Kansas State University Research Foundation
TECHNOLOGY LICENSING PROFILE

Porcine epidemic diarrhea virus (PEDV) isolates and related reagents

Inventor: Ying Fang

REF. NO. (2014-22)

Description: Research by Dr. Ying Fang at Kansas State University has produced porcine epidemic diarrhea virus (PEDV) vaccine candidates and related reagents to help swine producers combat this devastating virus. PEDV has been detected in the US swine herd since May 2013, which caused devastating impact to the US swine industry. Although PEDV has been endemic in Europe and Asia, due to biosecurity reasons, vaccines and diagnostic reagents are difficult to import to the US. To aid in PEDV product research, K-State developed attenuated PEDV viral isolates and cell line for vaccine production and a panel of antibodies and recombinant proteins for diagnostic assay development. Materials include:

* A genetically engineered cell line for isolating and growing PEDV.
* Cell culture attenuated PED viruses for vaccine development.
* Recombinant PEDV proteins: Plasmids expressing 13 PEDV (partial) proteins were constructed as a His-tagged recombinant proteins. Four of these proteins are determined to be antigens for diagnostic assay development.
* Antibodies against PEDV: The polyclonal antibody against M protein of PEDV has been produced; Development of monoclonal antibodies against PEDV nonstructural and structural proteins are in progress.

Applications:

- Vaccine candidates
- Diagnostics

2005 RESEARCH PARK CIRCLE, MANHATTAN, KS 66502
785.532.3924
BRETFORD@KSU.EDU

BRET FORD
DIRECTOR OF ANIMAL HEALTH BUSINESS DEVELOPMENT