

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Name, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **55-R-0005**
2. Number 79 of animals used in this study
3. Species (common name) Pigs of animals used in this study
4. Explain the procedure producing pain and/or distress.

Piglets were infected in utero with the common viral swine pathogen: Porcine Reproductive Respiratory Syndrome Virus. These piglets were all born infected with the virus as confirmed by virus isolation upon their serum. Their dams were infected by spraying a virus solution into their noses, the piglets were naturally infected during their mother's viremia.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results (For Federally mandated testing, see question 6 below)

This study was performed to determine the effects of in utero infection by PRRSV on piglets immune cell populations and their function. Administration of analgesics would directly alter potentially important immune responses in the study pigs via anti-prostaglandin mechanisms, etc. Any piglets which were off feed for greater than 12 hours were euthanized. They were given antibiotics as clinically needed to combat secondary bacterial infections.

6. What, if any, Federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency N/A CFR N/A

Optional Column E Explanation Form

55R0005

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1. Registration Number: 55-R-0005
2. Number _____ 96 _____ of animals used in this study
3. Species (common name) _____ Pigs _____ of animals used in this study
4. Explain the procedure producing pain and/or distress.

Pigs were infected at 6 days of age with 10^7 rotavirus particles by oral gavage.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results (For Federally mandated testing, see question 6 below)

Induced infective diarrhea will cause distress to infected piglets; the main objective of this study is to treat, eliminate or alleviate diarrheal stress. We do not use analgesia because this is not typical treatment for neonatal diarrhea which we are attempting to mimic, and we do not wish to risk interfering with gut motility and enterocyte metabolism which can occur with certain drugs. Hopefully, the oral rehydration solution and other nutritional agents will reduce the length of the stress period. Furthermore, our viral dose has been titrated to a level resulting in minimal mortality.

6. What, if any, Federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency _____ N/A _____ CFR _____ N/A _____