

**Animal-based Research for Porcine Epidemic Diarrhea Virus (PEDV) and Porcine Deltacoronavirus (PDCoV)
Request for Proposals
2014**

DEADLINE: Tuesday, April 22 – 5:00 pm CST

PEDV and PDCoV research needs/priorities:

1. Evaluate the INDEL PEDV strains compared to the initial highly virulent strains and determine if they are cross-protective.
2. Study of the basic pathogenesis and characterization of PDCoV in pigs of different ages (neonates, weaned piglets and adults):
 - a) Describe the pathogenesis of PDCoV
 - i. The infectious dose of PDCoV
 - ii. The incubation period for PDCoV
 - iii. Clinical signs for PDCoV
 - iv. Duration of shedding post-infection
 - v. Determination of carrier state
3. Development and standardization of PDCoV viral propagation techniques and bioassay methods for diagnostic testing.
4. Determine the survivability of PDCoV in/on various substrates (including feed and feed ingredients) and at various temperatures.
5. Develop, validate and continue to analyze PEDV and PDCoV antibody-based diagnostic tests for serologic, oral fluid monitoring, evaluation of immune status and for surveillance.
6. For herds with previous exposure to PEDV and PDCoV, determine the duration of immunity and ability to protect the herd at the next farrowing. Determine if this protection is age/parity dependent.
7. After an initial outbreak, determine the type of immune protection sows provide to piglets:
 - a) Evaluate if protection is age/parity dependent.
 - b) Develop protocols for optimizing lactogenic immunity.
 - c) Evaluate and define the B cell responses in mammary tissue and in the gut that might be protective.

All proposals need to be completed within 6 months of funding and bi-weekly updates will be required in a format that can convey progress and information to the pork industry.

*Proposals **must** be submitted in the required format provided with the RFP in order to be considered. Proposals that do not directly address the targeted priorities will **not** be considered for funding. Final funding decisions will be made by the National Pork Board Swine Health Committee. Further enquiries regarding this solicitation can be directed to Lisa Becton by email lbecton@pork.org or by phone: 515-223-2791.*

Proposals must be EMAILED to Bev Everitt at beveritt@pork.org