

Medgene to leverage platform technology in avian influenza vaccine study

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Medgene, a South Dakota-based (the US) animal health company, will be conducting a study to test a vaccine produced by its USDA-approved platform technology against a variant of avian influenza.

Highly Pathogenic Avian Influenza (HPAI, or bird flu) has become widespread among wild birds and created significant economic loss to the U.S. poultry industry. The H5N1 HPAI variant is being described as the largest bird pandemic recorded, resulting in the destruction of millions of commercially raised geese, turkeys and chickens, as well as killing untold numbers of wild birds. While the total economic impact of HPAI is difficult to measure, the need for potential solutions is urgent.

Dr. Alan Young, Chief Technology Officer for Medgene, will be leading the study using the company's platform technology that has been approved by the USDA for swine and cattle vaccines and an influenza variant that is known to cause disease in both the swine and turkey industries. This platform technology allows influenza vaccine for swine to be adopted to address influenza in turkeys as well as the H5N1 variant in all birds.

Medgene's platform technology is faster and tailored for specific vaccines to address the multiple variants of H5N1, whereas traditional vaccines can take years to develop, test, and achieve regulatory approval.

The study is expected to begin in May 2023 with results in approximately six weeks from the start date. Young added, "We're expecting to see strong evidence for immunity against avian influenza. Once we observe the desired response, we'll be able to make a HPAI vaccine option available if the USDA determines that vaccination is an appropriate option for some or all sub-species of poultry, such as turkeys or pheasants which add millions of dollars to the economies of states like South Dakota. Additionally, our platform technology permits differentiation of infected and vaccinated animals."

Medgene has previous experience in providing vaccines under emergency conditions. In 2021, the company was issued Emergency Use Authorization to produce and distribute the only vaccine against Rabbit Hemorrhagic Disease (RHDV2) approved in the United States.