



The Susan Samueli Center for Integrative Medicine at UC Irvine is a clinical, educational, and research organization where ancient and once-exotic therapies such as acupuncture, naturopathy, herbalism, tai chi, and yoga are documented and used to help heal Orange County's medically adventurous. Some people have heard of it. Many have not. **Everyone will.**

THE

FUTURE

OF

HEALING

BY STEVEN M. THOMAS



Dr. Wadie Najm remembers a moment in the early 1990s that helped guide him toward his current role as medical director of the Susan Samueli Center for Integrative Medicine at UC Irvine. Najm, just starting his career, was interested in the medical practices of other cultures and kept his eyes open as he made his rounds.

On that day, instead of receiving his patient in a gleaming examination room, Najm made a house call to Santa Ana. He followed his patient through the small living room and kitchen of the man's home and into the back yard, where a fragrant herb garden grew in the California sunshine.

"We used to do house calls for many elderly patients from Mexican-American backgrounds," Najm says. "In their homes they were less restrained and they were willing to share information about *curanderas* and healthcare practices that thrive in the community. They showed

me the plants they were using for health purposes and they would tell me, 'This is what we are using when we have this pain; this is what we are using for this other condition.' I was fascinated and wanted to learn more."

In the years since that house call, Najm

has continued to absorb information from his patients and incorporate a wide range of what he calls "healing modalities" into his practice. "We're living in an area that is, culturally, extremely rich. Chinese-, Vietnamese-, and Mexican-American patients have all been kind enough to share healing resources with me," he says. "Gradually that drew me into this field of complementary medicine. I started taking classes and courses to learn more. The more I learned and looked into it, the more I realized there is much more to health care than just what we were taught in medical school."

THE PRACTICE OF medicine in America is changing, and its future is being shaped, in part, at the Samueli Center, which was founded in 2000 with a gift of \$5.7 million from the Samueli Foundation. But in many ways, the future is being shaped by the past.

For example, the center's clinic is using acupuncture and herbalism, the key com-

Case Study



PATIENT Alicia Graff, 13

PROBLEM Bell's palsy, a sudden, disfiguring paralysis of the face often caused by a viral infection. It interferes with normal facial functions such as closing the eyes, chewing, and swallowing. The condition left the Orange County teen with a twisted smile and an eye that wouldn't close.

PROGNOSIS Western medicine doesn't have a reliable cure for this alarming but usually temporary affliction.

BACKSTORY "My daughter woke up one morning in 2005 with half her face frozen," says Cynthia Graff. "It was frightening for her and for me as her mother. I was afraid she'd had a stroke and took her to the emergency room at Hoag [Memorial Hospital Presbyterian]." After her Bell's palsy diagnosis, Alicia was given anti-viral medication, but her doctor said the illness would have to run its course. He explained that she had an 80 percent chance of recovery after about 12 weeks, during which time Alicia says she would "look like the Joker in 'Batman.'"

TURNING POINT Graff turned to an acupuncturist at the Samuelli Center. "The doctor told me they have been treating Bell's palsy with acupuncture in China for many years," says Graff. After the first 45-minute treatment, 90 percent of Alicia's palsy was resolved; she could close her eye. The condition completely disappeared two weeks later, after a second treatment. "I told Alicia's pediatrician and the doctors at Hoag what had happened," Graff says, "and they were very impressed with what acupuncture accomplished."—S.T.

ponents of traditional Chinese medicine. Acupuncture has been proving itself in Asia for thousands of years, and herbalism emerges out of the mists of pre-history. For millennia, people all over the planet have used pungent plants that soothe and heal, and many of our most common medicines—from aspirin to tranquilizers—are derived from plants that pharmacologists deconstructed and chemically copied after observing their use for healing in various cultures. U.S. doctors have been integrating the ancient and the modern for years.

What's new is that, at the Samuelli Center, researchers conduct rigorous scientific experiments needed to show not just that alternative medicine works but, more importantly, *how* it works. That's critical because scientists are gatekeepers in our society, deciding what is real and valid, and what isn't.

Currently, most insurance companies in California will pay part of the cost of acupuncture treatment, but won't pay for many other alternative therapies that insurers say are unproven, such as herbal supplements. Unless the underlying physiological mechanisms of therapies such as acupuncture are clearly explained in terms that scientists accept, medical doctors, insurers, and much of the general public will remain skeptical about alternative medicine.

GLOSSARY

The terms "alternative medicine," "complementary medicine," and "integrative medicine" are sometimes used interchangeably, but there are subtle distinctions. Julia Rappaport, chairwoman of the Susan Samuelli Center advisory board, defines them this way:

Alternative medicine is used when Western medicine isn't working.

Complementary medicine is used to assist Western medical techniques by, for instance, controlling pain.

Integrative medicine is the intelligent and scientific combination of treatments and techniques from multiple traditions to create a more complete and effective treatment.—S.T.

"The center tries to find the scientific basis behind these therapies," says Julia Rappaport, chairwoman of the Samuelli Center's advisory board. "That is our top goal. Many of these things like acupuncture have been used successfully for centuries, but they won't be fully accepted in the United States until we understand the scientific basis for their action."

JOHN C. LONGHURST HAD the same view of alternative medicine as most of his medical colleagues when he first went to China, in 1992. "I was like most other scientists and physicians here in the U.S. who had been trained in the Western style of medical care, in that I had a skeptical view of the whole area of Chinese medicine," says Longhurst, now director of the Samuelli Center and the world's leading researcher into the effects of acupuncture on blood pressure and heart disease.

"In China, I saw acupuncture being used in hospitals and clinics to treat things like stroke, and it was an eye-opener. I saw that a lot of people believed in it—both patients and doctors—but I was still skeptical."

During the trip, Dr. Peng Li, chairman of the department of physiology at Shanghai Medical University, asked Longhurst if he would consider collaborating on an acupuncture research study. Longhurst declined.

"I still had too many doubts about it to turn my research in that direction," he says. But then, while reading Li's résumé on the plane ride home, Longhurst noticed that Li was publishing the results of his research in respected Western scientific journals. That meant other scientists had looked at his experimental models and results and concluded that his work was potentially significant.

That legitimacy, combined with widespread acceptance of acupuncture he had seen in China, opened Longhurst's mind.

"I invited Dr. Li to come over and I mobilized my laboratory and did a whole study in three months looking at the influence of acupuncture on an experimental model of myocardial ischemia."

For a list of local and online resources for alternative, complementary, and integrative medicine, visit www.orangecoastmagazine.com/medicine.

That affliction results when coronary arteries become partially blocked by plaque. During exercise, excitement, or moments of stress, the heart beats faster and needs more oxygen, but plaque-clogged arteries can't handle the extra flow. The resulting chest pains are a warning of potential heart attack.

"We found that acupuncture reversed the ischemia," Longhurst says. "The angina went away when we applied acupuncture for 30 minutes. The study was accepted in ... *Circulation*, which is probably the premier journal in cardiovascular medicine today. My thinking started to change at that point."

Convinced that acupuncture works, Longhurst explored its physiological mechanisms to help explain how. He discovered that when inserted, an acupuncture needle sends an impulse along the ascending nerve to the brain where the impulse triggers the release of neurochemicals that, in turn, stimulate descending nerves that control basic unconscious functions such as heartbeat and blood vessel constriction. That reduces blood pressure and associated strain on the heart.

After Peng Li retired from his position in Shanghai, he joined Longhurst as a research scientist at UC Irvine, continuing the frontline integration of Eastern and Western medical knowledge. Their research is funded by the National Heart, Lung & Blood Institute, a division of the National Institutes of Health.

"We have now published more than 30 papers about our research, looking at how acupuncture can normalize blood pressure," Longhurst says. "The science is going very well and has been very well received."

Preliminary results of a recent Longhurst-Li study indicate that mild or moderate high blood pressure, or hypertension, can be reduced long term by periodic acupuncture treatments, without prescription drugs.

"We're considered the premier institution in the world right now in terms of looking at the influence of acupuncture on the cardiovascular system," says Longhurst. "If we're able to establish and explain the effectiveness of acupuncture,

we will be the leading force in changing the perception of integrated medical care with respect to acupuncture in the United States and the world."

OTHER RESEARCHERS at the Samu-eli Center are studying how alternative therapies may help increase longevity, cure ulcerative colitis, treat cancer, and promote an overall sense of happiness and well-being.

For example, Dwight Nance, who studies the therapeutic properties of bee venom, probiotics, and garlic extract, has established that the juice of the goji berry (*Lycium barbarum*), long used therapeutically in China, can increase an individual's subjective assessment of "energy level, athletic performance, quality of sleep, ease of awakening, ability to focus on activities, mental acuity, calmness, and feelings of health, contentment, and happiness." In the first rigorous scientific study done outside China, Nance and fellow researcher Harunobu Amagase found that goji juice, which costs about a dollar a day to use, "significantly reduced subjective ratings of fatigue and stress, and improved regularity of gastrointestinal function" when used daily for 14 days.

"There is a real, statistically significant effect," Nance says.

Since that first study, published in *The Journal of Alternative and Complementary Medicine*, a peer-reviewed scientific journal, Nance has replicated his experiment three more times with independent groups and gotten the same results. "Replication is the all-important thing in scientific studies," says Longhurst. "You have to show the same results more than once to convince people."

Nance's goji studies are funded by FreeLife International, a nutraceutical company that manufactures a goji juice product in the Inland Empire called GoChi, and markets it around the world. Studies funded by private companies, such as those funded by pharmaceutical companies, make some people suspicious that self-interest could slant the results. But Nance, an established scientist and UC Irvine professor, says other sources of funding aren't sufficient for the amount

Exploring Medical Alternatives?

The Susan Samu-eli Center for Integrative Medicine consolidated its diagnosis and treatment activities in a Newport Beach clinic, which opened last March.

Four clinicians—a licensed doctor of naturopathy, two state-certified acupuncturists, and Samu-eli clinic Medical Director Wadie Najm, a family practitioner who incorporates a wide range of therapies in his healing approach—treat patients with a synthesis of Eastern and Western therapies, including drugs and surgery, naturopathy, traditional Chinese medicine, and mind-body techniques such as hypnosis, meditation, and lifestyle counseling.

"Traditional Western medicine excels in handling acute conditions," says Gena Kadar, a chiropractor who chairs the Samu-eli Center's annual Women's Wellness Day event.

"If you have had a catastrophic accident, if you have a heart attack, if you break something, if you have the onset of some severe illness, Western medicine is extraordinarily good. It excels in prolonging life.

"Complementary modalities excel at dealing with chronic conditions—maintaining mobility, keeping energy level high, reducing pain, things like that. It is not just about treating a disease or illness, but about working toward an optimal level of health ... Complementary medicine excels in improving the quality of life."

The center's Web site has complete information about conditions the clinic treats, treatment costs, office hours, and doctors' biographies and credentials. You can make an appointment by phone or online. 20072 S.W. Birch St., Suite 190, Newport Beach, 949-757-0443, www.sscim.uci.edu.—S.T.

of research that needs to be done.

“There isn’t enough money from the National Institutes of Health to test everything that needs to be tested, so it is really dependent on these companies.”

To ensure the objectivity of his goji juice study, Nance designed it as a randomized, double-blind, placebo-controlled experiment. Half of the study subjects received goji juice while others received a similar drink with no active ingredients, and neither the researchers nor subjects knew who was getting the real juice until the results of the experiment were recorded.

After demonstrating that goji juice works, Nance moved on to studies aimed at unraveling how it works, studying the blood chemistry of subjects who are taking the juice or an extract of it in a clinical setting, measuring changes in stress hormones, antioxidant enzymes, and a group of compounds called cytokines that provide information about the immune system.

Gradually, thanks to such studies, those respected-but-unproven cures are moving from folklore and testimonials toward accepted and scientifically supported clinical practices.

THERE’S NO QUESTION the Samueli Center’s affiliation with prestigious UC Irvine helps legitimize alternative and complementary medicine in many ways. Besides the impact of the scientific research, the school’s seal of approval on the enterprise elevates it in the community and among professionals. Longhurst and Nance are tenured faculty members at UC Irvine, which means they are eminent in their respective fields. Skeptics can’t help but be swayed to see successful scientists and academics devoting their careers to the study and practice of alternative and integrative medicine.

“Because it is such a prestigious institution, the quality of the research is assured,” says Najm. “People who have resistance to this area of medicine see the university’s involvement and think maybe they should be more open to the idea.”

Having the Samueli Center integrated into the University of California “is remarkably important,” says Dr.

Gena Kadar, a chiropractor who chairs the Samueli Center’s annual Women’s Wellness Day event. “It is huge in terms of perception, both to the medical community and the public.”

Having the center at UC Irvine also means that future doctors are learning about alternative medicine from the beginning of their careers, an important factor in removing the stigma from this type of care.

“The UCI Medical School enrolls 112 students a year, and all of them get an overview lecture about complementary and integrative medicine. They also get an elective eight-week class where we bring in people to teach about meditation, hypnosis, whatever it is that they are interested in,” says Najm. “The elective is so popular that Dr. Longhurst recently added another section to accommodate all the students who want to take it.”

Longhurst also trains doctoral and post-doctoral students who help conduct the acupuncture studies in his laboratory. “Over time, all of these people will fan out into the system and affect all of the people they interact with,” he says.

Najm recalls that “when I first started my journey in complementary medicine, I was very much on my own, with very little understanding or support from the general medical community. I remember giving talks where people would stand up and challenge me, even though I was providing evidence-based information. People would say, ‘Oh, he is way out on the fringe.’

“Now that research is starting to shed some light on some of these practices, people are developing more interest and acceptance, slowly but surely. When I lectured in medical schools in the early 1990s and asked a class if anyone had heard of integrative medicine or complementary or alternative medicine, only a few hands went up. Now, more than half [of the students in] the class raise their hands. It is a big shift in the students, and in society.”

STEVEN M. THOMAS is the author of the Orange County crime novel “*Criminal Paradise*” (Ballantine, 2008), and an Orange Coast contributing writer.