

The ODS Update

A Newsletter for Health Professionals



National Institutes of Health
Office of Dietary Supplements

Spring 2014

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The Vitamin D Standardization Program (VDSP)— Standardizing Laboratory Procedures for Measuring Vitamin D Worldwide

For more than a decade, the Office of Dietary Supplements (ODS) has led a Vitamin D Initiative to advance scientific understanding of the role of vitamin D in health. One accomplishment of this initiative was the development of a reference procedure and standard reference materials to precisely measure this nutrient. The ODS-led Vitamin D Standardization Program (VDSP), established in 2010, evolved from this effort.



As Christopher Sempos, Ph.D., VDSP Coordinator, explains, “VDSP is an international collaborative effort to standardize the laboratory measurement of vitamin D status, specifically 25-hydroxyvitamin D [25(OH)D], the biomarker of vitamin D status in blood serum. There’s a great deal of variation in the results obtained from current assays, and we hope the VDSP corrects this problem.”

ODS Director Paul Coates, Ph.D., adds, “VDSP is conducting an international research program on 25(OH)D and its laboratory measurement. Until assay variation can be minimized, we can’t pool the 25(OH)D results from different studies to determine dose-response effects of vitamin D and properly interpret vitamin D status in clinical and public health settings.”

Coordinated by ODS, VDSP is an international collaborative effort whose contributors include other federal government agencies, reference laboratories, performance testing laboratories, national health surveys from eight countries, and several clinical laboratory professional societies.

A new page on the ODS Web site provides a detailed overview of [VDSP](#), including a full list of participants and a description of the steps involved in standardizing the laboratory measurement of 25(OH)D.

News You Can Use

New ODS Video: Thinking About Taking a Dietary Supplement?

In a short, animated video—[Thinking About Taking a Dietary Supplement?](#)—ODS

introduces viewers to its Web site as the place to find reliable, science-based information on dietary supplements. Share this video with colleagues and friends as a resource for their questions about dietary supplements. A Spanish language version is currently in production.



New ODS Fact Sheets Available

There are two new additions to the ODS library of fact sheets on dietary supplements: [Iron](#) for health professionals and [Magnesium](#) for consumers.

New Funding Opportunities: Administrative Supplements for Research on Dietary Supplements

This FY 2015 Administrative Supplement program is designed to provide supplemental funds to relevant, active, NIH-supported research projects to incorporate dietary supplement research that is within the scope of the parent project. [Get more information.](#)

ODS Staff News

Mary Garcia-Cazarin, Ph.D., an American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow with ODS as a Health Scientist since August 2012, has moved on. She is now a Scientific Advisor with the Tobacco Regulatory Science Program, which like ODS, is a component of the NIH Office of Disease Prevention.



ODS Staff Publications

ODS staff members have published papers that address key issues in dietary supplement and related research. Three are highlighted below. For a complete list, see the ODS Web site: [Staff Publications](#).

- **Taylor CL**, Patterson KY, Roseland JM, Wise SA, **Merkel JM**, Pehrsson PR, **Yetley EA**. [Including food 25-hydroxyvitamin D in intake estimates may reduce the discrepancy between dietary and serum measures of vitamin D status](#). Am J Clin Nutr 2014;144:654–659. [PMID: 24623845]
Serum concentrations of 25-hydroxyvitamin D [25(OH)D], a metabolite of vitamin D, in the U.S. population are higher than expected given dietary intakes of the vitamin. Sun exposure does not fully explain the difference. Another component to consider is the presence of 25(OH)D in animal foods such as beef, pork, chicken, and eggs, and the fact that this metabolite has approximately five times the potency of vitamin D in raising serum concentrations of 25(OH)D. There were notable increases in the total vitamin D content of animal-based foods when potency-adjusted 25(OH)D was included, and in turn there was a potentially meaningful increase (15–30% of average requirements) in vitamin D intake estimates from sample diets.
- Binkley N, **Sempos CT**. [Standardizing vitamin D assays: the way forward](#). J Bone Mineral Res 2014. [Epub ahead of print] [PMID: 24737265]
Measurement of serum concentrations of 25-hydroxyvitamin D [25(OH)D] is thought to be the best approach to assessing an individual's vitamin D status. Yet there are substantial within-assay variations in 25(OH)D measurement and even greater between-assay variability. Such assay variation confounds attempts to define what constitutes the diagnosis of hypovitaminosis D. To develop and implement clinical guidelines, it is essential that 25(OH)D measurement be standardized in both clinical and research laboratories. A way forward to achieving this goal is through the Vitamin D Standardization Program (VDSP), which was developed to promote standardization of all 25(OH)D laboratory procedures worldwide.
- **Camp KM**, **Coates PM**, **Lloyd-Puryear MA**, and 60 additional authors. [Phenylketonuria scientific review conference: state of the science and future research needs](#). Mol Genet Metab 2014. [Epub ahead of print] [PMID: 24667081]
New developments to treat and manage phenylketonuria (PKU) as well as advances in molecular testing have emerged, so an NIH State-of-the-Science Conference was convened in 2012 to address new findings and develop a research agenda. More than 85 experts participated. Among their conclusions was that while

neurological impairments in PKU are preventable with current dietary treatment approaches, a variety of subtle physical, cognitive, and behavioral consequences of even well-controlled PKU are now recognized. The process of preparing for and convening this conference facilitated the development of clinical practice guidelines by professional organizations and will serve as a model for other inborn errors of metabolism.

Recent ODS Staff Presentations

For a complete list, see the ODS Web site: [Staff Presentations](#).

- **[Experimental Biology \(EB\) 2014](#)**
April 25–30, San Diego, CA
For a full listing of ODS staff presentations at EB, see the ODS Web site: [Staff Presentations](#).
- **[13th Annual Oxford International Conference on the Science of Botanicals](#)**
April 15, 2014, University of Mississippi, Oxford
Joseph Betz gave a presentation titled *The NIH Office of Dietary Supplements: A Twenty-Year Retrospective*.
- **George Mason University**
April 7, 2014, Fairfax, VA
Paul Thomas gave a talk titled *Dietary Supplements: A 1-Hour Dose*.
- **[National Nutrition Month Mini-Symposium](#)**
March 28, 2014, Bethesda, MD
Cindy Davis gave a presentation titled *The Human Microbiome, Diet, and Health* at the NIH Division of Nutrition Research Coordination Mini-Symposium.
- **International Congress of Obesity**
March 22, 2014, Singapore
Johanna Dwyer gave a presentation titled *Nutrition Requirements of Active Adults* at the Symposium on Active Living Satellite Conference. Dr. Dwyer also gave a talk to the Singapore Dietetic Association titled *Dietary Recommendations Update*.
- **[Nutrition and Cancer Prevention Research Practicum, National Cancer Institute](#)**
March 15–19, 2014, Rockville, MD
Paul Coates gave a presentation titled *Evidence-based Reviews for Nutrition Topics: The ODS Experience* on March 17. **Cindy Davis** gave talks titled *Vitamin D and Cancer Prevention* and *Omega-3 Fatty Acids and Fish and Cancer Prevention* on March 19.
- **Campus BioMedico Workshop on Omega-3 Fatty Acids in Health and Disease**
March 13, 2014, Rome, Italy
Elizabeth Yetley gave a presentation titled *Assessing Omega-3 Fatty Acid Status of Populations*.
- **Texas A&M University**
February 24, 2014, College Station, TX
Barbara Sorkin gave a Nutrition Graduate Seminar Series presentation titled *Challenges in Advancing Research on Botanical Dietary Supplements*.

ODS Media Appearances

Paul Coates was interviewed by Sean Moloughney, Senior Editor of *Nutraceuticals World*, about ODS and its accomplishments, its impact on dietary supplement research, relations with the academic research community, and future endeavors of the Office. The article, which included interviews with other notables in the dietary supplement community, appeared in the April issue of *Nutraceuticals World* and was titled [Dietary supplements: increasing in value & potential](#).

Paul Coates gave an on-camera interview to NHK Channel 1, the Japan Broadcasting Corporation, about the activities of ODS and how the Office interfaces with both consumers and the supplement industry, creates educational materials, and supports and conducts research on dietary supplements. The interview was to have been broadcast in early April

on the Japanese TV program “Today’s Close-Up” as part of a feature on the Japanese dietary supplement industry and new government regulations in that country that liberalize the use and content of health-related claims on supplement labels and in advertising.

Paul Thomas spoke (through a translator) with reporter Mika Omura of *Asahi Shimbun*, one of Japan’s most circulated national newspapers, about ODS and its activities, and differences between the supplement-related interests of ODS and the U.S. Food and Drug Administration. As with **Paul Coates’** interview with NHK Channel 1, the article (published in early April in Japanese only) was a feature on the Japanese supplement industry and new, government-granted opportunities to make claims of health benefits for its products.

Upcoming Events

[John A. Milner Memorial Symposium](#)

June 12, 2014, Washington, DC

The title of this day-long symposium is *Our Food and Our Health: Today’s Discoveries Driving Tomorrow’s Opportunities*. **Johanna Dwyer**, one of the speakers, will give a talk titled *Mysteries of Plant Foods: Flavonoids as a Case Study*.

[American Academy of Nurse Practitioners 29th National Conference](#)

June 18–22, 2014, Nashville, TN

ODS will have an exhibit at this meeting (Booth #578).

[National Extension Association of Family & Consumer Sciences Annual Meeting](#)

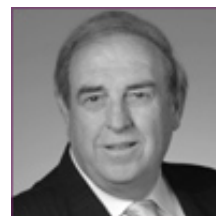
September 15–18, 2014, Lexington, KY

ODS will have an exhibit at this meeting (Booth #35).

[Academy of Dietetics and Nutrition—Food & Nutrition Conference & Expo](#)

October 20–22, 2014, Atlanta, GA

ODS will have an exhibit at this meeting (Booth #2335).



John A. Milner
1947–2013

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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About ODS

The Office of Dietary Supplements (ODS) is part of the National Institutes of Health (NIH), the principal biomedical and behavioral research agency of the United States Government. NIH is a part of the U.S. Department of Health and Human Services.

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