

**MINUTES OF THE NUTRITION COORDINATING COMMITTEE (NCC)  
MEETING, NATIONAL INSTITUTES OF HEALTH (NIH)  
Rockledge 2, Conference Room 9100-9104, Bethesda, MD  
March 5, 2009 2:00- 4:00 PM**

**WELCOME**

RADM Van Hubbard, Director, NIH Division of Nutrition Research Coordination (DNRC), convened the meeting at 2:05 PM and welcomed participants. Participating via phone were; Ms. Sharon Adamo, HRSA; CAPT Shirley Blakely, FDA; Dr. Heidi Blanck, CDC; Dr. Wendy Braund, OS ODPHP; Dr. Linda Duffy, NIH NCCAM; Dr. Darla Danford, NIH NHLBI; Dr. Eve Essery, OS ODPHP; Dr. Deborah Galuska, CDC; Dr. Shirley Gerrior, USDA CSREES; Dr. Judy Hannah, NIH NIA; Dr. Sue Krebs-Smith, NIH NCI; Ms. Molly Lamb, CDC NCHS; Dr. Elizabeth Maull, NIH NIEHS; CAPT Margaret McDowell, CDC NCHS; Ms. Holly McPeak, OS ODPHP; Dr. Marshall Plaut, NIH NIAID; Dr. Dan Raiten, NIH NICHD; Dr. Sharon Ross, NIH NCI; CMDR Nancy Sebring, NIH CC; Dr. Erica Shelton, OS ODPHP; Dr. Derrick Tabor, NIH NCMHD; and CAPT Rick Troiano, NIH NCI/OS ODPHP. 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 JANUARY 8, 2009 NCC MEETING**

Minutes from the January 8, 2009 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. Paul Coates, Office of Dietary Supplements (ODS), made a motion to approve the minutes, and Dr. Sooja Kim, NIH 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.

**DRAFT FDA RISK AND BENEFIT ASSESSMENT REPORT – EFFECTS OF FISH CONSUMPTION ON FETAL NEURODEVELOPMENT AND CARDIOVASCULAR HEALTH**

Dr. Michael Bolger, Director of the Chemical Hazards Assessment Staff in the Office of Food Safety at the Food and Drug Administration (FDA), discussed the results of a recent draft report published by the FDA on the quantitative risk and benefit assessment of commercial fish consumption with a specific focus on fetal neurodevelopment and on coronary heart disease and stroke in the general population. Methylmercury (MeHg), which can be found at some level in all fish and shellfish, is a neurotoxicant and has been associated with adverse effects on certain health endpoints in some research studies. On the other hand, fish consumption has been associated with beneficial effects for these same health endpoints. Due to the fact that these two areas of research have remained fairly disparate, the FDA is trying to merge the science in order to assess the net health effect of fish and shellfish consumption while taking into consideration the adverse contribution of MeHg.

In 2004, the FDA published a fish consumption advisory that was based on MeHg's adverse contribution to health. The advisory did not include a quantitative analysis of benefit for fish consumption. Since 2004, several research trends have shown a beneficial association between maternal fish consumption and fetal neurodevelopment even though fish contain MeHg. In addition, the benefits appear to be somewhat higher with fish consumption above the recommended 12 oz/week. In order to examine the net effect of fish consumption, FDA prepared a risk and benefit assessment model. They modeled early age verbal development (an indicator of neurodevelopment) using data from Iraqi and Seychelles studies, which examined MeHg exposure from non-fish related sources. This enabled FDA to estimate the MeHg contribution to the net effect of fish consumption without confounding by the actual fish. The model indicated that in the absence of any offsetting effect from fish, prenatal exposure to MeHg causes verbal development delays of a fraction of a day at the level of most U.S. exposures. To determine the benefit of fish consumption, FDA created a model using data from the Avon Longitudinal Study of Parents and Children. Results indicated that in the absence of any offsetting effect from MeHg, maternal fish consumption is associated with improvements equivalent in size to a fraction of an IQ point up with fish consumption up to 12 oz/week and over 1 IQ point for consumption greater than 12 oz/week.

Based on the results of the modeling and baseline data indicating the amounts and types of commercial fish that women of childbearing age commonly eat, it was estimated that the net effect of consuming fish is beneficial; however, MeHg can reduce the size of benefit. Risk benefit models looking at coronary heart disease and stroke outcomes also indicate a benefit to fish consumption; it is estimated that fish consumption currently averts an estimated 30,000 deaths per year from CHD and 20,000 deaths per year from stroke.

The January 2009 draft report detailing these more recent findings can be found on the web at <http://www.cfsan.fda.gov/~dms/mehg109.html>. The 3-month comment period for this document ends on April 21<sup>st</sup>. Comments will then be reviewed by the Food Advisory Committee, and, based on the Committee's decision, the assessment will be finalized. The Committee will then review whether the current consumer advisory should be revised. At this time, no changes have been made to the 2004 FDA advisory on fish consumption.

In response to this talk, Dr. Susan Krebs-Smith, National Cancer Institute (NCI), mentioned that her office had recently released data on the distribution of usual fish intakes in the US population, and that these estimates could be found on their website (<http://riskfactor.cancer.gov/diet/usualintakes/>). These data indicate that adults' long range intakes of fish, up through the 75<sup>th</sup> percentile, are below 8 ounces per week and that intakes by women of childbearing age and young children, up through the 95<sup>th</sup> percentile, do not exceed 12 ounces per week.

## **NUTRITIONAL SCIENCES RESEARCH OPPORTUNITIES WITHIN THE FRAMEWORK PROGRAM 7 (2007-2013) AND PROGRAM POLICIES OF THE EUROPEAN COMMISSION**

The NCC had the pleasure of hearing from two members of the Delegation of the European Commission (EC) to the United States, Dr. Laurent Bochereau and Dr. Wolf-Martin Maier. They discussed the role of the EC in health-oriented nutrition research, potential areas of EC-US Cooperation, and current European activities to promote a healthy lifestyle.

Dr. Laurent Bochereau, Head of the Science, Technology and Education Section described the Commission's role in providing financial support for research, preparing and implementing policies at the European level, and setting and supporting new bodies. In particular, Dr. Bochereau highlighted possible opportunities for collaboration via the Seventh European Research Framework Programme (FP7), which provides funding of more than €54 billion over the period of 2007-2013. FP7 consists of four specific programs: COOPERATION—to fund collaborative projects between research teams; IDEAS – to fund excellent individual investigators in cutting-edge frontier research through European-level competition; PEOPLE – to fund training, mobility and career development of researchers; and, CAPACITIES – to enhance research innovation capacity throughout Europe. Through the COOPERATION program, there are several possible opportunities for EC-US collaboration. One of the major topic areas of this program is food, agriculture, and biotechnology. Examples of projects financed under this mechanism include the study of malnutrition in developing countries, influence of food contaminants on early programming leading to obesity, impact of diet on aging, and measures aimed at promoting healthy eating habits. A new call for proposals under FP7 will be launched next year, which provides a possible opportunity for joint collaboration with the United States.

Other specific areas of EC-US cooperation have included a symposium on “Neuroimaging and its potential application to the study of food intake,” which took place in Oslo in June of 2007; a follow-up to that symposium, “Neuroimaging in Obesity Research,” which took place at NIH in October 2008; and a symposium on “Decision Making in Eating Behavior – Interacting Perspectives from the Individual, Family, and Environment,” which took place at NIH in April 2008.

Dr. Wolf-Martin Maier, Counselor Food Safety, Health Consumer Affairs, shared some of the current European Union activities that are underway to help promote a healthy lifestyle in Europe. Due to the wide diversity of the EU, their policy response has many facets including both national and local policies. To promote best practices, information sharing is strongly encouraged. For example, a Nutrition Policy Database with WHO/Europe has been established

(<http://data.euro.who.int/nutrition/>) as has an inventory of activities (<http://data.euro.who.int/physicalactivity/>). A high level group of senior officials has also been established to foster the exchange of information between Member States. In March 2005, a platform for action on diet and physical activity was created to serve as a forum for actors at the European level who have pledged to commit their membership to engage in concrete actions designed to contain or reverse trends in obesity. The group is chaired at a very high level, which helps attract participants and keeps momentum. Commitments from this group are published and must have clear outcome indicators. For example, six commitments are related to marketing restrictions of certain products to children. Others relate to elimination of *trans* fats.

Another activity related to healthy living pertains to nutrition labeling. Currently in the EU the labeling of nutrients on packaged goods is a voluntary process unless a nutrition claim is made, in which case labeling becomes mandatory. Many member states have created their own solutions for nutrition labeling, including a multitude of voluntary front of pack schemes. However, current pressure to revise the system indicates that reform is coming. Dr. Maier emphasized a need to do a much better job from a regulatory standpoint so that all countries come to a consensus on labeling and health claims in order to prevent the various systems from undermining one another.

For more information about potential research collaboration or about activities the EC is conducting to improve the health and nutritional status of its member states, feel free to contact either Dr. Bochereau or Dr. Maier.

[wolf-martin.maier@ec.europa.eu](mailto:wolf-martin.maier@ec.europa.eu)  
[Laurent.Bochereau@ec.europa.eu](mailto:Laurent.Bochereau@ec.europa.eu)

In addition, more information can be found on the following websites:

General Information:

[http://ec.europa.eu/health/index\\_en.htm](http://ec.europa.eu/health/index_en.htm)

Executive Agency for Health and Consumers:

<http://ec.europa.eu/eahc/>

Platform for Action:

[http://ec.europa.eu/health/ph\\_determinants/life\\_style/nutrition/platform/platform\\_en.htm](http://ec.europa.eu/health/ph_determinants/life_style/nutrition/platform/platform_en.htm)

Seventh Research Framework Programme:

<http://cordis.europa.eu/fp7>

## **REPORTS FROM NCC MEMBERS AND LIASONS**

- Dr. John Milner, NCI, brought three upcoming events to the attention of the NCC:
  1. The annual STARS in Nutrition and Cancer seminar will take place on March 19, 2009 at 3:00 PM in the Masur Auditorium, Building 10 on the NIH campus. Dr. Martin Philbert, University of Michigan School of Public Health, will be presenting “Nanonutrition Frontiers: Lessons Learned from Imaging and Therapy.”
  2. The NIH Nanotechnology Subgroup of the NCC will be hosting a session 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 21<sup>st</sup> from 3:00-5:00. A copy of the program can be found in Appendix C.
  3. The Third Congress of the International Society of Nutrigenetics/ Nutrigenomics will be taking place on October 21-23, 2009 in Natcher Auditorium on the NIH campus. The meeting is co-sponsored by NIH (NCI, etc.) and the Center for Genetics, Nutrition and Health.
- On March 18<sup>th</sup> Mr. Cliff Johnson from the National Center for Health Statistics will be giving a presentation entitled, “50 Years of the National Health and Nutrition Examination Survey (NHANES) 1959-2009: Accomplishments and Future Directions” in honor of National Nutrition Month. The seminar will be held on the NIH Campus in Building 31, C Wing, 6<sup>th</sup> Floor -Conference Room 6 at 3:00.
- COL Karl Friedl shared the sad news of the passing of Dr. John Beard, Distinguished Professor of Nutrition at Penn State University and president-elect of the American Society for Nutrition. It was mentioned that a scholarship is being created in his honor.

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

- Dietary Guidelines for Americans 2010

The second Dietary Guidelines Advisory Committee meeting was held on January 29-30, 2009 at the USDA Jefferson Auditorium. It included public testimony with a very diverse range of views represented. The third meeting will be held on April 29-30 in the DC area. It is very likely that the meeting will be webcast. Transcripts, minutes, and public comments are posted at [www.dietaryguidelines.gov](http://www.dietaryguidelines.gov).

- 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 first meeting, which will include sponsor comments, will be held on March 26-27, 2009. The second meeting will include public presentation of the new AHRQ report and will be held toward the end of July. For the first time, the DRI panel will have a systematic, evidence-based review as a resource. Also, for the first time federal staff at the National Center for Health Statistics (NCHS) and USDA's Agricultural Research Service (ARS) will provide clinical and intake data from NHANES.

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 (HHS).

- IOM MEETING - Strategies to Reduce Sodium

The second committee meeting is scheduled for March 30-31, 2009 in Washington, DC. On March 30<sup>th</sup>, the meeting will consist of an all-day information-gathering open session at the Venable Conference Center, 575 7th St NW, in room E11200. Comments can be submitted to the committee at any time at [sodiumstrategies@nas.edu](mailto:sodiumstrategies@nas.edu). For details on this session and to register to attend, please visit the following link: <http://iom.edu/CMS/3788/59128/62278/62280.aspx>. Tuesday, March 31 will be closed in its entirety.

- ODPHP Nutrition Month Activities

Ms. Holly McPeak, ODPHP, informed the NCC that the HHS Café is again celebrating March National Nutrition Month with the focus on educating HHS employees and guests on nutrition and overall good health! The HHS Café Advisory Committee has partnered with several HHS agencies and will feature various activities throughout the month. The following is scheduled:

**March 3, 4 and 5: Office of Women's Health (OWH)** will hand out free brochures, fact sheets and educational materials related to women and family health, including nutrition. Contact: Henrietta Terry ([Henrietta.Terry@hhs.gov](mailto:Henrietta.Terry@hhs.gov)) and Ann Abercrombie ([Ann.Abercrombie@hhs.gov](mailto:Ann.Abercrombie@hhs.gov))

**March 12: Administration on Aging (AOA)** will feature Registered Dietitian Jean Lloyd and her interactive exhibit: "Ask the Nutrition Expert" She will "show and tell" a number of food models to promote the concept

of Portion Control and answer questions related to nutrition and calorie control. Jean will provide handouts for seniors, including *Getting Older. Living Healthier. Feeling Better. Start today with the Dietary Guidelines for Americans.*

Contact: Jean Lloyd ([Jean.Lloyd@aoa.hhs.gov](mailto:Jean.Lloyd@aoa.hhs.gov))

**March 19: National Institutes of Health (NIH) and the OS/Office of Disease Prevention and Health Promotion** will team up with the **HHS Café Chef “May”** and provide taste-tests of May’s Hearty Vegetable and Bean Soup. Recipes will be available.

NIH DNRC Registered Dietitian Rachel Fisher will be handing out brochures on the topic of eating healthy for less money with shopping tips on how to prepare meals that cost less. She will hand out the new NIH brochure for employees: “Healthy Eating without Overspending.”

Guest Registered Dietitian Paulette Helman will also talk about meal planning and preparation on a budget while comparing food labels.

ODPHP staff, Holly McPeak will promote and handout copies of the new ODPHP bilingual (Spanish-English) booklet: *The Road to a Healthy Life, Based on the Dietary Guidelines for Americans.* Eve Essery, PhD will compliment the nutrition component with the promotion of ODPHP’s new Physical Activity Guidelines booklet: *Be Active Your Way.*

**March 26: The Food and Drug Administration’s (FDA) Center for Food Safety and Applied Nutrition (CFSAN)** will feature *Make Your Calories Count*, an interactive learning program that provides consumers with information to help plan a healthful diet while managing calorie intake.

Amy Odegaard, Public Health Nutritionist, will use her laptop and showcase “Labelman” to help consumers understand the Nutrition Facts label in an easy-to-understand format! She will also provide handouts, label brochures, plastic “Labelman” bags and magnets.

- **Healthy People 2020**

Dr. Wendy Braund, ODPHP, provided the following information regarding HP2020 activities:

- Phase I (mission, vision, and goals) has been through clearance and will be posted on the HP2020 website soon ([www.healthypeople.gov/HP2020/](http://www.healthypeople.gov/HP2020/))
- Phase II (objective development) is well under way by the Secretary’s Federal Advisory Committee, the Federal Interagency Work Group (FIW), and Focus Area (FA) Workgroups - both HP 2010 FA Workgroups and new HP2020 “Topic Area” Workgroups. The Focus Area work groups are working on the current set of objectives from Healthy People 2010 and making recommendations on whether to retain, retain but modify, or drop them for Healthy People 2020

- HP2010 objectives will be posted on the HP2020 website by March 13 (projected) for public comment
- Memos reviewing HP2010 objectives (retain, drop, alter in some way) and proposing new objectives are due from the FA Workgroups to FIW March 20 (first round) or by June 19 (second round)
- Proposed HP2020 objectives will be posted on the website for public comment in June-July (date TBD); the public can comment on posted objectives and/or propose additional objectives
- FIW review of full set of HP2020 objectives (revised/additional memos from FA Workgroups plus consideration of public input) will take place in September-October
- Submission for departmental clearance to follow
- Target launch of HP2020 – January 2010

### **UPDATE FROM THE NIH OFFICE OF DIETARY SUPPLEMENTS (ODS)**

Dr. Paul Coates, ODS, shared the following information with the NCC:

**1. Dietary Supplement Element Methodology Workshop, March 23 – 24, Marriott Gaithersburg Washingtonian Center Hotel.** The purpose of this workshop is to evaluate the state of analytical methods for nutrient and non-nutrient minerals (including toxic elements) in dietary supplement products and to identify gaps in methodology, with a view toward designing a research program to fill the unmet methods needs of stakeholders. ODS is seeking input from scientists who develop and use analytical methods for determination of elements in dietary supplements. The desired outcomes of this meeting are to provide an overview of the status of analytical methodology for elements, to discuss analytical method purpose statements, to discuss the definition and evaluation of a method's purpose, as well as its fitness for purpose. Seating is very limited. Registration information is available on the ODS website.

**2. Federal Working Group on Vitamin D, Thursday, March 19, 2009, 1:30 – 3:30, EPN G.**

**3. Federal Working Group on Dietary Supplements, Thursday, March 26, 2009, 12:30 – 3:00 p.m., Neurosciences Building.**

**4. ODS Seminar, Wednesday, April 8, 2009, 11:00 – 12:00, EPN J:** Tsunenobu Tamura, MD, Professor, Department of Nutrition Sciences, University of Alabama, Birmingham, AL: "Folate and Reproduction: New Insights Beyond Neural Tube Defects"

**5. The third annual ODS "Dietary Supplement Research Practicum", June 1-5, 2009, Natcher Conference Center.** It is open to academic faculty in the health-science professions and their doctoral students, post-docs, and fellows. There are 80 slots available. Applications accepted to March 31. One must commit to attend the entire 5 days if accepted. We encourage you to mention



this highly regarded practicum to your academic colleagues and any promising doctoral-level and beyond students you know. Full details about the practicum are available from the ODS website, or directly at <http://odspracticum.od.nih.gov>.

**6. NIH Botanical Research Centers Program.** ODS and NCCAM intend to continue this program for another 5 years, with important partnership from NCI. The RFA appeared in the NIH Guide on January 29. An applicant information meeting (webinar) will be next Thursday, March 12. Information about the meeting is available on the ODS and NCCAM web sites. There will be a pre-application requirement using the X02 mechanism (PAR 09-001), with a receipt date of April 30. All of this is aimed at renewal of the program beginning in July 2010.

#### **UPDATE OF DNRC ACTIVITIES**

*Nutrition Education Subcommittee (NES):* CAPT Jean Pennington, DNRC, provided an update of the activities of the NIH NCC NES. For the calendar year 2009, the NES has 4 documents under review, 3 from FDA and 1 from NIH (NCI):

- *Using the Nutrition Label: A How-To Guide for Older Americans* (FDA)
- *Talk to Your Kids About the Nutrition Label* (FDA)
- *Spot the Block for Snacks* (FDA)
- *Tea and Cancer Prevention* (NCI)

The DNRC listing of NIH nutrition education materials is available on the DNRC website ([http://dnrc.niddk.nih.gov/nutrition\\_education/index.shtml](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.

*Human Nutrition Research Information Management (HNRIM):* The annual request for NIH HNRIM data was issued, with coding submissions requested by March 23, 2009. A spreadsheet of nutrition projects for coding can be obtained directly from the Research Portfolio Online Reporting Tool (<http://report.nih.gov/rcdc/categories/>) or requested from Mr. Jim Krebs-Smith or Ms. Karen Regan. The FY07 data has been published and the NIH nutrition report will be released and published on the HNRIM website within the next week. RCDC has identified several fingerprint categories, including nutrition, for review in 2009.

#### **NEXT NCC MEETING**

The next meeting will be April 2, 2009

#### **ADJOURNMENT**

The meeting was adjourned at 4:10 PM

#### **LIST OF APPENDICES**

Appendix A: NIH NCC Meeting Agenda for March 5, 2009  
Appendix B: NIH NCC Meeting Attendees for March 5, 2009  
Appendix C: Nanotechnology Research: Applications in Nutritional  
Sciences Symposium – EB 2009 - Agenda

**APPENDIX A: NIH NUTRITION COORDINATING COMMITTEE MEETING  
AGENDA**

1. **Welcome**.....Van Hubbard, DNRC
  
2. **Approval of Minutes of the January 8, 2009 meeting**.....Van Hubbard, DNRC
  
3. **Draft FDA Risk and Benefit Assessment Report - Effects of Fish Consumption on Fetal Neurodevelopment and Cardiovascular Health**.....Dr. Michael Bolger, FDA
  
4. **Nutritional Sciences Research Opportunities within the Framework Program 7 (2007-2013) and Program Policies of the European Commission** .....  
Laurent Bochereau,  
Minister-Counselor,  
Head of Science Technology and Education  
  
and  
  
Wolf-Martin Maier,  
Counselor Food Safety, Health Consumer Affairs,  
Delegation of the European Commission
  
5. **Reports from NCC Members and Liaisons**.....NCC Members
  
6. **ODPHP Activities Update**.....Kathryn McMurry, ODPHP/OS
  
7. **ODS Activities Update**.....Paul Coates, 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** - April 2, 2009

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

**APPENDIX B: NCC MEETING ATTENDEES FOR MARCH 5, 2009**

	Members Present	Members Absent	Alternates Present
<u>Chairperson:</u>	V Hubbard		P Starke-Reed
<u>NIH Members:</u>			
NCI	J Milner		S Ross
NHLBI	D Danford		
NIDCR		R Nowjack-Rayner	
NIDDK	C Miles		R Kuczmariski
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	
NHGRI	S Basaric		
<u>NIH Liaison Members:</u>			
CC	N Sebring		
CIT		J Mahaffey	
CSR	S Kim		
NLM		S Phillips	
OBSSR		L Bosco	
ODS	P Coates		
OD/ODP	B Portnoy		
OLPA			
ORWH			
PRCC		M Vogel-Taylor	
<u>Agency Liaison Representatives:</u>			
AHRQ		I Mabry-Hernandez	
CDC/NCCDPHP	H Blanck		
CDC/NCHS	M McDowell		
FDA		K Ellwood	S Blakely
HRSA		M Lawler	S Adamo
IHS	T Brown		
ODPHP	K McMurry		
USDA	D Klurfeld		
DOD	K Friedl		

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

Guests: L. Bochereau (EU Commission), M Bolger (FDA), W Braund (OS/ODPHP), C Davis (NCI), N Emenaker (NCI); M Evans (NIDDK), E Essery (OS/ODPHP), D Galuska (CDC), S Gerrior (USDA/CSREES), P Hans (NINDS); J Hibbeln (NIAAA), S Krebs-Smith (NCI), M Lamb (CDC/NCHS), W Maier (EU Commission), H McPeak (OS/ODPHP), P Spiller (FDA), E Shelton (OS/ODPHP), R Troiano (NCI)

## APPENDIX C

Nanotechnology Research: Applications in Nutritional Sciences Symposium

EB 2009 New Orleans

Tuesday, April 21, 2009, 3-5 PM

New Orleans Convention Center, Room 338/339

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. Etta Saltos, FDA – (to be determined)