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News Release

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BIOLOGIST EXPLORES ALTERNATIVE MEDICINE TREND

Seattle, Feb. 14, 1997 -- The hodgepodge of alternative medicine treatments sought by millions of Americans taps into people's belief systems, and many should be regarded with skepticism and alarm, according to a biologist at Washington University in St. Louis.

Ursula W. Goodenough, Ph.D., professor of biology at Washington University, said such holistic approaches, generating an estimated \$14 billion-per-year industry, prey on people's basic sense of alienation and their need to believe in a personal healer the way many religious people believe in God.

"Humans have a huge problem with alienation, and belief in alternative medicine is a vacuum that people move into," said Goodenough. "I'm interested in people's belief systems and how they relate to science. Alternative medicine is an instance where belief systems and science intermingle curiously. A major upshot of alternative medicine is the fostering of an 'anti-science' feeling. I'm trying to understand why there is so much interest and why there has been such a dramatic surge of it lately."

Goodenough spoke Friday, Feb. 14, at 2:30 p.m. at the Annual Meeting of the American Association for the Advancement of Science. She and Robert L. Park, Ph.D., professor of physics at the University of Maryland, organized the session, "Alternative Medicine in a Scientific World." They were joined by scientists, physicians and psychologists who analyzed the trends in alternative medicine.

Goodenough said the burgeoning field of alternative medicine is a "grab bag" of practices ranging from acupuncture treatments, to herbal teas, to aroma therapy and meditation to coffee enemas and calf urine treatments. She said part of the impetus behind the popularity of alternative medicine is a growing belief that modern medical practice is impersonal and reductionist, and that people are seeking to relate to their physicians as a combination of therapist and country doctor, "which establishes a set of disappointments that leads them to alternative practices and healing gurus."

Goodenough concentrated on an analysis of Deepak Chopra, M.D., whose books on Ayurvedic Medicine, an ancient Eastern form of medicine, have been hugely successful and made Chopra an international figure. She said his books ("Quantum Healing," "Ageless Body," "Timeless Mind," and others) present a case study of pseudoscience promoting alternative medicine.

"In the guise of ancient wisdom, Dr. Chopra offers up a mix of transcendental meditation, 'purification' protocols, (for example, herbal enemas), and Norman Vincent Peale packaged in a barrage of scientific terminology," Goodenough said. "In a sense, he is a caricature of the whole phenomenon, but he is very important as an example of what's going on. Chopra's writings often present science of

human physiology correctly to a certain extent, but then he distorts the science to meet his philosophy. He's a perfect example of biology in the service of belief."

Because most of Chopra's readers do not have an adequate scientific background, they often come away with a distorted view of nature, Goodenough said. This sets the stage for believing that the remission of cancer and reversal of aging can occur by following Chopra's religious tenets and practices and buying his health products.

"This is the kind of 'philosophy' that leads to people believing that shark cartilage treatments will cure them of cancer," Goodenough said. "The problem is not the nice person in the health food store who probably believes what's being sold is good and healthy. Rather, it's the industry being built on pseudoscience that preys on hopeless people. It fills me with moral outrage. Scientists carry an obligation to protest such abuses of scientific knowledge."

Goodenough expressed concern over the National Institutes of Health (NIH) Office of Alternative Medicine, established by Congress to evaluate alternative medicine practices. She observed that the Office's advisory board includes mostly proponents of alternative medicine, and that most of its studies ask *how* such practices work rather than *whether* they work.

"I'm critical of this kind of analysis because it legitimizes the 'field'," Goodenough said. 'If people hear that NIH is studying this, then they think there must be something to it."