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Office of Dietary Supplements Update

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U.S. Department of Health and Human Services

ODS Scientist Honored for Public Service, Achievement in Nutrition Science

ODS is pleased to report that Johanna T. Dwyer, DSc, RD, ODS' Senior Nutrition Research Scientist, has been awarded the 2005 Conrad A. Elvehjem Award for Public Service in Nutrition. This prestigious award from the American Society for Nutritional Sciences (ASNS) recognizes Dr. Dwyer's distinguished service to the public through the science of nutrition. She comes to ODS on assignment under the Intergovernmental Personnel Act (IPA).

Dr. Dwyer's efforts as a nutrition researcher and communicator span over three decades.

Currently, she is a professor of medicine and community health at the Friedman School of Nutrition Science and Policy at Tufts University and its School of Medicine, director of the Frances Stern Nutrition Center at the New England Medical Center, and is the editor of *Nutrition Today*, a popular bimonthly journal.

In addition, Dr. Dwyer is an elected member of the Institute of Medicine, a member of the U.S. Food and Drug Administration's Food Advisory Committee (and chair of its Dietary Supplements Subcommittee), and was a former Assistant Administrator for Human Nutrition at the U.S. Department of Agriculture.

Her research interests include the nutritional concerns of children, the elderly, and vegetarians.

At ODS, Dr. Dwyer directs efforts to develop a database of dietary-supplement ingredients, to study consumers on their use of supplements and motivations for use, and to increase and improve the collection of this type of information by federal agencies in national surveys. We're pleased to have her with us!

Inside this issue

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WE'RE ON THE WEB!
HTTP://ODS.OD.NIH.GOV

Public Meeting Held on ODS Strategic Plan

ODS convened a public meeting on May 20 to review its Strategic Plan in light of additional and emerging needs and potential new opportunities. It was held at the Marriott Hotel and Conference Center in Bethesda MD from 9am to 3:30pm, where about 60 people came to be part of the discussions.

The Strategic Plan (for 2004–2009) defines ODS's central mission: to strengthen knowledge and understanding of dietary supplements by evaluating scientific information, stimulating and supporting research, disseminating research results, and educating the public to foster an enhanced quality of life and health for the U.S. population.

(continued, page 4)

ODS Active at 2005 Experimental Biology Meeting

ODS staff played an active role in the Experimental Biology (EB) meeting, held April 2–6 in San Diego, California. This annual premier event for the biomedical research community is presented by the Federation of American Societies for Experimental Biology (FASEB).

ODS sponsored several sessions and staff members presented or moderated other sessions, including:

- Pre-meeting workshop (April 1): Assessing the Health Effects of Bioactive Food Components (chaired by Drs. Leila Saldanha and Paul Coates)
- Symposium: Individualized Nutrition as a Tool to Prevent and Treat Chronic Diseases (co-moderated by Dr. Johanna Dwyer)
- Symposium: Dietary Reference Intakes: Evidence for Decisions About Nutrient Recommendations (presentation by Dr. Paul Coates, "Formal Systematic Reviews and Nutrients—Potential and Promise")
- Poster session: A Review of Multivitamin/Multimineral Supplement Products Reported in the National Health and Nutrition Examination Survey (NHANES) 1999–2000

In addition, many attendees visited the ODS information booth in the Exhibits Hall.

Other events of interest from a dietary-supplement perspective included:

- Conference on Carnitine (chaired by Peggy Borum)
- Session: Molecular Actions of Botanicals and Dietary Supplements (chaired by Neil Shay)
- Session: Optimizing Vitamin D Intake: Barriers to Establishing Effective Mechanisms of Food Fortification or Supplementation for Populations with Special Needs (chaired by Mona S. Calvo)
- Session: Conjugated Linoleic Acid: Implications for Mammary Growth, Development and Function (chaired by Michelle McGuire)
- Session: N-3 fatty acids: Transitioning from Research to Education (chaired by Nancy M. Lewis)

New Reviews of Omega-3 Fatty Acids Published

Reviews of the health effects of omega-3 fatty acids on cancer, cognitive function (with aging, dementia, and neurological diseases), and organ transplantation are now available on the ODS Web site (http://dietary-supplements.info.nih.gov/Health_Information/omega_3_fatty_acids.aspx).

They were prepared through the Evidence-Based Practice Center Program of the Agency for Healthcare Research and Quality (AHRQ) and funded by ODS. The Web site also contains a link to the full report of a working group on future clinical research directions on omega-3s and cardiovascular disease.

The publications are the most recent in a series of AHRQ evidence-based reviews on the health effects of omega-3s.

Previous reports have examined the roles of these fatty acids in asthma, cardiovascular disease, diabetes, inflammatory bowel disease, rheumatoid arthritis, renal disease, lupus, and osteoporosis. All are available in their entirety on the ODS Web site.

Defining and Evaluating Bioactive Food Components

Lycopene in tomatoes, sulphorophane in broccoli, long-chain omega-3 fatty acids from fish, and epigallocatechin gallate (EGCG) in tea are examples of ingredients in food that have biological activity.

How to define this incredibly diverse group of compounds and evaluate their significance to human health were among the topics discussed at two meetings held at the NIH on March 24–25 and in San Diego on April 1.

A summary of these meetings, titled "Assessing the Health Effects of Bioactive Food Components," will be posted on the ODS Web site. Leila Saldanha, PhD, RD, a scientific consultant with ODS, chaired the conference planning group.

Upcoming ODS-Sponsored Meetings

ODS is co-funding the following National Institutes of Health workshops and conferences:

National Heart, Lung, and Blood Institute (NHLBI)

Workshop: Dietary Fatty Acids and Cardiac Arrhythmias
August 5; NIH Campus

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Workshop: Role of Betaine in the Treatment of Alcoholic Liver Disease. Date to be set in September/October; NIH Campus

National Institute of Environmental Health Sciences (NIEHS)

- Two symposia at the International Conference on Environmental Mutagens, September 3–8 in San Francisco: 1) Nutrigenomics-Systems Biology Approach to Studying Gene-Diet Interactions, and 2) Antimutagens and Prospects for Chemoprevention via Modulation of Gene Expression
- Workshop: The Effect of Variability of Phytoestrogens and Other Estrogenic Compounds in Animal Diets on Developmental, Endocrine and Toxicity Studies. Date to be set for early fall; NIEHS Campus in Research Triangle Park, NC

National Institute of Mental Health (NIMH)

Workshop: Evaluating Alternative Treatments for Children and Adolescents with Autism. Date to be set; NIH Campus

For further information about these upcoming meetings, check the Web sites of the appropriate NIH institute or center (http://www.nih.gov)

Upcoming Botanical Conference

"Quality and Safety Issues Related to Botanicals," an international conference to be held August 15–18 in University, Mississippi, is presented by The National Center for Natural Products Research in the School of Pharmacy at The University of Mississippi.

The conference, supported by the U.S. Food and Drug Administration, will address such issues as the authentication, cultivation, collection, and post-harvest practices for producing quality plant material and toxicological methods of assessment. For further information, check the Web site http://www.outreach.olemiss.edu/depts/pharmacy/botanical/.

ODS Funds Botanical Research Centers

38 million Americans take herbal supplements; more research needed on safety and efficacy

ODS and the National Center for Complementary and Alternative Medicine (NCCAM) at the National Institutes of Health are jointly funding five dietary supplement research centers focused on botanicals (herbs) as part of the botanical research center initiative begun in 1999. Since an estimated 38 million Americans take herbal supplements, more research on their efficacy and safety is needed. ODS Director Paul Coates notes that "these centers will continue to fulfill the goal of this initiative to foster inter-disciplinary collaborative research and to develop a systematic evaluation of the safety and effectiveness of botanicals, particularly those available as dietary supplements." Each recipient receives a 5-year grant:

Botanical Center for Age-Related Diseases

This collaboration between Purdue University (West Lafayette, IN), the University of Alabama at Birmingham, and Rutgers University (New Brunswick, NJ) is directed by Connie Weaver, PhD. Researchers will investigate the ability of polyphenols, derived from sources like soy and kudzu, to prevent and treat disorders such as osteoporosis, cognitive decline, and cataracts.

Botanical Dietary Supplements for Women's Health

Norman Farnsworth, PhD directs this center at the University of Illinois at Chicago, which has a clinical trial in progress to learn if black cohosh and red clover can reduce menopausal

(continued, page 4)

ODS Funds Botanical Research Centers (continued from page 3)

symptoms such as hot flashes. The center will conduct research on the standardization, metabolism, and toxicity of botanicals as well as support research training in pharmacognosy (the study of natural products).

Botanicals and Metabolic Syndrome

This collaboration between the Pennington Biomedical Research Center at Louisiana State University (Baton Rouge, LA) and the Center for Agriculture and the Environment at Rutgers University (New Brunswick, NJ) will be directed by William Cefalu, MD. It will study how extracts of Russian tarragon, Shilianhua (a Chinese botanical), and grape may influence molecular and cellular processes associated with the metabolic syndrome (which consists of obesity, insulin resistance, development of type 2 diabetes, and accelerated cardiovascular disease).

MSKCC Research Center for Botanical Immunomodulators

A five-institution international collaboration co-directed by Barrie Cassileth, PhD and Philip Livingston, MD will investigate the relevance of botanicals (such as echinacea, astragalus, and turmeric) that may modulate immune function to the treatment of cancer and infectious disease. It includes the New York City-based Memorial Sloan-Kettering Cancer Center, Weill Medical College of Cornell University, and The Rockefeller University together with the Institute of Chinese Medicine and the Chinese University in Hong Kong, China.

Wake Forest and Brigham and Women's Center for Botanical Lipids

Floyd Chilton, PhD will direct this collaboration between Wake Forest University (Winston-Salem, NC) and Harvard University (Cambridge, MA). The center will examine the anti-inflammatory actions of polyunsaturated fatty acids derived from botanicals like flaxseed and borage on their potential to prevent and treat inflammatory diseases such as atherosclerosis (hardening of the arteries) and asthma.

Public Meeting Held on ODS Strategic Plan (continued from page 1)

The strategic plan's five major programmatic goals are to:

- Expand the evaluation of the role of dietary supplements in disease prevention and in reduction of risk factors associated with disease;
- Foster research that evaluates the role of dietary supplements in maintaining and improving optimal physical and mental health and performance;
- Stimulate and support research to further understanding of the biochemical and cellular effects of dietary supplements on biological systems and their physiological impact across the life cycle;
- Promote and support the development and improvement of methodologies appropriate to the scientific study of dietary supplement ingredients;
- Expand and conduct outreach efforts that inform and educate the public, health care providers, and scientists about the benefits and risks of dietary supplements.

At the meeting, ODS staff gave a brief overview of the office's activities and listened as invited guests and interested attendees made oral statements. We heard suggestions from academics, health-care providers, and supplement industry representatives and consultants for enhancing the scope and depth of ODS programs and recommendations for new activities the office might consider.

These ideas are now being evaluated in light of ODS's strategic goals, resources, and capabilities and will help us make modifications in the emphasis of our programs and activities. We expect to post a summary of this public meeting on the ODS Web site in July.

Your Comments, Please

ODS is conducting a comprehensive needs analysis of its communications program. Our goals in doing this are to enhance awareness of ODS, to improve the quality and range of our information products to our wide range of stakeholders, and to better establish ODS as a source of accurate, credible information on dietary supplements. The analysis will be completed this summer, and we expect to begin implementing its recommendations shortly thereafter.

Of course, this newsletter is one way we keep our various constituencies informed about ODS activities, initiatives, products, publications, and opportunities. We're always looking for ways to improve it. If you have any suggestions for making it a better resource for you, please send comments to Dr. Anne Thurn, ODS Health Scientist Administrator (email: thurna@mail.nih.gov).