

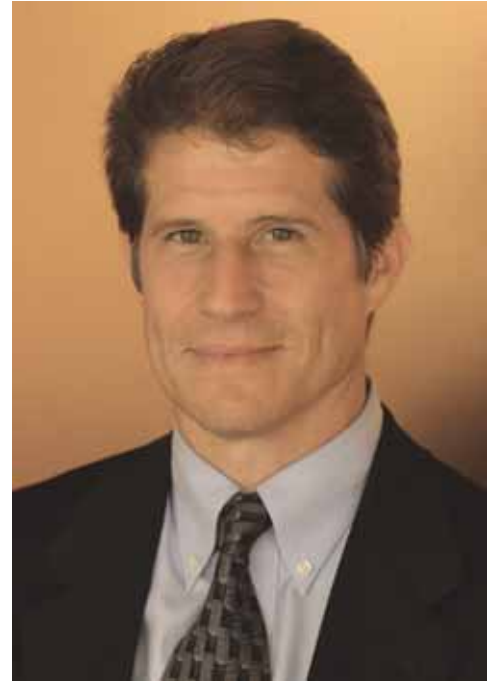
Shifting the Health Care Paradigm:

An Interview with Wayne Jonas, MD,

President and Chief Executive Officer of the Samueli Institute

BY LENNIE DUENSING

Dr. Jonas has had a distinguished career as a student, practitioner, and researcher of conventional medicine and complementary and alternative medical (CAM) practices. His experience includes service as an administrator, international conference chairman, speaker, panel moderator, peer reviewer, and author of books and scientific articles on conventional and CAM topics. In addition to his position at the Samueli Institute, Dr. Jonas is currently an Associate Professor of Family Medicine at the Uniformed Services University of the Health Sciences in Bethesda, Maryland, where he co-founded a CAM curriculum. Dr. Jonas served as Director of the Office of Alternative Medicine at the National Institutes of Health from 1995 until 1999. Prior to that, he was Director of the Medical Research Fellowship at Walter Reed Army Institute of Research, Washington, D.C. In addition to his conventional medical education, he is trained in family medicine and clinical pastoral care, diet and nutritional therapy, mind/body methods, spiritual healing, electro-acupuncture diagnostics, homeopathy and bioenergy therapy.



Wayne Jonas, MD

Q. Let's start by talking about you—your background, views on health care and healing, and how these have been shaped.

DR. JONAS. I was an army doctor for twenty-four years. One of my assignments, early on after my residency, was running a remote military medical clinic in Germany. My duties included coordinating our system with the German system. While I was there, I went to regional medical meetings and noticed that the content of their practices were similar to what I had learned in medical school (conventional approaches), but they also used other things that I had not heard about at all, or only heard

about in derogatory terms. For example, in the late 70s and early 80s, about 70% of pain clinics in Germany were already using acupuncture. And the number one prescription for depression was not a drug, but an herb, and this was prescribed by conventional docs. Many of them also used homeopathy, which was the strangest of all! Otherwise they seemed to be pretty rational doctors, and I thought, 'do they have a bigger bag than I have?' I couldn't solve all my patients' problems and I was always looking for more tools to alleviate suffering, so I began to study with some of these doctors. I explored what they were doing and then selectively brought some of these tools into my practice.

That's where I got exposed professionally to the area of complementary and alternative medicine and saw how it had been integrated into conventional care with apparent benefit. I've always prided myself on using as much good scientific evidence as possible in my practice so I began researching and investigating these areas.

When I came back to the United States, I worked at the Army Surgeon General's office doing lifestyle and health promotion activities. I realized that many of our policies were not evidence-based. I decided that I was interested in learning more science so I went to Walter Reed Army Institute of Research and got formal training in research. I ended up doing science at the bench for several years. I was at Walter Reed, and still practicing part time, when the Office of Alternative Medicine (OAM) opened up. I was interested and asked if I could be detailed to the OAM. I took over the Office of Alternative Medicine for what was supposed to be a three-year assignment and I ended up being there for four years. The Office was then changed to the National Center for Complementary and Alternative Medicine (NCCAM) and I then went back to active duty at the Uniformed Services University of the Health Sciences (USUHS). My last years in the military were spent looking at areas of complementary and alternative medicine that could be useful in military settings, especially in the area of pain. Both acute pain management (for injuries) and chronic pain management is something that is of high relevance to the military, and so we began looking at whether any complementary and alternative modalities would be useful in pain treatment.

Q. When you were looking at these modalities in Europe, did they refer to them as *complementary and alternative*?

DR. JONAS. In the United States, at that time, most of these practices were called *alternative*. They were outside the mainstream; actually, the term used before that was *unconventional*. In Europe they used the term *complementary*.

Unconventional in itself means simply not *conventional*. *Alternative* means in place of, and *complementary* means a complement to *conventional*. So when I was at the Office of Alternative Medicine, I recommended that it be changed to *complementary*, but several of my advisory board members didn't want to get rid of the term *alternative*, and so we ended up with a

compromise, which is CAM (complementary and alternative medicine). Now people speak of *integrative medicine*.

Q. Let's go back to your work at OAM. Tell us about some of your accomplishments and challenges.

DR. JONAS. My job at the OAM was to try to do good, high quality science in areas that were out of the mainstream. Alternative approaches such as acupuncture and supplements, and even mind-body and biofeedback, were included in that definition (and still are). My job was to set up a structure that would allow the NIH to do good research in these areas and gain knowledge about them because science didn't really have any experience in these areas. As an Office, we didn't have grant-making authority so we had to work through all the other Institutes to get research done (the National Center now has its own grant making authority and its own budget).

We approached the National Institute of Mental Health (NIMH) about looking at an herb that was highly prescribed in Europe, and which there was some research already. That was St. John's wort for depression. NIMH had never run their own clinical trial. Most of the clinical trials for depression were run by the drug companies. We provided the funding and some of the expertise to set up a study of St. John's wort, a standard SSRIs anti-depressant, and a placebo in a large randomized controlled trial that NIMH ran. Initially, we were going to do a straight comparison of St John's wort and a placebo. Then, the FDA came in and said, 'How do you know whether your study works?' In order to know, you need an active arm (a thing you know works and is proven), and that's when we added the SSRI group (one that was already an FDA-approved drug for depression) to do a head to head comparison.

One of the main challenges in CAM is that most of it is not paid for. There's not that much profit incentive for investigating these areas. If you were to show an herbal treatment, such as St John's wort working better than a commercial drug, that could potentially threaten drug profits. As the NIMH was setting up to run the study, the drug company launched their own study comparing St. John's wort to the SSRI. They did this in a population that was slightly sicker than what we were planning to test it in, and so was more likely to be

responsive to the drug. The drug company got the study out almost a year before the NMIH did. The NMIH study *was* done and it was a landmark study. It was the first large, 3 armed clinical test by the government of a commonly used herbal product, that was run in a rigorous manner.

In the early years of the OAM, it was clear that there was not a critical mass of researchers in the country who had experience and a track record doing research in complementary medicine. There were scattered individuals in universities and other organizations, but there was no society or major centralized program. I decided that we needed to begin to seed research locations and build a critical mass. We funded centers that would focus specifically on research and training in CAM. Those were the first centers and now they've grown and there are a number of them around the country, with substantial research programs.

Q. For years, the American Academy of Pain Management was criticized by the allopathic pain management community, in part, because it included CAM practitioners/models. But, today, we are seeing attitudes about CAM shifting—and they are shifting rapidly and from unexpected sources. What are some reasons for this?

DR. JONAS. Attitudes have shifted dramatically in our culture in general. Part of that may be increased information leading to more openness, more cooperation, and a greater focus on trying to be more patient-centered. Medicine used to be quite paternalistic, but this has shifted toward a more team care approach—because disease management *requires* good team care. This means that multiple professionals have different roles in the team, and patients are more empowered in their own care (as part of the team). These attitudes have all facilitated an increased interest in collaborative work, and complementary and alternative medicine naturally fits into that. Now many CAM practices are looked at from the perspective of ‘what kind of *value-adds* they have,’ and ‘how can they be appropriately integrated?’ I think this is becoming the dominant attitude.

Q. You *do*?

DR. JONAS. Yes. I think it's the trend now and we will see it more and more. It hasn't gotten into the reimbursement area, but I think we will see more of that as integrative

approaches are set up, as standards are developed on how to integrate, and as studies are done to look at the cost/value offset of providing integrative care (especially in an area like pain). I think we'll see that coverage of those areas will follow.

Q. From my own experience over the last ten years, working at the Academy, and before that, at the American Pain Foundation, there is no question that the patients who got ‘better’ were those who had integrative care, and consequently the insurance companies didn't have to keep paying for them.

DR. JONAS. I have seen this also. I think another trend that reinforces this is an increased understanding of the integral role of the mind in pain. This is the field of the so-called placebo effect, expectation, and belief. Under the drug model we're trying to rule those factors out in order to identify what the chemical in the drug contributes to the effect. There is an increasing realization that those components (I call them the meaning and context effects) contribute significantly to healing. We are increasingly seeing information showing that the context, the expectations, and the meaning of health care delivery have a profound effect on outcomes—especially in the area of pain management. These are not just non-specific factors that you have to rule out in order to treat the patient: they are themselves tools for the alleviation and treatment of pain that we need to study, understand, and incorporate explicitly into practice. The way in which meaning and context are delivered can be quite varied depending on the patients' needs, their understanding, expectations—how one delivers that care, how to be individualized—and every good practitioner knows this, and does this. It now needs the scientific lens.

At the Samuelli Institute, one of our major areas is a program called *Brain-Mind, and Healing*, run by James Giordano, that explores the affect of these context and meaning factors. These factors include the social context, expectations, the practitioner/patient interaction, the effects of conditioning—whether they are called conventional or complementary. These are the components that facilitate healing (recovery, repair, and reintegration). At the Institute, our work is not focused on CAM for its own sake. We are interested in

understanding the role of CAM in the delivery of care and what environments facilitate inherent human recovery and healing capacities we are putting the microscope on that, so we can better understand and utilize healing in practice.

Q. The Samuelli Institute uses the term “Information Biology.” What does that mean?

DR. JONAS. Information is how we gain meaning. Information is the currency for exchanging meaning and context. It’s about communication, connectivity, and the delivery of meaning. So, one of the core areas of our focus is looking at how information affects our biology, our physiology, our psychology, etc. Here’s a simple example. Let’s say you had a relative in the hospital who was very sick, and you weren’t sure whether they were going to live or die, and you got a telephone call and the person on the other line said, ‘Your relative is ...’ the next word that came out of that phone would not require any more energy if it was, ‘alive’ or ‘dead’ but the differences in biological, psychological and clinical effects would be profound. This is an example of how information (not necessarily matter or energy) can have profoundly different effects on our biology, psychology, physiology, and make a big difference in clinical outcomes and cost. Depression and anxiety could be elicited if the word was *dead*—joy and relaxation if the word was *alive*. And, all of the biology that goes along with that could be measured (and has been measured) in terms of how we manage stress in the context in which information is received or exchanged. This is the *currency* of healing that cuts across all health care systems and modalities. And it runs through all of them regardless of whether you are doing surgery with a knife or micro-surgery with an acupuncture needle. The way it is delivered can induce or inhibit our response, including our response to pain.

Q. This suggests that the *being* and the perception of the clinician actually has to shift.

DR. JONAS. That’s exactly right. You communicate information in the things you say and in your body language. But communication can also be very subtle. It can come out of the expectations and intentions you are holding. I call that *communication by being*. There is both the *doing* and the *being* that we have to attend to when we’re caring for patients—especially patients who are in

vulnerable situations, and who are subject to impressions by people in authority. There are several good example studies of this in the area of *doing*. There was a large study done a number of years ago in which physicians were told to deliver a placebo for a functional problem (not an organic problem) to try to alleviate the symptoms using a positive message, or a neutral or negative message. When the placebo was delivered with a positive message, almost twice as many patients got better four weeks later than when they got a negative or a neutral message. That’s an example of how what a physician does can have a profound effect on the outcome.

But it’s even more subtle than that. Several years ago a study was done at the NIH in which a message was communicated to oral surgeons (who were removing wisdom teeth) that their patients might or might not get a painkiller after the surgery. The investigators told the oral surgeons not to discuss that with their patients. Then, they measured the pain levels in the people who had had their wisdom teeth removed afterward. Those patients in the group where the oral surgeons had thought their patients might get a painkiller, reported significantly less pain, even though it wasn’t discussed verbally by the doctors. The non-verbal communication, which comes out of the expectations and intentions of the practitioner, had a profound effect on the experience of the patient post-operatively. That’s the being of communication. It is how our intentions communicate, and is related to how we manage our own inner environment. Eric Cassell, in his classic book, *The Nature of Suffering and the Goals of Medicine*, said that the fundamental role of the physician as a healer is one of self-mastery, where they have to learn how to care for themselves and how to properly use themselves as therapeutic instruments.

Q. We all come into this world with unique personalities and varying capacities to communicate and be compassionate. Can these attributes be taught to young clinicians?

DR. JONAS. Yes. These kinds of things can be taught. There are courses for teaching communication or compassion. There are examples in medical schools around the country that have successfully taught these types of skills. Of course, there are individuals that naturally take to them. It’s sort of like athletic ability, in my opinion. There are skills that some people are really good at, or not so good at, but everybody can learn them.

Everybody can become more *fit*. We have a research program with Indiana University, which is called the IC4 Program. IC4 stands for Integrative Care, Communication, Compassion, and Chronic Illness. It specifically focuses on training medical students to learn how to listen, communicate, and cultivate their own empathy and use that within their practices. Another part of the program is in an internal medicine clinic at the Walter Reed Army Medical Center. There, they are training internal medicine doctors and patients in better communication skills, and they are looking at the effect on the health care outcomes from that. It is possible to do this, but like anything else, it has to be attended to, developed, focused on, and tested.

Q. The role of spirituality in pain management is an area that the Academy is also very interested in. What are the findings regarding that relationship?

DR. JONAS. First of all, you have to distinguish between religious practices and spiritual practices (or spiritual experiences). Religious practices are the formal religious rituals connected to particular denominations, particular belief systems, etc. There is a fair amount of evidence now showing that religious practices themselves correlate with better health outcomes. Whether or not they are the cause of those outcomes, we don't know. But those who are more involved in church-going or some kind of religious practice, seem to have resilience (or at least have better overall health outcomes) than those who do not. And then there are also spiritual experiences.

Q. How would you describe a spiritual experience?

DR. JONAS. Spiritual experiences (or transcendent experiences)—involve having a sense that one is connected to something greater than one's self. They are quite universal experiences. Even separate from religious practices, people have spiritual experiences. Sometimes these experiences are induced by a beautiful sunset, or by gazing upon a loved one. These are also called *exceptional* experiences, or *transcendent* experiences. We are interested in looking at both of these areas [religious practice and spiritual experiences], but we're especially interested in looking at this more universal phenomenon of spirituality. For example, our colleagues in England and Germany are looking at developing ways of measuring the sense of

transcendence through EEG monitoring and other techniques. Their initial findings have been that those who more frequently have these transcendent experiences (a sense of connectivity outside, or greater than, themselves), tend to have better health. In fact, the early studies done in German populations (and have now been replicated in an English population) show that those who have a higher exceptional experience index, have a buffer against stresses and health decrements to a greater extent even than those with higher social support. These experiences seem to influence health and resilience. It may be that spiritual practices themselves, and spiritual experiences themselves, induce a healing type of effect. Recent research on the practice of meditation and mindfulness, for example, which tends to induce these kinds of experiences, has shown effects on depression and on pain. Our German colleagues have finished a large study looking at whether mindfulness meditation influences physiological variables like heart rate variability in fibromyalgia patients and whether it impacts their pain.

Q. Do you think we are seeing so much physical and psychic pain because so many people (particularly in our culture) live apart from one another—not *in community*—not see their lives as being connected to, part of, or contributing to something greater than themselves?

Dr. Jonas: Well, research has shown that both physical and psychic pain influence common areas of the brain. The origin of the word, *heal*, is the same root word as *whole*—or to be whole. And one of the definitions sometimes used for *healing* is the process of becoming whole. By becoming whole we sometimes think of it as the integration of the mind, body, spirit—the experience that one's mind, body, spirit, and social environment are all working in harmony together, or not, in the case of pain and suffering.

What is a whole person? A whole person is not only the body, but the psyche and the social body, as well as the spiritual body. If we don't attend to the whole person in health care, healing is going to be impeded. Looking at the whole person also includes the past, present, and future. Often people don't understand that. It's not just about spatial wholeness, it's about temporal wholeness.

There are good studies now showing that if you

reintegrate with your past self, by coming to terms with old traumas, it induces healing. There was a randomized, controlled trial published in JAMA several years ago in which individuals in one group addressed past traumas that they had in childhood through writing and speaking with other individuals (and coming to terms with old issues that they had suppressed). The other group wrote about superficial topics, like the weather, or what they had to eat. Several weeks later, researchers measured the pain levels in arthritis patients and found that there were significant improvements just from that episode of reintegration with one's past self. There was an improvement in pain. So the whole person is not only mind, body, culture, and spirit, but it is also your past, your present, and your future. Those who have a future self, who have hope, for example, do better.

Q. My primary care physician (a young woman working in a depressed rural area) recently asked me for advice about getting her patients off opioids. She said that many of her patients were poor, uneducated, depressed, and had been on opioids for most of their lives. What could be done to restore meaning and hope for patients such as these (beyond taking them off opioids)?

DR. JONAS. Well, most doctors just write a prescription, don't they? But by tending to the root cause of the chronic problem, clinicians could focus on the areas we've just been talking about, especially if they see people over a longer period of time as in primary care. In the continuity of visits, one can set up an intent to address these underlying issues of social integration, social support, helping them to gain meaning and purpose. We all know of people who fall into a cycle of pain, depression, and hopelessness and who don't seem to be able to get out of it. But we also know of people who have had devastating injuries and profound traumas in their lives who have been able to rally from that and find new purpose within themselves. That purpose calls them out, calls them forward, calls them back into being more complete people. Those persons can thrive even in the midst of devastating injury and stress.

Our military is faced now with an epidemic of stress from the wars in Iraq and Afghanistan. Young people

have come back profoundly broken—physically and mentally through brain, psychological, and physical injuries. And they now have to re-look at their entire future, their entire image of themselves, their entire sense of social relationships. They have to redefine themselves. If they're going to heal they have to be able to redefine themselves in a positive, salutogenic way, rather than a pathogenic way. As a nation, we have an obligation to attend to and facilitate that. At the Samueli Institute, we have a military medical research program and we're focusing on how to manage stress, ways to address pain, and how to improve function and performance for our military members and families faced with trauma.

Q. Overall, you have been talking about shifting the approach in health care from a curative to a healing model. Would you explain the difference?

DR. JONAS. One of the profound reasons for the success of our modern biomedicine is our ability to address acute illnesses, infectious disease, and surgery. Its power comes from using science in what the ancient Greeks called the Aesclespian model. And the idea behind that is that if you have a disease or an illness or a condition, you can isolate the primary cause, the primary component that contributes to it. And if you can isolate and get rid of that, then a cure is possible. That's what we've followed over the last hundred years by rigorously applying science in a reductionistic fashion, one in which we separate out all the different parts of a whole human being, isolate the particular agent, and manipulate that in order to get rid of the pathology. Studying how the body breaks down, the pathophysiology (as it's called), then supports that. It's the 'splitter approach.' It is extremely effective when we can identify an isolated cause. Then it works wonderfully. And for saving your life under an acute situation, trauma, heart-attack—it works tremendously. It's one of the reasons we have an aging population now. Because of biomedicine's success, we have an aging population with higher prevalence of chronic illness.

Chronic illness, however, does not have that kind of a reversible single cause. It has multiple factors, and so requires a holistic, or a bio-psychosocial approach. One of the difficulties in our current medical system is that we've taken the old Asclepian model and are using it

in chronic illnesses, where it doesn't work. More appropriate would be the other ancient Greek approach, which was called the Hygieian model. The Hygieian model involves looking at the whole person, trying to optimize the context and processes that would allow them to recover and heal. It involves understanding salutogenesis, or how recovery, repair, and reintegration occurs. One difference between that and pathogenesis is that it occurs as an emergent property of a whole system, so it requires a biopsychosocial approach to research. That involves a different approach in science, a whole-systems science. It requires we look at multiple layers of an individual and their environment and how they integrate. That's the kind of science we need for the management of chronic disease and the prevention of chronic illness: a science of optimal healing environments.

Q. How would you treat a patient with pain and depression using a healing model rather than a curative one?

DR. JONAS. The treatment of pain and depression and other complex diseases may be best approached by developing an optimal healing environment (OHE). An OHE is the physical, behavioral, social and personal environments that maximize recovery, repair, and reintegration (healing) of the whole person. Healing may or may not result in cure but should result in improved well-being, function, or reduce suffering and costs. There are numerous examples of studies showing how components of an OHE can alleviate pain. For example, there was a study of patients with chronic refractory pain, unresponsive to conventional medicine. An OHE was developed for them that addressed their expectation and mind-body practices (inner environment), social and religious practices (interpersonal), CAM practices (acupuncture and imagery), and the physical (external) environment such as music and light have all been shown to modulate pain and depression. After three months they were able to cope better with life stresses, had improved self-esteem and self-efficacy and as a side effect, reduced pain. Learning how to harnessing the pain relieving power of an OHE and determining how best to apply these practices is one of the Samueli Institute's main goals.