



ODS Update

September 2008

The e-newsletter of the Office of Dietary Supplements (ODS)

News You Can Use

Proceedings of ODS Conference on Vitamin D Published in AJCN

On September 6-7, 2007, ODS and cosponsors convened a conference titled *Vitamin D and Health in the 21st Century: An Update* to examine the growing knowledge base of the health effects of vitamin D and to determine future research needs. The proceedings from that conference have been published in the August issue of [The American Journal of Clinical Nutrition](http://dietary-supplements.info.nih.gov/News/AJCN2008.aspx) <<http://dietary-supplements.info.nih.gov/News/AJCN2008.aspx>>. See the [NIH news release](http://www.nih.gov/news/health/aug2008/ods-12.htm) <<http://www.nih.gov/news/health/aug2008/ods-12.htm>>.

This conference was an activity of the *Vitamin D Initiative* developed and coordinated by ODS to help establish an NIH-wide evidence-based research agenda for vitamin D. In addition to its role in bone health, accumulating evidence indicates that vitamin D affects health in other ways, including immune function; reduction of inflammation; and effects on cell proliferation, differentiation, and programmed cell death. However, relatively little is known about how vitamin D concentrations in blood and tissues influence health, especially across different age groups and ethnic populations.

ODS has established a Trans-Agency Federal Working Group on vitamin D to promote and move forward the research agenda developed from the September conference. Additional vitamin D-related initiatives include (1) development through a contract with the National Institute of Standards and Technology of reference materials for the measurement of serum vitamin D, (2) development by the U.S. Department of Agriculture of a vitamin D food analysis and composition database, and (3) support of the National Health and Nutrition Examination Survey (NHANES) to include the determination of vitamin D and parathyroid hormone levels across the life cycle.

ODS Updates Fact Sheet on Vitamin D

The explosion of knowledge about vitamin D in the past few years is captured in a major update of the Vitamin D fact sheet on the ODS Web site at <http://dietary-supplements.info.nih.gov/factsheets/vitamind.asp>. Prepared by ODS staff and reviewed by vitamin D experts, the revised fact sheet includes the following: the spectrum of serum concentrations of vitamin D from deficiency to good overall health; obtaining sufficient vitamin D from sun exposure, food intake, and use of dietary supplements; and the latest expert opinion on links between vitamin D and health, including bone mineralization, risk of cancer, and other conditions.

NIH-Funded Botanical Research Centers Featured in AJCN

The February 2008 issue of *The American Journal of Clinical Nutrition* carries eight articles from the NIH Botanical Research Centers Program, which is cofunded by ODS and the National Center for Complementary and Alternative Medicine (NCCAM). (The articles are available at <http://www.ajcn.org/content/vol87/issue2>).

The articles highlight each center's research on the use, efficacy, and safety of herbal products, including evaluations of botanicals for improving health; the safety of botanicals in dietary supplements; technologies and experimental approaches to evaluating botanicals; botanicals to improve women's health; and botanicals as therapies for metabolic syndrome, age-related diseases, infection, and inflammatory disorders.

The six Botanical Research Centers conduct preclinical research and early phase clinical studies and carry out research to improve plant identification. Each center has an interdisciplinary research program that emphasizes collaborative activities. More information on the individual centers is available at http://ods.od.nih.gov/Research/Dietary_Supplement_Research_Centers.aspx.

Early in 2009, ODS and NCCAM plan to issue a Funding Opportunity Announcement (FOA) for the Botanical Research Centers Program that will focus on preclinical research.

IOM Report Examines Dietary Supplement Use in Military

A new report from the Food and Nutrition Board of the Institute of Medicine, National Academies, reviews patterns of dietary supplement use by military personnel, recommends a framework to identify a need for active management of supplement use by military personnel, and develops an approach to monitor for adverse health effects. ODS provided partial financial support for this study. It may be read online in full or purchased at http://www.nap.edu/catalog.php?record_id=12095.

Use of Dietary Supplements by Military Personnel found that the U.S. Department of Defense (DoD) has no systematic approach for evaluating the risks and benefits of dietary supplement use by the military. The 12-member committee that authored the report recommended that DoD not depend on the FDA to monitor supplement safety. It advised developing a different approach "so that risks that might compromise the success of military operations are not overlooked, and potential benefits in performance or health from use of dietary supplements by military personnel are realized."

Bitter Orange Reference Materials Available

Bitter orange, an ingredient found primarily in dietary supplements marketed for weight loss, now has Standard Reference Materials (SRMs) available. The SRMs were developed by the National Institute of Standards and Technology (NIST) with partial funding provided by ODS and the FDA. Researchers can use the new SRMs for analysis and measurement purposes—for example, as controls to evaluate the quality of bitter orange used in investigations or to develop and test analytical methods for determining the levels of specific compounds in bitter orange, such as synephrine and octopamine. SRMs for bitter orange are available on the NIST Web site at https://srmors.nist.gov/view_detail.cfm?srm=3261. More information on the NIST SRM Program can be found at <http://www.nist.gov/srm>.

New Funding Opportunities for Research

ODS collaborates on funding initiatives across NIH and with other agencies through mechanisms such as Requests for Applications (RFAs) and Program Announcements (PAs). In the last few months, it has signed onto the following:

- Millennium Promise Awards: Non-communicable chronic diseases research training program (D43 issued by the John E. Fogarty International Center for Advanced Study in the Health Sciences).
- Exploratory/development grant for complementary and alternative medicine studies using cells, tissues, and animal models of disease (R21 issued by the National Center for Complementary and Alternative Medicine).
- Paul B. Beeson Career Development Awards in aging (K08 and K23 issued by the National Institute on Aging).
- Considerations for the safe and effective use of iron interventions in areas of high malaria burden (U01 issued by the National Institute of Child Health and Human Development).
- Methodology and measurement in the behavioral and social sciences (R01, R03, and R21 issued by the Office of Behavioral and Social Sciences Research).

- Investigational nutrigenetic studies for cancer prevention (R01 and R21 issued by the National Cancer Institute).
- Using systems science methodologies to protect and improve population health (R21 issued by the Office of Behavioral and Social Sciences Research).
- Ruth L. Kirschstein National Research Service Award short-term institutional research training grants (T32 and T35 issued by the National Cancer Institute and National Eye Institute, respectively).
- Impact of health communication strategies on dietary behaviors (R01 and R21 issued by the National Cancer Institute).

Further details about these funding opportunities are available on the ODS Web site at <http://dietary-supplements.info.nih.gov/Funding/Funding.aspx>.

ODS Programs and Activities

Contract Awarded to Develop a Dietary Supplement Label Database

A pilot study will soon begin to determine if it is feasible to develop a Web-based database cataloguing the labels of all dietary supplements sold in the United States. On August 1, ODS and the National Library of Medicine (NLM) announced that a contract has been awarded to Abt Associates of Cambridge, MA to conduct this study. A full description of the pilot study is available at <http://dietary-supplements.info.nih.gov/News/DSLDPilotAnnouncement.aspx>.

The NLM currently provides a *Dietary Supplements Labels Database* containing information about ingredients in several thousand supplements (<http://dietarysupplements.nlm.nih.gov/dietary>). The database can be searched by brand names, health benefits claimed on the product labels, specific active ingredients, and manufacturers. The ingredients, in turn, are linked to other NLM databases that provide information about their uses in humans, mechanisms of action, and adverse effects.

In this pilot study, the NLM database will be modified to become a better and more comprehensive tool for consumers, nutrition researchers, and other users to learn the content of products marketed as dietary supplements. Industry support will be vital to populate the database with relevant information. If this pilot study proves successful, ODS and NLM will consider the development of a full-scale application to make information on the content of most dietary supplements easily available over the Internet.

ODS Hosted 2nd Annual Dietary Supplement Research Practicum

Approximately 120 academic faculty and their advanced students, together with federal government-employed health professionals, spent a week at NIH obtaining a thorough grounding in issues, concepts, unknowns, and controversies about dietary supplements and supplement ingredients. Participants attended presentations by and discussions with experts on dietary supplement products from NIH, academic institutions, federal regulatory agencies such as the U.S. Food and Drug Administration and the Federal Trade Commission, and other organizations. They also spent a day in Washington, DC to meet with stakeholders who study, advocate, or educate about dietary supplements—including representatives from professional associations, the dietary supplement industry, consumer advocacy groups, and the media. Throughout the practicum, the importance of scientific investigations to evaluate the efficacy, safety, and value of these products was emphasized along with practical considerations in conducting such research.

The Dietary Supplement Research Practicum (DSRP) is coordinated by Dr. Mary Frances Picciano, a Senior Nutrition Research Scientist at ODS, and Dr. Paul Thomas, a Scientific Consultant. A major goal of the DSRP is that faculty bring back the knowledge to their institutions and provide more education on supplement issues. For students, a goal is to encourage them to consider undertaking research on dietary supplements.

Practicum attendees used a Web site developed for the DSRP to access resources, readings, and sample reading materials recommended by the speakers. The Web site and resources are available at <http://odspracticum.od.nih.gov>.

The 3rd annual DSRP is scheduled for June 1-5, 2009. As in past years, attendance will be open to academic teachers in the health sciences and their doctoral or postdoctoral students and fellows with a serious interest in dietary supplements. The practicum is free, although room, board, and transportation expenses are the responsibility of each participant. The application process will begin about March 2009 and will be announced in advance in this newsletter and on the ODS Web site. View the 2008 practicum's Web site for an overview of what we expect to offer in 2009.

ODS Staff News

Dr. Elizabeth A. Yetley, ODS Senior Nutrition Research Scientist, Retires

Dr. Yetley retired on June 30 from ODS, ending a 28-year career in the federal government. In her 5 years at ODS, she provided leadership on many activities, including the integration of evidence-based reviews into a variety of nutrition applications. She worked across NIH institutes and centers to review the rapidly increasing knowledge of vitamin D and to identify research needs. She was also involved in initiatives across the federal government to determine the next steps for updating the Dietary Reference Intakes (DRIs) for nutrients.

Before coming to ODS, Dr. Yetley was employed by the Center for Food Safety and Applied Nutrition at the U.S. Food and Drug Administration (FDA) for 23 years, most recently (2000-2003) as FDA's Lead Scientist for Nutrition. Between 1992 and 2000, she was Director of FDA's Office of Special Nutritionals with regulatory and scientific responsibilities for dietary supplements, medical foods, and infant formulas.

Dr. Yetley leaves ODS with a unique record of accomplishments and a legacy of marshalling strong science as the basis for policy development and regulatory decisionmaking. Read more about Dr. Yetley's acclaimed career at <http://www.odspracticum.od.nih.gov/YetleyBio.pdf>.

New ODS Staff

Regan Bailey, PhD, RD, LDN, came on board in September 2007 for a 3-year period as our first Postdoctoral Research Fellow. Her work at ODS involves calculation of total nutrient intakes from food and supplements in nationally representative data sets in collaboration with the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC). She obtained her PhD in Nutrition Science from The Pennsylvania State University and has published several papers on geriatric nutrition. Dr. Bailey's biography is available at <http://odspracticum.od.nih.gov/BaileyBio.pdf>.

Patsy M. Brannon, PhD, RD, Professor of Nutritional Sciences at Cornell University, is a Visiting Professor at ODS. She is co-coordinator (with Dr. Mary Frances Picciano) of the ODS *Vitamin D Initiative* to establish an NIH-wide evidence-based research agenda for vitamin D. Dr. Brannon organized the ODS-sponsored NIH symposium titled *Vitamin D and Health in the 21st Century* on September 5-6, 2007, and the establishment of a Trans-Agency Federal Working Group on Vitamin D to promote and move forward the research agenda developed from the symposium. Dr. Brannon's biography is available at <http://odspracticum.od.nih.gov/BrannonBio.pdf>.

John H. Cardellina II, PhD, became a part-time consultant with ODS in January to assist Dr. Joseph Betz on activities related to the Analytical Methods and Reference Materials Program. A natural products and botanicals expert, Dr. Cardellina also consults for the dietary supplement industry and the U.S. Army Research Institute for Infectious Diseases. Formerly, he was an expert chemist at the National Cancer Institute (2002-2007) and vice president for botanical science and regulatory affairs at the Council for Responsible Nutrition, a trade association.

Julia B. Freeman, PhD, joined ODS on a half-time basis in March as Strategic Planning Coordinator to manage and carry out tasks involved in the development of the next ODS Strategic Plan for the years 2010-2014. Dr. Freeman was an NIH Health Scientist Administrator (1985-2004) and has provided program administration support as an independent contractor to the NIH Office of Women's Health since 2006.

Marguerite Klein, MS, came to ODS in February as a Health Science Administrator to expand the work of the Analytical Methods and Reference Materials Program. Ms. Klein has worked at NIH for 18 years, almost 9 of them most recently at the National Center for Complementary and Alternative Medicine (NCCAM) where she coordinated NCCAM's research portfolio on biologically-based therapies (including dietary supplements, functional foods, and diet) and oversaw multicenter clinical trials and projects to develop research-grade botanical products. In July, she received an NIH Director's Award for extraordinary leadership in establishing a program to ensure the quality and safety of biologically-based products used in complementary and alternative medicine research. Ms. Klein's biography is available at <http://www.odspracticum.od.nih.gov/KleinBio.pdf>.

Christopher T. Sempos, PhD, joined ODS in July as a Health Science Administrator. He will provide expertise in nutritional epidemiology, public health surveillance (especially for the analysis of large data sets like NHANES), and epidemiological methods and biostatistics to develop a *Population Studies* research program (including a training program) and provide support on other ODS research projects. Before coming to ODS, Dr. Sempos was at the NIH Center for Scientific Review (2004-2008) and was Professor of Epidemiology at the University of Buffalo (1999-2004). He is coauthor of the textbook *Statistical Methods in Epidemiology* published by Oxford University Press.

Recent ODS Staff Publications

Valentin Fuster, Robert A. O'Rourke, Richard Walsh, and Philip Poole-Wilson (editors). *Hurst's The Heart*, 12th Edition. McGraw Hill Medical, New York, NY. 2007. 2,477 pages. Chapter: *Complementary and alternative medical therapy in cardiovascular care*, by Mitchell W. Krucoff, **Rebecca B. Costello**, D. Mark, and John H.K. Voge.

Mary W. Trucksess, Carol M. Weaver, Carolyn J. Oles, Lydia V. Rump, Kevin D. White, **Joseph M. Betz**, and Jeanne I. Rader. *Use of multitoxin immunoaffinity columns for determination of aflatoxins and ochratoxin A in ginseng and ginger*. *Journal of AOAC International* 90(4):1042-1049, July 2007.

Christine M. Pfeiffer, Clifford L. Johnson, Ram B. Jain, **Elizabeth A. Yetley**, **Mary Frances Picciano**, Jeanne I. Rader, **Kenneth D. Fisher**, Joseph Mulinare, and John D. Osterloh. *Trends in blood folate and vitamin B-12 concentrations in the United States, 1988-2004*. *American Journal of Clinical Nutrition* 86(3):718-727, September 2007.

Jana Hildreth, Eva Hrabeta-Robinson, Wendy Applequist, **Joseph Betz**, and James Miller. *Standard operating procedure for the collection and preparation of voucher plant specimens for use in the nutraceutical industry*. *Analytical and Bioanalytical Chemistry* 389(1):13-17, September 2007.

Joseph M. Betz, Kenneth D. Fisher, Leila G. Saldanha, and Paul M. Coates. *The NIH analytical methods and reference materials program for dietary supplements*. *Analytical and Bioanalytical Chemistry* 389(1):19-25, September 2007.

Johanna T. Dwyer, Joanne Holden, Karen Andrews, Janet Roseland, Cuiwei Zhao, Amy Schweitzer, Charles R. Perry, James Harnly, Wayne R. Wolf, **Mary Frances Picciano, Kenneth D. Fisher, Leila G. Saldanha, Elizabeth A. Yetley, Joseph M. Betz, Paul M. Coates**, John A. Milner, Jackie Whitted, Vicki Burt, Kathy Radimer, Jaime Wilger, Katherine E. Sharpless, and Constance J. Hardy. *Measuring vitamins and minerals in dietary supplements for nutrition studies in the USA*. *Analytical and Bioanalytical Chemistry* 389(1):37-46, September 2007.

Catherine A. Rimmer, Samuel B. Howerton, Katherine E. Sharpless, Lane C. Sander, Stephen E. Long, Karen E. Murphy, Barbara J. Porter, Karsten Putzbach, Michael S. Rearick, Stephen A. Wise, Laura J. Wood, Rolf Zeisler, Diane K. Hancock, James H. Yen, **Joseph M. Betz**, Agnes NguyenPho, Lu Yang, Christine Sriver, Scott Willie, Ralph Sturgeon, Brian Schaneberg, Christina Nelson, Jules Skamarack, Meide Pan, Kerri Levanseler, Dean Gray, Edward H. Waysek, Anne Blatter, and Eike Reich. *Characterization of a suite of ginkgo-containing standard reference materials*. *Analytical and Bioanalytical Chemistry* 389(1):179-196, September 2007.

Karen W. Andrews, Amy Schweitzer, Cuiwei Zhao, Joanne M. Holden, Janet M. Roseland, Mary Brandt, **Johanna T. Dwyer**, **Mary Frances Picciano**, **Leila G. Saldanha**, **Kenneth D. Fisher**, **Elizabeth Yetley**, **Joseph M. Betz**, and Larry Douglass. *The caffeine contents of dietary supplements commonly purchased in the US: analysis of 53 products with caffeine-containing ingredients*. Analytical and Bioanalytical Chemistry 389(1):231-239, September 2007.

Barry London, Christine Albert, Mark E. Anderson, Wayne R. Giles, David R. Van Wagoner, Ethan Balk, George E. Billman, Mei Chung, William Lands, Alexander Leaf, John McAnulty, Jeffrey R. Martens, **Rebecca B. Costello**, and David A. Lathrop. *Omega-3 fatty acids and cardiac arrhythmias: prior studies and recommendations for future research. A report from the National Heart, Lung, and Blood Institute and Office of Dietary Supplements omega-3 fatty acids and their role in cardiac arrhythmogenesis workshop*. Circulation 116(10):e320-e335, September 4, 2007.

Mary Frances Picciano, **Johanna T. Dwyer**, Kathy L. Radimer, David H. Wilson, **Kenneth D. Fisher**, **Paul R. Thomas**, **Elizabeth A. Yetley**, Alanna J. Moshfegh, Paul S. Levy, Samara Joy Nielsen, and Bernadette M. Marriott. *Dietary supplement use among infants, children, and adolescents in the United States, 1999-2002*. Archives of Pediatric and Adolescent Medicine 161(10):978-985, October 2007.

Johanna T. Dwyer. *Do functional components in foods have a role in helping to solve current health issues?* Journal of Nutrition 137(Suppl 11):2489S-2492S, November 2007.

Cindy D. Davis and **Johanna T. Dwyer**. *Editorial: The "sunshine vitamin:" benefits beyond bone?* Journal of the National Cancer Institute 99(21):1563-1565, November 7, 2007.

Laura D. Byham-Gray, Jerrilynn D. Burrowes, and Glenn M. Chertow (editors). Nutrition in Kidney Disease. Humana Press, Totowa, NJ. 2008. 350 pages. Chapter 4: *Nutritional assessment in chronic kidney disease*. Wm. Cameron Chumlea, David B. Cockram, **Johanna T. Dwyer**, Haewook Han, and Mary Pat Kelly. Pages 49-122.

Laura A. Coleman (editor). Nutrition and Rheumatic Disease. Humana Press, Totowa, NJ. 2008. 316 pages. Chapter 2: *Overview of nutritional assessment*. Shari Baird, **Johanna Dwyer**, and Emily Evans. Pages 15-38.

Christopher Duggan, John B. Watkins, and W. Allan Walker (editors). Nutrition in Pediatrics, 4th Edition. BC Decker, Hamilton, Ontario. 2008. 923 pages. Chapter 15: *Community nutrition and its impact on children: industrialized countries*. **Johanna Dwyer**, Melanie A. Stuart, and Kristy M. Hendricks. Pages 153-166.

Peter Libby, Robert O. Bonow, Douglas L. Mann, and Douglas P. Zipes (editors). *Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine*, 8th Edition. Saunders, New York, NY. 2008. 2,304 pages. Chapter: *Complementary and alternative approaches to management of patients with heart disease*. John H.K. Vogel, **Rebecca B. Costello**, and Mitchell W. Krucoff.

Ann M. Coulston and Carol J. Boushey (editors). *Nutrition in the Prevention and Treatment of Disease*, Second Edition. Academic Press, Burlington, MA. 2008. 912 pages. Chapter 2: *Assessment of dietary supplement use*. **Johanna Dwyer and Rebecca B. Costello**. Pages 41-56.

Lori Marcotte, Erin Hennessy, **Johanna Dwyer**, Raymond R. Hyatt, Jeanne P. Goldberg, Elena N. Naumova, and Christina D. Economos. *Validity and reliability of a calcium checklist in early elementary-school children*. *Public Health Nutrition* 11(1):57-64, January 2008.

Paul Whittaker, Jane J. Clarke, Richard H.C. San, **Joseph M. Betz**, Harold E. Seifried, Lowri S. de Jager, and Virginia C. Dunkel. *Evaluation of commercial kava extracts and kavalactone standards for mutagenicity and toxicity using the mammalian cell gene mutation assay in L5178Y mouse lymphoma cells*. *Food and Chemical Toxicology* 46(1):168-174, January 2008.

Amy L. Yaroch, Linda Nebeling, Frances E. Thompson, Thomas G. Hurley, James R. Hebert, Deborah J. Toobert, Ken Resnicow, Geoffrey W. Greene, Geoffrey C. Williams, Diane L. Elliot, Tamara Goldman Sher, Maria Stacewicz-Sapuntzakis, Judith Salkeld, Susan Rossi, Andrea Domas, Holly McGregor, Carol DeFrancesco, Frances McCarty, **Rebecca B. Costello**, and Karen E. Peterson. *Baseline design elements and sample characteristics for seven sites participating in the Nutrition Working Group of the Behavior Change Consortium*. *Journal of Nutrition* 138(1):185S-192S, January 2008.

Rachel E. Davis, Ken Resnicow, Audie A. Atienza, Karen E. Peterson, Andrea Domas, Anne Hunt, Thomas G. Hurley, Amy L. Yaroch, Geoffrey W. Greene, Tamara Goldman Sher, Geoffrey C. Williams, James R. Hebert, Linda Nebeling, Frances E. Thompson, Deborah J. Toobert, Diane L. Elliot, Carol DeFrancesco, and **Rebecca B. Costello**. *Use of signal detection methodology to identify subgroups of dietary supplement use in diverse populations*. *Journal of Nutrition* 138(1):205S-211S, January 2008.

Christine A. Swanson and Qi-Ying Liu. Introduction to the National Institutes of Health Botanical Research Centers Program. *American Journal of Clinical Nutrition* 87(2):471S, February 2008. The authors edited the journal supplement titled *The Science of Botanical Supplements for Human Health: A View from the NIH Botanical Research Centers*, of which this article is a part.

Leila G. Saldanha. *US Food and Drug Administration regulations governing label claims for food products, including probiotics.* *Clinical Infectious Diseases* 46(Suppl 2):S119-S121, February 2008.

Marguerite Klein and Johanna Dwyer. *Role of probiotics stakeholders in future research and policy on probiotics use in the United States.* *Clinical Infectious Diseases* 46(Suppl 2):S144-S151, February 2008.

Johanna T. Dwyer, Mary Frances Picciano, Joseph M. Betz, Kenneth D. Fisher, Leila G. Saldanha, Elizabeth A. Yetley, Paul M. Coates, John A. Milner, Jackie Whitted, Vicki Burt, Kathy Radimer, Jaime Wilger, Katherine E. Sharpless, Joanne M. Holden, Karen Andrews, Janet Roseland, Cuiwei Zhao, Amy Schweitzer, James Harnly, Wayne R. Wolf, and Charles R. Perry. *Progress in developing analytical and label-based dietary supplement databases at the NIH Office of Dietary Supplements.* *Journal of Food Composition and Analysis* 21(Suppl 1):S83-S93, February 2008.

Margaret Ashwell, Janet P. Lambert, Martine S. Alles, Francesco Branca, Luca Bucchini, Anna Brzozowska, Lisette C.P.G.M. de Groot, Rosalie A.M. Dhonukshe-Rutten, **Johanna T. Dwyer**, Sue Fairweather-Tait, Berthold Koletzko, Mirjana Pavlovic, Monique M. Raats, Lluís Serra-Majem, Rhonda Smith, Ben van Ommen, Pieter van't Veer, Julia von Rosen, and Loek T.J. Pijls, on behalf of the EURRECA Network. *How we will produce the evidence-based EURRECA toolkit to support nutrition and food policy.* *European Journal of Nutrition* 47(Suppl 1):2-16, April 2008.

Mary W. Trucksess, Carol M. Weaver, Carolyn J. Oles, Frederick S. Fry Jr., Gregory O. Noonan, **Joseph M. Betz**, and Jeanne I. Rader. *Determination of aflatoxins B1, B2, G1, and G2 and ochratoxin A in ginseng and ginger by multitoxin immunoaffinity column cleanup and liquid chromatographic quantitation: collaborative study.* *Journal of AOAC International* 91(3):511-523, May 2008.

Johanna Dwyer, Julia Peterson, Barbara Winters, Weiqing Liu, Diane C. Mitchell, and Karen Atkinson. *Do flavonoid intakes of postmenopausal women with breast cancer vary on very low fat diets?* *Nutrition and Cancer* 60(4):450-460, July 2008.

L.C. Sander, K. Putzbach, B.C. Nelson, C.A. Rimmer, M. Bedner, J. Brown Thomas, B.J. Porter, L.J. Wood, M.M. Schantz, K.E. Murphy, K.E. Sharpless, S.A. Wise, J.H. Yen, P.H. Siitonen, R.L. Evans, A. Nguyen Pho, M.C. Roman, and **J.M. Betz.** *Certification of standard reference materials containing bitter orange.* *Analytical and Bioanalytical Chemistry* 391(6):2023-2034, July 2008.

Patsy M. Brannon, Elizabeth A. Yetley, and Mary Frances Picciano edited the supplement titled *Vitamin D and Health in the 21st Century: an Update* in the August 2008 issue of *The American Journal of Clinical Nutrition*.

- **Patsy M. Brannon, Elizabeth A. Yetley, Regan L. Bailey, and Mary Frances Picciano.** *Overview of the conference "Vitamin D and Health in the 21st Century: an Update."* 88(2):483S-490S.
- **Elizabeth A. Yetley.** *Assessing the vitamin D status of the US population.* 88(2):558-564S.
- **Patsy M. Brannon, Elizabeth A. Yetley, Regan L. Bailey, and Mary Frances Picciano.** *Summary of roundtable discussion on vitamin D research needs.* 88(2):587S-592S.

Sharon A. Ross, **Johanna Dwyer**, Asad Umar, Jacob Kagan, Mukesh Verma, Dana M. Van Bommel, and Barbara K. Dunn. *Introduction: epigenetic events and cancer prevention.* *Nutrition Reviews* 66(Suppl 1):S1-S6, August 2008.

Recent ODS Presentations, Workshops & Exhibits

AARP: Life@50+ National Event and Expo

ODS had an exhibit at this meeting that highlighted educational information available on the ODS Web site and in the fact sheets. (September 4-6, 2008: Washington, DC)

6th Annual Covance Food Symposium: Relevant Regulatory and Analytical Challenges for Food and Dietary Supplements

Joseph Betz gave an invited lecture titled *Challenges in Biomedical Research on Dietary Supplements: The NIH Perspective.* (August 26, 2008: Madison, WI)

11th Annual Army Force Health Protection Conference

Rebecca Costello took part in a panel presenting the findings from a recently published report from the Food and Nutrition Board titled *Use of Dietary Supplements by Military Personnel.* (See "IOM Report Examines Dietary Supplement Use in Military" above.) ODS exhibited at this meeting. (August 12-13, 2008: Albuquerque, NM)

Vitamin Methodology Workshop

The ODS Analytical Methods and Reference Materials Program convened a public meeting titled *The Vitamin Methodology Workshop* to evaluate the state of analytical methodology for vitamins in dietary supplement products and to identify gaps in methodology. Twenty expert speakers made presentations and 30 representatives from research institutions, industry, regulatory agencies, and other ODS stakeholders, contributed to the discussion sessions. The desired outcomes of this meeting were to (1) provide an overview of the status of analytical methodology for vitamins, (2) discuss analytical method purpose statements, (3) discuss the definition and evaluation of a method's fitness for purpose, and (4) identify gaps in knowledge and technology. An initial list of priorities for vitamin methods was composed based on public health impact and the existing state of the science, and potentially promising approaches to analysis were identified. An Executive Summary of the Workshop will be posted on the ODS Web site when available. (July 7-8, 2008: Gaithersburg, MD)

Nashville Area Health Summit Indian Health Service

Jody Engel gave a presentation on herbs, botanicals, and dietary supplements. (July 16, 2008: Nashville, TN)

American Academy of Physician Assistants Annual Conference

ODS showcased the ODS Web site and educational materials geared toward health care professionals at an exhibit at this conference. (May 27-28, 2008: San Antonio, TX)

2008 Experimental Biology Annual Meeting

Mary Frances Picciano and Patsy Brannon cochaired a late-breaking symposium titled *Vitamin D and Health in the 21st Century: Research Needs and Tools for Research*. Dr. Picciano introduced the symposium and gave the final presentation titled *Next Steps*. Dr. Brannon's presentation was titled *Vitamin D and health outcomes: knowledge gaps & research needs*. ODS also had an exhibit at this meeting. (April 6-8, 2008: San Diego, CA)

Upcoming Events (September - November 2008)**American Academy of Family Physicians Scientific Assembly
September 18-20, 2008: San Diego, CA**

Visit the ODS exhibit booth #5420.

AOAC Annual Meeting & Exposition**September 21-23, 2008: Dallas, TX**

Joseph Betz and Marguerite Klein will be active participants in this meeting which will include several sessions devoted to analytical methods for dietary supplements, such as the President's Task Force on Dietary Supplements meeting, Dietary Supplements Community meeting, the Methods Committee on Dietary Supplements meeting, and the Analytical Challenges in Dietary Supplements symposium. Dr. Betz will also present a poster, *Dietary Supplement Analytical Methods and Reference Materials Program: Accomplishments and Future Directions*. Visit the ODS exhibit booth #120.

United States Pharmacopeia's Annual Scientific Meeting**September 25-26, 2008: Kansas City, MO**

Joseph Betz will give an invited lecture titled *New Approaches to Standard Setting via Performance-based Procedures*.

American College of Nutrition 49th Annual Meeting**October 2-5, 2008: Arlington, VA**

Rebecca Costello will moderate a panel session titled *How NIH Reviews Grants on Nutrition Related Topics*, and is co-author of a presentation on a new database of dietary supplements containing vitamin K. Marguerite Klein will speak on the development and validation of analytical methods to ensure the quality and safety of dietary supplements. Leila Saldanha will present a poster, *Dietary Analytical Methods and Reference Materials Program: Accomplishments and Future Directions*. Visit the ODS exhibit booth #4.

2008 Shanghai International Conference on Traditional Chinese Medicine and Natural Medicines**October 10-12, 2008: Shanghai, China**

Joseph Betz will give an invited talk titled *National Institutes of Health, Dietary Supplement Analytical Methods and Reference Materials Program: Accomplishments and Future Directions*.

Indo-US Symposium on Indian Systems of Medicine and Botanicals**October 15-16, 2008: New Delhi, India**

Joseph Betz will give a presentation titled *National Institutes of Health, Dietary Supplement Analytical Methods and Reference Materials Program: Accomplishments and Future Directions*.

Supply Side West**October 23-24, 2008: Las Vegas, NV**

Christine Swanson will moderate a session titled *NIH Botanical Research Centers Overview*, on Wednesday, October 22, from 1:00 to 3:50 p.m. Representatives from the six NIH Botanical Research Centers will present their latest research. Joseph Betz will present a poster, *Dietary Analytical Methods and Reference Materials Program: Accomplishments and Future Directions*. Visit the ODS exhibit booth #25097.

American Dietetic Association Food & Nutrition Conference & Expo**October 25-28, 2008: Chicago, IL**

Karen Regan and Jody Engel will participate in a session titled *NIH/NCI Research Training, Funding, and Career Development Opportunities: What Every Dietitian Needs to Know*, on Monday, October 27, from 5:30 to 8:30 p.m. Johanna Dwyer will copresent at a session titled *Using New Online Resources to Estimate Dietary Supplement Intake*, on Tuesday, October 28, from 8:00 to 9:30 a.m. Visit the ODS exhibit booth #1342.

American Institute for Cancer Research Annual Research Conference on Food, Nutrition, Physical Activity and Cancer**November 6-7, 2008: Washington, DC**

Paul Coates will give a presentation titled *Dietary Supplements for Cancer Prevention: How Common and How Useful?* Johanna Dwyer, a member of the program committee, will chair the session titled *Behavioral Change and Cancer*. Mary Frances Picciano will give a presentation titled *Diet, Supplements and UV Exposure: Defining Optimal Status of Vitamin D and How to Obtain It*.

WHO Congress on Traditional Medicine**November 6-9, 2008: Beijing China**

Christine Swanson will attend the World Health Organization Congress on Traditional Medicine. The symposium, in the 60th anniversary year of the WHO, will provide an overview of global status and trends in the use of traditional, alternative, and complementary medicines. Dr. Swanson will give an invited presentation titled *The NIH Botanical Research Centers Program*.

American Heart Association Meeting**November 9-11, 2008: New Orleans, LA**

Rebecca Costello will moderate a session titled *Lifestyle in the Prevention and Management of Peripheral Vascular Diseases: Role of Physical Activity, Diet and Dietary Supplements* on Tuesday, November 11, at 5:30 p.m. Visit the ODS exhibit booth #533.

**International Society for Nutraceuticals and Functional Foods
November 14-17, 2008: Taichung, Taiwan**

Joseph Betz will attend the first annual meeting of the Society and present an invited keynote paper titled *Dietary Supplements in Health Promotion and Disease Risk Reduction: Challenges, Promises and Regulatory Aspects*.

ODS Update provides information on news, activities, and resources from the Office of Dietary Supplements (ODS). ODS is a program office within the Office of the Director of the National Institutes of Health (NIH). The mission of ODS is 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.

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