MINUTES OF THE NUTRITION COORDINATING COMMITTEE (NCC) MEETING, NATIONAL INSTITUTES OF HEALTH (NIH)
Rockledge 2, Conference Room 9100-9104, Bethesda, MD
December 4, 2008 2:00- 4:00 PM

WELCOME

RADM Van Hubbard, Director, NIH Division of Nutrition Research Coordination (DNRC), convened the meeting at 2:02 PM and welcomed participants. Participating via phone were Ms. Jean Charles-Azure, IHS; Dr. Rachel Ballard-Barbash, NIH NCI; CAPT Shirley Blakely, FDA; Dr. Wendy Braund, OS ODPHP; Dr. Ken Bridbord, NIH FIC; Dr. Paul Cotton, NIH NINR; Dr. Eve Essery, OS ODPHP; Dr. Deborah Galuska, CDC; Dr. Shirley Gerrior, USDA CSREES; Dr. Judy Hannah, NIH NIA; Dr. David Klurfeld, USDA; Dr. Sue Krebs-Smith, NIH NCI; Dr. Iris Mabry-Hernandez, AHRQ; Dr. Elizabeth Maull, NIH NIEHS; CAPT Margaret McDowell, CDC NCHS; Ms. Holly McPeak, OS ODPHP; Dr. Deborah Olster, NIH OBSSR; Dr. Marshall Plaut, NIH NIAID; Dr. Barry Portnoy, NIH ODP; Dr. Daniel Raiten, NIH NICHD; CAPT Rick Troiano, NIH NCI/OS ODPHP; Ms. Martina Vogel-Taylor, NIH ODP; and Dr. Susan Welsh, USDA CSREES. The agenda for the meeting is provided as Appendix A, and the list of attendees is provided as Appendix B.

APPROVAL OF MINUTES FROM THE OCTOBER 2, 2008 NCC MEETING

Minutes from the October 2, 2008 NCC meeting had previously been sent to NCC members via email. RADM Hubbard asked if there were any other corrections to the minutes. There were none. Dr. John Milner, NIH National Cancer Institute (NCI), made a motion to approve the minutes, and Dr. Sooja Kim, Center for Scientific Review (CSR), seconded the motion. The minutes were thus approved and will be posted on the DNRC website, http://www.dnrc.nih.gov, along with the minutes from previous NCC Meetings.

INTRODUCTION TO MARS BOTATNICAL AND THE STUDY OF CONSUMER HEALTH BENEFITS FROM COCOA FLAVANOLS

Dr. Mary Wagner, General Manager/Chief Technology Officer of Mars Botanical, provided an introduction to Mars Botanical, which is "a scientific division of Mars, Incorporated dedicated to further developing leading edge science and technologies in the field of phytonutrients with the goal of creating new plant-derived products aimed at improving human health." Dr. Hagen Schroeter then gave a presentation detailing the research Mars Botanical has conducted on the potential benefits of cocoa flavanols.

Mars, Inc. has a long history of studying the benefits of cocoa. They started with an internal and external network of scientific collaborations and progressed from the study of chocolate/cocoa to cocoa polyphenols to cocoa flavanols and then to the specific bioactive flavanol compounds. Through their research, Mars, Inc. has developed a leading edge understanding of flavanol analytics, biochemistry, and metabolism. Mars is focused on understanding the biological properties of cocoa flavanols in arterial dysfunction, insulin resistance & cognitive

performance. The body of expertise developed by Mars, Inc. was recently gathered into a Mars Symbioscience unit focused on applying science-based, health benefits of cocoa: Mars Botanical. By seeking answers to questions about flavanols as the active compound in cocoa and the mechanism of their bioactivity, Mars hopes to affect agricultural practices and plant breeding programs; influence food processing methods; provide science-based advice for business strategies, product development, and PR; support the development of rational dietary or pharmaceutical strategies to combat or delay onset of cardiovascular diseases; and educate health care advisors.

Research conducted at Mars Botanical uses a multi-center, clinical study approach that includes 14 major study sites in the US, Europe, and Australia. Current trials and investigations planned for 2008 include study populations of 20 -100 healthy individuals, healthy elderly, mildly hypertensive, diabetics, or insulin resistant individuals and are designed to last anywhere from 14 -180 days. The main indications under investigation are microvascular complications, insulin resistance and diabetes, brain blood flow and cognition, as well as hypertension. Mars is also conducting exploratory studies aimed at novel targets and prospective indications.

Some of the significant research findings were described by Dr. Schroeter. One point of interest is that the method in which cocoa is processed dramatically impacts the flavanol contact. Traditional processing methods, especially roasting and alkalization, can greatly reduce flavanol content of food. In order to preserve the flavanol content of cocoa, Mars has developed an alternate processing method called CocoaPro®. Because the processing method is so important, the health benefits of cocoa do not pertain directly to the darkness of the chocolate. Another finding described by Dr. Schroeter is that the consumption of certain cocoa products improves blood flow and blood vessel function. However, the fact that cocoa consumption does not alter antioxidant capacity of plasma even though it does modulate cardiovascular function suggests that it does not matter that cocoa flavanols are antioxidants.

More information about Mars Botanical can be found on their website (http://www.marsbotanical.com/). In addition, both Dr. Wagner (Mary.Wagner@mss.effem.com) and Dr. Schroeter (Hagen.Schroeter@mss.effem.com) are available for further discussion. There is still a great deal of exciting research to be done with cocoa flavanols, and Mars Botanical looks forward to speaking with the scientific nutrition community at NIH about possible opportunities for collaboration.

REPORTS FROM NCC MEMBERS AND LIASONS

1) Dr. Sharon Ross, NCI, announced that the program has been finalized for the scientific session that will be hosted by the NIH Nanotechnology Subgroup of the NCC at the 2009 Experimental Biology meeting in New Orleans. The title of the session is *Nanotechnology Research: Applications in Nutritional*

Science. It will be held on April 21st from 3:00-5:00. A copy of the program can be found in Appendix C.

2) Dr. Crystal McDade-Ngutter, DNRC, reminded the NCC about the upcoming December 10th Food Forum Workshop on Nanotechnology in Food Products. The workshop will examine the impact that nanotechnology has on food science, nutrition, and the consumer, both currently and in the future. Registration is available at: http://www8.nationalacademies.org/isc-registration/public/default.asp?event=5B643074

3) Dr, Kathy Ellwood, U. S. Food and Drug Administration (FDA), announced that FDA has scheduled a Nutrition Roundtable Discussion on Friday, December 12, 2008 from 1:00 until 3:30 PM, at the FDA Center for Food Safety and Applied Nutrition (CFSAN), Harvey W. Wiley Building, 5100 Paint Branch Parkway, College Park, Maryland.

   The purpose of the Roundtable is to communicate FDA's nutrition activities and provide status updates in the following tentative list of topics: foods referred to as Functional Foods, Health Claims, Evidence Based Review Guidance, Critical Path project on Biomarkers for use in Health Claims, Front-of-Pack Labeling, the collaboration between FDA and USDA's Center for Nutrition Policy and Promotion for nutrition education and outreach, "Spot the Block" for 'Tweens' children 9 to 12 years, and other issues, for example, sodium status and implementation of section 912 of FDAAA.

   Information regarding registration is posted online: http://www.cfsan.fda.gov/~comm/regist11.html

4) Dr. Cindy Davis, NCI, announced an upcoming Step Forum, *Bacteria – Can't live with 'em, can't live without 'em*. The program, which has a strong nutritional focus, will be held on January 13th, 2009 in Lister Hill Auditorium from 8:30-12:30. For more information, see Appendix D.

5) Dr. Deborah Galuska, CDC, informed the NCC that the December 5, 2008 issue of the Morbidity and Mortality Weekly Report (MMWR) highlights the prevalence of self-reported physically active adults using data from the 2007 Behavioral Risk Factor Surveillance System (BRFSS) survey. According to the analysis, 64.5% of respondents in 2007 reported meeting the 2008 Physical Activity Guidelines. To view this report, visit: http://www.cdc.gov/mmwr/PDF/wk/mm5748.pdf

6) Dr. Sue Krebs-Smith, NCI, announced that usual dietary intakes for the US Population, 2001-2004, can now be found on the NCI website (http://riskfactor.cancer.gov/diet/usualintakes/pop/index.html). The NCI Method of estimating usual dietary intake distributions provides the capability, for the first time, to estimate the distribution of usual food intakes in the US population.

7) Dr. Deb Olster, NIH Office of Behavioral and Social Sciences Research (OBSSR), announced that the "*Gene-Nutrition and Gene-Physical Activity Interactions in the Etiology of Obesity"* workshop presentations were published in the December issue of *Obesity (Volume 16, Supplement 3,*

December 2008). The supplement can be viewed at the following website: http://www.nature.com/oby/journal/v16/n3s/index.html

NATIONAL NUTRITION MONTH & WEDNESDAY AFTERNOON LECTURE SERIES

National Nutrition Month:

In preparation for National Nutrition Month, which will take place in March, the DNRC has drafted a desk-to-desk pamphlet on how to eat healthy for less. It is undergoing final review via the DHHS/USDA Dietary Guidance review process and will eventually be distributed to all NIH employees during the first week of March. The DNRC would also be interested in knowing about other activities that might be planned for March as well as suggestions for activities that should be considered. Please send any suggestions to Ms. Rachel Fisher (Rachel.Fisher@nih.hhs.gov) or Dr. Van Hubbard (hubbardv@mail.nih.gov).

Wednesday Afternoon Lecture Series (WALS):

NIH OD is soliciting nominations for outstanding speakers for next year's Wednesday Afternoon Lecture Series. The 2009-2010 season begins in September 2009, and the nomination period is open from November 20 to December 31.

The Wednesday Afternoon Lectures, which include the NIH Director's Lectures and other named lectures, are the most visible and best-attended lectures at NIH. They are one of the ways NIH scientists stay abreast of breaking developments in biomedical research. Lectures are hosted by NIH's scientific interest groups, the NIH Fellows and the ICs. The NIH Scientific Directors propose top nominees for the Director's Lecturers, to be selected by the NIH Director. The Office of Intramural Research selects nominees for other WALS lectures. Special consideration is given to nominees submitted by scientific interest groups. For the 2008-2009 season, over 150 nominees competed for 45 lectures.

* Action Item:

Due to the visibility of WALS, this is an excellent opportunity to nominate members of the nutrition scientific community as speakers. Nominees should be exceptional active scientists with a captivating research story of interest to the wide range of researchers at NIH. When nominating a speaker, it is important to include reasoning for why the nominee would be a good WALS speaker. This should be in place of or in addition to a simple cut-and-paste from the nominee's website. Nominees in previous years have been passed over due to a lack of such justification.

If you have a nominee, please email Dr. Van Hubbard (hubbardv@mail.nih.gov) with your justification so the DNRC can help support the nomination on behalf of the NCC. We would also encourage the nomination be submitted via your own organization. In addition, Ms. Martina Vogel-Taylor (vogelm@mail.nih.gov) said

she can also support the recommendation through the NIH Epidemiology Interest Group.

UPDATE FROM THE DHHS OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION (ODPHP)

Ms. Kathryn McMurry provided several updates from ODPHP:

Dietary Guidelines for Americans 2010

- The first Dietary Guidelines Advisory Committee meeting was held October 30 and 31, 2008 at the USDA Jefferson Auditorium. Transcripts and minutes from this meeting will soon be posted at www.dietaryguidelines.gov.

- The committee is divided into the same subcommittees as the 2005 DGAC: Nutrient adequacy, energy balance, carbohydrates, fatty acids, fluid and electrolytes, ethanol, and food safety. The subcommittees are currently holding conference calls to determine if new research is available that warrants review of subcommittee topics, and they are developing research questions and search and sort plans for the USDA Nutrition Evidence Library. The Chair of the committee, Dr. Linda Van Horn, has encouraged each subcommittee to be sure to consider "obesity" in their discussions.

- The next meeting will be held at the USDA Jefferson Auditorium on January 29 and 30, 2009. This meeting will include oral testimonies from the public. You can register for the meeting at www.dietaryguidelines.gov, and this website will be regularly updated with information about the 2010 Dietary Guidelines.

Dietary Reference Intakes (DRIs) - Review of Dietary Reference Intakes for Vitamin D and Calcium

This project requests the IOM to convene an expert scientific committee to review the 1997 DRI values for vitamin D and calcium. The committee will be asked to evaluate new data on the actions and interactions of these nutrients across the full range of life stage groups. The expert committee will either develop new or reaffirm existing reference values based on its review of the evidence.

The panel selection process is underway at IOM. The first meeting, which will include sponsor comments, will be held in March 2009. The second meeting will include a public presentation of the new AHRQ report and will be held in early summer. For the first time, the DRI panel will have a systematic, evidence-based review as a resource.

The study is being cosponsored by multiple agencies and offices of Health Canada and the U.S. Departments of Agriculture (USDA), Defense (DoD), and Health and Human Services (DHHS).

Healthy People 2020

Advisory Committee
The federal advisory committee has submitted its report and it will be posted on December 11, 2008. The committee will continue meeting during the development of the 2020 objectives, with next meetings on Dec. 17, 1-3pm (Internet) and Jan. 7-8 at the Humphrey building. Registration is available online at the HP Web site (www.healthypeople.gov).

Healthy People 2020 Objectives
- "Phase I" will be launched in January 2009 (vision, mission, overarching goals);
- Phase II (objectives, target-setting, evidence-based implementation strategies for meeting objectives) has started and will be launched in January 2010.
- Plan is to make it a web-based, searchable, interactive system instead of paper-based. Public comment database is open and we welcome comments on any/all aspects of HP 2020.

Consortium
- Join the newly launched Healthy People Consortium at http://www.healthypeople.gov/hp2020/Consortium/Default.aspx. The Consortium is a diverse, motivated and dedicated group of agencies and organizations committed to working together to help achieve Healthy People 2020's health goals and objectives for the nation. It will be a venue for keeping updated about ongoing HP 2020 activities and share strategies, challenges and success stories.

Physical Activity Guidelines
CAPT Rick Troiano, ODPHP/NCI, provided an update on the Physical Activity (PA) Guidelines, which were released on October 7, 2008. The launch took place in the Great Hall of the U.S. Department of Health and Human Services, Hubert H. Humphrey Building and included comments from the Surgeon General, Assistant Secretary for Health, and the HHS Secretary. So far, there are over 1,000 organizations/individuals who have signed up to become supporters of the Guidelines. More information is available at http://www.health.gov/paguidelines.

CAPT Troiano also clarified a point of confusion about ordering printed copies of the PA Guidelines. Any copies ordered by NIH or CDC require a print order from a designated source at the organization. The contact at NIH for this request is David Pair (pairf@mail.nih.gov).

New ODPHP Staff
Ms. McMurry announced a new member of the ODPHP staff, Rachel R. Hayes, MPH, RD., who will serve as a Public Health Advisor (Nutrition). She joins ODPHP from the Food and Nutrition Service at USDA where she worked with

school lunches. Her responsibilities at ODPHP will include working on the DRIs, HealthyPeople, and the Dietary Guidelines.

UPDATE FROM THE NIH OFFICE OF DIETARY SUPPLEMENTS
Dr. Regan Bailey, ODS, provided the following updates:

Dietary Supplements Strategic Planning Initiative 2010-2014
ODS is seeking input from stakeholders for its Strategic Plan 2010 – 2014. A review of ODS programs may be found in A Report to the Public, a document that may be found on the ODS Web site: http://dietary-supplements.info.nih.gov/. Stakeholder are encouraged to give feedback on priorities and issues for ODS. There are several ways stakeholders can respond:

ODS Email: ODSPlan@ods.nih.gov
ODS website: http://dietary-supplements.info.nih.gov/
ODS town meetings via webinars –
Research Support – 1 PM Thursday, January 29, 2009
Research Tools – 2 PM Tuesday, February 3, 2009
Science-Policy – 1 PM Wednesday, February 11, 2009
Communications – 2 PM Thursday, February 19, 2009

Webinars will also be available by archive on ODS Web site for review and feedback.

Contract Awarded to Develop Dietary Supplement Label Database
With funding from ODS and the National Library of Medicine (NLM), Abt Associates of Cambridge, MA will conduct a pilot study to determine if it is feasible to develop a Web-based database to catalog the labels of all dietary supplements sold in the United States. Currently a prototype exists on the NLM at http://dietarysupplements.nlm.nih.gov. Included in the database is information on more than 2,000 brands of dietary supplements and their ingredients, uses, and manufacturers. A feasibility study is underway. A meeting of the stake holders was held on November 13th. A demonstration of the DSLD was presented by Abt Associates.

Registration is now open to the 7th International Conference on Diet and Activity Methods (ICDAM 7)
Conference Dates: June 5-7, 2009
Pre-Conference Workshops: June 4, 2009

The overall goal of this conference is to provide a forum for sharing knowledge on the assessment of diet and physical activity by promoting a better understanding of their strengths and limitations; stimulating international and interdisciplinary research focusing on analytical issues; and identifying future research priorities. For more information: http://www.icdam.org/

AHRQ Evidence-based review: SAFETY OF PROBIOTICS USED TO REDUCE RISK AND PREVENT OR TREAT DISEASE: STATE OF THE RESEARCH

- Purpose: (1) To catalogue what is known about the safety of probiotics (*Lactobacillus*, *Bifidobacterium*, *Saccharomyces*, *Streptococcus, Enterococcus,* and *Bacillus*) used in research to reduce the risk of, prevent or treat disease. (2) To assess the quality of, completeness of, and our confidence to interpret this information. (3) To provide recommendations, tools, and other resources for use by practitioners, researchers, and regulators to assess the value of and safety of probiotic administration to reduce risk, or prevent or treat disease, as well as to identify priorities or needs for future research.

  The review questions address 5 genera of probiotics. Chosen because (1) NIH has supported their study; (2) they are commonly reported on in the scientific literature; (3) they are the most common in the US market; and/or (4) they have been associated with harms.

- Sponsors: ODS, NCCAM, CFSAN

- Timeline: Contract to be awarded in February 2009. Report to be finalized in about one year, early 2010.

- Rationale: Most commercially available probiotic strains are widely regarded as safe. Nevertheless, there are significant concerns with respect to safety in particular populations. Effects may vary in health and disease, in different disease states, and in different age groups. The clinical or laboratory effects of one probiotic cannot be assumed for another probiotic species or for different strains of the same species. Different probiotics can have different effects in both *in vivo* and *in vitro* analyses, although pooled analyses have, in some cases, shown significant treatment effects for probiotics. In addition, currently available *in vitro* tests are not fully adequate to predict functionality of probiotic microorganisms in the human body and substantiation of effects (beneficial and harmful) may require human trials.

  The information on safety is limited. The most important area of concern with probiotic use is the risk of sepsis. Cases of bacterial and fungal sepsis related to probiotic use in humans have been reported. In addition, concerns have been expressed regarding excessive immune stimulation, gene transfer, e.g., transmission of antimicrobial resistance, toxin production, and hemolytic potential.

  Research advances have led to the increase of available probiotic strains and elevated them to be classified as therapeutic compounds. Physicians broadly prescribe them for disorders without clear evidence to support their use. Some professional organizations have issued practice guidelines. In addition,

consumers suffering a wide variety of ailments are self medicating. This situation has created a requirement for regulation of probiotics. The USFDA CFSAN regulates probiotic products used as dietary supplements or food components. Often, these products have not undergone sufficient product characterization or rigorous clinical testing that is required to support an application for licensure as a drug or biological product in the U.S.

Most proposed uses of probiotics for clinical investigation meet the definition of a drug or biological product from a regulatory perspective. When a probiotic product is proposed for evaluation in a clinical study, it may be viewed as an unapproved biological product and an investigational drug product, and thus would be subject to the regulations for an IND. Many NIH investigators, and NIH scientific staff, do not understand this. It is not uncommon that a study protocol is favorably reviewed by an NIH expert study section without any concerns expressed for safety of the study participants. However, the FDA may request additional safety data and the performance of preclinical and clinical, including a Phase 1 study, prior to the implementation of a large clinical study, despite previous small clinical studies.

Safety, therefore, is of interest to both the food and supplement industry, to consumers who will eventually use these products, to practitioners, to scientific bodies, and to regulatory agencies.

Workshop: SOY PROTEIN/ISOFLAVONE RESEARCH: CHALLENGES IN DESIGNING AND EVALUATING HUMAN STUDIES

- Planning committee: ODS, NCCAM, NIAMS, NIA, NHLBI, NCI, DNRC.
- Sponsors: ODS, NCCAM, NCI, and others pending. (Invitations for financial contribution sent to IC Directors, pending responses.)
- Logistics: To be determined, but….2-day open workshop, in Bethesda area, sometime mid-late summer 2009. The announcement will be issued in the Federal Register and posted on the ODS website.
- Description: Two-day workshop to provide guidance for the next generation of soy protein/isoflavone human research. Its objectives are (1) to identify methodological issues relative to exposures and interventions that may confound study results and interpretation; (2) to identify scientifically sound and useful options and solutions for dealing with these issues in the design, conduct, reporting of results, and interpretation of ongoing and future studies. After the keynote address, six sessions will address the challenges clinical investigators have had designing and implementing soy studies; US population exposure to soy and other phytoestrogens and how this exposure impacts clinical studies; the human biologic response variability to soy; methods and tools to estimate exposure and adherence to interventions; issues of product composition; and analytic methods to assess product constituents and metabolites in biologic fluids. The workshop will conclude

with recommendations. A summary of the workshop will be published in an appropriate journal.

- Rationale: More than two years ago NIEHS discovered that its investigators were not able to reproduce the results of animal soy studies. Earlier this year the issues and how they have been resolved was published. Some of the problems were that animal feed contained soy, genistein or other phytoestrogens in addition to the test agent (soy), in addition cage litter may contain soy or phytoestrogens and animals had been bred and inbred for years consuming these phytoestrogens. ODS reported this problem and issues related to human studies at one of its Transagency meetings about the same time. Also, NCCAM "paused" its acceptance of soy study grant applications until challenges can be resolved. Issues for human studies include the pervasiveness of soy and other phytoestrogens in the US market, the lack of suitable or accurate analytic tools to assess this exposure and to quantify soy constituents in supplements or foods, and the variability of soy effects due to timing of human exposure, ethnicity, genetics, etc. Results from soy studies of specific health outcomes have been variable and sometimes controversial. This workshop will address these issues and provide guidance for future studies.

UPDATE OF DNRC ACTIVITIES

Nutrition Education Subcommittee (NES) CAPT Jean Pennington, DNRC, provided an update of the activities of the NIH NCC NES. Since January 2008, the NES has reviewed (or forwarded for joint DHHS/USA review) 24 documents, 13 from NIH (1 each from ODS, WIN, and DNRC; 2 each from NICHD and NCI; and 3 each from NIA and NHLBI), 6 from other DHHS agencies, 3 from USDA, and 2 from combined organizations. Materials reviewed/forwarded since the last NCC meeting are:

- *Nutrient Criteria for Recipes* (NHLBI)
- *Act Now: A Parent's Guide to Girls' Bone Health* (DHHS OWH)
- *National Nutrition Month Brochure* (DNRC)
- *Holiday Food Safety* (CDC, FDA, USDA) [DNRC review only]
- *It's All About You Materials* (IFIC) [DNRC review only]

The DNRC listing of NIH nutrition education materials is available on the DNRC website (http://dnrc.niddk.nih.gov/nutrition_education/index.shtml). NCC members are requested to check the information on the website and provide any needed changes or new materials to Ms. Karen Regan, DNRC. The DNRC would appreciate receiving 10-20 copies of newer NIH nutrition-related publications for display in the DNRC Office. Please send them through interoffice mail to CAPT Pennington, Democracy 2, Room 629.

International Committee Information: Dr. Dan Raiten, NICHD, announced that, on behalf of the NCC International Committee, a proposal for a 2-hour scientific session was sent to the organizer of the 19th International Congress of Nutrition. The Congress will be held in Bangkok, Thailand in October, 2009. Confirmation

of the proposal's acceptance has not yet been received, but Dr. Raiten will follow up and keep members of the NCC posted.

Dr. Raiten also shared two articles pertaining to international nutrition that may be of interest to other members of the NCC.

1) "Raising the World's I.Q." by Nicholas Kristof, NY Times, December 4, 2008

2) "US Health Aid Beyond PEPFAR: The Mother & Child Campaign" by Colleen Denny and Ezekiel Emanuel. JAMA, November 5, 2008—Vol 300, No. 17. pgs 2048-2051

NEXT NCC MEETING
The next meeting will be January 8, 2008

ADJOURNMENT
The meeting was adjourned at 3:57 PM

LIST OF APPENDICES
Appendix A: NIH NCC Meeting Agenda for December 4, 2008
Appendix B: NIH NCC Meeting Attendees for December 4, 2008
Appendix C: Nanotechnology Research: Applications in Nutritional Sciences
Late – EB Symposium Agenda
Appendix D: STEP Forum – "Bacteria: Can't live with 'em, can't live without 'em"

APPENDIX A: NIH NUTRITION COORDINATING COMMITTEE MEETING AGENDA

1. **Welcome**…….…….……..... Van Hubbard

2. **Approval of Minutes of the October 2, 2008 meeting**…….....……Van Hubbard

3. **Introduction to Mars Botanical and the Study of Consumer Health Benefits from Cocoa Flavanols**...……..……...Dr. Hagen Schroeter & Dr. Mary Wagner

4. **Reports from NCC Members and Liaisons**……..…..NCC Members

5. **National Nutrition Month & Wednesday Afternoon Lecture Series**……..DNRC Staff

6. **ODPHP Activities Update**…….……..……....Kathryn McMurry, ODPHP/OS

7. **ODS Activities Update**……..Regan Bailey, ODS

8. **Current DNRC Update of Activities**.....……..……..…..DNRC Staff
    - Nutrition Education Subcommittee Update…….…..Jean Pennington*
    - International Committee Information……Pam Starke-Reed/Dan Raiten*
    - HNRIM Update……..……...Jim Krebs-Smith/Karen Regan

Next Meeting - January 8, 2008

*** Updates will be included in the minutes of the meeting only**

APPENDIX B: NCC MEETING ATTENDEES FOR DECEMBER 4, 2008

	Members Present	Members Absent	Alternates Present
Chairperson:	V Hubbard		P Starke-Reed
NIH Members:			
NCI	J Milner		S Ross
NHLBI		D Danford	
NIDCR		R Nowjack-Rayner	
NIDDK	C Miles		
NINDS		M Mitler	
NIAID	M Plaut		
NIGMS		S Somers	
NICHD		G Grave	D Raiten
NEI		N Kurinij	
NIEHS	E Maull		
NIA	J Hannah		
NIAMS		J McGowan	
NIDCD		B Wong	
NIMH		W Riley	
NIDA		G Lin	
NIAAA		R Breslow	
NINR	P Cotton		
NCCAM		L Duffy	
NCMHD	D Tabor		
NCRR	K Arora		
FIC		M Levintova	K Bridbord
NHGRI		S Basaric	
NIH Liaison Members:			
CC		N Sebring	
CIT		J Mahaffey	
CSR	S Kim		
NLM		S Phillips	
OBSSR	D Olster		
OC			
ODS		P Coates	R Costello
OD/ODP	B Portnoy		
OLPA			
ORWH			
PRCC	M Vogel-Taylor		
Agency Liaison Representatives:			
AHRQ	I Mabry-Hernandez		
CDC/NCCDPHP	D Galuska		
CDC/NCHS	M McDowell		
FDA	K Ellwood		S Blakely
HRSA		M Lawler	
IHS		T Brown	J Charles-Azure
ODPHP	K McMurry		
USDA		M Kretsch	D Klurfeld
DOD		K Friedl	

DNRC: R Fisher, S Frazier, W Johnson-Askew, J Krebs-Smith, C McDade-Ngutter, J Pennington, K Regan

Guests: R Ballard-Barbash (NCI), W Braund (OS/ODPHP), C Davis (NCI), M Donovan (NCI), A Ershow (NHLBI), E Essery (OS/ODPHP), S Gerrior (USDA/CSREES), P Hans (NINDS); R Hayes (OS/ODPHP), S Krebs-Smith (NCI), M Lobrano (OS/ODPHP), J Lunde (Mars), T McKnight (OS/ODPHP), H McPeak (OS/ODPHP), H Seifried (NCI), H Schroeter (Mars), R Shulman (Mars),T Smith (NIAMS), R Troiano (NCI/ODPHP), M Wagner (Mars), S Welsh (USDA/CSREES)

APPENDIX C

Nanotechnology Research: Applications in Nutritional Sciences
Late Breaking Symposium
EB 2009 New Orleans
Tuesday, April 21, 2009, 3-5 PM
Co-Chairs: Pothur Srinivas (NHLBI) and Sharon Ross (NCI)
Agenda

1. "Nanotechnology Approaches for Medical and Nutrition Research." (25 minutes, 5 minutes discussion) Dr. Martin Philbert, University of Michigan School of Public Health.

2. "Quantum Dot Technologies for Visualizing Live Cell Dynamic Signaling and Ultra-Sensitive Protein Detection." (15 minutes, 5 minutes discussion) Dr. Tania Q. Vu, Oregon Health and Sciences University.

3. "Bioavailability and Delivery of Dietary Factors Using Nanotechnology." (15 minutes, 5 minutes discussion), Dr. Qingrong Huang, Rutgers University.

4. "Food, Nutrition and Nanotechnology Research: Challenges and Promises" (25 minutes, 5 minutes discussion) Dr. Jozef Kokini, University of Illinois.

5. Panel Discussion: "Research Opportunities and Challenges in Nanotechnology, Foods and Health." (20 minutes) Federal government representatives: NIH/DNRC- Dr. Pamela Starke-Reed, DoD- Dr. Karl Friedl, USDA- Dr. Hongda Chen, FDA-Dr. Mitch Cheeseman (or designee).