

CAM AT THE NIH

FOCUS ON COMPLEMENTARY AND ALTERNATIVE MEDICINE

VOLUME XV, NUMBER 1

APRIL 2008

Josephine P. Briggs, M.D., Named Director of NCCAM



Josephine P. Briggs, M.D.

© Paul Feters, courtesy of HHMI

National Institutes of Health (NIH) Director Elias A. Zerhouni, M.D., has named Josephine P. Briggs, M.D., as Director of the National Center for Complementary and Alternative Medicine (NCCAM).

An accomplished researcher and physician, Dr. Briggs brings a focus on translational research* to the study of complementary and alternative medicine (CAM). This approach should help build a fuller understanding of the usefulness and safety of CAM practices, which nearly two-thirds of Americans use.

NCCAM has a fiscal year 2008 budget of \$121.6 million, supports CAM research at more than 260 institutions throughout the country, funds research training and career development, and provides science-based information to the public and health professionals.

(continued on pg. 4)

*Translational research involves translating new findings obtained from basic research laboratories into testable hypotheses that can be evaluated in research studies in people. —Editor

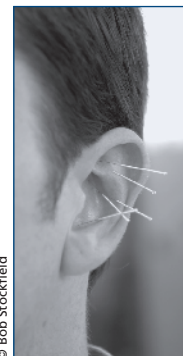
“I welcome the opportunity to develop further the NIH investment in this exciting field of biomedical investigation.”

— Dr. Josephine Briggs

INSIDE

- 2 New Grants to Study Botanicals
- 2 News for Researchers
- 3 Meet a NACCAM Member: Sheldon Cohen, Ph.D.
- 7 Staff News
- 8 CAM Use in America: Up Close
- 10 Profile: NIH Office of Dietary Supplements
- 11 Spotlight on Clinical Trials

Meeting Marks 10th Anniversary of NIH Acupuncture Conference



© Bob Stockfield

Just over 10 years ago, an NIH Consensus Development Conference (see box on pg. 5) assessed acupuncture's effectiveness in treating various diseases and conditions. What has happened in the field of acupuncture research since that conference and its later report (called a consensus statement)? What areas will be important in future research?

These were among the key questions that speakers and audiences addressed at a special annual meeting of the Society for Acupuncture Research. “The Status and Future of Acupuncture Research: 10 Years Post-NIH Consensus Conference” took

place November 8-11, 2007, in Baltimore. The society cosponsored the meeting with the University of Maryland Center for Integrative Medicine, and NCCAM provided grant support. The conference drew more than 300 practitioners, scientists, students, and other attendees from eight countries, who discussed acupuncture research in

(continued on pg. 5)

NCCAM
NATIONAL CENTER FOR COMPLEMENTARY
AND ALTERNATIVE MEDICINE

NATIONAL INSTITUTES
OF HEALTH

U.S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES

CAM at the NIH:
**Focus on Complementary
and Alternative Medicine**

is published by the National Center for Complementary and Alternative Medicine, National Institutes of Health.

Subscriptions: For a free subscription (by postal mail or e-mail), contact:

NCCAM Clearinghouse

Toll-free in the U.S.:

1-888-644-6226

TTY (for deaf and

hard-of-hearing callers):

1-866-464-3615

Web site: nccam.nih.gov

E-mail: info@nccam.nih.gov

Editorial Address:

CAM at the NIH

P.O. Box 7923

Gaithersburg, MD

20898-7923, or

info@nccam.nih.gov

**NCCAM Exhibits at
Upcoming National
Meetings**

American Association for
Cancer Research, April 12-16,
San Diego

American Geriatrics Society,
April 30-May 4,
Washington, D.C.

American College
of Obstetricians and
Gynecologists, May 3-7,
New Orleans

American College of
Physicians, May 15-17,
Washington, D.C.

American Academy of
Physician Assistants,
May 24-29, San Antonio

American Society for
Microbiology, Infectious
Diseases, June 1-5, Boston

American Diabetes
Association, June 6-10,
San Francisco ❖

Shedding Light on Botanical Therapies

A variety of plants and plant-derived compounds that might also be found in your kitchen are the focus of three new NCCAM Centers of Excellence for Research on CAM (CERCs). The scientists will apply high-technology research tools to learn more about how these medicinal substances may work and their potential effects in animal models of various disorders. The new CERCs are

■ **UCLA Center for Excellence in Pancreatic Diseases**

Principal Investigator: Vay Liang Go, M.D., University of California, Los Angeles

This center will study antioxidants such as curcumin (which comes from the spice turmeric) and lycopene (which gives tomatoes their color), as well as green tea and *Scutellaria baicalensis* (a Chinese

herbal medicine also called Chinese skullcap). The medical interest is prevention and/or treatment of pancreatic cancer and pancreatitis.

■ **Center for CAM Research on Autoimmune and Inflammatory Diseases**

Principal Investigator: Prakash Nagarkatti, Ph.D., University of South Carolina Research Foundation, Columbia

The researchers will study resveratrol obtained from the skin of red grapes as a possible aid in treating multiple sclerosis; American



© Bob Nichols



American ginseng

© Karen Bergeron

ginseng for its potential anti-inflammatory action in colitis; and a compound from hemp in treating autoimmune hepatitis.

■ **Protective Roles of Grape-Derived Polyphenols in Alzheimer's Disease**

Principal Investigator: Giulio Maria Pasinetti, M.D., Ph.D., Mount Sinai School of Medicine, New York

This center will study polyphenols extracted from grapes for their potential to be protective in Alzheimer's disease (AD) and to affect changes in the brain characteristic of AD and cognitive decline. ❖



News for Researchers

NIH electronic grant submissions: NIH

requires that all grant applications be submitted electronically (era.nih.gov/electronicreceipt). Recently, NIH announced that it is reducing the error correction window to 2 business days for applications due on or after January 8, 2008; see www.grants.nih.gov/grants/guide/notice-files/not-od-08-018.html.

Visit NCCAM's Active Funding Opportunities page, at nccam.nih.gov/cgi-bin/grants/funding.pl, for

the following opportunities and others:

■ **PAR-08-045: Outcomes, Cost-Effectiveness and the Decision Making Process to Use Complementary and Alternative Medicine.**

Sponsors: NCCAM, the National Cancer Institute, and the NIH Office of Dietary Supplements. The initiative will support high-quality observational studies on the clinical effectiveness and cost-effectiveness of CAM as it is practiced in "real world" settings and on how decisions are

made about using CAM. The goal is to obtain more information on which to base decisions about incorporating CAM into integrated health care.

■ NCCAM is cosponsoring an award for **research career development for CAM health professionals** who hold an eligible CAM doctoral degree and are committed to a research career. See the Fall 2007 issue of *CAM at the NIH* (pg. 11) or PAR-07-003 on the Funding Opportunities page. ❖



Meet a Member of NACCAM



Sheldon Cohen, Ph.D.

Sheldon Cohen, Ph.D., is a member of NACCAM's National Advisory Council for Complementary and Alternative Medicine (NACCAM). He is the Robert E. Doherty Professor of Psychology at Carnegie Mellon University, Pittsburgh; an adjunct professor of pathology and psychiatry at the University of Pittsburgh School of Medicine; and a member of the Pittsburgh Cancer Institute. His research focuses on the effects of psychological stress, mood, interpersonal relations, social status, and childhood experiences on health and well-being. Dr. Cohen

received his Ph.D. in psychology from New York University. He is a member of the Institute of Medicine of The National Academies.

In several studies, your team evaluated the stress levels in each member of a group of volunteers. Then you injected them with a cold virus and observed whether they came down with a cold. What did you find out?

When exposed to a common-cold virus, the volunteers who reported greater stress in their lives were more likely than those with less stress to develop a cold. This association has held across eight different upper-respiratory viruses that we have tested.

Why do you think this has happened?

Our immune system responds to viral infections by releasing pro-inflammatory cytokines—protein molecules that help coordinate the immune response. However, when we produce these cytokines above the level needed to fight the infection, they also trigger cold symptoms, such as a runny nose or congestion. People who report greater levels of stress produce many more of these pro-inflammatory cytokines than those who have less stress.

What are some other factors you have found that appear to be connected to our chances of getting a cold?

Certain stressful life events that are chronic and enduring appear to have a connection, such as poor marriages and unsatisfying jobs. So do stressors that come from enduring social conflicts. Happy, enthusiastic people are less susceptible to

colds. People who are outgoing (i.e., extraverts) and/or have diverse social networks (such as friends, family, close neighbors, and coworkers) are also less susceptible, even after we account for the protective effect of the extra immunity they may gain from increased contact with other people.



Positive emotions and social networks could help make us less susceptible to colds.

Social economic status (SES, made up of factors like income, education, and occupational status) also appears to play a part. When we objectively measured participants' SES, we did not find it to be connected with their chances of getting a cold. However, we did find a connection when it came to perceptions of SES. Those who perceived their SES as being lower than other people's were more susceptible to colds. Our most recent work suggests that if you have low SES during early childhood, you will be more susceptible to colds as an adult, regardless of your SES.

“Volunteers who reported greater stress in their lives were more likely...to develop a cold.”

— Dr. Sheldon Cohen

Do you think your findings may have implications for our susceptibility to other infectious diseases, not just colds?

As we better understand the biology of how psychological and social factors influence cold susceptibility, we will be more able to extend these findings to other diseases. If it turns out, for example, that regulation of pro-inflammatory cytokines is the real culprit, then other diseases involving an excess of these cytokines (the inflammatory diseases) are likely to show the same type of effects.

What is the most important thing you do on NACCAM?

I think probably the most important role of the Council is to provide feedback and guidance regarding research directions the Center is considering.

Selected References

- Cohen S, Doyle WJ, Skoner DP, et al. Social ties and susceptibility to the common cold. *Journal of the American Medical Association*. 1997;277(24):1940-1944.
- Cohen S, Doyle WJ, Turner R, et al. Childhood socioeconomic status and host resistance to infectious illness in adulthood. *Psychosomatic Medicine*. 2004;66(4):553-558.
- Cohen S, Janicki-Deverts D, Miller GE. Psychological stress and disease. *Journal of the American Medical Association*. 2007;298(14):1685-1687.
- Cohen S, Tyrrell DA, Smith AP. Psychological stress and susceptibility to the common cold. *New England Journal of Medicine*. 1991;325(9):606-612. ❖

Josephine P. Briggs, M.D., Named Director of NCCAM

(continued from pg. 1)

“We are pleased to have Dr. Briggs return to NIH to lead NCCAM,” said Dr. Zerhouni. “She has been a leader in trans-NIH activities, and her in-depth understanding of NIH and translational research will bring new opportunities to the study of CAM.”

“I am honored to be selected to lead NCCAM, and I welcome the opportunity to develop further the NIH investment in this exciting field of biomedical investigation,” Dr. Briggs said. “Alternative approaches to health and wellness are of enormous public interest, and we need a strong portfolio of science in this area. NIH has already taken significant steps to build research programs to explore the potential of CAM. I look forward to working with scientists and the CAM community as well as my colleagues across NIH to strengthen our understanding of the potential of CAM and to examine the opportunities for integration of proven CAM approaches into our nation’s health care delivery.”

Dr. Briggs received her A.B. *cum laude* in biology from Harvard-Radcliffe College and her M.D. from Harvard Medical School. She completed her residency training in internal medicine and nephrology at the Mount Sinai School of Medicine, followed by a research fellowship in physiology at Yale School of Medicine.

She was a professor of internal medicine and physiology at the University of Michigan from 1993 to 1997. From 1997 to 2006 she was director of the Division of Kidney, Urologic, and Hematologic Diseases in the National Institute of Diabetes and Digestive and Kidney Diseases. From 2006 until her NCCAM appointment, she was senior scientific officer at

the Howard Hughes Medical Institute (HHMI), Bethesda, Maryland.

Dr. Briggs has published more than 125 research articles and is on the editorial boards of numerous journals. She is an elected member of the American Association of Physicians and a fellow of the American Association for the Advancement of Science. She is also a

recipient of the Volhard Prize of the German Nephrological Society. Her research interests include the renin-angiotensin system (a hormone system that helps regulate blood pressure and the amount of fluid in the blood), diabetic nephropathy (kidney disease caused by diabetes), and the effect of antioxidants in kidney disease. ❖

A Message from the Director

It is an honor and a privilege to have been selected to be the Director of NCCAM. I am eager to get to know our stakeholder communities over the next several months and to hear your thoughts regarding our research opportunities. In the meantime, I’d like to share some information about myself that explains what drew me to NCCAM and why I am so excited to be here and lead this organization.

My Values

As a physician, I know firsthand how depersonalized the high-tech systems of modern health care can be, how the focus on the whole patient is often overlooked, and how patients are seeking practices that promote health and wellness. These are needs that are often being met better by CAM practitioners and the growing programs of integrative medicine. To me, these are very important aspects of health that need to be examined.

As a scientist, I believe very strongly in the scientific method, but I am not comfortable with dogmatic thinking. Science needs to encourage continual fresh thinking, and new understanding sometimes comes from beliefs that are outside the mainstream. Some of the real excitement in CAM research over the next decade will come, I believe, from powerful new scientific methods that will allow better understanding of biological complexity and give us answers to how CAM interventions work.

The public interest in CAM is clearly strong. Conventional medicine providers, physicians, and hospitals are responding to this interest by integrating CAM practices with conventional health care. As a scientist, physician, and consumer, I believe in the importance of an open dialogue between patients and health care providers about all we do to take care of our health and our family’s health.

What’s Next

I see the next 6 months as a period of intense listening. I will be talking with many of our stakeholders, including members of the National Advisory Council for Complementary and Alternative Medicine, and representatives from professional and consumer organizations. From these conversations, we will establish a set of priorities for moving the NCCAM research portfolio forward.

I look forward to this dialogue and to an exciting journey of discovery.

Josephine P. Briggs, M.D.

Director

National Center for Complementary and Alternative Medicine
National Institutes of Health



Ruth L. Kirschstein, M.D. (left), former Acting Director of NCCAM, with Dr. Briggs at the February 2008 NACCAM meeting

Meeting Marks 10th Anniversary of NIH Acupuncture Conference

(continued from pg. 1)

both general and disorder-specific contexts.

An NCCAM Background

Richard L. Nahin, Ph.D., M.P.H., Senior Advisor for Scientific Coordination and Outreach at NCCAM and a member of the planning committee for the 1997 conference, gave the opening keynote lecture on 10 years of NIH-funded acupuncture research. Presenting many analyses of data on NCCAM's and NIH's support of such projects, he said that since



Richard L. Nahin, Ph.D., M.P.H.

1997, “the breadth and depth of NIH-supported acupuncture research have greatly expanded.... The quality of clinical trials has increased, as has the presence of acupuncturists—especially licensed acupuncturists—on NIH-funded research teams. Mechanistic studies and moderate-sized trials are laying the groundwork for more definitive phase III trials.”

Dr. Nahin continued that while the 1997 conference appears to have had a high impact on areas outlined



Jeffrey Winsauer, Ph.D., O.M.D., L.Ac., of the Mayo Clinic, talks to poster author Eileen McKenzie, R.N., L.Ac., of the Minnesota College of Acupuncture and Oriental Medicine.

in the 1997 statement, and may have positively impacted acupuncture's growth in the United States, it was “one step in a long journey.... Research has led to considerable progress. We have seen the emergence of correlations between acupuncture and effects on mechanisms in the body—for example, in data from imaging studies. A number of large, pivotal clinical trials have either been completed or are nearing completion, and more are in the planning stages.” This should lead, he said, to important information about acupuncture and how it works becoming available to the public, health care providers, and policymakers.

At the conference, attendees heard progress reports on acupuncture therapy for many diseases and disorders and discussed ideas for future research—such as defining more consistent protocols for acupuncture clinical trials and developing better, more consistent sham controls.

“Clinical trials and studies on mechanisms should help bring important information on acupuncture and how it works to the public, health care providers, and policymakers.”

— Dr. Richard Nahin

Looking Forward in the Research Endeavor

Some of the major points that attendees made about the state of the research and future directions were as follows:

- The quantity and quality of studies have increased since 1997. So have the range of conditions for which acupuncture has been studied and the models and outcome measures used.

Although some clinical trials on acupuncture's effectiveness in treating specific conditions have had positive results, findings have largely been mixed or inconclusive. This may be due at least in part to challenges in designing acupuncture studies—for example, in devising appropriate controls and blinding.

- Some clinical trials that found no difference between acupuncture and a placebo control (i.e., a “sham” procedure designed to look like acupuncture but not to deliver treatment effects)

(continued on pg. 6)

Meeting Marks 10th Anniversary of NIH Acupuncture Conference

(continued from pg. 5)

- nevertheless found more benefit in acupuncture than in conventional drug treatment.
- Preclinical, basic-science studies continue to show that the effect of acupuncture has a physiological basis.
 - The research community needs to move toward more agreement and consistency in its approach to clinical trials, so that the pool of results will be less diverse. This should make it easier to draw conclusions in systematic reviews and meta-analyses, and to replicate studies. Many attendees mentioned the recently published

Standards for Reporting Intervention in Controlled Trials of Acupuncture (STRICTA; see URL at end of article) as a guide.

- Finding out more about what happens in the body when acupuncture is given—and how that information relates to traditional Chinese medicine concepts such as meridians and qi—is of continuing interest. So are the questions of how research findings relate to the clinical effects of acupuncture; what may be at work in terms of a placebo effect; and what makes people (and animals, in animal studies) respond differently to the same acupuncture treatment. Compared with 1997, more high-technology tools—for example, from imaging, genomics, and

NCCAM has been recently supporting studies of acupuncture for its potential in treating many diseases and conditions, such as:

- Chest pain after surgery in people with lung cancer
- Pain after chemotherapy
- Difficulty swallowing after chemoradiation for head and neck cancer
- In persons with HIV/AIDS, peripheral neuropathy and gastrointestinal problems
- Chronic low-back pain
- Low-back pain during pregnancy
- Fibromyalgia
- Urinary incontinence
- Infertility (used with *in vitro* fertilization)
- Neurological impairment in spinal cord injury
- Hot flashes in menopause
- Polycystic ovary syndrome
- Bowel disorders, such as irritable bowel syndrome and functional bowel disorders
- Temporomandibular joint dysfunction
- Phonotrauma, the most common cause of voice disorders
- Alcohol addiction and cocaine abuse.

Some studies are on prevention, as of acute cardiac events such as heart attack, and one is on the cost-effectiveness of acupuncture (in treating knee osteoarthritis). Many researchers are also seeking better understanding of the mechanisms by which acupuncture has effects in the brain and body. To read more about these grants, search the CRISP database at www.crisp.cit.nih.gov.



Acupuncturist and NCCAM grant recipient Lixing Lao, Ph.D., L.Ac.

University of Maryland Center for Integrative Medicine

proteomics—are available to aid in this work.

- The participants called for more specificity and commonality in language and terminology. With regard to the term “acupuncture,” for example, there are many variations—some practitioners use needles, and others use electrical or laser stimulation; some approaches penetrate the skin, others do not; and some focus more on the traditional worldview in which acupuncture originated than do others.

Brian Berman, M.D., is director of the University of Maryland Center for Integrative Medicine, which cosponsored this 2007 conference; professor

of family and community medicine at Maryland; an NCCAM-sponsored researcher; and a member of the planning committee for the 1997 conference. Dr. Berman commented, “This anniversary conference has been amazing, as is the progress in the field. My group also coordinates the Cochrane Collaboration’s work in the United States [consisting of systematic reviews and meta-analyses on CAM therapies], and we have seen changes there since 1997. We’ve started to see more hopefulness in the conclusions sections [of acupuncture studies], and, more frequently, that acupuncture has a positive effect, especially in pain conditions.”

What Is an NIH Consensus Development Conference?

NIH consensus development conferences, like the 1997 acupuncture conference, are designed to evaluate the available scientific information on a specific biomedical issue (for example, a treatment or condition). An independent, broad-based panel evaluates data presented by invited experts as well as comments from the general public, and ultimately releases a final report called an NIH Consensus Statement. The statement is designed to advance understanding of the issue among clinicians, patients, and the general public.

Lixing Lao, M.D., Ph.D., L.Ac. (photo on pg. 6), also of the University of Maryland center, where he is professor of family and community medicine and an acupuncturist, commented, "In light of the research information presented at the conference, compared to 10 years ago, I believe that consumers should now feel more confident about using acupuncture and providers should feel safer in referring patients for acupuncture treatment."

The conference's other cosponsor, the Society for Acupuncture Research, is an international, nonprofit organization founded in 1993 that seeks to promote, advance, and disseminate scientific inquiry into Oriental medicine systems. It is interested in research addressing clinical efficacy, physiological mechanisms, patterns of use, and theoretical foundations. Its co-presidents are Richard Harris, Ph.D., Chronic Pain and Fatigue Research Center, University of Michigan, Ann Arbor, and Rosa Schnyer, L.Ac., Harvard Medical School Osher Research Center, Boston.

For More Information

- The 2007 conference program is at www.acupunctureresearch.org.
- The 1997 consensus statement is at consensus.nih.gov/1997/1997Acupuncture107.html.
- STRICTA standards are at www.stricta.info. ❖

To Read More

The following are selected papers by major speakers (names in **bold**), who are also NCCAM grant recipients, at the Society for Acupuncture Research 2007 Annual Conference. For a longer reading list, go to nccam.nih.gov/news/newsletter/2008_april/acupuncture.htm. For abstracts (brief summaries) of these and other papers, go to the PubMed database at www.ncbi.nlm.nih.gov/sites/entrez or contact the NCCAM Clearinghouse (pg.2).

Ahn AC, Colbert AP, Anderson BJ, et al. Electrical properties of acupuncture points and meridians: a systematic review. *Bioelectromagnetics*. 2008 Jan 31. [Epub ahead of print]

Berman BM, Lao L, Langenberg P, et al. Effectiveness of acupuncture as adjunctive therapy in osteoarthritis of the knee: a randomized, controlled trial. *Annals of Internal Medicine*. 2004;141(12):901-910.

Coeytaux RR, Kaufman JS, Kaptchuk TJ, et al. A randomized, controlled trial of acupuncture for chronic daily headache. *Headache*. 2005;45(9):1113-1123.

Hammerschlag R. Acupuncture: on what should its evidence base be based? *Alternative Therapies in Health and Medicine*. 2003;9(5):34-35.

Harris RE, Clauw DJ, Scott DJ, et al. Decreased central mu-opioid receptor availability in fibromyalgia. *Journal of Neuroscience*. 2007;27(37):10000-10006.

Langevin HM, Bouffard NA, Churchill DL, et al. Connective tissue fibroblast response to acupuncture: dose-dependent effect of bidirectional needle rotation. *Journal of Alternative and Complementary Medicine*. 2007;13(3):355-360.

Langevin HM, **Hammerschlag R**, Lao L, et al. Controversies in acupuncture research: selection of controls and outcome measures in acupuncture clinical trials. *Journal of Alternative and Complementary Medicine*. 2006;12(10):943-953.

Li A, Wang Y, Xin J, Lao L, et al. Electroacupuncture suppresses hyperalgesia and spinal Fos expression by activating the descending inhibitory system. *Brain Research*. 2007;1186:171-179.

Li XM. Traditional Chinese herbal remedies for asthma and food allergy. *Journal of Allergy and Clinical Immunology*. 2007;120(1):25-31.

Nahin RL, Dahlhamer JM, Taylor BL, et al.: see pg. 9 of this issue.

Napadow V, Kettner N, Liu J, et al. Hypothalamus and amygdala response to acupuncture stimuli in carpal tunnel syndrome. *Pain*. 2007;130(3):254-266.

Cherkin DC, **Sherman KJ**, Deyo RA, et al. A review of the evidence for the effectiveness, safety, and cost of acupuncture, massage therapy, and spinal manipulation for back pain. *Annals of Internal Medicine*. 2003;138(11):898-906.

Sung JJ, Leung WK, Ching JY, et al. Agreements among traditional Chinese medicine practitioners in the diagnosis and treatment of irritable bowel syndrome. *Alimentary Pharmacology and Therapeutics*. 2004;20(10):1205-1210.

Staff News

This new column in CAM at the NIH announces recent NCCAM staff changes that may especially be of interest to the scientific and medical communities.

New Appointments

Peter Kozel, Ph.D., formerly a scientific analyst, is now a Scientific Review Officer. Dr. Kozel received his Ph.D. from the Department of Molecular Genetics, Biochemistry, and Microbiology, at the University of Cincinnati.

Sheila Caldwell, Ph.D., also a former scientific analyst, is now a Program Officer for the Office of Special Populations. Dr. Caldwell received her Ph.D. in molecular and cellular oncology from The George Washington University in Washington, DC.

Departures

Margaret A. Chesney, Ph.D., has left NCCAM after 5 years as the Center's Deputy Director and Director of the Division of Extramural Research and Training.

Nancy Pearson, Ph.D., has retired from Federal service. For 7 years at NCCAM, she was a Program Officer for programs in training, career development, and loan repayment, and for grant portfolios in the neurosciences and sleep disorders.

Marguerite Klein has departed NCCAM after serving for 8 years as a Program Officer for such topic areas as biologically based CAM practices, diabetes, the digestive system, ethnomedicine, obesity, and pediatrics. ❖

CAM Use in America: Up Close

In 2004, NCCAM co-released results from the largest, most representative survey to date on Americans' use of CAM, from an NCCAM-funded supplement to the Centers for Disease Control and Prevention's 2002 National Health Interview Survey (NHIS). The survey found that many Americans are using CAM—36 percent of adults aged 18 years and over, a figure that rose to 62 percent when prayer specifically for health reasons was included in the definition of CAM.

Since the release of the original report, NCCAM has been supporting studies to find out more from this data—for example, on the use of CAM by specific population groups or for certain diseases. This column highlights some of those studies.

Health Behaviors of CAM Users

If you smoke cigarettes or drink alcohol—or if you used to—what are the odds that you also use CAM? What are those odds if you like to walk in the park, work in the garden, or pursue other exercise?

Richard L. Nahin, Ph.D., M.P.H., of NCCAM (see also pg. 5) and his colleagues have added to the NHIS portrait of CAM use by focusing their research on certain behaviors that have an impact on health. Specifically, his team looked at the relationship between CAM use and leisure-time physical activity, smoking, alcohol use, body weight, and having had a flu shot or not in the past year. Their study also looked at survey participants' health status, their access to and use of conventional health care, and a number of population factors such as

race/ethnicity, education, employment, and area of residence.

Exercise, they found, had by far the strongest association with CAM use. People who exercised regularly were much more likely to use CAM than those who did not exercise. The following factors also had an association with using CAM, although not as strongly: being a light-to-moderate drinker, being a former smoker, and not being obese. They also found that CAM

use appeared to be more likely among respondents with poorer health status (for example, having one or more chronic health problems). However, there also appeared to be a subset of CAM users who had better health status than non-CAM-users, and, the authors suggest, may also have been more health-conscious and more actively involved in their health care. There was no association between CAM use and flu vaccination.

Many of their other findings fit with previous studies—for example, that users of CAM, compared with nonusers, are more likely to be female, under age 65, and living in the Western United States; to have a health complaint; to be employed and at a higher income level; and to be

“The fact that users of CAM tend to pursue generally healthy lifestyles suggests that they may be open to additional recommendations toward optimizing their health.”

— From the study paper

educated to at least the bachelor's-degree level.

The authors note that the data indicate that CAM users appear to pursue “generally healthy lifestyles.” Questions that remain to be answered include cause-and-effect patterns (for example, whether many CAM users decided at some point to adopt a healthier lifestyle) and whether CAM users maintain patterns of positive health behaviors over time better than do nonusers.

CAM Use in African Americans

Carolyn Brown, Ph.D., and colleagues at the University of Texas at Austin analyzed the use of CAM among African American respondents to the survey. Among their findings:

- About 68 percent used some form of CAM in the past 12 months. When prayer for health reasons was not included in the definition of CAM, that figure was 27 percent.



Do exercise and CAM use appear to be related?



© 2008 Jupiterimages Corporation

- Prayer was the most commonly used CAM therapy (60.7 percent of respondents), followed by herbs (14.2 percent) and relaxation techniques (13.6 percent).
- The demographic profile of African American CAM users (such as age, gender, and education level) was similar to that of the survey population as a whole.

■ Compared with the general survey population, African Americans used CAM more to treat specific conditions than to prevent an illness or promote health. Those with medical conditions common in the African American community were most likely to use CAM. Overall, the leading conditions for which CAM was used related to pain, such as recurring pain, aching joints, and arthritis.

The authors noted that one limitation of this study was the fact that African Americans commonly use “home remedies,” and this term was not included in the survey.

Sources

Brown CM, Barner JC, Richards KM, et al. Patterns of complementary and alternative medicine use in African Americans. *Journal of Complementary and Alternative Medicine*. 2007;13(7):751-758.

Nahin RL, Dahlhamer JM, Taylor BL, et al. Health behaviors and risk factors in those who use complementary and alternative medicine. *BMC Public Health*. 2007;7:217. Editor's note: This article is available free on the Web at www.biomedcentral.com/1471-2458/7/217.

For the original 2004 report, see nccam.nih.gov/camstats.htm. For more papers based on the 2002 NHIS, consult the PubMed database at www.ncbi.nlm.nih.gov/sites/entrez or contact the NCCAM Clearinghouse (see pg. 2). A CAM supplement was also included in the 2007 NHIS, and the first group of results is expected later this year. ❖

Advisory Council Welcomes Six New Members

U.S. Health and Human Services Secretary Mike Leavitt has appointed six new members to the National Advisory Council for Complementary and Alternative Medicine (NACCAM):

Timothy C. Birdsall, N.D., F.A.B.N.O., is vice president for integrative medicine at the Cancer Treatment Centers of America (CTCA), Zion, Illinois, and a naturopathic medicine practitioner at the CTCA's Midwestern Regional Medical Center. His research focuses on micronutrients as adjuncts to cancer chemotherapy and the role of melatonin in the treatment of lung cancer.

Boyd W. Bowden, II, D.O., is a member of the orthopedics staff at Doctors Hospital, Columbus, Ohio, and at Orthopedic and Neurological Consultants, Inc., Columbus. He has been associate professor for orthopedic surgery at Ohio University College of Osteopathic Medicine and Kirksville College of Osteopathic Medicine, and a physician consultant in the Columbus public schools.

Gert Bronfort, D.C., Ph.D., is a research professor and associate vice president of research at Northwestern Health Sciences University, Bloomington, Minnesota, and senior clinical researcher at that university's Wolfe-Harris Center for Clinical Studies. His current research focuses on chiropractic care for low-back and neck pain and massage for tension-type headache.

Lupo T. Carlota, M.D., Dip. Ac., is president and founder of the Medical Acupuncture Research Institute of America, Memphis, Tennessee, and chairman of the American Board of Acupuncture Medicine. Among his research interests, Dr. Carlota developed the Meridian Regulatory Acupuncture (MRA®) System of Therapy and the Quantum Theory of Acupuncture.



Members Dr. Herman Taylor and Dr. Margery Gass at the NACCAM meeting on February 1, 2008

Shin Lin, Ph.D., holds professorships in developmental and cell biology, physiology and biophysics, and biomedical engineering at the University of California, Irvine (UCI). He is also on the faculty and advisory board of UCI's Susan Samueli Center for Integrative Medicine. Dr. Lin is founder of the International Alliance for Mind-Body Signaling and Energy Research, and also studies natural products in relation to the cytoskeleton and cellular movements.

Herman A. Taylor, Jr., M.D., M.P.H., F.A.C.C., F.A.H.A., is professor of medicine and attending physician in the Division of Cardiovascular

Diseases and Internal Medicine at the University of Mississippi Medical Center, Jackson, where he also holds the Aaron Shirley Endowed Chair for the Study of Health Disparities. He is also clinical professor of epidemiology and preventive medicine at Jackson State University and visiting professor of biology at Tougaloo College in Mississippi. Dr. Taylor has served on the NIH study section review panel for clinical and integrative cardiovascular science.

The next NACCAM meeting will be on June 6, 2008, at the Neuroscience Building in Rockville, Maryland (see nccam.nih.gov/about/advisory/naccam/). ❖

Office of Dietary Supplements: A Key NCCAM Partner

Dietary supplements are widely used, both as CAM therapies and for other health-related purposes. While NCCAM supports research on dietary supplements and their ingredients as one type of complementary and alternative medicine (CAM), another component of NIH, the Office of Dietary Supplements, provides special expertise and exclusive focus on this important area of CAM.

The NIH Office of Dietary Supplements, often called just ODS, works on its own, with NCCAM, and with other agencies and organizations to:

- Stimulate and support research in this field
- Share research results
- Evaluate scientific information
- Educate the public.

ODS was created in 1995 as part of the Dietary Supplement Health and Education Act of 1994 (DSHEA, or Public Law 103-417), and is part of the Office of Disease Prevention, within the Office of the NIH Director.

“ODS is a very important partner with NCCAM,” says Josephine P. Briggs, M.D., NCCAM Director. “Collaborations such as this and across NIH allow us to share resources and expertise in many areas of interest that we have in common, and maximize the return on research investment. ODS has also collaborated with us on some outreach efforts so that we can share information on supplements used as CAM with the broadest possible audience. One example of terrific cooperation is

our work on cranberry for recurrent urinary tract infections.”

Paul Coates, Ph.D., Director of ODS, says, “There are many hopes pinned on dietary supplements for improving health and



Paul Coates, Ph.D., Director of the Office of Dietary Supplements

reducing the risk of chronic disease—hopes realized in some cases by scientific research that has been funded by NIH. However ingredients used in some dietary supplements have not undergone the rigorous testing needed to establish their efficacy and safety. A number of them are under active, early investigation by NIH institutes and centers.”

How Many Americans Use Supplements?

In the 1999-2000 NHANES survey by the National



© iStockphoto.com/ackleyroadphotos

Some dietary supplements and prescription drugs can interact with each other, which can influence their therapeutic effects and side effects in the body.

Center for Health Statistics, out of about 5,000 participants, 57 percent of women and 47 percent of men used a supplement.

The 2002 National Health Interview Survey (NHIS) found that among about 31,000 respondents, in the 12 months before the survey, close to 19 percent had used one or more “nonvitamin, non-mineral natural products” as CAM—including herbals and other dietary supplements. About 3 percent of respondents had used megavitamin therapy as CAM. In addition, the survey asked about use of some whole medical systems that may include herbal medicine and dietary supplements—such as traditional Chinese medicine, Ayurveda, naturopathy, homeopathy, and folk medicine (for example, Curanderismo and Native American healing.) Further analyses of the NHIS data are yielding more information on those who use CAM

therapies and the patterns of use (see pg. 8).

Getting the Word Out About the Science

ODS offers to the public:

- A Web site and a listserv
- Publications such as fact sheets and backgrounders, some produced in collaboration with NCCAM or the NIH Clinical Center; an annual bibliography; workshop summaries; and a newsletter
- A Strategic Plan for 2004-2009
- Two databases on dietary supplements—one of literature citations (IBIDS) and one of research project descriptions (CARDS)
- Conferences and workshops, and an intensive course for academic faculty and graduate students
- Evidence-based reviews, some cofunded by NCCAM, performed through the Evidence-

based Practice Centers (EPC) Program of the Agency for Healthcare Research and Quality (AHRQ). Topics available are

- ❑ Vitamin D in relation to bone health
- ❑ Soy and health outcomes
- ❑ Multivitamin/multimineral supplements in prevention of cancer and chronic disease
- ❑ Health effects of omega-3 fatty acids
- ❑ Ephedra and ephedrine for weight loss and athletic performance enhancement

- ❑ B vitamins and berries and age-related neurodegenerative disorders.

Areas of Research Activity

Some of the main areas in which ODS works to advance research are

- The NIH Botanical Research Centers, which are cofunded by ODS and NCCAM. These centers study botanicals from the laboratory up to the clinical level.
- Other research grants, cofunded with NIH institutes and centers.
- A training and career development program

Many hopes are attached to dietary supplements for improving health and reducing the risk of chronic disease.

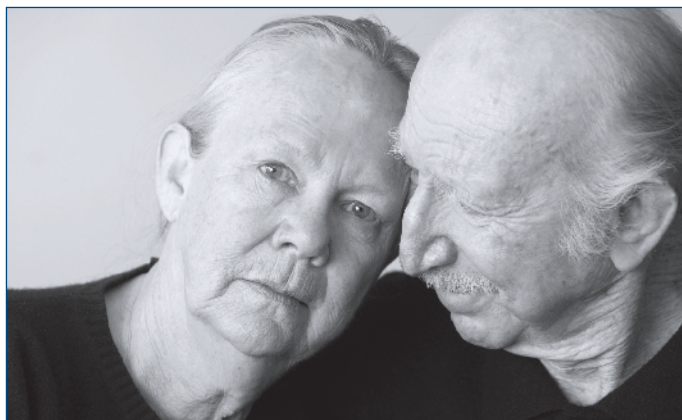
- in dietary supplement research.
- Initiatives to develop and validate methods for analyzing dietary supplements and to develop reference materials.

Dr. Coates comments, “I’m delighted to direct an office whose mission is focused on strengthening knowledge and understanding of dietary supplements.”

ODS’s Web site is dietary-supplements.info.nih.gov, and its mailing address is Office of Dietary Supplements, NIH, 6100 Executive Blvd., Room 3B01, MSC 7517, Bethesda, MD 20892-7517. Information about the NIH Botanical Research Centers is available at www.ods.od.nih.gov/research/dietary_supplement_research_centers.aspx. AHRQ’s EPC Evidence Reports are available at www.ahrq.gov/clinic/epcindex.htm. ❖

Spotlight on Clinical Trials

The clinical trials below are among the many NCCAM-sponsored trials that were recruiting, or planning to start recruitment soon, at press time. To see others, go to nccam.nih.gov/clinicaltrials/alltrials.htm. Readers who do not have access to the Internet can inquire with the NCCAM Clearinghouse (see pg. 2).



© iStockphoto.com/treatista

A Novel Approach to Treating Alzheimer’s

Having diabetes or insulin resistance (a condition that can be linked to diabetes) can significantly raise a person’s risk for developing Alzheimer’s disease (AD), recent evidence suggests. Thus, there is scientific interest in manipulating the regulation of insulin and glucose in the brain as a possible treatment approach for AD.

A new oral compound, NIC5-15, is made from a sugar complex found naturally in certain foods such as soybean,



© iStockphoto.com/pederek

carob, and alfalfa, and in pine tree bark and pine cones. In human studies, NIC5-15 has appeared to act as an antidiabetic with mild insulin-sensitizing effects. In preclinical research, it has been shown to interfere with a key step in the development of AD, accumulation of beta amyloid in the brain. This preliminary study is testing its safety and effectiveness as a potential AD treatment. The study is sponsored by NCCAM, the Department of Veterans Affairs, the NIH Office of Dietary Supplements, and Humanetics Corporation.

Principal investigator: Hillel Grossman, M.D., Mount Sinai School of Medicine, New York

More information: Go to www.clinicaltrials.gov and enter “NCT00470418” in the search box.

Soy Isoflavones for Vasomotor Symptoms in Menopause

Vasomotor symptoms—including hot flashes and night sweats—affect many women during the menopausal transition. CAM approaches are often used to help with these symptoms. One such approach is soy isoflavones, but studies so far have been inconclusive as to whether they work for this purpose. This randomized, placebo-controlled pilot study is investigating this question further in a group of menopausal women.

Principal investigator: Judith Ockene, Ph.D., University of Massachusetts Medical School, Worcester

More information: Go to www.crisp.cit.nih.gov and enter “5R21AT002522-02” in the “grant number” box.

CAM at the NIH:

Focus on Complementary and Alternative Medicine

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

NCCAM, NIH

31 Center Drive MSC 2182

Building 31, Room 2B-11

Bethesda, MD 20892-2182

Official Business

Penalty for Private Use \$300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
DHHS/NIH
PERMIT NO. G-826



More Information

Please note that all NCCAM publications are also available in printed form from the NCCAM Clearinghouse (see pg. 2).

NCCAM's **Congressional Justification 2009** is now available at nccam.nih.gov/about/congressional/index.htm. Prepared each year for the consideration of the U.S. Congress, the publication outlines NCCAM's plans, priorities, and proposed budget for fiscal year 2009, which begins October 1, 2008.

* * *

Various NIH institutes and centers are building upon the findings from an NIH 2005 State-of-the-Science Conference on the **management of menopausal symptoms**. As part of this

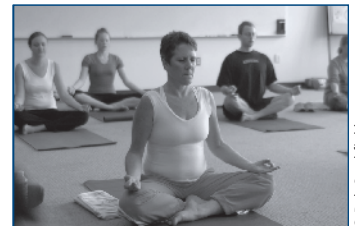
effort, NCCAM cosponsored meetings of an expert panel charged with developing follow-on recommendations from the conference findings. The panel's report is now available at www.grants.nih.gov/grants/guide/notice-files/NOT-AG-08-009.html. Among its conclusions relevant to CAM are

- "Traditional and alternative behavioral and nonpharmacologic therapies" are an area on which development of new strategies should be based.
- CAM approaches are among the treatments

that women are using as alternatives to hormone therapy, and studies of the safety and effectiveness of such treatments should be a high priority.

- Phytoestrogens (compounds found in certain plants), other botanicals, and traditional Chinese medicine are among the therapies ready for testing now.

In addition, NCCAM recently cosponsored an initiative to develop a Menopausal Symptoms Analytical Research Network (see www.grants.nih.gov/grants/guide/rfa-files/rfa-ag-08-004.html).



© Bob Stockfield

A yoga class

The NCCAM Image Gallery offers professional-quality photographs of selected CAM therapies. The images are for use in noncommercial or educational projects, and currently include acupuncture, herbs, massage, Reiki, tai chi, and yoga. See nccam.nih.gov/gallery/.

