Update on ODS Programs

Paul M. Coates, Ph.D.
Director, Office of Dietary Supplements
National Institutes of Health
ODS Mandated Tasks

- *Explore the role* of dietary supplements to improve health care

- *Promote scientific study* of dietary supplements in maintaining health and preventing chronic disease

- *Conduct & coordinate* research at NIH
ODS Mandated Tasks

- Collect & compile databases of scientific literature & federally funded research on dietary supplements (IBIDS and CARDS)
- Provide advice to other HHS agencies related to dietary supplements
Chromium and Diabetes

- Knowledge/limitations re Cr basic research
- Assessment of Cr status in humans
- Dietary intake studies/clinical trials
- Workshop held in November 1999
  - Summary on ODS website
- Systematic review of literature/meta-analysis
Zinc and Health: Research Priority Areas

- Chemistry, biology, & pathobiology of Zn
- Zn metabolism/mechanisms of homeostasis
- Epidemiology of Zn deficiency; methods for detection, prevention, & management
- Benefits/risks of Zn supplementation
Bioavailability of Dietary Supplements:

*Key Issues in Defining the Research Agenda*

- Active ingredients
- Impact of formulation on bioavailability
- Physiological determinants of bioavailability
- Current approaches for standardizing methodologies
- Follow-up: publication in J. Nutr, 2000
IBIDS

International Bibliographic Information on Dietary Supplements

- database of published international scientific literature on dietary supplements

- developed/maintained with the Food and Nutrition Information Center, National Agricultural Library, USDA
Dietary Supplement Fact Sheets

• Vitamins/minerals
  – in conjunction with NIH Clinical Center
  – initially, 12 short, factual, referenced, peer-reviewed, updated fact sheets
  – first 3 (Se, Zn, Mg) appeared early in 2000 on ODS website
  – others will appear during 2000
Office of Dietary Supplements

RESEARCH
AGENDA:
Botanicals
Congressional Mandate

“to establish a botanical research initiative with major research institutions in the United States”
RFA For Specialized Research Centers: Purpose

...to investigate the biological effects of botanicals including, but not limited to, botanicals available as dietary supplements

...such Centers needed to advance the quality and quantity of scientific information on botanicals and to promote further research in this area
Botanical Research Centers: Major Areas of Emphasis

- Identify and characterize botanicals
- Assess bioavailability and bioactivity
- Identify active constituents and explore mechanism of action
- Clinical evaluation (Phase I and II)
NIH Funded Dietary Supplement
Research Centers on Botanicals

**Awards:**
- University of California Los Angeles
- University of Illinois at Chicago
- Purdue University
- University of Arizona

**Awarding Organizations:**
- ODS, NCCAM, NIGMS, ORWH

$1.5 million/year for 5 years
UCLA Center

◆ Home base: **Nutrition Department**
◆ Center Director: **Dr. David Heber**
◆ Initial Research Focus
  ◆ Chinese Red Yeast Rice
  ◆ Green Tea Extract
  ◆ St. John’s Wort
◆ Consumer Education
UIC Center

- Home base: Department of Pharmacology
- Center Director: Dr. Norman Farnsworth
- Center On Women’s Health
  - Herbal Supplements for Menopause
- Training Program in Pharmacognosy
- Consumer Education
Purdue Center

- Home base: Nutrition Department
- Center Director: Dr. Connie Weaver
- Collaborating Institution: U. Alabama Birmingham (Dr. Stephen Barnes)
- Research Focus: Polyphenols
  - Grape Polyphenols and Neuroprotection
  - Tea Catechins and Cancer
  - Polyphenols and Inflammation
  - Soy Isoflavones and Bone Resorption
- Consumer Education
University of Arizona Center

◆ Home base: College of Pharmacy
◆ Center Director: Dr. Barbara Timmermann
◆ Botanicals Used in Ayurvedic Medicine
  ✤ Treatment of Chronic Inflammatory Diseases
  ✤ Production of Anti-inflammatory Mediators
  ✤ Ginger, Turmeric, Boswellia
◆ Phytomedicine Course
◆ Consumer Education
Much Research Is Needed: Emerging Areas

- Model systems to test efficacy and safety
- Nutrient/supplement and gene interactions
- Age-related physiologic changes
- Evidence-based practice