Options for Consideration of Chronic Disease Endpoints for Dietary Reference Intakes (DRIs)

March 10-11, 2015 | Bethesda, Maryland | NIH Main Campus

AGENDA

DAY 1 — TUESDAY, MARCH 10

7:30 A.M. **REGISTRATION**

Background

8:30 A.M. **Welcome**
Paul M. Coates, Ph.D. — Office of Dietary Supplements (ODS), National Institutes of Health (NIH)

Workshop Focus and Charge
Amanda MacFarlane, Ph.D. — Health Canada

8:40 A.M. **DRIs: Past Experiences with Chronic Disease Endpoints**
Christine L. Taylor, Ph.D. — ODS, NIH

9:00 A.M. **DRIs: Future Perspectives**
Johanna T. Dwyer, D.Sc., R.D. — ODS, NIH

9:30 A.M. **BREAK**

Evidentiary Issues

10:00 A.M. **Experiences in Evaluating Chronic Disease Endpoints for DRIs: The 2011 Vitamin D/Calcium Report**
Patsy M. Brannon, Ph.D., R.D. — Cornell University

10:30 A.M. **Evaluating the Strength of the Evidence**
Joseph Lau, M.D. — Brown University

11:00 A.M. ***Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease*: Report from the 2010 Institute of Medicine (IOM)**
William R. Harlan, M.D., FACP, FACPM, FAAFP, FAHA — NIH (Retired)

11:30 A.M. **Possible New Tools: Systems Science**
Bruce Lee, M.D., M.B.A. — Johns Hopkins Bloomberg School of Public Health

12:00 NOON **LUNCH**

1:00 P.M. **Panel Discussion***

- What candidate approaches are available for evaluating evidence that is not derived from randomized controlled trials when assessing the robustness of proposed causal links between specified food constituents and chronic disease endpoints? What are the strengths and weaknesses of candidate approaches? George A. Wells, Ph.D., M.Sc.

- Does the nature of candidate endpoints (e.g., biomarkers and clinical outcomes) alter recommended evidentiary standards for causally linking nutrient intakes to the specified endpoints? And if so, how? Dennis M. Bier. M.D.
- What is the ideal evidence on which to set a DRI based on a chronic disease? Daniel Krewski, Ph.D.

3:00 P.M. **BREAK**

Dose-Response Issues

3:30 P.M. **A High-Level View of the Nature and Role of Dose-Response Relationships in Assessing and Managing Risks of Chronic Disease Associated with Nutrients and Related Dietary Substances**
Joseph V. Rodricks, Ph.D., DABT — ENVIRON International Corporation

4:00 P.M. **Measurement Error and the Status of Nutrient/Chronic Disease Association Information**
Ross L. Prentice, Ph.D. — Fred Hutchinson Cancer Research Center

4:30 P.M. **Application of a Key Events Dose-Response Analysis to Nutrients**
A. Catharine Ross, Ph.D. — Pennsylvania State University

5:00 P.M. **ADJOURN**

DAY 2 — WEDNESDAY, MARCH 11

7:30 A.M. **REGISTRATION**

8:00 A.M. **Effect Modifiers on Dose-Response Curves**
Deborah L. O'Connor, Ph.D., R.D. — University of Toronto *and* The Hospital for Sick Children

8:30 A.M. **Interindividual Variability and How It Affects the Risk/Benefit Calculations for Upper Limits (ULs)**
Dale B. Hattis, Ph.D. — Clark University

9:00 A.M. **BREAK**

9:30 A.M. **Panel Discussion***

- Is the relationship between a diet substance and chronic disease, that is, a biomarker or functional outcome not directly linked to disease, linear and progressive? If not, what nonlinear models are appropriate? Joseph V. Rodricks, Ph.D., DABT
- Does the relationship change with various endpoints, that is, disease versus intermediary biomarkers and/or functional outcome? Janet C. King, Ph.D.
- Are there toxicity signs within the established range? If so, do they impact disease states or intermediary metabolism? Do reductions (within the normal range) in the levels of specific functions (e.g., cognition and delayed hypersensitivity) qualify as an adverse outcome? Dale B. Hattis, Ph.D.

Cross-Cutting Issues

11:30 A.M. **Panel Discussion Continued**

- What evidentiary criteria should be considered in evaluating quantitative or qualitative nutrient-nutrient interactions, nutrient-physiologic state interactions, and nutrient-consumer behavior interactions that may modify proposed nutrient-chronic disease causal links and dose-response relationships? Stephanie Atkinson, Ph.D., FCAHS and Deborah L. O'Connor, Ph.D., R.D.

12:00 NOON **LUNCH**

Arguments For and Against Continuing to Include Chronic Disease Endpoints in Future DRI Reviews

1:00 P.M. **Panel Discussion Continued**

2:00 P.M. **Workshop Key Questions**

3:00 P.M. **ADJOURN**

---

*Panel Members

Panel Chairman: *Cutberto Garza, M.D., Ph.D.* — Boston College, George Washington University, Johns Hopkins University, and Oxford University

- *Jamy D. Ard, M.D.* — Wake Forest School of Medicine
- *Stephanie A. Atkinson, Ph.D., FCAHS* —McMaster University
- *Dennis M. Bier, M.D.* — Baylor College of Medicine
- *Alicia L. Carriquiry, Ph.D.* — Iowa State University
- *William R. Harlan, M.D., FACP, FACPM, FAAFP, FAHA* — NIH (Retired)
- *Dale B. Hattis, Ph.D.* — Clark University
- *Janet C. King, Ph.D.* — Children's Hospital Oakland Research Institute
- *Daniel Krewski, Ph.D.* — University of Ottawa
- *Deborah L. O'Connor, Ph.D., R.D.* — University of Toronto *and* The Hospital for Sick Children
- *Ross L. Prentice, Ph.D.* — Fred Hutchinson Cancer Research Center
- *Joseph V. Rodricks, Ph.D., DABT* — ENVIRON International Corporation
- *George A. Wells, Ph.D., M.Sc.* — University of Ottawa Heart Institute