothesis (**applied research**) using quantum mechanics and the idea of quantum coherence among cell populations (as pioneered by Albert Szent-Györgyi, Fritz Popp, Mae Wan Ho and others)<sup>9</sup> and tensegrity (as pioneered by Stephen Levin, Donald Ingber<sup>10</sup> and others) which would go a long way to explaining what we feel and what happens when we feel changes occur during and following cranial treatment but it seems a mountain to climb to have to prove it.

Let's go back to my old friend Kim Korr for a moment. He was very fond of his own aphorisms. One of them was "It is better to know some of the questions than all of the answers!" He explained to me that in science the real problem was not the experiment, which was often a long and time-consuming but boring process but

getting the question right. He explained to me that many people doing research were actually asking several questions at once because they hadn't refined the question. As a result they got rubbish for an answer because nature didn't know how to separate multiple answers. Unfortunately they often believed the rubbish! He also said osteopaths should stick to being clinicians and therapists because that is what they are good at. If they continually look critically at their work questions will arise. Their job then is to interest the basic scientist. Good research work results from a basic scientist being fascinated by the questions which clinicians pose.

How do we do that? First we know nothing at all about what we do. We have a series of ideas, hunches. So we must collect data to show who we treat, what they complain of, what we do to them, what happens to them, how they respond or react. When we start collecting and processing data, patterns will emerge and the patterns pose questions. Structuring ways of answering those questions is the job of the researcher but there are plenty of methods already in use in the social sciences particularly which will serve our purposes to start with. We have got to start small and build gradually.

We in the SCC have made a start and my good friend and colleague Caroline Tosh is going to tell you about it shortly.

To conclude I think that we must cut out a lot of the old rhetoric and imagery. There is plenty of good science out there to build a robust theory and with it a modern scientific language that will make what we write credible. But it is not something that can be left to a few interested individuals. Data to be valuable requires numbers. We don't want to know what a few hand picked individuals can do, we need to know what cranial osteopaths in their hundreds are doing. It will only be significant if most people join in.

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