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IIT-G & BioMed to roll out first recombinant vaccine for Swine Fever Virus

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The first recombinant virus-based solution for classical swine fever developed in India



The Indian Institute of Technology Guwahati (IIT-G) has successfully transferred a pioneering vaccine technology to BioMed, a Ghaziabad-based manufacturing company specialising in high-quality vaccines. This technology entails a recombinant vector vaccine designed specifically for combating the classical swine fever virus in pigs and wild boars, filling a significant gap in India's vaccine landscape.

This first recombinant virus-based vaccine for pigs harnesses a reverse genetic platform pioneered and refined at IIT-G. Swine fever, a highly contagious disease among pigs, poses a severe threat with a very high mortality rate, although it does not affect humans. In India, instances of this disease have been frequently observed in northeastern states, as well as in Bihar, Kerala, Punjab, Haryana, and Gujarat, among others.

The vaccine work was started in 2018-2019 through collaborative efforts between researchers from the Department of Biosciences and Bioengineering at IIT Guwahati, and Assam Agricultural University in Guwahati.

In an intriguing approach, researchers have utilised the Newcastle disease virus (NDV), traditionally studied for its pathogenicity in chickens, as a carrier for the essential proteins of the classical swine fever virus. This innovative method facilitates the development of immunity in the body and is characterized by its speed and cost-effectiveness.

At present, the vaccine is under the process of filing test and analysis licence.