NOW LIVE AND ONLINE WWW.CAM-MAG.COM

cam

The magazine for complementary and alternative medicine professionals

JULY 2014 £6

Disease delusion: Jeff Bland speaks on the 'inevitability' of good health

Organophosphate detox: the real value of organic food?

CAM Awards – one bite at a time: why education is the key for our Outstanding Practice winner

What's the right diet? Functional Medicine experts debate

PLUS Learning Zone ■ CAM Conference report: the latest in cellular detoxification ■ Learning about Lyme ■ Menopause: the complex dance of hormones ■ Latest news

Turn on your "bliss genes": Jeff Bland and the pursuit of the white light of good health

While at the annual Institute for Functional Medicine conference in San Francisco, *CAM* contributing editor **Niki Gratrix**, BA, Dip ION, mBANT, caught up with the father of functional medicine, **Dr Jeff Bland**, PhD, and quizzed him about his new book, genetic testing and where the continuing transformation in healthcare is taking us next.

Everybody has something to gain from truly understanding the principles and key messages from the functional medicine "movement". Nutritional biochemist Dr Jeff Bland was the first to connect all the dots and articulate what amounts to no less than a paradigm shift in conceptual understanding about health and disease.

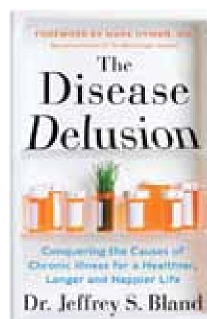
The conventional reductionistic model still predominates in conventional circles, and it is so engrained in human thinking that reductionism abounds in natural and alternative medicine as well.

If you are still working with fixed protocols of treatment for different disease states and symptoms, whether you are using non-drug approaches such as herbs or dietary supplements, in truth you are still thinking in allopathic terms and have not fully embraced personalised medicine and systems biology approaches. These basic principles represent state-of–the-art in conceptual thinking about solutions to human health – if we want to do the best for our patients, we need to change ourselves first, and it starts with how we think.

Jeff's new book *The Disease Delusion* brings together the major principles first laid out in the Institute for Functional Medicine's *Textbook of Functional Medicine* in a more palatable and up-to-date format for a wider audience. If the size (and price) of that textbook put you off, or you haven't quite embraced what functional medicine is all about, read Jeff's new book – you won't be disappointed.

***CAM:* "The Disease Delusion" is a provocative title. What would you say to people who might ask; "I've just been diagnosed with cancer, are you saying I am making it up?"**

Jeff Bland: The delusion is that most of us believe that diseases come as a consequence of being hard-wired into our genes – so, we get our breast cancer from our mother, our prostate cancer from our father, we get our diabetes from our parents and so forth – and that these are genetically related, inevitable conditions that we don't have much control over.



However over the last 25 years, with the deciphering of the human genome, we haven't found that genes code for specific diseases, which was what was expected; instead they code for specific functions that respond in an individual to their own lifestyle, their diet, their exercise, their stress, their environmental exposures. When those individual responses cone together to create a dysfunction in their physiology, we later call it a disease. So it's not that they are hard-wired and inevitable, it's that they are unique to our own strengths and weaknesses that give rise ultimately to the expression of that which we call a disease.

Now does that mean people should be blamed for their disease? No. What that means is that they should recognise that within their genes are powerful opportunities for great health; that everybody has in their genetic structure health, and everybody has in their genetic structure the capability of disease. Some people have greater numbers of health attributes than others. However, all of us have the white light of good health if we turn on what I call our "bliss genes" and turn off our "tragedy genes".

Now how do we do that? By designing a specific lifestyle, environment, diet and exercise programme that is matched to our genetic strengths and does not play into our genetic susceptibilities. And it's not one-size-fits-all. The programme for even your brother or sister might be slightly different than the one for you, to optimise your genetic expression of the white light of good health. So disease delusion refers to the delusion about the origin of disease. That is a very empowering concept, because now it gives people the knowledge that they can turn what appears to be inevitability of disease into the inevitability of good health. That's the message of the book.

***CAM:* Why did you choose to release this particular book now?**

JB: There are two reasons. Number one is that we wrote the functional medicine textbook in 2001-3 and published in 2005; we revised and republished in 2009. Over this period of time we've seen the most remarkable revolution in advancing understanding of the origin of chronic disease and the history of human science. We are living through an epic period in which information in this area doubles every three years. So there is so much that has happened to explain the origins of heart disease, diabetes, certain forms of cancer, dementia, arthritis and digestive disorders that we didn't know when the textbook was written. So empowering people to have access to that new information was one of the first reasons for writing the book.

The second reason is that over the last ten years, we've been able to test many of these concepts through research and clinical trials. Our own group has published probably more than 60 papers on different clinical trials and experimental studies that relate to whether this model we propose really holds up. This is just a part of the broader body of literature which is exploding with clinical validation of these concepts.

***CAM:* The book encapsulates so many colossal changes in our thinking needed when comparing it to the conventional reductionistic perspective, it seems like it represents nothing less than a revolution.**

JB: That's beautifully said. I like to think that

"A disease is a product of a mismatch between a person's genes and their environment, so let's look at the cause and not the effect. The disease and what we call it is not important. What's important is how the person got the dysfunction that produces the disability that they are later going to call the disease."

the book records the work of many women and men over the last several decades who have created such a seismic shift in our understanding of health and disease that it constitutes a revolution of similar magnitude to what we saw when it was recognised that infection could cause disease, which was a little over 100 years ago.

Once those discoveries were made, by just applying hygiene and sanitation, and then antibiotics and then immunisation, life expectancy increased by almost 20 years. We're undergoing the same kind of transformative discovery today, not about infectious disease, but around chronic complex diseases.

I believe we will have another huge jump in our life expectancy as we implement these concepts; we'll reduce the burden of unnecessary disease, or our health span will improve. This will be a distributative healthcare system versus a top down system based on specialty medicine. It's going to be a variety of collaborators that have certain expertise in certain areas – in exercise, stress management, diet, using botanicals, various types of physical medicine – all of these disciplines will work together collaboratively to develop a personalised system that delivers to the person what they're going to have to do to manage their health.

***CAM:* It seems like many CAM practitioners are still caught up to varying degrees in applying protocols for specific disease states. Even though they are much better at treating the "person" rather than the disease, the conceptual shift still needs to penetrate further into awareness**

JB: Once again, I think that's beautifully insightful. What happens in CAM (by the way I'm not being critical, I'm just making an observation, having been in CAM for 30-plus years), is it's a kind of "green allopathy". Its concept is: drugs are toxic, so let's use a plant or a nutrient that's less toxic. But we're going to use the same strategy, we're going to look at the disease, and we're going to treat the cause of the disease with a safer intervention, versus saying, what is really a disease?

A disease is a product of a mismatch between a person's genes and their environment, so let's look at the cause and not the effect. The disease and what we call it is not important. What's important is how the person got the dysfunction that produces the disability that they are later going to call the disease. So let's focus upstream at the cause, and when we do that, then we are obligated to ask, "What's the genetic strength and weakness of the person, what are they doing in their daily life, and what are they exposed to?" These become the therapeutic tools, so it's not just treating a symptom with a green medicine.

***CAM:* In looking at causes, the company 23andme continues to impact the nutrigenomic movement because of the cheapness of the testing. Although the FDA has now banned 23andme from producing the health analysis reports, consumers can still order their raw data, and now other websites are offering analysis of the results. Do you think this is significant?**

JB: Yes, absolutely. There will be no government in the world that can legislate against this revolution that's happening with genetic archetyping and its relationship with health and disease. Trying to prevent people getting access to their genetic data is like trying to legislate against the internet.

***CAM:* Do you think all consumers should have direct access to their genetic data, but that health analysis should only be given through qualified practitioners?**

JB: There are two parts to that. Number one is that the focus today on this genetic testing is always to be looking for the bad news – "What's my disease risk?" I would turn this entire thing around and ask "What's your health opportunity?" So this is not about relative risk and the gloom and doom model of; "I have a 40% risk of this and 25% risk of this" and living in fear that you are going to get one of these diseases. Rather, let's look at these unique characteristics I have that if I can activate them, will allow me to ward off infection, allow me to repair a wound, to have good mental function. Everyone has genetic strengths, just as everyone has genetic susceptibilities, so why are we always focusing on the disease? I think this is where the real opportunity lies: identifying things people can do to bring out the characteristics that give natural defences and proper repair.

***CAM:* We are not the victims of our genes.**

JB: That's the key, yes – we can alter the way our genes are read. Our "book of life" is encoded in 23 chapters; half of these chapters are written by our biological mother, the other half by our biological father, but not all 23 chapters and the stories within each chapter which are called our genes, the thousands of stories – not all are being read simultaneously. If they were, we'd be a mess, because in every cell in our body is the story for every other cell type at every other age of our life. We can't be reading that entire book in every cell all the time, so that means only selected portions of our book of life are being read. And what portion do we want to read? Do we want to read the Greek tragedy stories, or do we want to read the bliss love stories? That's our opportunity individually to figure out.

→

→ *CAM:* Based on research by myself and some colleagues comparing test results from 23andme and other labs, as well as cross-comparisons between companies all taking data from 23andme, there are discrepancies, not mostly it appears from testing mistakes, but because there is a lack of agreement around standards and parameters used to report SNPs [Single Nucleotide Polymorphisms]– differences in assessment of relevance, importance and so forth. What would you say about how to resolve these issues?

JB: This is a new science; it's new information, and like all new things, it's in flux, so don't over-read; it's just a point on the curve, it's not the answer-all. What is your answer-all is your code. If your code is read correctly, in other words the analysis was done correctly, that will stick with you for the rest of your life; you only need that analysed one time. The interpretation of the code however is going to change remarkably as the science improves. It's a very robust iterative system, and you'll see new discoveries all the time in the coming years.

***CAM:* Is the concept of "hormesis" you mention in the book similar to chaos theory – how small things can make big changes to the entire system?**

JB: Yes and no. Chaos theory is a little related to a tipping point, with a small perturbation of the system creating a disruption of the system. But that small thing can also cause an aggregation in our harmonic entrainment of the system too, so rather than always being a disorganising factor, it can also be an organising factor. So hormesis can either be a positive or a negative on the stability of the system. When we think of, say, Bisphenol A – BPA, it could have a negative hormetic effect, it can cause disruption to the system, whereas ginger could have a positive hormetic effect, causing it to stabilise itself.

***CAM:* In complex adaptive systems, "tipping points" can be very relevant. I notice with my chronic fatigue patients that they can be taking numerous multifactorial approaches over many months, and the analogy is like those old balancing scales: each treatment may take off weight from one side of the scales, but the scales won't go back into balance until the very last weight is removed. This tipping point effect is an important thing for practitioners to understand when it comes to a systems/complexity approach in clinical practice.**

JB: This is what Dr Sidney Baker calls his "tacks rule" [as in drawing pins]. This is one of the fundamental principles of functional medicine, and we've been talking about this for 25 years. At one of our early meetings he spoke about relieving symptoms: so if you're sitting on two tacks and you take one out, do you get a 50% reduction in pain? Of course not: you have to take both tacks out before you feel the difference.

***CAM:* I think many patients have given up too soon on treatments because they haven't understood this – and it is vital for practitioners to understand if they want to retain patients.**

JB: What people need to understand is the basis of systems theory: when the system is perturbed, it will then move to a new state, which is stable. In disease it is a stable disturbed system – meaning the person has symptoms. The body is saying, "okay, I'm stable, I'm going to be like this for years", and you're going to know about it, right? Then as you restore that function of that system by changing the variables, you get to the hundredth monkey, that one that triggers a new state function, and now it jumps, almost like a quantum effect, to its original resting healthy state function. But you had to actually change the system to such an extent that the system which was, say, homeostatic to diabetes, becomes homeostatic to euglycaemia.

***CAM:* These concepts need to be out there for patients to understand.**

JB: Truth will get out because truth changes in time and new truth ultimately becomes the social id, so this will become well understood. So the question is, how can we accelerate it? If your perspective is to reduce human suffering, you want to compress the time it takes for culture to see the truth – because this is the new truth, this is not just a passing fad, no, this is the new biology.

***CAM:* What is the strategy now with your book and plans in the near future?**

JB: The strategy that we've always had is it's a push-pull mechanism, that's what creates great social change. Top down or bottom up, however you want to look at it, you have to have professionals who are going to provide the service to people in need of a new type of collaborative relationship. And you have to have consumers who are asking for a different set of services, because they have to know the questions to ask.

So you have to have people who are trained to deliver the service, when you've got people saying "here's what we want". So it's a consumer activation combined with a heath professional education that then results in a new transformation – that's how I see it.

***CAM:* Any final message for our readers?**

JB: Up to this point there has been extraordinary commitment, energy and tireless work on the part of CAM therapists to provide service to their clients, without having a unifying concept as to how their particular efforts are going to fit into the big picture of transformation. I think this big picture – of opportunity for transformation – is emerging, and means that their efforts will be multiplied in value. It won't be one patient at a time, it'll be a multiplicative value as we get the concept that each one of our skills is part of a broader whole of creating this transformation in healthcare. So it's not just a grab-bag or smorgasbord of different techniques – acupuncture one day, aromatherapy the next – it's an integrated construct of how we transform thinking about health and disease. cam

About Dr Jeff Bland, PhD

Jeff is the founder and president of the Personalized Lifestyle Medicine Institute and CEO, Kindex Therapeutics.

A former professor of biochemistry at the University of Puget Sound in Tacoma, Washington, he served as director of nutritional research at the Linus Pauling Institute of Science and Medicine in the early 1980s, working directly with two-time Nobel Laureate Dr Linus Pauling, whom he considers his life-long mentor.

Dr Bland has authored five books on nutritional medicine for the healthcare professional and six books on nutrition and health for the general public, and is also the principal author of more than 120 peer-reviewed research papers on nutritional biochemistry and medicine.

He was the first member of the Board of Trustees of Bastyr University in Washington State, the first federally accredited university in the United States offering graduate and undergraduate degrees in natural medicine, and contributed significantly to its founding and accreditation. With his wife, Susan, he founded The Institute for Functional Medicine in 1991.

Dr Bland served as chief science officer of Metagenics, Inc, and president of MetaProteomics, where from 2000 to 2012 he led a research team of more than 100 scientists and clinicians worldwide that conducted both laboratory and clinical studies that focused on chronic conditions related to gastrointestinal balance, immune dysfunction, and metabolic disturbances such as cardiometabolic syndrome, type 2 diabetes and autoimmune disease.

In 2012, he founded the Personalized Lifestyle Medicine Institute (PLMI), a non-profit organisation based in Seattle, Washington.

Jeff is next in the UK in October this year for the Nutri Advanced conference.

• www.jeffreybland.com.