

**MINUTES OF THE NUTRITION COORDINATING COMMITTEE (NCC)
MEETING, NATIONAL INSTITUTES OF HEALTH (NIH)**
Rockledge 2, Conference Room 9100-9104, Bethesda, MD
September 1, 2011 2:00 – 4:00 PM

WELCOME

Dr. Van Hubbard, Director, NIH Division of Nutrition Research Coordination (DNRC), convened the meeting at 2:04 PM and welcomed participants. Phone participants included the following: LT Destiny Anderson, IHS; Dr. Krishan Arora, NIH NCRR; Dr. Josephine Boyington, NIH NHLBI; CAPT Shirley Blakely, FDA; Ms. Jean Charles-Azure, IHS; Dr. Paul Cotton, NIH NINR; COL Karl Friedl, DoD; Dr. Gilman Grave, NIH NICHD; Dr. Judy Hannah, NIH NIA; Dr. Lyndon Joseph, NIH NIA; Dr. Melinda Kelley, NIH NHLBI; Dr. Molly Kretsch, USDA ARS; Ms. Michelle Lawler, HRSA; Ms. Kathryn McMurry, OASH ODPHP; Ms. Holly McPeak, OASH ODPHP; Dr. Richard Olson, OASH ODPHP; Dr. Charlotte Pratt, NIH NHLBI; Dr. Daniel Raiten, NIH NICHD; Dr. Cynthia Reeves, USDA NIFA; Dr. Etta Saltos, USDA NIFA; Ms. Denise Sofka, HRSA; Ms. Mellina Stephen, OASH ODPHP; Dr. Rick Troiano, NIH NCI; Dr. Paula Trumbo, FDA; and Dr. Sue Yanovski, NIH NIDDK. 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 JULY 7, 2011 NCC MEETING

Minutes from the July 7, 2011 NCC meeting had previously been sent to NCC members via email. Dr. Hubbard asked if there were any other corrections to the minutes. There were none. Dr. Sharon Ross, NIH National Cancer Institute (NCI), made a motion to approve the minutes, and Dr. Mary Horlick, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), 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 the previous NCC meetings.

THE 2008 FEEDING INFANTS AND TODDLERS STUDY (FITS) IN THE U.S.: DATA TO INFORM PUBLIC POLICY AND PUBLIC HEALTH ACTION TO IMPROVE NUTRITION AND REDUCE CHILDHOOD OBESITY

Kathleen Reidy, DrPH, RD, Head, Nutrition Science, Nestlé Infant Nutrition provided a brief introduction to the Feeding Infants and Toddlers Studies (FITS). The data fills an important gap and provides a snapshot of what American infants and toddlers are eating. Nestlé has used the findings to improve children's products and educational efforts. Dr. Reidy hopes that this rich data source can be used further to improve public health.

Dr. Ronette Briefel, a Senior Fellow with Mathematica Policy Research, Washington, DC and the FITS Project Leader, presented findings from the 2002 and 2008 FITS. Both studies are cross-sectional telephone surveys of parents and caregivers conducted with diverse, nationwide samples of parents and caregivers. The 2002 FITS, sponsored by the Gerber Products Company, collected information on the diets of more than 3,000 infants and toddlers 4 to 24 months of age. The 2008 FITS, sponsored by Nestlé, was conducted on a sample of infants and toddlers from 0 to 48 months of age, 30% of whom participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Among sampled households with an eligible child, 60% completed the recruitment interview. Additionally, 78% of those recruited also completed the 24-hour recall dietary interview, thus resulting in an analytic response rate of 47% for the dietary interview. Data were weighted to reflect births and Hispanicity and to adjust for nonresponse. A second 24-hour recall was completed on a 25 percent random subsample of respondents to permit the estimation of distributions of usual nutrient intake. The University of Minnesota's Nutrition Coordinating Center collected the dietary recall data using the Nutrition Data System (NDS) for Research. The telephone interviews were completed in English or Spanish with the child's parent or primary caretaker. A portion-size guide and incentives were provided for the dietary interviews.

Mathematica collected and analyzed information on infants', toddlers', and preschoolers' nutrient intakes, food choices, dietary supplement use, infant and child feeding practices (including breastfeeding and introduction of solid foods), infant and toddler growth and developmental milestones, physical activity, screen time, participation in WIC, mother's height and weight, the child's home environment and meal settings such as TVs in the child's bedrooms and family meal patterns (family meals at home and at fast food restaurants). The weighted study results account for nonresponse and the results are nationally representative. The 2008 FITS was designed to answer the following research questions: 1) How have nutrient and food intake patterns of infants and toddlers changed since FITS 2002? 2) What are the nutrient intake and food consumption patterns of younger infants (0 to 3 months) and preschoolers (24 to 48 months)? 3) What are parents' perceptions about their child's weight and diet? 4) How do young children's food consumption and activity patterns compare to recommendations?

Dr. Briefel presented summary results from the 2008 FITS including several comparisons to the 2002 FITS. There have been positive changes in the consumption patterns of infants and children since the 2002 study. Specifically, there has been delayed introduction of complementary foods among infants, slightly longer duration of breastfeeding among infants, decreased consumption of desserts, sweets, and

sweetened beverages among infants 4 to 11 months of age, and less fruit juice consumption through 2 years of age. Breastfeeding duration, although slightly improved, still falls short of the 2010 Healthy People objectives. Additionally, Dr. Briefel noted that iron-fortified infant cereal consumption begins to decline after 8 months and thus, in the absence of other iron-rich foods, may contribute to low iron intakes in a subpopulation of infants. The 2008 FITS also shows that fruit and vegetable consumption levels are below recommendations and that some of the positive aspects of infant food consumption patterns are lost in the second year of life as toddlers transition to table foods. There is considerable room for improvement with respect to screen time limits, sugar-sweetened beverage consumption, and vegetable and fruit consumption. For example, nearly all toddlers and 25% of 3 year olds exceed recommended screen time limits; 20-35% of preschoolers did not consume fruit, and a third did not consume vegetables on a given day. With respect to parent perceptions of diet quality and child weight status the 2008 results show a decrease in parent-reported healthfulness of their child's diet. Lower rates of parent-reported overweight were observed compared to national rates of child overweight, suggesting that many parents do not recognize child overweight.

Much more information about the FITS studies is available. There are several Journal of the American Dietetic Association Supplements devoted to FITS: January 2004 and 2006, and December 2010.

Also, the 2011 Obesity Society annual meeting will feature a FITS Symposium on October 3rd from 7:00-8:45 a.m. The program is entitled: "Evolution and quality of the diet in the first four years of life: New findings from the Nestle Feeding Infants and Toddlers Study (FITS) 2008". The following presentations are scheduled for the symposium:

- * Early development of dietary patterns: Where are the calories and key nutrients coming from? Kathleen Reidy, DrPH, RD, Head, Nutrition Science, Nestle Infant Nutrition

- * Snacking among young children: What, when and how much? Denise Deming, PhD, Principal Scientist, Nutrition Science, Nestle Infant Nutrition

- * Are toddlers and preschoolers meeting dietary recommendations: Comparisons to MyPyramid and AHA/AAP Dietary Guidelines for Children-Mary Kay Fox, MEd, Senior Fellow, Mathematica Policy Research

* Implications: Practical advice for parents and policy makers- Bill Dietz, MD, Director of the Division of Nutrition, Physical Activity, and Obesity, Centers for Disease Control and Prevention

WHAT'S NEW WITH THE PRESIDENT'S COUNCIL ON FITNESS, SPORTS AND NUTRITION? - IDEAS FOR COLLABORATION SPORTS AND NUTRITION? -IDEAS FOR COLLABORATION

Ms. Shellie Pfohl, the Executive Director of the President's Council on Fitness, Sports & Nutrition (PCFSN), shared an overview of the Council, their mission, and opportunities for partnership.

In June of last year, the President's Council added nutrition to their name as well as their mission. This allows them to expand their scope and support other programs focusing on nutrition. The primary goal of PCFSN is to promote healthy lifestyles through physical activity, sports, and proper nutrition. To reach this goal, they form partnerships and support programs and initiatives that help people of all ages, backgrounds, and abilities to embrace a healthier lifestyle. For example, PCFSN actively supports the First Lady's *Let's Move!* campaign as well as other federal programs, such as the NIH-DNRC-sponsored I Can Do It, You Can Do It program, a unique physical activity program that uses a mentor-mentee approach to encourages youth with disabilities to earn the Presidential Active Lifestyle Award (PALA) by being more active and practicing good eating habits. Further, the Council welcomes opportunities to support physical activity and nutrition-related campaigns, programs, or initiatives like the NIH National Institute on Aging's Go4Life (<http://go4life.niapublications.org>), an exercise and physical activity campaign.

The Council consists of 25 volunteer citizens, including athletes, chefs, physicians, and other fitness experts who advise the President through the Secretary of Health and Human Services (HHS) about physical activity, fitness, sports, and nutrition in America. The Council is Co-chaired by Drew Brees, Quarterback for the Super Bowl 44 champion New Orleans Saints and Dominique Dawes, 3-time Olympic gymnast and accomplished motivational speaker. Currently, there are 16 members, and President Obama is expected to appoint the remaining 9 over the next few months.

To support PCFSN's efforts and raise money on their behalf, a congressionally chartered foundation, the National Foundation on Fitness, Sports & Nutrition, was formed and signed by the President in December 2010. The Foundation is directed by 9

board members appointed by the Secretary of HHS and requires no Federal funds to operate. It provides a vehicle for public-private partnerships and allows for the transfer and use of funds or in-kind contributions raised to support the President's Council's mission. Dr. Susan Shurin, Acting Director, National Heart, Lung, and Blood Institute, NIH is an Ex-Officio Member.

Perhaps the most well-known program of the PCFSN is the Youth Fitness Test, which PCFSN is working to modernize. They have partnered with CDC who has conducted a literature review to determine the association of youth fitness components (measured by specific tests) and selected health outcomes. In addition, an IOM panel will be convened to develop recommendations for criterion-based youth fitness measures.

A premier program of the President's Challenge is the Presidential Active Lifestyle Award (PALA) www.presidentschallenge.org. It encourages all Americans to engage in regular physical activity. To receive the award, adult participants 18+ years of age must be physically active 30 min per day (or 60 min per day for youth 6 to 17 years), 5 days per week for 6 weeks. This award provides a way to engage partners and serves as a jumping off point for other activities. Like the Council's name, PALA was recently updated to include nutrition. Beginning September 24th, individuals will select one cumulative nutrition goal each week of the program along with completing the physical activity requirements.

PCFSN is in a unique position to serve as a catalyst and build sustainable partnerships across the private and public sectors. They are working with a number of partners to leverage the reach and breadth of Council messages. From Nickelodeon's World Wide Day of Play to the Boy Scouts of America's efforts to the National Junior Tennis League of the US Tennis Association, PCFSN has reached millions of youth on messaging, education, and engagement in good nutrition and physical activity. *If there are ways to use the influence of Council members for areas of interest to the NCC or programs the NCC feels would benefit from PCFSN support, they would be happy to assist.*

HNRIM UPDATE: DATABASE DEVELOPMENT AND PILOT TESTING

Ms. Karen Regan, DNRC, gave a brief presentation to showcase the capabilities of the new HNRIM database which will be released this fall. HNRIM will have many new features which will allow for more sophisticated search strategies and reporting. Eight ICs assisted with the pilot testing of the coding module, and as much as possible, their suggestions have been incorporated. The HNRIM coding module will be released to the ICs shortly. Once the Coding Module is released, HNRIM staff and the database developers will begin working on the Reporting Module. *Ms. Regan requested that ICs*

with suggestions and requests for useful canned reports should contact Ms. Regan (Karen.Regan@nih.hhs.gov).

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

Ms. Kathryn McMurry provided the following updates from ODPHP:

On-going work finalizing drafts of ODPHP's new Eat Healthy – Be Active Community Workshops:

ODPHP plans to pilot test at approximately 10 locations. If you have any ideas for a great community location that would like to pilot test six 1-hour workshops, please let Holly McPeak know (Holly.McPeak@hhs.gov). Plans are to showcase the final workshop series at the Healthy People Summit in April 2012.

ODPHP helped craft the September White House Proclamation:

September is National Childhood Obesity Awareness Month. The Proclamation can be found on the following website:

<http://www.whitehouse.gov/the-press-office/2011/08/31/presidential-proclamation-national-childhood-obesity-awareness-month>

This will be Kathryn's last ODPHP update for the NCC. Ms. McMurry has accepted a position as Nutrition Coordinator at NHLBI and will be starting there on September 19. She will be greatly missed by her colleagues at ODPHP, but we welcome her to NIH.

UPDATE FROM THE OFFICE OF DIETARY SUPPLEMENTS (ODS)

Ms. Karen Regan, ODS/DNRC, provided information about the following activities:

The ODS 2011-2012 Seminar Series begins September 21st with a talk by Stephen Barnes "Insights of the Effect of Diet and Supplements on Vision". The seminar schedule was distributed at the meeting and is available on the ODS website.

The Multivitamin/mineral Supplements Fact Sheet for health professionals is now available, and the consumer version is in process.

ODS is sponsoring a session at FNCE entitled "Spotlight on Vitamin D." on Monday Sept 26 at 1:30. Christine Taylor will give an overview of the IOM report on vitamin D and calcium; Patsy Brannon will describe the science behind the vitamin D

requirements; and Keli Hawthorne, a dietitian from Baylor University, will discuss the practical aspects of putting the report recommendations into practice. A question-and-answer period will follow.

The next Dietary Supplement Federal Working Group Meeting will be October 13th. More information will be available closer to the date of the meeting.

UPDATE OF DNRC ACTIVITIES

Nutrition Education Subcommittee (NES)

Dr. Margaret McDowell, DNRC, reported that the NES completed several dietary guidance reviews since the July NCC meeting. The NES reviewed new and updated print and web format dietary guidance materials that reflect the *Dietary Guidelines for Americans (DGAs), 2010* recommendations. The NES reviewed the following materials:

1. USDA/Center for Nutrition Policy Promotion (CNPP): Updated material for *ChooseMyPlate.gov for Preschoolers*.
2. USDA/Food and Nutrition Service (FNS): The NES reviewed three submissions consisting of USDA/ FNS's Core Messages supporting content. Supporting content consists of tips, ideas and narrative inspirational stories for messages targeting children and mothers of preschool and elementary school-age children.
 - Supporting content for Moms of Preschool Kids (2-5y)
 - Supporting content for Moms of Elementary Kids (6-10y)
 - Supporting content for Kids 8-10y
3. USDA/FNS “*Core Messages for Moms*”: The core messages in this review are a new set of messages that address milk, whole grains, and child feeding practices.
4. HHS/Office of Women’s Health “*Best Bones Forever!*” The review included updated and new material consisting of a journal, weekly planner (new), and a magnet. The materials are designed to provide parents and girls 9-14 years with information and tips about the importance of calcium and vitamin D nutrition and physical activity to promote bone health.
5. USDA/CNPP: Updated web content material for USDA/CNPP’s “*ChooseMyPlate Pregnancy and Breastfeeding Moms*” website.

Currently Under Review: The NES is reviewing USDA/CNPP “Eat Seafood Twice a Week-Tip Messages” which will appear on the www.choosemyplate.gov website.

International Subcommittee Information

Dr. Dan Raiten, NICHD, provided several updates from the World Health Organization (WHO) Nutrition Guidelines Development Advisory Group (NUGAG). Several sub-committees of the NUGAG including those focused on various aspects of single and multiple micronutrient recommendations will meet on the week of November 7, 2011 at the WHO Pan American Health Organization (PAHO) in Washington DC. A separate group of NUGAG sub-committees (including those addressing nutritional care of HIV adolescents and adults, nutritional care of TB and mild and moderate malnutrition, will meet in Geneva the week of November 28, 2011.

Dr. Raiten noted that in addition to the numerous new guidelines being generated by the NUGAG sub-committees at WHO over the next 12-18 months, the UN General Assembly will hold a special session on non-communicable diseases (NCDs) in September, which will generate new targets for the global health community. All of these efforts have a particular emphasis on low-/middle income countries (LMIC). Moreover the USG is actively moving to install new programs to address global hunger with a focus on maternal child health and the “1000 days” covering pregnancy and the first 2 years of life under the aegis of such efforts as Feed the Future, the Global Health initiative and PEPFAR.

Dr. Raiten observed that there is currently no effort to integrate these new guidelines and programs, and suggested that this is particularly problematic because many of these activities target LMIC that do not have the capacity to synthesize and implement them either at a point-of-care or population level. Furthermore, the emphasis of one problem, e.g., NCDs to the exclusion of an appreciation of other problems such as HIV that occur in the same populations and often in the same people presents daunting concerns both in terms of clinical management as well as from public policy perspective. A more coordinated approach is essential for successful impact.

In response to this complex set of issues, Dr. Raiten introduced the NCC members to a proposal for a regional consultation that will be planned in partnership with WHO, and other agencies/organizations involved in global health and nutrition. Called “I to I”(for integration leading to successful implementation), the consultation will bring together country level stakeholders to interact with technical agencies, donor and civil society to develop a plan for integration of these new policies and programs with a goal of

effective implementation. *If you are interested in being part of these discussions, please contact Dr. Raiten (raitend@mail.nih.gov).*

PPWG – Probiotic and Prebiotic Working Group

The PPWG recently welcomed two new members - Drs. Marian Wachtel and Padma Maruvada from NIAID and NIDDK, respectively.

FASEB held a Summer Research Conference (SRC) entitled: *“Probiotics the Intestinal Microbiota, and the Host: Physiological and Clinical Implications”* in Carefree, Arizona on July 24-29, 2011. This was the first SRC to focus on probiotics and intestinal microbiota. The conference attracted about 160 participants and allowed many networking opportunities with many world renowned scientists in the field. NIH was well represented, and several PPWG members presented at a breakout session entitled *“Funding Opportunities at NIH: Cutting Edge Science and Research Challenges”* on Thursday July 28, 2011. They highlighted funding opportunities from NCI, NCCAM, and NIDDK related to probiotics and the microbiome (see Appendix C). *If you are aware of additional funding opportunities in areas of prebiotics, probiotics, or the microbiome not represented on this list, please contact Dr. McDade-Ngutter (mcdadengutterc@mail.nih.gov).*

As described by Dr. Linda Duffy, from NCCAM, Jeffrey Gordon’s SRC Keynote address highlighted the importance of forging an evolutionary microbiome framework that encompasses the biology, ecology, technology, computational modeling and multi-disciplines in useful principles and hypotheses that shape the direction of the rapidly expanding fields, appropriately informs the science, and educates the public. The crucial use of second generation sequencing technologies and the emphasis on validation standards were consistently recognized as responsible for clarifying structural genotype and phenotype characteristics of probiotics strains, and accelerating the convergence of probiotics within the paradigm of the Human Microbiome Project. Along with greater understanding of the functional importance of commensal organisms, their role in human health and disease, determining the safety and effective use of probiotic products and their metabolites, and providing rigorous product characterization and standardized resources to investigators is invaluable.

The SRC was so well-received that during the closing session, there was widespread agreement for organizing a second conference of this kind in 2013.

NIH Health and Wellness Council

Ms. Rachel Fisher, DNRC, announced that the NIH Health and Wellness Expo will take place September 7th and 8th in Natcher. There will be a special expert panel on weight management that will take place from 10:00am-11:30am on September 7th. Three NCC members will be speaking: Dr. Van Hubbard (DNRC), Dr. Amber Courville (CC), and Ms. Janet de Jesus (NHLBI). The event will also be videocast. More information can be found on the following website: <http://dats.ors.od.nih.gov/wellness/expo2011.html>

NEXT NCC MEETING

The next NCC meeting will be on October 6, 2011.

ADJOURNMENT

The meeting was adjourned at 4:07 PM

LIST OF APPENDICES

Appendix A: NIH NCC Meeting Agenda for September 1, 2011

Appendix B: NIH NCC Meeting Attendees for September 1, 2011

Appendix C: NIH Funding Opportunities related to Probiotics and the Microbiome

APPENDIX A: NIH NUTRITION COORDINATING COMMITTEE MEETING AGENDA

1. Welcome.....Van Hubbard
2. Approval of Minutes of July 7, 2011 MeetingVan Hubbard

3. Scientific Presentation:

“The 2008 Feeding Infants and Toddlers Study (FITS) in the U.S.: Data to Inform Public Policy and Public Health Action to Improve Nutrition and Reduce Childhood Obesity”

Ronette Briefel, DrPH, RD
Senior Fellow
Mathematica Policy Research
Washington, DC

4. Special Presentation:

“What's New with the President’s Council on Fitness, Sports and Nutrition? Ideas for Collaboration”

Shellie Y. Pfohl, M.S.
Executive Director
President’s Council on Fitness, Sports and Nutrition
Office of the Assistant Secretary of Health
U.S. Department of Health and Human Services

5. HNRIM Update: Database Development & Pilot Testing.....Jim Krebs-Smith & Karen Regan
6. ODPHP Update.....Kathryn McMurry, ODPHP
7. ODS Update.....Karen Regan, ODS
8. Reports from NCC Members and LiaisonsNCC Members
9. Current DNRC Update of Activities.....DNRC Staff
- Nutrition Education Subcommittee Update.....Margaret McDowell*
 - International Committee Information.....Pam Starke-Reed/Dan Raiten
 - PPWGCrystal McDade-Ngutter
 - Wellness WorkgroupRachel Fisher
10. Next Meeting – October 6, 2011

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

APPENDIX B: NCC MEETING ATTENDEES FOR SEPTEMBER 1, 2011

	<u>Members Present</u>	<u>Members Absent</u>	<u>Alternates Present</u>	<u>Other Individuals Present</u>
DNRC Director	V Hubbard			
DNRC Deputy-	P Starke-Reed			
<u>NIH MEMBERS</u>				
NCI		J Milner	S Ross	R Troiano
NHLBI		J De Jesus		J Boyington A Ershow M Kelley C Pratt
NIDCR		R Nowjack-Raymer		
NIDDK	R Kuczmariski		M Evans	M Horlick J Karimbakas P Maruvada S Yanovski
NINDS		M Mitler		
NIAID		P Sato		
NIGMS		S Somers		
NICHD	G Grave		D Raiten	
NEI		N Kurinij		
NIEHS		E Maull		
NIA	J Hannah		L Joseph	
NIAMS		J McGowan		X Wang
NIDCD		B Wong		
NIMH		M Chavez		
NIMHD		D Tabor		
NIDA		G Lin		
NIAAA		R Breslow		
NINR	P Cotton			
NCCAM	L Duffy			
NCRR	K Arora			
FIC		M Levintova		
NHGRI		S Basaric		
<u>NIH LIAISONS</u>				
CC	A Courville			J Graf
CIT		J Mahaffey		
CSR	S Kim			
NLM		M Corn		
OBSSR		S Johnson		
ODS		P Coates		
OD/ODP	B Portnoy			
PRCC				
<u>AGENCY LIAISONS</u>				
AHRQ		I Mabry-Hernandez		
CDC/NCCDPHP		H Blanck		
CDC/NCHS		C Johnson		T Fackhour
FDA		M Poos	S Blakely	P Trumbo
HRSA	M Lawler			D Sofka
IHS		T Brown		D Anderson
ODPHP	K McMurry		H McPeak	K Butner R Olson

				M Stephen
USDA/ARS		D Klurfeld	M Kretsch	J Finley
USDA/NIFA		S Welsh	E Saltos	C Reeves
DOD	K Friedl			

DNRC: R Fisher, S Frazier, J Krebs-Smith, C McDade-Ngutter, M McDowell, K Regan

Guests: R Briefel (Mathematica), L Darensbourg (PCFSN), W Johnson-Askew (Nestle), M Nechanicky (PCFSN), Shellie Pfohl (PCFSN), and K Reidy (Nestle)

APPENDIX C - NIH Funding Opportunities related to Probiotics and the Microbiome

NCCAM

PAR-10-163 Preliminary Clinical Studies in Preparation for Large Interventional Trials of Complementary and Alternative Medicine (R34) <http://grants.nih.gov/grants/guide/pa-files/PA-10-163.html>

RFA-AT-11-001 Mechanistic research on CAM Natural Products (R01) <http://grants.nih.gov/grants/guide/rfa-files/RFA-AT-11-001.html>

PA-10-067 NIH Parent Research Project Grant (Parent R01) <http://grants.nih.gov/grants/guide/pa-files/PA-10-067.html>

PA-10-152 Diet Composition and Energy Balance (R01) <http://grants.nih.gov/grants/guide/pa-files/PA-10-152.html>

NIDDK

PA-09-247, Ancillary Studies, <http://grants.nih.gov/grants/guide/pa-files/PA-09-247.html>

PA-09-124, Exploratory/Developmental Clinical Research Grants in Obesity (R21), <http://grants.nih.gov/grants/guide/pa-files/PA-09-124.html>

PA-09-151, Pilot and Feasibility Clinical Research Studies in Digestive Diseases and Nutrition (R21), <http://grants.nih.gov/grants/guide/pa-files/PA-09-151.html>

PA-09-133, Pilot and Feasibility Clinical Research Grants in Diabetes, Endocrine and Metabolic Diseases (R21), <http://grants.nih.gov/grants/guide/pa-files/PA-09-133.html>

Re-issued as PA-09-077, Pilot And Feasibility Clinical Research Grants In Kidney Or Urologic Diseases (R21), <http://grants.nih.gov/grants/guide/pa-files/PA-09-077.html>

NCI

PAR-11-152 The Role of Microbial Metabolites in Cancer Prevention and Etiology (U01) <http://grants.nih.gov/grants/guide/pa-files/PA-11-152.html>