Dear Reviewers,

We sincerely thank you for your time and appreciate your input on our Project: NE\_TEMP2248: Mastitis Resistance to Enhance Dairy Food Safety. Please see below for comments specific to each of your concerns.

Reviewer #1:

The majority of the work proposed though has little to do with food safety so a possible change in title should be considered.

AU: Thank you for the comment. This title is one that has been used for years, but we agree that food safety is not the major focus. We have changed it to be more inclusively of all aspects of our work. The new title is: ‘Mastitis Resistance to Enhance Food Safety, Milk Quality and Animal Welfare’. We kept food safety as part of the title, as many researchers within our project focus on reduced antimicrobial usage. Reduced mastitis and reduced antimicrobial usage are associated with lower risk of antimicrobial residues in the milk, which is a food safety concern.

The goals are the same as the previous project. Based upon the significant amount of literature published from the project, gains in knowledge and management practices toward a reduction in mastitis, improvement in animal health, and reduction in use of antibiotics is likely. An update to the objectives might be in order to focus advancement in fewer areas.

AU: Thank you for the comment. While we agree that our focus is broad, we also must highlight the fact that our scientific team has a broad range of specialties covering many aspects of bovine mastitis. Therefore, we believe our goals are well suited for our group to continue to work and make further advances in the areas stated without our listed objectives.

For Objective 3, a study at University of Utah in dairy calves is noted. This does not fit with the project goals and objectives so should be dropped.

AU: Thank you for the comment, we have removed that study from the project.

Reviewer #2:

The proposal focuses on dairy herd health, milk production, and milk quality rather than dairy food safety.

AU: Thank you for the comment. Based on your suggestion and that of other reviewers, we have updated the title. We have changed it to ‘Mastitis Resistance to Enhance Food Safety, Milk Quality and Animal Welfare’. We kept food safety as part of the title, as many researchers within our project focus on reduced antimicrobial usage. Reduced mastitis and reduced antimicrobial usage are associated with lower risk of antimicrobial residues in the milk, which is a food safety concern.

The University of Utah study in dairy calves is an odd fit.

AU: We agree. We have removed that study from the overall project.

The proposal is lacking in detail, assumingly due to the scope and complexity of the project; continued success of the program is likely with renewed funding based on past performance.

AU: Thank you for the comment. It is challenging to add details with the large scope and varying subsets of the project and therefore we elected to keep it less detailed at this time to allow coverage of all areas.

Reviewer #3

Thus, the aggregate efforts by the research teams working to accomplish progress to the goal of on farm mastitis prevention is limited.

AU: This comment was in reference to objective 3. We agree that assessment of new prevention strategies is difficult and not always successful. The focus of this specific objective is not only to evaluate mastitis prevention but also to identify ways to reduce antimicrobial usage. With that, we do think several aspects of our work that are addressing this specific objective. For example, upcoming work on understanding heifer mastitis will help lead to prevention programs, improvement of selective dry cow therapy will reduce antimicrobial usage, and early-stage vaccine work may lead to new prevention strategies.