

Report NP107 – January 2015

NP 107 Human Nutrition Panel Report

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Program Analyst



Michael A. Grusak, Scientific Quality Review Officer
(January 2014-December 2015)

October 17, 2014
Date



Michael S. Strauss, Peer Review Program Coordinator

October 15, 2014
Date

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Introduction

This Panel Report is an overview and analysis of the 2014 National Program (NP) 107 Human Nutrition Panel Review. The project plans reviewed by these panels were applicable to the mission of the National Program to “*define the role of food and its components in optimizing health throughout the life cycle for all Americans by conducting high national priority research.*”

Candidates to chair each panel were recommended by the NPLs, John Finley and David Klurfeld, vetted by the OSQR, and Dr. Michael A. Grusak, Scientific Quality Review Officer (SQRO) approved a Chair for 15 of the 16 panels (Table 1). The plans for review by Panel 5, Food Chemistry Analysis, included one from Dr. Grusak and, thus, Dr. Joyce Loper, served as SQRO for that panel providing approvals for chair and reviewers, and overseeing the review and responses to review for it.

Table 1. Human Nutrition Panels with the date of the initial review meeting where all plans before the panel were discussed and rated, the number of panelists appointed to the panel, and the number of projects reviewed by each panel.

Panel	Panel Chair	Panel Meeting Date	Number of Panelists	Number of Projects Reviewed
Panel 1: Immunity/Inflammation	Dr. Robert S. Chapkin, Regents Professor, Dept Nutrition & Science, Texas A&M Univ, College Station, TX	January 28, 2014	5	4
Panel 2: Obesity Interventions	Dr. Lynn Moore, Associate Professor, Dept Medicine, Boston Univ School of Medicine, Boston, MA	March 24, 2014	5	4
Panel 3: Chronic Disease	Dr. Michael Lefevre, Research Director, Dept Nutrition, Dietetics & Food Science, Utah State Univ, Logan, UT	March 20, 2014	4	3
Panel 4: Translational Studies A	Dr. Kelly Tappenden, Kraft Foods Human Nutrition Endowed Professor, Dept Food Science & Human Nutrition, Univ Illinois, Urbana, IL	March 11, 2014	5	4
Panel 5: Food Chemistry Analysis	Dr. Elvira de Mejia, Professor, Dept Food Science & Human Nutrition, Univ Illinois, Urbana, IL	December 4, 2013	3	2
Panel 6: Nutrient Requirements	Dr. Peter Gillies, Director, Institute Food, Nutrition & Health, Rutgers Univ, New Brunswick, NJ	March 19, 2014	6	5
Panel 7: Animal Models	Dr. Howard Glauert, Professor, Dept Nutritional Sciences, Univ Kentucky, Lexington, KY	December 10, 2013	6	5
Panel 8: Population Studies	Dr. Amy Yaroch, Professor & Executive Director, Gretchen Swanson Center for Nutrition, Univ Nebraska Medical Center, Omaha, NE	March 4, 2014	5	3
Panel 9: Epidemiology	Dr. Rashmi Sinha, Acting Branch Chief, Nutr Epidemiology Branch, Div Cancer Epidemiology & Genetics, NCI, NIH, Bethesda, MD	February 25, 2014	6	5
Panel 10: Food Database	Dr. Katherine Tucker, Professor, Dept. Clin Lab & Nutritional Sci, Univ Massachusetts, Lowell, MA	January 31, 2014	3	2
Panel 11: Biological Mediators	Dr. Kimberly O'Brien, Professor, Div Nutritional Sciences, Cornell Univ, Ithaca, NY	December 17, 2013	5	4
Panel 12: Translational Studies B	Dr. Randall Mynatt, Professor, Dept Transgenics Core, Pennington Biomedical Res Ctr, Baton Rouge, LA	March 17, 2014	6	5

Table 1 (continued). Human Nutrition Panels with the date of the initial review meeting where all plans before the panel were discussed and rated, the number of panelists appointed to the panel, and the number of projects reviewed by each panel.

Panel 13: Nutrient Metabolism	Dr. Richard van Breemen, Professor, Dept Medicinal Chemistry & Pharmacognosy, Univ Illinois, Chicago, IL	March 18, 2014	4	3
Panel 14: Epigenetics	Dr. Steven Zeisel, Director & Kenan Distinguished Univ Professor, Nutrition Research Institute, Univ North Carolina at Chapel Hill, Kannapolis, NC	January 24, 2014	3	5
Panel 15: Animal/ <i>In Vitro</i> Models	Dr. Emily Ho, Professor & Endowed Director, School of Biological & Population Health Sciences, Oregon State Univ, Corvallis, OR	December 18, 2013	5	4
Panel 16: Healthy Development	Dr. Sharon Donovan, Professor, Dept Food Sci & Human Nutrition, Univ Illinois, Urbana, IL	January 8, 2014	2	3

Panel Review Results

Following panel review, OSQR sends each Area Director a document that contains the consensus recommendations for each plan from their Area. This may include recommendations for revision of the plan to which researchers are required to respond in writing and, as appropriate, revise their written plans.

In addition, as part of their discussion panelists provide a judgment of the overall quality of the plan, expressed in terms of the degree of revision that may be required. This judgment is termed an “Action Class.” Each reviewer is asked to provide an Action Class. OSQR assigns them a *numerical equivalent*, and then averages them to arrive at an overall Action Class Score for the plan.

The Action Classes and their Numerical Equivalents are defined below.

- Average Score 7.0-8.0** **No Revision Required (Numerical Equivalent: 8).**
An excellent plan: no revision is required, but minor changes to the project plan may be suggested.
- Average Score 5.1-6.9** **Minor Revision Required (Numerical Equivalent: 6).**
The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.
- Average Score 3.1-5.0** **Moderate Revision Required (Numerical Equivalent: 4).**
The project plan is basically feasible, but requires changes or revision to the work on one or more objectives, perhaps involving alteration of the experimental approaches in order to increase quality to a higher level and may need some rewriting for greater clarity.

Average Score 1.1-3.0**Major Revision Required (Numerical Equivalent: 2).**

There are significant flaws in the experimental design and/or approach or lack of clarity which hampers understanding. Significant revision is needed.

Average Score 0-1.0**Not Feasible (Numerical Equivalent: 0).**

The project plan, as presented, has major scientific or technical flaws. Deficiencies exist in experimental design, methods, presentation, or expertises which make it unlikely to succeed.

For plans receiving one of the first three Action Classes (No Revision, Minor Revision, or Moderate Revision) scientists respond in writing to panel comments in the consensus recommendation document, revise their project plan as appropriate, and submit the revised plan and responses to OSQR through their Area Office. These are reviewed by the SQRO and, once he/she is satisfied that all review concerns have been satisfactorily addressed, the project plan is certified and may be implemented. *Certification is not guaranteed, but is contingent upon satisfactorily addressing panel comments and recommendations.* Plans have not “passed” review until receiving the Officer’s certification.

When the Action Class is Major Revision or Not Feasible, responses and revised plans are provided as above, but must then be re-reviewed by the panel, which provides a second set of Consensus Recommendations and Action Class. If the re-review Action Class is No Revision, Minor Revision or Moderate Revision the project plan may be implemented after receipt of a satisfactory response and Officer certification as described above. Plans receiving Major Revision or Not Feasible scores at this point fail review (the Action Class and consensus comments are provided to the Area but there is no further option for revision). Such plans are terminated, reassigned, or restructured at the discretion of the Area and Office of National Programs. On occasion, it is elected not to further revise a plan that has received a low score on initial review. In such cases the plan is treated as having not successfully completed (i.e., failed) review, the plan cannot be certified, and appropriate action becomes the responsibility of the NPL and Area leadership.

NP 107 Program Overview

At the end of each panel meeting, the reviewers are asked to provide general comments or recommendations on the process. In addition, Panel Chairs provide a written statement on the review process and research plans. Below is a summary of those comments for the NP 107 review.

In general the panelists had high regard for ARS work; however, some felt that some plans and objectives did not “push the envelope” sufficiently. It was felt that some plans needed to be more insightful or more focused on building knowledge. Several panelists indicated that before doing this review they were unaware of the extent of what ARS was doing in this area.

The panelists were generally impressed with the quality of researchers, equipment and collaborators and, overall with the work. They did suggest that some of the plans were confusing and lacked a big picture view. In these cases a better presentation of the overall work and

strategy would have helped provide context. They felt it would have been helpful to understand the goal of the unit and how the described work fits into it. In the cases where descriptions were lacking they noted that this can suggest lack of attention to rigor. Such cases left reviewers feeling disappointed that these ARS scientists did not seem to take the care that they might have if this had been for funded National Institutes of Health (NIH) research.

In general the panelists expressed appreciation that ARS conducts this external review. For the plans that they re-reviewed they appreciated that their recommendations and comments were taken seriously, and were well-addressed and very responsive.

Table 2 shows the percentage of plans scoring in each Action Class after initial review and after re-review in the current, third, review cycle (note that for final review results only scores for plans with Action Class of Major or Not Feasible are changed). Thirteen out of the 58 plans reviewed received initial Action Classes of Major Revision or Not Feasible. All but two of those received scores of No, Minor, or Moderate Revision on re-review. Thus just over 96 percent of plans completed review and were certified while 2 plans failed review.

The second cycle (2009) review of this National Program had a somewhat higher (4.46) average initial score than the current cycle (4.29); with the average score in the first cycle, ten years before the current cycle, being the lowest (3.85). The percentage of plans with low (Major Revision or Not Feasible) scores in the current review was lower than in either of the two preceding reviews. In all three review cycles the average final score was in the Minor Revision range (Table 3).

When the score received by all NP 107 plans reviewed by panels in the current review cycle is compared to the number of panel reviewers (Panel Size), no influence is seen (Figure 1). Thus, the size of the panel did not appear to have any impact on review outcome. If data from the prior review cycle in 2009 are added to that from the current cycle the R^2 value is even further depressed and the lack of correlation between the number of reviewers and the outcome of review in terms of score is further demonstrated (Figure 2). There is, however, a significant difference between the review in 2009 and 2014 as the former were all panels that traveled to OSQR for the review and the number of plans considered by each panel was higher, thus increasing the workload on individual reviewers. To examine the impact when only online review panels are considered, while increasing the sample size, all plans from all programs reviewed to date in the current 5-year review cycle were added to the data in Figure 1. While the R^2 value is marginally larger, it remains far from indicating any significant influence of panel size on the outcome of review (Figure 3).

The full scientific effort on the plan is expressed by the totaling of the fractional portions of 1.0 Scientist Years (SY) provided by each researcher, with 1.0 indicating a full time effort. When this total SY effort is examined with regard to its potential impact on the outcome of review there was no apparent influence of the amount of time on the outcome (score) on initial review scores (Figure 4). If, instead, the absolute number of scientists assigned to a plan is considered independent of the amount of time devoted to the plan, there is still no influence seen on the score (Figure 5).

Figure 6 shows the distribution of Action Class scores for each of the three review cycles (2004-5, 2009, 2014). The first cycle had the largest percentage of plans receiving Major Revision or Not Feasible on the initial review while the current review cycle had the largest percentage of plans scoring Moderate Revision or higher on initial review. A similar figure for final scores demonstrates that most plans are revised to review satisfaction following a low score; and this was evident in all three review cycles (Figure 7). All cycles had a few plans that did not successfully complete re-review and were not certified.

Table 2. Proportion of initial and final scores for the third (2014) cycle expressed as percentage of all reviewed and the average initial numerical score for the NP 107 Human Nutrition Panels. Note that for plans receiving No Revision, Minor Revision, or Moderate Revision, a second score is not received from the panel so the initial score is recorded as the final score.

Third Cycle, 2014	Initial Review						Final Review					
	No Revision	Minor Revision	Moderate Revision	Maj Revision	Not Feasible	Avg Initial Score	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Final Score
Immunity/Inflammation	0.0%	0.0%	25.0%	50.0%	25.0%	2.3	25.0%	25.0%	25.0%	25.0%	0.0%	4.8
Obesity Interventions	0.0%	0.0%	50.0%	25.0%	25.0%	3	0.0%	50.0%	50.0%	0.0%	0.0%	5.59
Chronic Disease	0.0%	100.0%	0.0%	0.0%	0.0%	5.5	0.0%	100.0%	0.0%	0.0%	0.0%	5.5
Translational Studies A	0.0%	0.0%	75.0%	25.0%	0.0%	3.1	25.0%	0.0%	75.0%	0.0%	0.0%	4.6
Food Chemistry Analysis	0.0%	100.0%	0.0%	0.0%	0.0%	5.33	0.0%	100.0%	0.0%	0.0%	0.0%	5.33
Nutrient Requirements	20.0%	60.0%	20.0%	0.0%	0.0%	5.93	20.0%	60.0%	20.0%	0.0%	0.0%	5.93
Animal Models	0.0%	40.0%	40.0%	20.0%	0.0%	4.24	20.0%	40.0%	40.0%	0.0%	0.0%	5.44
Population Studies	0.0%	33.3%	0.0%	66.7%	0.0%	3.6	33.3%	33.3%	0.0%	33.3%	0.0%	5.2
Epidemiology	0.0%	40.0%	40.0%	20.0%	0.0%	4.47	20.0%	40.0%	40.0%	0.0%	0.0%	5.6
Food Database	0.0%	0.0%	100.0%	0.0%	0.0%	4	0.0%	0.0%	100.0%	0.0%	0.0%	4
Biological Mediators	0.0%	75.0%	25.0%	0.0%	0.0%	5.3	0.0%	75.0%	25.0%	0.0%	0.0%	5.3
Translational Studies B	0.0%	80.0%	0.0%	20.0%	0.0%	4.87	20.0%	80.0%	0.0%	0.0%	0.0%	6.07
Nutrient Metabolism	0.0%	33.3%	66.7%	0.0%	0.0%	4.5	0.0%	33.3%	66.7%	0.0%	0.0%	4.5
Epigenetics	0.0%	33.3%	33.3%	33.3%	0.0%	4.4	33.3%	33.3%	33.3%	0.0%	0.0%	6.13
Animal/In Vitro Models	0.0%	25.0%	75.0%	0.0%	0.0%	4.3	0.0%	25.0%	75.0%	0.0%	0.0%	4.3
Healthy Development	0.0%	0.0%	50.0%	50.0%	0.0%	3.34	50.0%	0.0%	50.0%	0.0%	0.0%	6.34
NP 107, All	1.3%	38.8%	37.5%	19.4%	3.1%	4.29	15.4%	43.4%	37.5%	3.6%	0.0%	5.33

Table 3. Proportion of initial and final scores for all cycles expressed as percentage of all reviewed and the average initial numerical score for the NP 107 Human Nutrition Panels. See note above regarding No, Minor, and Moderate initial scores.

	Initial Review						Final Review					
	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Initial Score	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Final Score
First Cycle (100)	6.0%	25.0%	32.0%	27.0%	10.0%	3.85	32.0%	26.0%	37.0%	1.0%	4.0%	5.59
Second Cycle (65)	15.4%	29.2%	26.2%	24.6%	4.6%	4.46	24.6%	35.4%	32.3%	3.1%	4.6%	5.37
Third Cycle (58)	1.7%	39.7%	36.2%	19.0%	3.4%	4.29	15.5%	44.8%	36.2%	3.4%	0.0%	5.33

Figure 1. Influence of the number of reviewers (Panel Size) on the numerical outcome (Score) received on the first review for the 58 plans in the current NP 107 Human Nutrition review. Note the low R²-value indicating lack of influence of panel size on score.

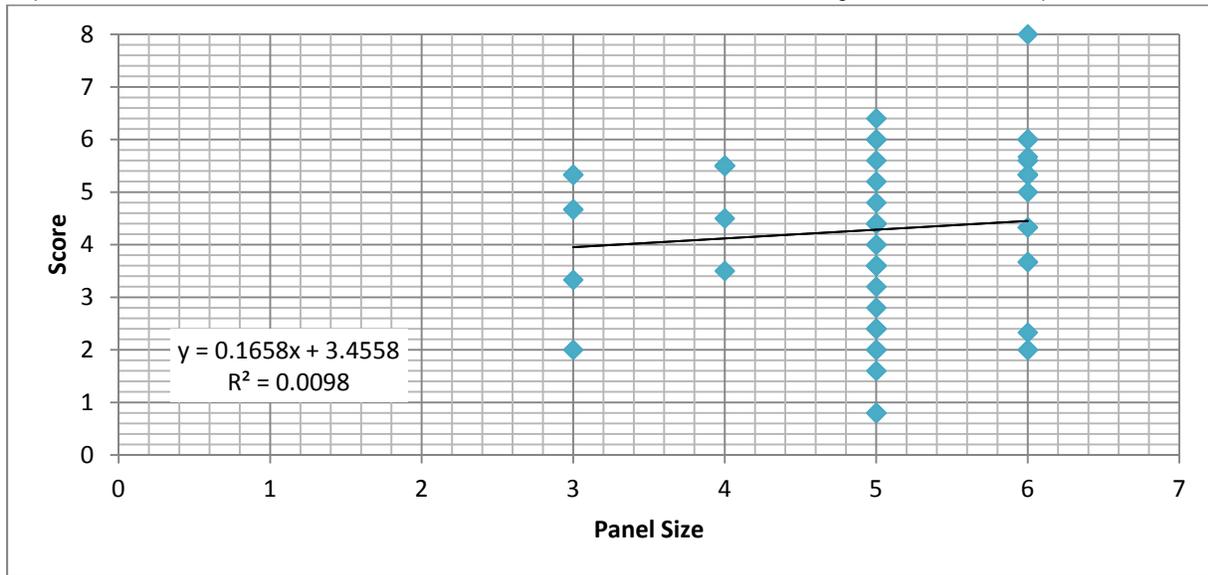


Figure 2. Inclusion of review scores for plans reviewed in the prior (2009) review cycle with the data in Figure 1 (123 plans total) for NP 107 Human Nutrition further illustrating the lack of influence of the number of reviewers (panel size) on score.

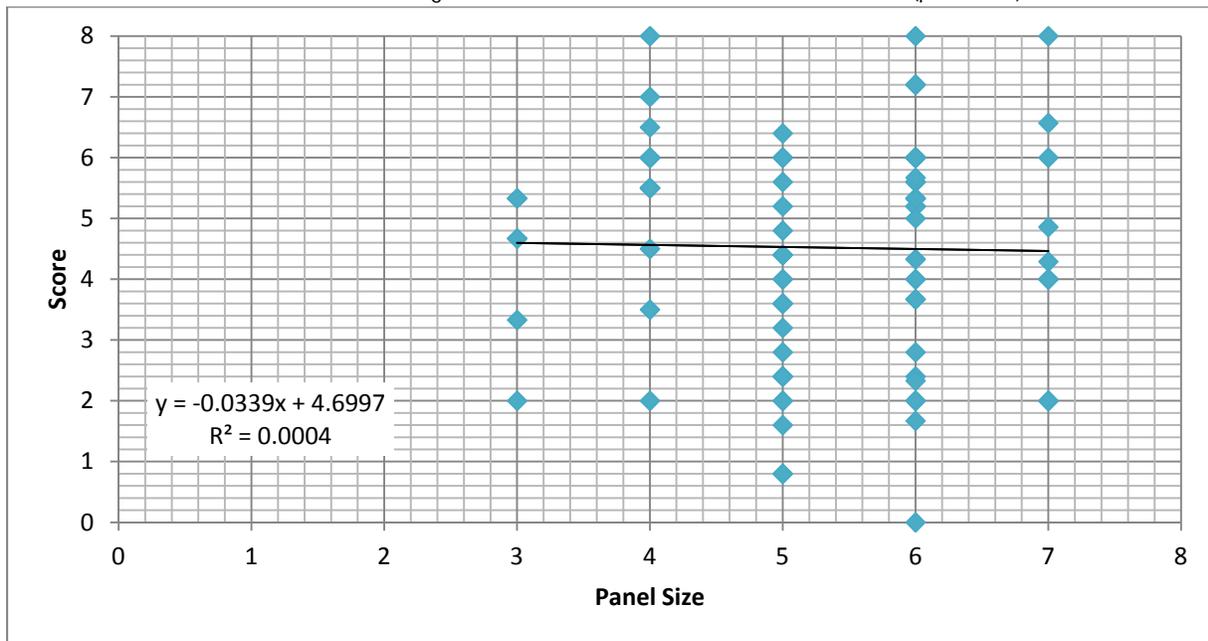


Figure 3. Similar to Figures 1 and 2 but data is only for plans reviewed by online panels and all are from all plans and all National Programs reviewed to date in the current 5-year review cycle. The still low R² value indicates a lack of influence of panel size on the outcome (score) for a plan.

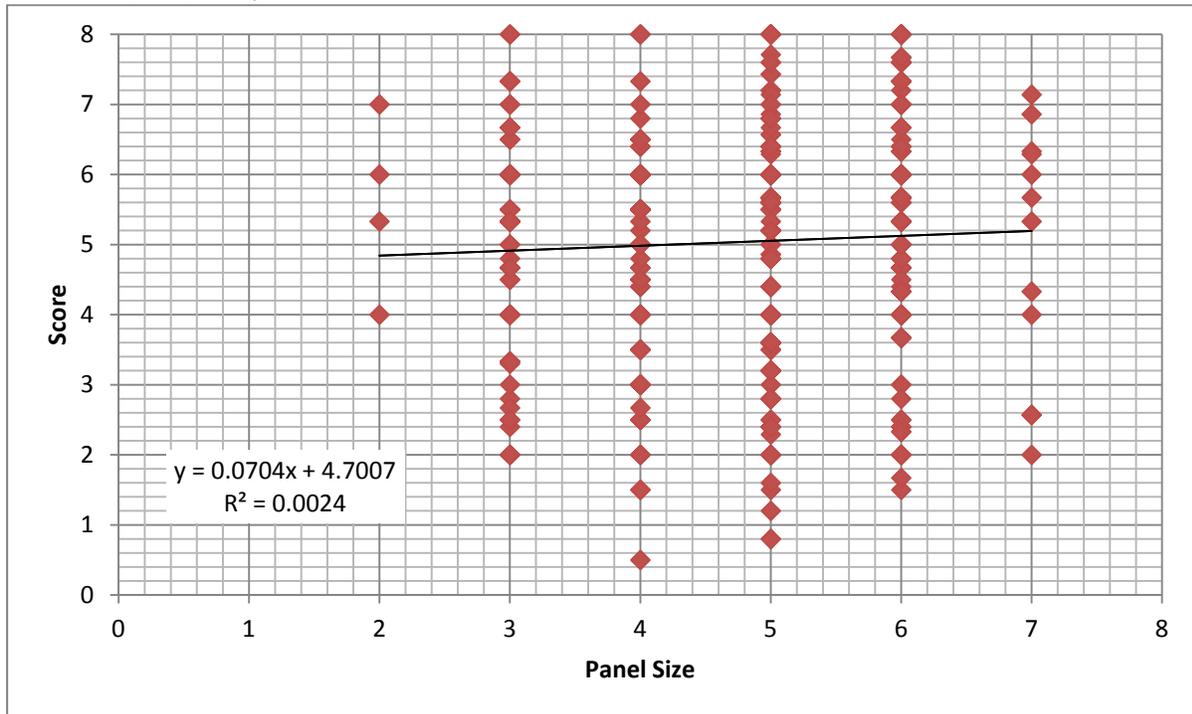


Figure 4. Influence of the overall scientific effort (in terms of Scientific Years, SY) assigned to a plan on the score received on initial review for the 58 plans in the current NP 107 Human Nutrition review. The low R² value indicates no correlation.

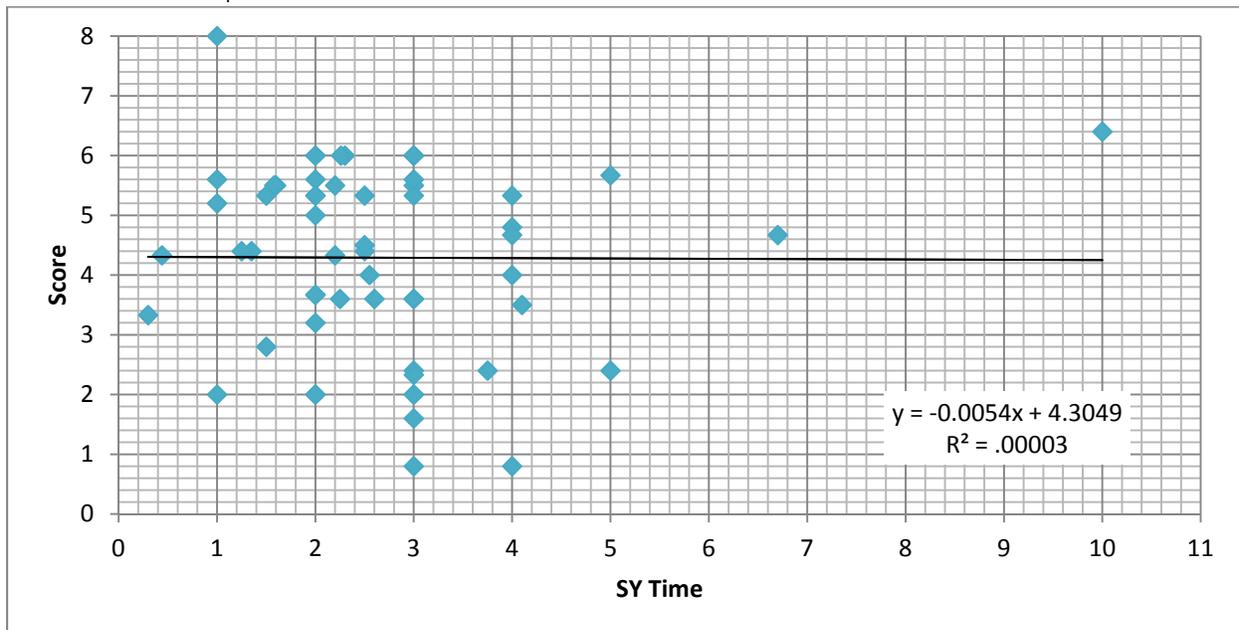


Figure 5. Influence of the number of scientists on a plan (independent of the proportion of their time) on the score received on initial review for the current NP 107 Human Nutrition review. The R² value shows no correlation.

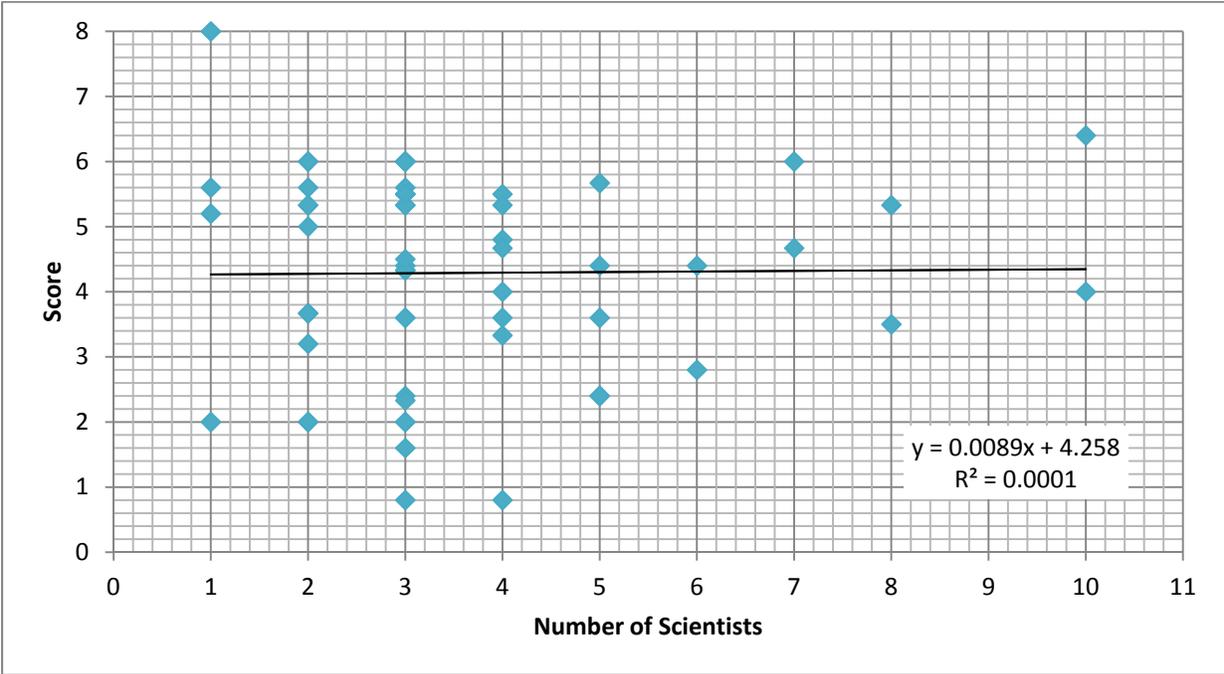


Figure 6. Initial Review Scores for the First (2004-5), Second (2009) and Third (2014) Cycle Distribution for the NP 107 Human Nutrition Panels (averages of 3.85; 4.46; 4.29, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the number of plans receiving that score.

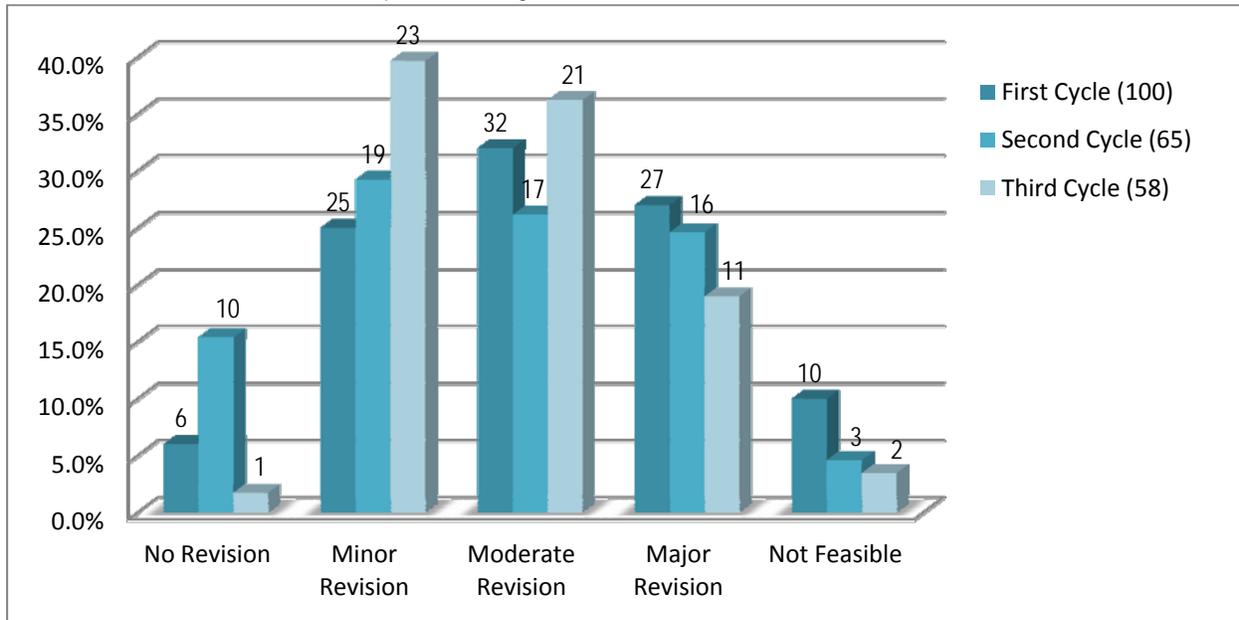
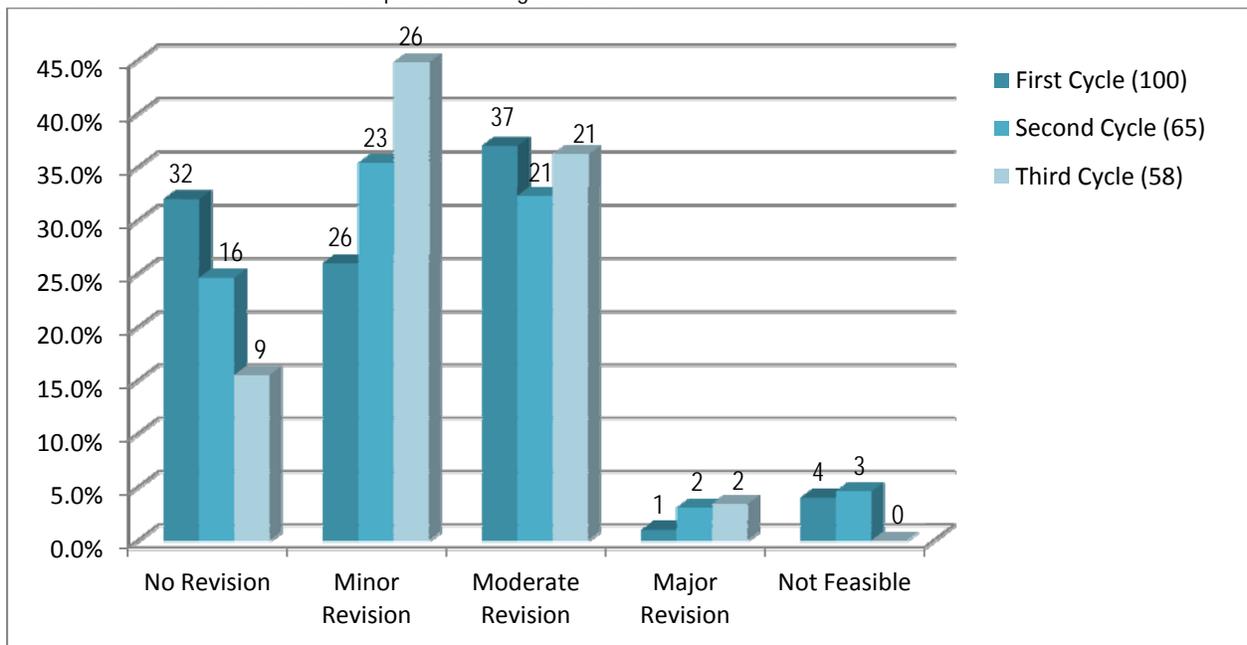


Figure 7. Final Review Scores for the First (2004-5), Second (2009) and Third (2014) Cycle Distribution for the NP 107 Human Nutrition Panels (averages of 5.59; 5.37; 5.33, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the number of plans receiving that score.



Panel Characteristics

ARS places responsibility for panel member selection primarily on external and independent Panel Chairs. ARS scientists, managers and the Office of National Programs may recommend panelists but the Panel Chair is under no obligation to use these recommendations. However, the SQRO does review and approve the Panel Chair’s panel member selections and may ask for alterations or additions. Several factors such as qualifications, diversity, and availability play a role in who is selected for an ARS peer review panel. The 16 panels were composed of nationally and internationally recognized experts to review 58 projects primarily coded to the Human Nutrition Program (see Table 1, page 2). The information and charts below provide key characteristics of the Human Nutrition Panels. This information should be read in conjunction with the Panel Chair Statements.

Affiliations

Peer reviewers are affiliated with several types of institutions, especially universities, but also special interest groups and industry. In some cases, peer reviewers have recently retired but are active as consultants, scientific editorial board members, and are members of professional societies. Table 4 shows the type of institutions with which the Human Nutrition Panel members were affiliated with at the time of the review.

Table 4. Faculty Rank of Panelists Affiliated with Universities and Other Affiliations Represented on the Panels

Panel	Professor	Associate Professor	Assistant Professor	Government	Industry & Industry Organizations	Other
Panel 1: Immunity/Inflammation (5)	3	1	1			
Panel 2: Obesity Interventions (5)	2	2			1	
Panel 3: Chronic Disease (4)	4					
Panel 4: Translational Studies A (5)	1	1	2		1	
Panel 5: Food Chemistry Analysis (3)	3					
Panel 6: Nutrient Requirements (6)	4	1			1	
Panel 7: Animal Models (6)	3	2	1			
Panel 8: Population Studies (5)	3	1		1		
Panel 9: Epidemiology (6)	2		1	3		
Panel 10: Food Database (3)	1	1			1	
Panel 11: Biological Mediators (5)	3		2			
Panel 12: Translational Studies B (6)	3	1	2			
Panel 13: Nutrient Metabolism (4)	4					
Panel 14: Epigenetics (5)	3	1	1			
Panel 15: Animal/In vitro Models (5)	3	2				
Panel 16: Healthy Development (3)	2	1				

Accomplishments

The peer review process is intended to be rigorous and objective, striving for the highest possible scientific credibility. In general, panelists are expected to hold a PhD unless the norm for their discipline tends to not require doctorate level education to achieve the highest recognition and qualification (e.g., engineers and modeling specialists). Panelists are also judged by their most recent professional accomplishments (e.g. awards and publications completed in the last five years). Finally, the panelists who are currently performing or leading research to address a problem similar to those addressed in the National Program are preferred. Table 5 describes their characteristics in the Human Nutrition Panels.

Table 5. The Panels' Recent Accomplishments

Panel	Published Articles Recently	Received Recent Professional Awards	Having Review Experience	Currently Performing Research
Panel 1: Immunity/Inflammation (5)	5	5	5	5
Panel 2: Obesity Interventions* (5)	5	2	4	4
Panel 3: Chronic Disease (4)	5	5	5	5
Panel 4: Translational Studies A (5)	5	5	5	5
Panel 5: Food Chemistry Analysis (3)	3	3	3	3
Panel 6: Nutrient Requirements (6)	6	1	4	5
Panel 7: Animal Models (6)	6	4	6	5
Panel 8: Population Studies (5)	5	4	5	5
Panel 9: Epidemiology (6)	6	5	6	6
Panel 10: Food Database (3)	3	3	3	3
Panel 11: Biological Mediators (5)	5	5	5	5
Panel 12: Translational Studies B (6)	6	4	5	5
Panel 13: Nutrient Metabolism (4)	4	3	4	4
Panel 14: Epigenetics (5)	5	5	5	5
Panel 15: Animal/ <i>In vitro</i> Models (5)	5	5	5	5
Panel 16: Healthy Development (3)	3	3	3	3

*Data not available for one of the reviewers in this panel.

Current and Previous ARS Employment

The Research Title of the 1995 Farm Bill 105-585, mandated ARS's requirements for the peer review of the ARS research projects: 1) panel peer reviews of each research project were mandated at least every five years and 2) the majority of peer reviewers must be external (non-ARS) scientists. Table 6 shows the number of peer reviewers for each panel that are currently or formerly employed by ARS.

Table 6. Affiliations with ARS

Panel	Currently Employed by ARS	Formerly Employed by ARS
Panel 1: Immunity/Inflammation (5)		
Panel 2: Obesity Interventions (5)		
Panel 3: Chronic Disease (4)		
Panel 4: Translational Studies A (5)		
Panel 5: Food Chemistry Analysis (3)		
Panel 6: Nutrient Requirements (6)		1
Panel 7: Animal Models (6)		
Panel 8: Population Studies (5)		1
Panel 9: Epidemiology (6)		
Panel 10: Food Database (3)		
Panel 11: Biological Mediators (5)		
Panel 12: Translational Studies B (6)		
Panel 13: Nutrient Metabolism (4)		
Panel 14: Epigenetics (5)		
Panel 15: Animal/ <i>In vitro</i> Models (5)		
Panel 16: Healthy Development (3)		

Human Nutrition Panel Chairs



Robert S. Chapkin, Ph.D.

Panel 1: Immunity/Inflammation

Regents Professor, Department of Nutrition and Food Science, Texas A&M University, College Station, Texas

Education: B.Sc & M.Sc. University of Guelph; Ph.D. University of California

Dr. Chapkin's research interests are nutritional immunology and inflammation biology.

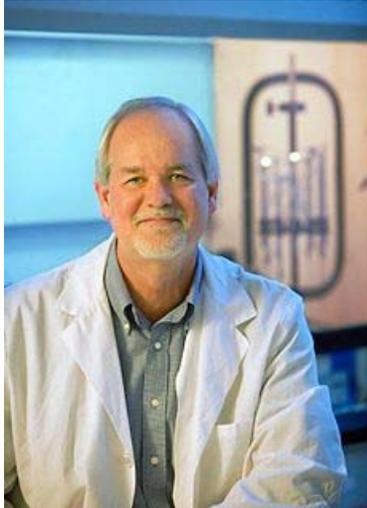


Lynn Moore, Ph.D.

Panel 2: Obesity Interventions

Associate Professor, Department of Medicine and Epidemiology, Boston University School of Medicine, Boston, Massachusetts

Dr. Moore's research interests include cardiometabolic risk, diabetes, epidemiology, metabolic syndrome, nutrition and obesity.



Michael Lefevre, Ph.D.

Panel 3: Chronic Disease

Research Director, Department of Nutrition, Dietetics, and Food Science, Utah State University, Logan, Utah

Education: B.S. & Ph.D. University of California, Davis

Dr. Lefevre's research interests are nutrition, cardiovascular disease risk, polyphenols and gut microbiota.



Kelly Tappenden, Ph.D.

Panel 4: Translational Studies A

Kraft Foods Human Nutrition Endowed Professor, Department of Food Science and Human Nutrition, University of Illinois, Urbana-Champaign, Illinois

Education: B.S. & Ph.D. University of Alberta

Dr. Tappenden's research interests are nutrition, gastroenterology, parenteral nutrition, enteral nutrition, microbiota and short chain fatty acids.



Elvira de Mejia, Ph.D.

Panel 5: Food Chemistry Analysis

Professor, Department of Food Science and Human Nutrition, University of Illinois, Urbana, Illinois

Education: B.S. National Polytechnic Institute; M.S. University of California, Davis; Ph.D. National Polytechnic Institute and University of California, Riverside

Dr. de Mejia is a food chemist working with the analysis, isolation and characterization of food bioactive compounds and their effect in human nutrition.



Peter Gillies, Ph.D.

Panel 6: Nutrient Requirements

Professor and Director, New Jersey Institute for Food, Nutrition and Health at Rutgers University, New Brunswick, New Jersey

Education: B.Sc. & Ph.D. McMaster University

Dr. Gillies' research interests are nutrition, pharmacology, clinical trials and health.



Howard Glauert, Ph.D.

Panel 7: Animal Models

Professor, Department of Pharmacology and Nutritional Sciences, University of Kentucky, Lexington, Kentucky

Education: B.A. University of Missouri; Ph.D. Michigan State University

Dr. Glauert's research interests are nutrition, cancer, oxidative stress, PCBs, antioxidants and cigarette smoke.



Amy Yaroch, Ph.D.

Panel 8: Population Studies

Executive Director, Gretchen Swanson Center for Nutrition, Omaha, Nebraska

Education: B.A. State University of New York; Ph.D. Emory University

Dr. Yaroch's research interests are public health, childhood obesity, food insecurity and local food systems and health.



Rashmi Sinha, Ph.D.

Panel 9: Epidemiology

Acting Branch Chief, Nutrition Epidemiology Branch,
Division of Cancer Epidemiology and Genetics, National
Cancer Institute, National Institutes of Health, Rockville,
Maryland

Education: B.S. & M.S. University of Stirling; Ph.D.
University of Maryland

Dr. Sinha's research interests are role of meat type, meat
mutagens in cancer etiology, coffee in relation to cancer,
dietary studies in Asian populations and diet and
microbiota.



Katherine Tucker, Ph.D.

Panel 10: Food Database

Professor, Department of Nutritional Sciences, University
of Massachusetts, Lowell, Massachusetts

Education: B.Sc. University of Connecticut; Ph.D. Cornell
University

Dr. Tucker's research interests are nutrition, dietary
assessment, chronic disease, obesity and health disparities.



Kimberly O'Brien, Ph.D.

Panel 11: Biological Mediators

Professor, Department of Nutritional Sciences, Cornell University, Ithaca, New York

Education: B.S. University of New Hampshire; Ph.D. University of Connecticut

Dr. O'Brien's research interests include calcium, vitamin D, iron, pregnancy, teen pregnancy, stable mineral isotopes and placenta.



Randall Mynatt, Ph.D.

Panel 12: Translational Studies B

Professor and Director, Transgenics Core, Pennington Biomedical Research Center, Baton Rouge, Louisiana

Education: B.S., M.S. and Ph.D. University of Tennessee

Dr. Mynatt's research interests are insulin resistance, lipid metabolism and skeletal muscle.



Richard van Breemen, Ph.D.

Panel 13: Nutrient Metabolism

Professor, Department of Medicinal Chemistry and Pharmacognosy, University of Illinois at Chicago, Chicago, Illinois

Education: B.A. Oberlin College; Ph.D. Johns Hopkins School of Medicine, Baltimore, Maryland

Dr. van Breemen's research interests are cancer chemoprevention, mass spectrometry, natural products, drug metabolism and drug discovery.



Steven Zeisel, Ph.D.

Panel 14: Epigenetics

Director, Nutrition Research Institute and Kenan Distinguished University Professor, University of North Carolina at Chapel Hill, Kannapolis, North Carolina

Education: B.S. and Ph.D. Massachusetts Institute of Technology; M.D. Harvard Medical School

Dr. Zeisel's scientific expertise is 1-carbon metabolism, nutrigenetics and epigenetics.



Emily Ho, Ph.D.

Panel 15: Animal/In Vitro Models

Professor, Department of Biological and Population Health Sciences and Endowed Director, Moore Family Center for Whole Grain Foods, Oregon State University, Corvallis, Oregon

Education: B.S. University of Guelph; Ph.D. The Ohio State University

Dr. Ho's research interests are phytochemicals, micronutrients, nutrition, nutrient-gene interactions and epigenetics.



Sharon Donovan, Ph.D.

Panel 16: Healthy Development

Professor, Department of Food Science and Human Nutrition, Melissa M. Noel Endowed Chair in Diet and Health, University of Illinois, Urbana-Champaign, Urbana, Illinois

Education: B.S. & Ph.D. University of California

Dr. Donovan's research interests are pediatric nutrition, human milk, gut microbiome and childhood obesity.

Panel Chair Statements

Panel Chairs were asked to provide a statement that describes how their Panel was conducted and, if they wish, provide comments on the review process that might not otherwise be found in the individual research project plan reviews. Of the sixteen panel chairs such statements were received from fourteen and are appended. Panel Chairs are given some guidelines for writing their statements, but are nevertheless free to discuss what they believe is important for broad audiences.

July, 29, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Michael: I am addressing the assigned questions below:

1. Did the USDA panel have discussions that reflected:

- sound and credible scientific peer review
- ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff.

Absolutely, yes! I selected a panel with a broad research background. The reviewers were extremely experienced (strong publication track records in relevant overlapping fields).

2. What were the most notable (positive or negative) characteristics of the discussion process and why:

- level of preparation for the discussion
- time spent discussing each project
- logistical arrangements
- exclusion of peer reviewers who had a conflict with the project
- understanding of the review criteria and roles as peer reviewers
- scoring and critique writing procedures

The level of preparation was excessive, largely do to the size and scope of the grants. The overall structure of the reports needs to be simplified. Logistical arrangements were reasonable.

3. What suggestions do you have to improve the peer review process?

A face-to-face meeting might accelerate the review process. The USDA may want to consider having the PI's give a "chalk talk", presenting a synopsis to the panel.

4. Overall, was this an effective peer review panel?

The panel performed extremely well. Again, I selected reviewers that I really felt could "step to the plate". Based on the scope of the undertaking, I suggest that compensation be dramatically increased.

Sincerely,



Robert S. Chapkin, Ph.D.
Distinguished Professor
Regents Professor & University Faculty Fellow
Deputy Director – NIEHS Center for Translational Environmental Health Research (CTEHR)

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May 2, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dr. Grusak,

I am reporting on the **NP 107 Panel 3: Chronic Disease** discussion of three proposals that were provided for evaluation. Overall, I found the review and the ensuing discussion to be rigorous and fair with the final recommendations and comments providing suggestions which will likely improve the quality of research proposed by the investigators. Because the reviewers came from varied backgrounds, they provided unique perspectives and alternate approaches that may not have been considered by Agency scientists and staff.

I was impressed by the level of preparation of each of the reviewers, regardless as to whether they were primary or secondary reviewer or not formally assigned to the specific proposal under discussion. While the time spent discussing each proposal was clearly longer than that usually spent on applications in NIH study sections, this did afford us an opportunity to thoroughly discuss each proposal, and importantly, allowed us to come to consensus when different reviewers had differing opinions regarding a proposal. In short, the extended discussions provided for more considered recommendations and comments which ultimately benefitted the investigators.

The greatest difficulty that was encountered was in identifying the panel members. Because the scientists whose programs were under review represented some of the top researchers in their field, their extensive network of collaborators made it difficult to identify qualified researchers who were not in conflict. Perhaps a review of what constitutes a genuine conflict of interest as opposed to merely an appearance of conflict should be considered so that a larger pool of knowledgeable and well-qualified reviewers may be considered for the review panel. Other than this, the overall review proceeded quite smoothly and efficiently.

I hope that my comments are helpful.

Regards,



Michael Lefevre
USTAR Professor
Department of Nutrition, Dietetics and Food Science
Utah State University

UNIVERSITY OF ILLINOIS
AT URBANA - CHAMPAIGN

Kelly A. Tappenden, Ph.D., R.D., FASPEN
Kraft Foods Human Nutrition Endowed Professor
Provost Fellow/University Distinguished Teacher-Scholar
Editor-in-Chief, *Journal of Parenteral
and Enteral Nutrition*



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Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

August 26, 2014

Dear Dr. Grusak,

Thank-you for the opportunity to Chair the recent ARS Human Nutrition National Program review panel. I write to let you know that sound and credible scientific peer review was applied to the four projects under evaluation and the Agency scientists and staff were very helpful during this process. Notably, the experts tasked with reviewing these proposal were very well prepared and equally engaged in providing constructive feedback to guide the investigators projects. Each of us greatly appreciated the ability to participate in this process via WebEx thereby eliminating the need for travel. The scoring system used was well-explained and very clear. Overall, this was a very effective peer review panel.

Sincerely,

A handwritten signature in cursive script that reads 'Kelly A. Tappenden'.

Kelly A. Tappenden, Ph.D., R.D., FASPEN
Kraft Foods Human Nutrition Endowed Professor
Provost Fellow / University Distinguished Teacher-Scholar

telephone 217-333-2987 • fax 217-265-0925



Office of Environmental and Biological Sciences
New Brunswick, New Jersey 08901

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March 20, 2014

Dr. Mike Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

RE: NP 107 Panel 6: Nutrient Requirements

Dear Dr. Grusak:

On behalf of the panel, I am pleased to report that we have successfully completed our review of the assigned programs. The panel is confident that with appropriate revisions, most of them minor, the USDA investigators will be able to pursue their proposed research with a high probability of technical success.

As chair of the panel, I wish to note that each of my reviewers took their responsibilities seriously and diligently. In this regard, you should feel confident that the agency has conducted a fair and responsible peer review process. I wish to specifically acknowledge the superb support of Dr. Mike Strauss and Chris Woods who made the overall process seamless and efficient.

Finally, I would like to offer a post-panel reflection. I noted that many of the programs followed a very reductionist medical model; it is important, however, that the collective impact of food and diet not become subservient to the single molecule, single mode of action paradigm. The richness of nutrition lies in the complexity of the bioactive food matrix and the cascade of interactive nutrient pharmacology the matrix elicits. If we lose sight of this basic tenet, we limit the value of the data we collect in terms of establishing new and reality-based dietary guidelines. Similarly, as interesting as a candidate SNP may be in a given pathway, a broader discovery approach underscores the importance of haplotype and keeps our options open. On a laudatory note, I was very pleased to see the attention being given to nutritional epigenetics by some of the investigators.

Sincerely,

Peter J. Gillies, PhD, FAHA
Professor and Founding Director
New Jersey Institute for Food, Nutrition & Health



College of Medicine
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April 25, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Dr. Grusak,

This letter is in regards to NP 107 Panel 7: Animal Models (2014). This was an excellent review panel. The panel had discussions that reflected sound and credible scientific peer review, and which contained ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff. All of the reviewers on the panel were well-prepared for the discussion. All of the reviewers understood the review criteria and their roles as peer reviewers. The time spent discussing each project was appropriate. The panel was held by teleconference. One of the reviewers was from Asia, and was extremely difficult to hear. This reviewer was also unable to call in during one of the meetings. I also had difficulty understanding one of the other reviewers, who was a non-native English speaker. Potential peer reviewers who had a conflict with the project were excluded from the panel. The scoring and critique writing procedures worked reasonably well.

I had one suggestion to improve the peer review process. If reviewers from outside North America are used in the future, it would be useful to test out their internet connection in advance.

Overall, this was an effective peer review panel, and I enjoyed participating.

Sincerely yours,

A handwritten signature in blue ink that reads "Howard P. Glauert".

Howard P. Glauert, Ph.D.
Professor

seeblue



GRETCHEN SWANSON
**CENTER FOR
NUTRITION**

RESEARCH * PARTNERSHIP * EVALUATION

July 30, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Dr. Grusak,

As Chair of NP 107 Panel: Population Study, I wanted to comment on the recent review. I was impressed with the overall review process. I have conducted many reviews and I thought that the reviewers who participated in the current review provided thorough critiques and that the discussion was comprehensive and thoughtful.

In addition, I only have positive comments to relay as to the level of preparation for discussion, logistical arrangements, the reviewers in understanding their roles, as well as the scoring and written critiques. It was a pleasure to chair such a well-organized review panel. I don't have any suggestions on improvement, since I think this was a very effective peer review panel.

Please do not hesitate to contact me if you have any follow-up questions.

Sincerely,

Amy Lazarus Yaroach, Ph.D.
Executive Director



Division of Cancer
Epidemiology and
Genetics

Nutritional Epidemiology
Branch

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U.S. Department of
Health and Human Services
National Institutes of Health

June 18, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

1. Did the Epidemiology panel have discussions that reflected:

-sound and credible scientific peer review

The discussion by the panel was appropriate and credible, reflecting their view of the scientific quality and impact of the proposals.

- ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff.

The panel suggested a number of approaches to improve the research quality.

2. What were the most notable (positive or negative) characteristics of the discussion process and why:

-level of preparation for the discussion

The primary reviewers and secondary reviewers were prepared and discussed each proposal at length.

-time spent discussing each project

The panel spend appropriate amount of time reviewing the different proposals, some needed shorter time than others.

-logistical arrangements

The logistic arrangements were excellent.

-exclusion of peer reviewers who had a conflict with the project

No one had an overt conflict.

-understanding of the review criteria and roles as peer reviewers

Understanding the review criteria relative to eventual approval of the project by program staff was difficult. Given that each project appears to have been selected for entry into the review process, the roles of the reviewers was somewhat unclear. In the end, all of the projects got approved.

-scoring and critique writing procedures

Appropriate.

3. What suggestions do you have to improve the peer review process?

The role of the review process was not clear as the proposals that came for reviews were already pre-funded. It would also be important to inform scientists writing these proposals that they should not propose partially funded projects. They should be able to account for fully funded projects. It appeared that we are approving promissory notes.

4. Overall, was this an effective peer review panel?

Moderately.

Rashmi Sinha
Deputy Branch Chief



Katherine L. Tucker, PhD
Department of Clinical Laboratory
and Nutritional Sciences

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Panel Chair Statement

May 13, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Dr. Grusak,

I apologize for the late submission of this statement, as I have been traveling heavily over the past month. I would like to state my appreciation for the review process in completing reviews for these ARS CRIS plans. The reviewers that participated were highly qualified and thorough in their work and we have excellent discussion of the plans. The plans reviewed are highly relevant to human nutrition, as their work on national databases has relevance for many nutritional scientists who use these critical resources. Therefore the work was considered to be of very high significance.

The participation of the ARS staff was helpful and kept us on track, clarifying important points that were raised by the reviewers so that they were placed in proper perspectives. We had a very productive discussion that lasted longer than the time expected, but not excessively so. The information provided both for logistics and review criteria were clear and helpful and provided by the staff in a timely manner, so that the discussion went smoothly. There was considerable agreement on scoring and critique, so the process was not complicated. However, there were still some questions and suggestions for improvement. Because the reviews were mainly very positive, the staff provided assurance that the suggestions for improvement can be reviewed internally without additional external review.

I was pleased with the information provided and with the process and have no suggestions for improvement. I do believe that this was a very effective peer review panel. Thank you for including me in the process.

Sincerely,

A handwritten signature in blue ink that reads 'Katherine L. Tucker'.

Katherine L. Tucker, PhD
Professor of Nutritional Epidemiology



Cornell University
Division of Nutritional Sciences

Kimberly O. O'Brien
Professor

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December 18, 2013

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Dr. Grusak,

On December 17th, 2013 the NP 107 Panel 11: Biological Mediators (2014) review group held a teleconference to discuss 4 project plans submitted as part of the Agricultural Research Service's Human Nutrition National Program. These research plans were focused on topics relevant to obesity, oxidative stress, adipocyte control and metabolic signaling.

The four external reviewers were selected based on their expertise in the subject matter. Each reviewer undertook a thorough review of the materials submitted and carefully considered the scientific questions proposed, the study hypotheses, the novelty of the research planned, the prior productivity of the lead scientists, and the scientific methodology to be utilized in support of the research proposed. Careful attention was given to the contingency plans provided and to the likelihood of success given the preliminary data and scope of work proposed. During the teleconference, each panel member provided a sound and credible scientific review of the grant materials submitted. The primary and secondary reviewer presented the objectives and strengths and weaknesses of the project plans followed by additional insight and comments by the other members of the panel. In many instances reviewers suggested alternate approaches to streamline the work proposed, to improve the quality of the research and to strengthen the likelihood of success. If study aims were not felt to be state of the art, suggestions were provided on ways to focus the research to highlight the novel contributions and strengths of the studies proposed.

All reviewers were sufficiently prepared for the discussion and exhibited knowledge of the subject matter. Sufficient time was provided for all panel members to provide additional insight in support of the review and to ask for additional clarification on comments that were raised. In all instances the panel was in agreement with the primary and secondary reviewer's comments and the group discussion that was held following each project plan was productive. At times weaknesses in presentation of the preliminary data were highlighted and suggestions were provided to assist the investigators in subsequent presentation or publication of these data. Several of the reviewers had not previously participated as reviewers on ARS review panels and asked for additional information on the process and the way in which the feedback would be utilized by the project scientists. None of the panel members had to be excluded due to scientific conflicts with the projects discussed. For all projects presented the panel members were able to reach a consensus and were nearly unanimous in their scoring of the studies presented.

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At the conclusion of the teleconference the panel members were asked to provide suggestions on the peer review process. There was overall appreciation of the online electronic format utilized and no members of the review panel had specific suggestions to improve the review process.

In sum, I believe this was an effective peer review panel. The external scientists reviewing the project plans exhibited clear knowledge of the content area and had relevant background to fully evaluate the research plans proposed. The suggestions made were provided with the intent of strengthening the design and interpretation of the data generated and for improved integration of the research proposed within project teams.

Sincerely,

A handwritten signature in cursive script that reads "Kimberly O'Brien".

Kimberly O'Brien, PhD
Professor



July 16, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Michael,

I am pleased to report that the study section "NP 107 Panel 12: Translational Studies B" was successful. I feel that the training sessions and guidance from USDA staff were very helpful in training the reviewers and me for the USDA peer review process. Each of the reviewers was well prepared and submitted, fair, unbiased and critical reviews in a timely manner. The teleconference for the study section and the second session to discuss revisions allowed reviewers to state their likes and dislikes with plenty of opportunity for discussion. My overall rating would be excellent. Please let me know if you need anything else from me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randall Mynatt".

Randall L. Mynatt, Ph.D.

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April 15, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Grusak:

As Panel Chair of NP 107 Panel 13: Nutrient Metabolism, I am pleased to submit this final report. The panel convened via conference call and internet on March 18, 2014. All panel members were highly qualified in this field, well prepared and provided positive and insightful scientific comments. In both written and verbal commentary, the panel pointed out the strengths of each research plan as well as how each might be improved. Overall, each research plan was well organized and appropriately designed. Minor improvements were suggested that included alternative approaches as well as, in some cases, external collaborations that might enhance productivity.

The peer reviewers were selected as leaders in the fields of nutrition, natural products and botanicals. There were no conflicts of interest among the panel members. The ARS-USDA team provided the panel members with a thorough orientation to their role in this review process and how they should prepare written evaluations and then score the projects. The panel was then able to meet at a convenient time such that they could discuss each project thoroughly and complete their evaluations in an appropriate manner.

Overall, I found that this review panel provided exceptional comments and helpful suggestions that should help the ARS-USDA investigators become even more productive in their research. The review process was therefore highly effective, and the ARS-USDA team was extremely helpful.

Sincerely,



Richard B. van Breemen, Ph.D.
Matt Lu Professor of Medicinal Chemistry and Pharmacognosy
Director, UIC/NIH Center for Botanical Dietary Supplements Research

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STEVEN H. ZEISEL, M.D., PH.D.
*Kenan Distinguished University Professor of Nutrition & Pediatrics
at the Gillings School of Global Public Health
and the UNC School of Medicine
Director, UNC Nutrition Research Institute
Director, UNC Nutrition and Obesity Research Center*

June 20, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

The NP 107 Panel 14 on Epigenetics had discussions that reflected sound and credible scientific peer review. It discussed ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff.

All panelists were experts in the area and exhibited a very high level of preparation for the discussion. We spent appropriate time discussing each project. The logistical arrangements for the discussion and review were excellent. We excluded peer reviewers who had a conflict with the project. All reviewers understood the review criteria and their roles as peer reviewers. Panelists prepared initial critiques independently, all critiques were discussed thoroughly on a conference call, and panelist scored proposals in secret. As needed, investigator responses to the review were critiqued, and a new score assigned after a second telephone conference call.

I have no suggestions to improve the peer review process. The reviews proceeded appropriately and efficiently and were of high quality. This was an effective peer review panel.

Sincerely yours,

Steven H. Zeisel, MD, PhD
Chair, NP 107 Panel 14 on Epigenetics
Kenan Distinguished University Professor of Nutrition and Pediatrics



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April 15, 2014

Addressed to:

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, Maryland 20705

Dear Michael,

It was my pleasure to serve as chair of the **NP107; Panel 15: Animal/In Vitro Models**. Our Panel was able complete a sound and credible scientific peer review of all the program plans. The unique and complementary expertise of our reviewers allowed for productive discussion and input so that research could be enhanced with alternative methods and improvements to the research design that may not have been originally considered by ARS scientists.

The level of preparation prior to review panel was outstanding so we were able to conduct review in timely and efficient manner with good discussion. All reviewers were clear on review criteria, scoring and process. The panel was completed by teleconference, that had some pitfalls in terms of communication, but given the advance forwarding of comments, this was not prohibitive, but was difficult to hear at times and ensure everyone was not talking simultaneously.

In terms of suggestions for improvement – I would recommend that upon inviting reviewers that a more realistic overview of time commitment would be appreciated. Some reviewers indicated that given the length of plans that it took substantially more time than a few hours (as indicated at invitation) to review plans. Secondly, it may be helpful to have an internal review of plans prior to external review. In some of the provided plans, there were issues such as grammar, lack of organization and simple experimental details missing that made review of plans more difficult unnecessarily.

Overall, the review process was an excellent process.

Sincerely,

Emily Ho, PhD
Professor and Director
Moore Family Center for Whole Grain Foods, Nutrition & Preventive Health
School of Biological & Population Health Sciences
College of Public Health & Human Sciences, Oregon State University

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Department of Food Science and Human Nutrition

College of Agricultural, Consumer
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339 Bevier Hall
905 S. Goodwin Avenue
Urbana, IL 61801



June 3, 2014

Dr. Michael A. Grusak, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Grusak,

Thank you for the opportunity to provide feedback on the **NP 107 Panel 16: Healthy Development (2014)**. The panel of three faculty members from the U.S. and Canada reviewed two proposals, one of which was approved and received minor feedback, whereas the other proposal was not approved and the PI was required to resubmit the proposal for re-review.

The reviewers provided sound scientific peer review of the proposal. The reviewers provided feedback on the conceptual framework, hypotheses and experimental approaches outlined in the proposals. I believe that the reviewer's comments led to an improvement in the proposals and, ultimately, the quality of the research.

Overall, I felt that the peer review panel was very effective. I would like to thank you and your staff for facilitating the selection of panel reviewers as well as the actual review process to use the panel's time most efficiently in terms of providing the proposals and the on-line review format. I appreciated that you took the time to describe the roles as peer reviewers, the review criteria, scoring and the writing procedures for the critiques, which facilitated our review process. In addition, summarizing the reviewer's critiques into a single document prior to our on-line meeting helped the reviewers to get an overview of the strengths and weaknesses of the proposal, which streamlined the review.

I do not have any specific suggestions for improvements to the process, as this panel ran smoothly.

Sincerely yours,

Sharon M. Donovan, PhD, RD
Professor and Melissa M. Noel Endowed Chair in Nutrition and Health

telephone 217-244-4498 • fax 217-265-0925

Projects Reviewed by the Human Nutrition Panels

Beltsville Area

David Baer

Metabolism and Molecular Targets of Macro and Micro Food Components in the Development and Management of Obesity and Chronic Diseases

Harry Dawson

Dietary Regulation of Immunity and Inflammation

James Harnly

Metabolite Profiling and Chemical Fingerprinting Methods for Characterization of Foods, Botanical Supplements, and Biological Materials

Alanna Moshfegh

“What We Eat in America” Dietary Survey: Data Collection, Interpretation, Dissemination, and Methodology

Janet Novotny

Absorption, Metabolism, and Health Impacts of Bioactive Food Components

Jae Park

Health Promoting Roles of Food Bio-Active Phenolic Compounds on Obesity-Altered Heart and Kidney Functions and Physiology

Pamela Pehrsson

USDA National Nutrient Databank for Food Composition

Pamela Pehrsson

USDA Dietary Supplement Ingredient Database

Thomas Wang

Regulatory Mechanisms Induced by Health-Promoting Bioactive Food Components on Sex Steroid Hormone-Dependent Pathways, Cancer Cell-Stromal Cell Interactions, and the Gut Microbiome

Mid South Area

Jessica Thomson

Improving Nutrition and Physical Activity Related Health Behaviors in Children and their Environment

North Atlantic Area

Jeffrey Blumberg

Phytochemicals and Healthy Aging

Sarah Booth

Vitamin K: Food Composition, Bioavailability and Human Health

Bess Dawson-Hughes

Musculoskeletal Health and Metabolism in Elderly Adults

Roger Fielding

Nutrition, Sarcopenia, Physical Activity, and Skeletal Muscle Function in the Elderly

Raymond Glahn

Bioavailability of Iron, Zinc and Select Phytochemicals for Improved Health

Andrew Greenberg

Regulation of Obesity and Associated Metabolic Complications

Paul Jacques

Epidemiology Applied to Problems of Aging

Joseph Kehayias

Use of Isotope Kinetics for the Assessment of Body Composition and Energy Balance in Older Adults

Alice Lichtenstein

Improving Cardiovascular Health with Diet

Joel Mason

Defining Mechanisms by Which Select Nutrients Determine Cancer Risk

Mohsen Meydani

Fruits, Vegetables, and Related Bioactive Compounds and Prevention of Atherosclerosis, Obesity and Chronic Inflammation

Simin Meydani

Immunity Affected by Diet and Obesity

Jose Ordovas

Nutrition, Obesity, Cardiovascular Health, and Genomics

Susan Roberts

Obesity and Energy Regulation throughout the Adult Lifecycle

Jacob Selhub

B Vitamins in Health and Aging

Christopher Still

Rural Aging Study

Allen Taylor

Using Nutrition and Proteolysis to Delay Age Related Macular Degeneration and Cataracts

Xiang-Dong Wang

Molecular Targets of Tomato Carotenoids and their Metabolites in Cancer Prevention

Northern Plains Area

Kate Claycombe

Biology of Obesity Prevention

Susan Raatz

Food Factors to Prevent Obesity and Related Diseases

James Roemmich

Dietary Guidelines Adherence and Healthy Body Weight Maintenance

Lin Yan

Health Roles of Dietary Selenium in Obesity

Pacific West Area

Nancy Keim

Improving Public Health by Understanding Diversity in Diet, Body, and Brain Interactions

Charles Stephensen

Assessing the Impact of Diet on Inflammation in Healthy and Obese Adults in a Cross-Sectional Phenotyping Study and a Longitudinal Intervention Trial

Marta Van Loan

Novel Functions and Biomarkers for Vitamins and Minerals

Susan Zunino

Dietary Modulation of Inflammation by Anti-Inflammatory Phytochemicals

Southern Plains Area

Steven Abrams

Evaluation of Dietary Mineral Requirements in Children 6 to 24 Months of Age

Aline Andres

Maternal Programming of Offspring Metabolism and Obesity

Thomas Badger

Dietary Factors in Development

Thomas Baranowski

The Environment and Children's Eating Behavior

Douglas Burrin

Early Feeding Practices, Growth and Health

Jin-Ran Chen

The Role of Dietary Factors in Skeletal Development

Karen Cullen

Assessing Food Intake and Physical Activity of Children

Marta Fiorotto

Critical Windows in the Developmental Programming of Physical Exercise by Nutrition

Makota Fukuda

The Role of Leptin in Diet-Induced Obesity

Michael Grusak

Food and Agriculture-Based Challenges to Ensure Nutrient Adequacy and Well-Being in Humans

Morey Haymond

The Pathophysiology of Lactation in Obesity

Farook Jahoor

Consequences of Maternal Obesity and Obesity in Young Children

Theresa Nicklas

Prevention of Obesity and Related Diseases

R. Terry Pivik

Dietary Influences on Psychological and Neuropsychophysiological Development and Function in Children

Martin Ronis

Effects of Early Diet on Gastrointestinal Development and Function

Kartik Shankar

Interventions to Mitigate Maternal Obesity-Associated Programming

Robert Shulman

Diet, the Intestinal Microbiome, and Health of Children

Wayne Smith

Diet, Inflammation, and Obesity

Yuxiang Sun

Metabolic Effects of Ghrelin and Glucagon-Like Peptide Hormones

Qiang Tong

Metabolic Pathways in Obesity

Robert Waterland

Epigenetics of Stem Cells, Obesity, and Diabetes

Yong Xu

Brain Signaling, Metabolism, and Obesity

Office of Scientific Quality Review

The Office of Scientific Quality Review manages and implements the ARS peer review system for research projects, including peer review policies, processes and procedures. OSQR centrally coordinates and conducts panel peer reviews for project plans with ARS' National Program every five years.

OSQR sets the schedule of National Program Review sessions. The OSQR Team is responsible for:

- Panel organization and composition (number of panels and the scientific disciplines needed)
- Distribution of project plans
- Reviewer instruction and panel orientation
- The distribution of review results in ARS
- Notification to panelists of the Agency response to review recommendations
- *Ad hoc* or re-review of project plans

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