

FY 2022
Panel Outcome Report
Food Animal Production (NP 101)

Weidong Chen, Ph.D., Scientific Quality Review Officer
(January 2022-December 2023)

Date

Marquea D. King, Ph.D., Director/Program Coordinator

Date

Panel Outcome Report FY 2022 Food Animal Production (NP 101)

This Panel Outcome Report is a summary of the Food Animal Production (NP 101) OSQR Project Plan Peer Review (PPPR) Process held from March 2022 – June 2022.

The mission of this National Program is to conduct research to improve food animal production efficiency, industry sustainability, animal welfare, product quality and nutritional value while safeguarding animal genetic resources.

This panel outcome report is intended to inform the Office of National Programs (ONP) and each Area of research (research scientist or SY) progress as it relates to the NP 101. Data tables display outcome of scoring by Areas, Panels and overall program.

Selected chairs (Table 1) were in part, recommended by National Program Leaders (NPLs) from NP 101 and/or previous OSQR service; others were sought out based on their nationally recognized expertise by the OSQR Director. They were examined for suitability to lead a panel review, screened for conflicts of interest (COI) and concurred upon by the appropriate Scientific Quality Review Officer (SQRO).

Table 1.
Panels reviewed for the Food Animal Production National Program (101)

Panel	Panel Chair	Panel Meeting (Re-Review)	Number of Panelists	Number of Projects
1. Genetics 1	Michael E. Davis	5/11/22	4	3
2. Genetics 2	Clare Gill	6/14/22	3	3
3. Health Management	Crystal Levesque	5/12/22	4	3
4. Ruminant Nutrition	Cody Wright	5/31/22	5	4
5. Non-Ruminant Nutrition	Zhihua Jiang	5/23/22	4	3
6. Reproduction	Peter J. Hansen	5/25/22	5	4
7. Systems Approach	Alison Crane	5/5/22	5	4
8. Animal Welfare	Yuzhi Li	5/10/22	4	3
9. Meat Quality-Ad hoc*	N/A	N/A	3	1

*Reviews are conducted by no less than two (or greater) expert panel reviewers providing independent written reviews and scores without group panel deliberation. Scores reflect the average of no less than two expert reviewers and written reviews are compiled and screened by Office Director.

Review Process

Following panel review for each plan, OSQR with SQRO concurrence, sends each Area Director a panel consensus recommendation document. 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 accordance with guidelines as detailed in the OSQR Handbook (see www.ars.usda.gov/osqr).

In addition, as part of the panel deliberation, a scoring of the overall quality of the plan is judged based on the degree of revision the panel deems is required. This scoring is termed an “Action Class.” Each reviewer is asked to anonymously provide an Action Class rating for each plan. OSQR assigns a *numerical equivalent* to each Action Class rating and then averages these to arrive at an overall Action Class Score for the plan.

The Action Class is defined as follows:

No Revision Required. An excellent plan; no revision is required, but minor changes to the project plan may be suggested.¹

Minor Revision Required. The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.

Moderate Revision Required. The project plan is basically feasible but requires changes or revision to the work on one or more objectives, perhaps involving alterations of the experimental approaches in order to increase quality to a higher level and may need some rewriting for greater clarity.

Passed Review:

For plans receiving one of the above three Action Class scores (No Revision, Minor Revision or Moderate Revision), scientists are required to respond, in writing, to address all panel comments in the consensus recommendation document; revise their project plan as appropriate; and submit the revised plan and responses to the OSQR through their Area Office. Both the updated plan and the recommendations' form are reviewed by the SQRO and, once they are satisfied that all review concerns have been satisfactorily addressed, the project plan is certified, the Area Office is notified, and the project plan may be implemented.

Certification:

Certification is contingent upon making a good faith effort to satisfactorily address panel comments and recommendations. A plan has not "passed" the OSQR PPPR process until the SQRO's certification is delivered to the Area.

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

Not Feasible. The project plan, as presented, has major scientific or technical flaws. Deficiencies exist in experimental design, methods, presentation, or expertise which make it unlikely to succeed.

Failed Review:

For plans receiving an Action Class score of Major Revision or Not Feasible, scientists are required to address, in writing, all panel comments in the consensus recommendation document; revise their project plan as appropriate; and submit the revised plan and responses to the OSQR through their Area Office. This plan *MUST* undergo a Re-Review by the initial deliberating panel, at which time a second set of consensus recommendations and second Action Class score are obtained.

Per the Re-Review, if the plan receives an Action Class score of a No Revision, Minor Revision or Moderate Revision the project plan may be implemented after following the **Passed Review** section above. Plans receiving a second Major Revision, or Not Feasible score are considered failed reviews. The Action Class and Consensus Recommendations from the Re-Review are provided to the Area with NO further option for revision nor review on that particular project plan as it has been submitted.

¹ While a No Revision action class would imply that change to the plan is not required, where the panel requests specific additions to the plan, if accepted, these should be incorporated into the updated plan.

Per the Re-Review, if the plan receives an Action Class score of a No Revision, Minor Revision, or Moderate Revision, the project plan may be implemented after following the **Passed Review** section above. Plans receiving a second Major Revision, or Not Feasible score are considered failed reviews. The Action Class and Consensus Recommendations from the Re-Review are provided to the Area with NO further option for revision or review on that particular project plan as it has been submitted.

Such plans may terminate, reassigned, or restructured at the discretion of the Area and Office of ONP. For plans receiving Major Revision, it may be elected not to further revise them and to end review with the plan not receiving certification (plan fails review). For those receiving a score of Not Feasible, Area and NPL approval are needed in order for the plan to be revised for re-review. Otherwise the plan will be considered to have failed review. Subsequent action with regard to the research and researchers is left to Area and ONP-NPL leadership.

At the conclusion of each PPPR deliberation, the chair and panel reviewers are asked to provide general statements or recommendations on the overall process as well as the general quality of the plans which underwent review. The Chair is specifically sought to provide a Panel Chair Statement which they feel focuses on the overall conduct of the review or any broad areas with regard to the research that they feel would benefit future researchers or the Agency as a whole. Copies of such statements for (NP 101) can be found following this report.

Review Outcomes

Reviews can vary, but ultimately, depend on a combination of the panelists selected and the scientific writing capabilities of the team which wrote the project plan. The OSQR is responsible for assuring that each panel contains subject matter experts who provide knowledgeable, clear, rigorous, and fair assessments. Therefore, PPPR panels vary in their overall outcomes.

Uniquely, the ability of an ARS research team to respond to panel recommendations/comments in order to revise and improve project plans is, perhaps, the greatest strength of the ARS PPPR process.

ARS uses the National Program Panel Outcomes Report as a measure of scientific progress and as a demonstration of overall program quality, how well researchers understand and address the needs of the expert panel reviewers. Initial review scores that are moderate or higher are recorded as such and will not be certified as having completed the PPPR until the SQRO has deemed that all reviewer concerns have been satisfactorily addressed. For lower scores/failed reviews, the panel provides a re-review score, which is considered along with the initial review score.

Table 2.**Initial and Re-review Scores for Food Animal Production National Program (101)**

Panel	No revision	Minor	Moderate	Major	Not Feasible	Re-Review
1. Genetics 1	0	3	0	0	0	
2. Genetics 2	0	2	0	1	0	1 No Revision
3. Health Management	0	2	0	1	0	1 Minor
4. Ruminant Nutrition	0	3	1	0	0	
5. Non-Ruminant Nutrition	0	0	3	0	0	
6. Reproduction	0	1	1	2	0	2 No Revision
7. Systems Approach	0	4	0	0	0	
8. Animal Welfare	0	2	1	0	0	
9. Meat Quality - Ad Hoc*	0	1	0	0	0	

*Review conducted by no less than two (or greater) expert panel reviewers providing independent written reviews and scores without group panel deliberation. Scores reflect the average of no less than two expert reviewers and written reviews are compiled and screened by Office Director.

Table 3.**Area Scores for Food Animal Production National Program (101)**

Area	No revision	Minor	Moderate	Major	Not Feasible
MWA	0	2	3	1	0
NEA	0	4	1	1	0
PA	0	9	1	1	0
PWA	0	1	0	0	0
SEA	0	2	1	1	0

Table 4.**Overall Scores for Food Animal Production National Program (101)**

	No revision	Minor	Moderate	Major	Not Feasible
# Plans with each score	0	18	6	4	0

Overall Panel Characteristics:

Panel Characteristics

The OSQR PPPR relies heavily on expert panel member selection by the OSQR Director and SQRO selected Panel Chairs. ARS scientists, research leaders and ONP are encouraged to recommend panelists they understand to be free of any COIs. While the selected/seated Panel Chair is under no obligation to use Agency recommended panelists, the SQRO must review and approve the Chair's panelist selections and may ask for substitutions or provide additional experts for consideration.

Factors and qualifications considered in PPPR panel selection (chair and panelist) such as being a qualified expert in the field being reviewed, research tenure, publication record, award history, geographic location, overall diversity and availability to participate fully in the process all, play an integral role in who is invited to serve an ARS/OSQR PPPR panel. Many of the reviews are composed with a balance of nationally and internationally recognized experts. Tables 5-6 display various characteristics of the panel composition; all affiliations were accurate at the time of the panel review.

Affiliations

Peer reviewers are affiliated with several types of institutions, primarily those in academia, 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 5.

Panelist Faculty Rank and Affiliations for Food Animal Production National Program (101)

Panel	Professor	Associate Professor	Assistant Professor	Government (Agency)	Industry & Organizations
1. Genetics 1	4				
2. Genetics 2	2		1		
3. Health Management	1	2	1		
4. Ruminant Nutrition	1	3	1		
5. Non-Ruminant Nutrition	2	1	1		
6. Reproduction	4	1			
7. System Approach	1	1	2		1
8. Animal Welfare		2	2		
9. Meat Quality – Ad hoc	1	2			

Research Impact and Ethnicity/Gender

The OSQR PPPR process is lauded as a rigorous and objective ARS function striving for the highest possible scientific credibility. In general, panelists shall hold a doctoral degree unless the discipline in question is one which does not subscribe to a 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 being researched in the National Program under review are preferred.

Table 6.**Panel Accomplishments and Ethnic/Gender for Food Animal Production National Program (101)**

Panel	H-Index Average	Gender	Geographic Location
1. Genetics 1	22	4 males	2 MWA, 1 Plains, 1 NEA
2. Genetics 2	16	2 females 1 male	2 Plains, 1 SEA
3. Health Management	14	1 female 3 male	4 Plains
4. Ruminant Nutrition	13	4 males 1 female	4 Plains, 1 MWA
5. Non-Ruminant Nutrition	34	3 males 1 female	2 PWA, 1 MWA, 1 SEA
6. Reproduction	47	4 males 1 female	1 SEA, 1 MWA, 1 Plains, 1 PWA, 1 NEA
7. Systems Approach	15	1 female 4 males	5 Plains
8. Animal Welfare	12	3 female 1 male	1 MWA, 2 Plains, 1 Canada
9. Meat Quality – Ad hoc	29	3 males	1 MWA, 1 PWA, 1 Plains

List of Panel Chairs

1. Genetics 1

Michael E. Davis, Professor
Ohio State University
Education: Colorado State University

2. Genetics 2

Clare Gill, Professor
Texas A&M University
Education: University of Adelaide, Australia

3. Health Management

Crystal Levesque, Associate Professor
South Dakota State University
Education: University of Alberta, Canada

4. Ruminant Nutrition

Cody Wright, Professor
South Dakota State University
Education: North Carolina State University

5. Non-Ruminant Nutrition

Zhijia Jiang, Professor
Washington State University
Education: University of Zagreb, Croatia

6. Reproduction

Peter J. Hansen, Professor
University of Florida
Education: University of Florida

7. Systems Approach

Alison Crane, Assistant Professor
Kansas State University
Education: North Dakota State University

8. Animal Welfare

Yuzhi Li, Associate Professor
University of Minnesota
Education: Hiroshima University, Japan

NP 101 Food Animal Production National Program Panel Chair Statements

Panel Chair responsibilities include providing the OSQR with a statement that describes their overall panel experience, how the panel was conducted, and general quality of the plans reviewed. It does not lend itself to discussing details of a specific research project plan reviews nor attribution to individual panelists. Panel Chairs are given a format to follow for writing their statements, however, are free to discuss what they believe is important for broader audiences.



Weidong Chen, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

May 26, 2022

RE: USDA NP 101 Panel 1: Genetics 1 (2022)

Dear Dr. Chen:

I had the pleasure of serving as the chair of the review panel for USDA NP 101 Panel 1: Genetics 1 (2022), which met virtually on May 11, 2022. Subject matter experts reviewed the three proposals. It required some time to find three reviewers who did not have a conflict of interest to serve on the review panel. I submitted a list of three potential reviewers to Linda Daly- Lucas, Program Analyst with the U.S. Department of Agriculture, ARS in the Office of Scientific Quality Review She vetted the suggested reviewers for conflicts of interest and asked for approval from the Scientific Quality Review Officer, Dr. Weidong Chen. Unfortunately, all three scientists had conflicts of interest as they were co-authors with one or more of the principal investigators. I then submitted three additional names for consideration. Two of the three potential reviewers were approved but the third person was a co-author with all three principal investigators. I invited the two approved scientists plus a third scientist suggested by Linda Daly- Lucas. Two of the three invitees agreed to serve on the review panel, but the third person did not respond to my request. I invited another scientist to serve as a reviewer, but that person also had a conflict of interest due to co-authorship. I then submitted the names of four USDA scientists. However, Linda informed me that it is preferable not to use USDA scientists on the review panels. Finally, I invited another scientist who was approved and agreed to serve on the panel. Thus, the process of finding acceptable panelists was a bit time consuming and challenging but, in the end, we arrived at an excellent review panel. Each panelist was assigned as the primary reviewer for one project proposal and as the secondary reviewer for another project proposal. Linda Daly-Lucas was very patient and helpful throughout this process. I attended the USDA NP 101 Food Animal & Production Panel Chair Orientation on Monday, March 14, 2022. Prior to the orientation I was provided the Action Plan for National Program 101 Food Animal Production 2022-2027, Peer Review Guidelines for ARS Panel Chairs and Reviewers, and a PowerPoint presentation for the Panel Chair Orientation. In addition, Linda Daly-Lucas provided the Program Direction memos, which are the instructions issued to each research group and contained the objectives that they were directed to address. The memos provided valuable information about the subject areas for each plan. Several days before the orientation Linda emailed the presentation of the national program leader Dr. Steven Moeller. All these materials were helpful in preparing me for the Panel Chair Orientation and the review process. I also received the three project plans that the panel was to review approximately five days before the orientation. The orientation seminar explained the structure and function of the USDA ARS, the five-year national program cycle, and the various NP 101 programs including the genetics and genomics program. In addition to attending the Panel Chair Orientation on March 14 I attended the Panelist Orientation on April 7. I was well

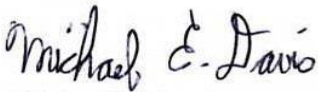
prepared for the review process after attending the Panel Chair Orientation and the Panelist Orientation and reading the various documents that were provided.

The review panel met on Wednesday, May 11, 2022. The meeting had a clear agenda where reviewers had the opportunity to discuss the proposals in detail, highlighting their strengths and weaknesses. The three panelists were asked to submit their reviews on or before May 4; everyone met that requirement. Linda Daly-Lucas provided timely reminders of the review deadline and meeting date. On May 5, the panel and I received documents that combined the comments of the three reviewers regarding the three project plans. All three reviewers provided written comments for the three proposals even though they were assigned as primary reviewer for one proposal and secondary reviewer for another proposal. The panel agreed that each project is led by a recognized leader in the field of animal genetics, who has a network of outstanding collaborators, access to appropriate animal populations, and access to state of the art facilities and equipment. Each proposal was assigned an Action Class Score of Minor Revision Required. Therefore, a second meeting of the panel was not needed.

As chair, I was quite satisfied with the review process. The USDA team that assisted with panel organization, particularly Linda Daly-Lucas, made the entire process smooth and seamless. The reviewers provided a thorough assessment of the proposals and valuable input for the principal investigators to consider in improving the projects and outcomes.

I would like to express my gratitude for the opportunity to participate in this important review process.

Sincerely,

A handwritten signature in black ink that reads "Michael E. Davis". The signature is written in a cursive style with a clear, legible font.

Michael E. Davis
Professor
Department of Animal Sciences
The Ohio State University
Columbus, OH 43210

August 16, 2022

Weidong Chen, Ph.D.
Scientific Quality Review Officer
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RE: Panel chair statement NP 101 Panel 2: Genetics 2

Dear Dr. Chen:

Thank you for the opportunity to serve as chair of the NP 101 panel held on June 14, 2022 (3 proposals) and August 14, 2022 (1 re-review), which reviewed three project plans. The overview of the process presented during the introductory meetings for chairs and panelists was clear, laying out the nature of assigned objectives, the requirements of ARS scientists in completing the project plans, the expectations of these reviews, and the ways in which they differ from grant panels. Recruiting qualified and diverse reviewers was straightforward and there was a short turnaround time with regards to screening potential panelists by OSQR staff for conflicts of interest.

The 5-year plans were provided to the review team well in advance of each meeting date, allowing them sufficient time to thoroughly review each plan according to the requested criteria. The Zoom conference call was an effective way for the panelists to discuss each plan, and it was clear from their written and oral summaries of the strengths and weaknesses of the proposed approaches that they had given every plan a rigorous review. On-the-fly additions and corrections to the combined review document by OSQR staff was very time efficient and using the Zoom voting feature allowed panelists to submit their overall rating independently and privately.

One concern that was raised by the reviewers related to the project plans was that a few of the sub-objectives proposed were only very loosely tied to the required objectives and in some cases seemed to be shoehorned in. Although this feedback was provided to the investigators, it was not clear to the panel whether subobjectives could be substantively changed. With regards to the review process, I recommend further emphasizing during the introductory meetings how individual reviews will be combined into one working document prior to the panel to minimize tardy delivery of written reviews, as the approach of making live edits to submitted written comments during the panel discussion is quite different from how the panel summary is developed by other grant panels, which typically require "just-in-time" delivery of written reviews. Our panel re-reviewed one proposal and it was evident to us that the ARS investigators had taken the feedback from review seriously and thoroughly addressed each of the concerns raised and recommendations provided, so I can affirm the review process is working as expected.

Staff support throughout the review process was excellent and very much appreciated.

Kind regards,



Clare A. Gill, Ph.D.

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SOUTH DAKOTA STATE UNIVERSITY

Department of Animal Science

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August 30, 2022

Dear Dr. Chen,

I served as the chair of the NP 101 Panel 3: Health Management (2022). The review committee consisted of 3 reviewers plus myself with a range in backgrounds, species emphasis, and research expertise that encompassed the main areas of research within the reviewed projects. The panel met virtually May 12, 2022 to review 3 ARS projects focused on management practices to enhance overall health and well-being of cattle, pigs, and poultry. Each reviewer served as the primary reviewer and secondary reviewer of a project. Written evaluations of each assigned project were received prior to the panel review meeting. All reviews were well prepared, in a manner easy to understand, with good suggestions for revisions where project limitations were identified. During the panel meeting, each primary reviewer shared an overview of their analysis with additional comments made by the secondary reviewer. Discussion on project limitations were completed with all members actively participating in the discussion. The ARS staff summarized the discussion and made agreed upon revision to the overall review summary prepared for each project. The reviewers were thorough in their critique with a high degree of objectivity and fairness. Recommendations on revisions to the project were thoughtful and respectful. Overall, the feedback to project authors is expected to have been helpful.

In general, the proposals were well written; although one project was sent back for major revisions due to a lack of clarification and justification for many of the proposed variables of interest, methods, and treatment structures. A final review of the revised project was completed virtually on August 30, 2022. The revisions were deemed sufficient with clear indication that previous review panel recommendations were considered and in some cases implemented.

The overall process went very smoothly. The USDA-ARS staff was very helpful and patient with reminders and ~~apriori~~ orientation meeting for panel chairs to understand the context of the USDA-ARS program (i.e. not a typical competitive grant program) and the expectations for the chair and review panel. The virtual meetings were well organized and activities were completed in a timely fashion. I appreciated the agenda slide at the start of each meeting.

Thank you for the opportunity to act as the chair of this review panel.

Sincerely,

Crystal Levesque, PhD
Associate Professor
South Dakota State University
Department of Animal Science
Brookings, SD
(605) 688-5011



SOUTH DAKOTA STATE UNIVERSITY

Department of Animal Science

September 14, 2022

Weidong Chen, Ph.D.
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Dear Dr. Chen,

Thank you for the opportunity to serve as chair of the NP101 Panel 4: Ruminant Nutrition review panel. This was my first opportunity to chair a review panel and it was certainly a learning experience for me.

Identifying and seating reviewers was challenging given the relatively small community of scientists many of the lead scientists work in. However, we were able to identify four volunteers to participate in the review process. Unfortunately, the composition was less than ideal given that three panelists and the chair all represented the one university. The concentration of reviewers from one university was partially out of necessity, but as a first-time chair, I would recommend including a discussion of that as part of the Panel Chair Orientation presentation. It may be worthwhile to put a policy in place that limits the number of reviewers that can come from the chair's home institution.

Once the panelists were seated, the process went extremely well. The training and support provided by the USDA staff was outstanding and presented a clear charge to the panel. While the process is not overly complex, the learning curve is steep for a first-time chair. Dr. King and Ms. Daly-Lucas provided excellent support and were always very responsive to any questions. However, if possible, I would recommend recruiting scientists that have served on QSQR panels previously to serve as chairs.

Each of the panelists was well prepared to discuss the merits of their primary and secondary reviews. Four excellent projects were evaluated, and each was accepted by the panel. The discussion was robust and in general, the panelists were complimentary of the quality and merit of each project. The panelists produced thoughtful comments for consideration by the lead scientists and their teams to further improve their projects. If successful, several of the projects have the potential to make a significant impact on the livestock industry and I look forward to seeing what discoveries they make.

Should you have any questions, please do not hesitate to contact me at your convenience (605-688-5448; cody.wright@sdstate.edu)

Regards,

A handwritten signature in black ink, appearing to be 'Cody Wright'.

Cody Wright, PhD
Professor of Animal Science



May 23, 2022

Weidong Chen, Ph.D.
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Re: NP 101 Panel 5: Non-ruminant Nutrition and Health (2022)

**PANEL CHAIR
STATEMENT**

Dear Dr. Chen,

I would like to thank you and Dr. King very much for the comprehensive guidance and professional advice you provided for us to successfully run the NP101 Panel 5: Non-ruminant Nutrition and Health (2022). I cannot thank both Linda Daly-Lucas and Michele Shaw, Program Analysts, USDA Office of Scientific Quality Review enough, because we have heavily relied on their administration, coordination, communication and management services and support. I am grateful to our panel members for their enthusiasm, dedication, perfection, professionalism and the time they dedicated to the review process.

The USDA Office of Scientific Quality Review initiated the panel formation process in late February 2022. In addition to their known expertise, the panel chair and members were thoroughly screened for conflicts of interests and were found to be currently not affiliated with the proposed project leaders and team members. Since then, everyone followed the guidelines to provide all necessary information and sign the Conflict-of-Interest and Confidentiality Certification documents. Accordingly, the chair and all panelists attended orientation sessions organized by the USDA Office of Scientific Quality Review.

Actually, the panel was finally established around the end of March, 2022, including a chair and three members as there were only three projects assigned to the group. We tried to balance the genders, combine both senior and junior involvements and broaden the diversity in culture when we formed the panel. The research projects assigned to the panel were proposed by scientists based at three ARS (Agricultural Research Service) Centers to deal with the Food



Animal and Production (101) programs. Each panelist served as a primary reviewer on one proposal as well as a secondary reviewer on another plan with goals to provide well-written comments ready for discussion at the panel's teleconference meeting.

We focused on three areas 1) "Adequacy of Approach," 2) "Probability of Success" and 3) "Merit and Significance" to evaluate each proposal. As for Area 1, each panelist determined the strength and questions or recommendations related to each sub-objective. Basically, we examined whether or not the research plan was logical, the method was appropriate and the goal is achievable with the proposed procedures. In terms of "Probability of Success," we evaluated if the lead PI, teams and collaborators have solid knowledge, advanced technology and key resources to complete the proposed research. For the "Merit and Significance" section, we asked if the results will lead to the generation of new fronts for research, action and practice. In addition, we tried our very best to provide additional comments for the PIs to improve their proposed research. Every panelist shared their review outcomes with program analysts, panel chair and other reviewers in advance to the panel meeting.

Our panel meeting was held on May 23, 2022. Both Dr. King and Dr. Chen emphasized that the scientific review of ARS proposals is quite different from that of grant proposals because the objectives are not initiated by proposers. Instead, it is just a manuscript-review style. We discussed each proposal alphabetically based on the lead PI's name. The panel review process was divided into five sections: 1) overview, 2) critics of each objectives, 3) probability of success, 4) merit and significance and 5) proposal score. The discussion was open, respectful and fruitful. Everyone present at the panel meeting were friendly and professional.

The Chair and panelists indicated their excitement and enjoyable experience during the review process. Everyone showed their willingness to serve on future review panels if invited. We also see potentials and opportunities to collaborate with each other in future joint proposals to USDA programs for funding to advance research, education and extension locally and globally.

Thank you.

Dr. Zhihua Jiang
Professor of Genome Biology
Hatch Program Chair in Animal Biology and Biomedicine
Fulbright U.S. Scholar
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Washington State University
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Phone: 509 – 335 8761; Email: jiangz@wsu.edu

IFAS

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Peter J. Hansen

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October 1 2022

Weidong Chen, Ph.D.
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Dear Dr. Chen:

This letter is the panel chair statement for NP101 Panel 6 (Reproduction). I served as the chair of the panel.

Overall, I was very impressed with the broad aspects of the program. Subjecting internal ARS research programs to external review is an excellent way to ensure that ARS invests in the best intramural science. Everyone's ideas and plans are improved by 1) articulating them in a written document and 2) exposing them to scrutiny by experts in the field. I was also impressed generally by the research plans themselves. The ARS scientists involved took the process seriously and thought carefully about how to identify and achieve research objectives. Our panel recommended revision and re-review for two to the proposals. The project leaders took our criticisms seriously and, in both cases, the revised research plans were significantly strengthened after revision.

I was also impressed by the efforts taken by the panelists to review and assess the research plans. They did their best to give each plan careful scrutiny and they prepared detailed written reviews.

The only weakness that I saw was in identifying two reviewers with the requisite expertise for each research plan. I chose panelists so that the primary reviewer for each project was an expert in that area. However, those panelists did not have expertise for the project for which they served as secondary reviewer. In most cases, their expertise was far removed from the topic of the project. The only way around this problem is to double the size of the

panel and that might cause logistical issues. As a practical matter, the disconnect between project area and secondary reviewer expertise did not compromise the review process for our panel.

Thanks for the opportunity to provide feedback. It was a pleasant experience and the ARS staff were very helpful.

Yours truly,

A handwritten signature in black ink that reads "Peter J. Hansen". The signature is written in a cursive style with a long, sweeping underline.

Peter J. Hansen
Distinguished Professor
L. E. "Red" Larson Professor

Panel Chair Statement

This panel chair statement is being provided after the initial review of each project plan as each plan received a passing vote with minor revisions.

Overall, the review process went very smoothly, from selecting a panel, to distributing materials, to the actual review.

The panel spent approximately 30-40 minutes on each project plan, hearing predominately from the primary and secondary reviewers. As chair, I felt the process of review went very smoothly and was extremely effective. I felt that the plans were very well written, pertinent to their respective industries, as did the reviewers. Each review was followed by a vote from the panel conducted through zoom which was equally effective. Generally, each plan could have provided more detail in the contingency section as well as in the methods for two plans.

Each panelist was very prepared for the review discussion, with notes and pertinent discussion points. I felt that each primary and secondary reviewer worked well together in the discussion process. My only recommendation for enhancement would be more examples for how to prepare for the process, both as the chair and a panelist and possibly implementing a process such as being a panelist before becoming a chair. I felt that the area of research for the review was very pertinent to the chair and panel. The plans are quite long and the panel members felt slightly unprepared going into the first review session.

The entirety of the panel was impressed at the level of research encompassed in the project plans, the novelty throughout, and the quality of the written plans. We felt that this is the level of research that should be conducted by the USDA.

Alison Crane

Alison R. Crane
May 10, 2022

Dr. Weidong Chen
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Ave. MS 5142
Beltsville, MN 20705

Subject: Panel Chair Statement for NP 101 Panel 8: Animal Welfare and Precision Management (2022)

Dear Dr. Chen,

The panel of Animal Welfare and Precision Management consisted of faculty members from universities in the U.S. and Canada. These panelists were selected because they have extensive experience in animal welfare research, are specialized in animal behavior, welfare, and stress physiology, and represent diverse gender and race. Through working with animal producers for years, the panelists understand the animal (swine, poultry, and cattle) industry very well. As such, the panelists reviewed the research plans through both scientists' and producers' lens. All panelists reviewed the research plans that assigned to them as a primary and secondary reviewer thoroughly and provided written recommendations to the researchers who developed the plans. Additionally, the panelists also reviewed the research plans that were not signed to them as a primary or secondary reviewer and provided written recommendations. All recommendations from the panelists are critical, explicit, and constructive to me. I have no doubt that these recommendations will help the researchers improve the quality of their research plans.

A virtual panel meeting was held on May 10, 2022. All panelists were well prepared for the meeting. During the meeting, the panelists gave a brief review of each research plan, discussed the adequacy of approaches to achieve each objective thoroughly, and explained their recommendations in detail. The panelists confirmed scientific merit and significance of all research plans that they reviewed. Some research plans focus on solving traditional but important animal welfare issues in animal production by using modern technology, and others explore novel methods to address emerging issues and to answer critical questions in animal welfare. The panel was excited about the novel research described in the plans. The panelists believe that all research plans will be impactful if the results are applicable to the animal industry. The panel also feels that some research plans lack of details and need clarifications in research methods and outcomes. As the panel chair, I think the panel meeting was very productive which helped the OSQR coordinator and officer understand the written recommendations from the devoted panelists.

Regards,

Yuzhi Li,



Associate Professor of Animal Behavior and Welfare