



**CHPA Dietary Supplements  
Symposium  
Sept 28, 2000**

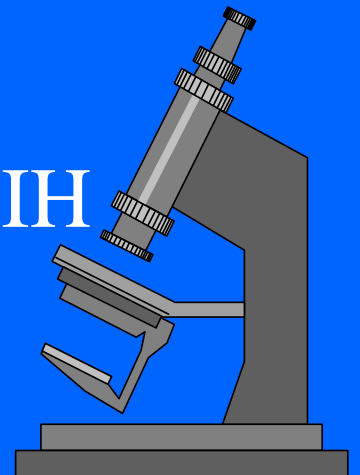
***Update on ODS Programs***

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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
- ◆ Published in J. Nutr. 130: 1341S-1519S, 2000.

# **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

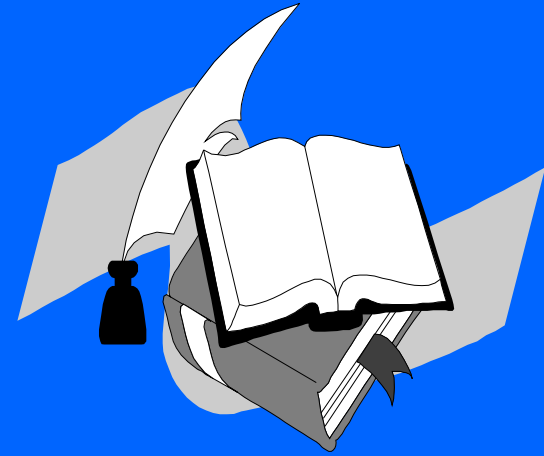
- ◆ Home base: Nutrition Department
- ◆ Center Director: **Dr. Connie Weaver**
- ◆ Collaborating Institution: U. Alabama Birmingham (Dr. Stephen Barnes)
- ◆ Research Focus: Polyphenols
  - ❖ **Grape Polyphenols and Neuroprotection**
  - ❖ **Tea Catechins and Cancer**
  - ❖ **Polyphenols and Inflammation**
  - ❖ **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