

Global Swine Disease Vaccine Will Save Millions Of Animals

Virginia Polytechnic Institute



Post-weaning multi-systemic wasting syndrome (PMWS) has been a major threat to the global swine industry for more than a decade, especially in Europe and Asia. Porcine Circovirus Type 2 (PCV2) disrupts the immune system in pigs and severely constrains their weight gain and development. Recent outbreaks in the U.S. and Canada recorded mortality rates as high as 30 percent.

Breakthrough research by scientists at the Virginia-Maryland Regional College of Veterinary Medicine's (VMRCVM) Center for Molecular Medicine and Infectious Diseases at Virginia Tech in Blacksburg, Va., has resulted in a vaccine that protects pigs against PMWS.

The vaccine, Suvaxyn® PCV2 One Dose, was developed over a seven year period by X. J. Meng, M.D., Ph.D., a virologist and professor in the VMRCVM's Department of Biomedical Sciences and Pathobiology, and his former graduate student Martijn Fenaux, Ph.D., and Pat Halbur, D.V.M., Ph.D., from Iowa State University. Funding was provided by Fort Dodge Animal Health Inc., the U.S. Department of Agriculture, and several other funding agencies.

“ *The technology uses a non-infectious strain of a related virus known as PCV-1 to produce a genetically altered virus that expresses the immune response of the infectious PCV2, but does not result in the disease.*

Because there are many unknowns about the transmission, pathogenesis, epidemiology, and control of risk factors related to PMWS, effective prevention is critical to the health and financial performance of the swine industry. Virginia Tech Intellectual Properties Inc. has licensed the vaccine to Fort Dodge Animal Health Inc. for commercialization. Since only one dose is required for protection, Suvaxyn PCV2 One Dose lessens the risk of reactions and reduces farm labor costs. It is expected the vaccine will save the global swine industry millions of dollars in production losses caused by PMWS.

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