



FOR IMMEDIATE RELEASE

Ohio Department of Agriculture Scientists Make Scientific Discovery to Combat Swine Virus

REYNOLDSBURG, Ohio (Feb. 11, 2014) – The Ohio Department of Agriculture (ODA) recently made a scientific breakthrough that will help pork producers nationwide fight against the Porcine Epidemic Diarrhea virus (PED). Genetic sequencing of a new PED strain conducted by ODA’s Animal Disease Diagnostic Laboratory (ADDL) may lead to a marketable vaccine for swine in the near future.

“The scientists at the Ohio Department of Agriculture have always been of the highest caliber, as this is not the first time they have broken new scientific ground to help secure our most important industry in our state and beyond,” said ODA Director David Daniels. “Their tireless work in this important accomplishment will help ease the stress on pork producers and consumers nationwide.”

PED, first confirmed in the U.S. in 2013, is a virus similar to transmissible gastroenteritis (TGE), another disease affecting pigs. The virus is most often fatal to piglets, causing diarrhea, vomiting, dehydration and high mortality. The virus also sickens older hogs, though their survival rate tends to be high. PED cannot spread to humans or other species and poses no risk to food safety. However, PED remains a great concern for pork producers, with piglet mortality totaling in the millions to date.

Led by ADDL virologist Dr. Yan Zhang, scientists at ODA worked to complete genetic sequencing of a new PED virus that differs in a fragment of one gene (1,170 nucleic acids in the S1 domain of the Spike gene) encoding a surface protein. The rest of the genome sequence is identical to the economically devastating PED virus currently circulating in the U.S. Most important, this new virus is associated with reduced mortality in piglets, based on the field observation, which may enhance its use as a potential vaccine.

“Pork production is very important in Ohio, contributing more than \$650 million to the state’s economy every year,” said State Veterinarian Dr. Tony Forshey. “Producers both in Ohio and nationwide have been searching for ways to fight back against this virus and we see this discovery as an important step in that fight.”

This discovery will lay the groundwork for producing a vaccine to immunize swine against PED. In a swine herd, the vaccine would be orally given to a sow, which would then pass on the immunization to its piglets through nursing. This may work to significantly reduce piglet death as a result of PED and create a positive impact to overall swine health.

Ohio’s nationally-accredited ADDL, housed at and operated by the ODA, provides regulatory testing support for disease control programs and diagnostic laboratory services for veterinarians and livestock



and poultry producers. For testing information, please contact the ADDL at 614-728-6220 or visit ADDL's Website: www.ohioagriculture.gov/addl/.

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Media Contact: ODA Office of Communications, 614-752-9817

Please note: Dr. Tony Forshey, Dr. Beverly Byrum and Dr. Yan Zhang will be available for media questions at the Ohio Pork Congress on Wednesday, February 12th from 2:30 to 3:30 p.m. The Ohio Pork Congress is located at the Crowne Plaza Columbus North, 6500 Doubletree Ave., Columbus, OH 43229. Those who are unable to make the Pork Congress can call the Office of Communications to schedule a time to speak with ODA officials.

