

# EXPLAINED

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Vaccination drive at Humane Animal Society | Photo Credit: Special Arrangement

**The story so far:** As [COVID-19](#) cases rise across India, the Centre launched the nation's first animal vaccine — Ancovax — against SARS-CoV-2 virus on June 9.

[Ancovax](#) — a COVID-19 vaccine for animals like dogs, lions, leopards, mice and rabbits — contains an inactivated SARS-CoV-2 (Delta) antigen capable of neutralizing both Delta and Omicron variants. Developed by the Indian Council of Agricultural Research-National Research Centre on Equines (ICAR-NRCE), this vaccine is one of the six vaccines indigenously produced by the Indian institute.

Union Minister of Agriculture & Farmers' Welfare Narendra Singh Tomar presided over the launch event at ICAR's Centre at Hisar, Haryana. Apart from Ancovax, Tomar also launched the CAN-CoV-2 ELISA Kit (detects COVID in canines), the Surra ELISA Kit (detects Trypanosoma evansi infection in animals) and the Equine DNA Parentage Testing Kit (determining parentage in horses and other equines).

The Ancovax vaccine is an inactivated SARS-CoV-2 Delta (COVID-19) vaccine which can be safely used on dogs, lions, leopards, mice and rabbits against the COVID-19 virus, according to a [statement released by ICAR](#). The vaccine contains an inactivated SARS-CoV-2 (Delta) antigen with Alhydrogel as an adjuvant. Marking a first for India, Ancovax is the only vaccine capable of neutralizing the COVID-19 virus in animals.

Prior to Ancovax, [Russia](#) had registered the world's first COVID-19 vaccine for animals called Carnivac-Cov in March 2021, after tests showed that it generated antibodies against the COVID-19 virus in dogs, cats, foxes and mink. The clinical trials which began in October 2020 were conducted on dogs, cats, Arctic foxes, mink and other animals, per a *Reuters* report. The tests, initially conducted on ferrets, demonstrated that the animals showed a continued immune response for at least six months since the trials commenced.

The [vaccine](#) contains an inactivated SARS-CoV-2 virus strain to elicit humoral and T cell-mediated immune responses when injected into animals. The vaccine has been developed by Rosselkhoznadzor, or the Federal Service for Veterinary and Phytosanitary Surveillance, to prevent animal-to-human viral transmission – a potential threat confirmed by the World Health Organisation.

Russia produced its first batch of 17,000 doses of Carnivac-Cov in April 2021. The vaccine, which is reportedly capable of protecting vulnerable species and thwarting COVID-19 mutations, was administered at several veterinary clinics across Russia to cats and other domestic animals. Till then, Russia had registered two animal cases of COVID-19 – both in cats.

Many companies in Germany, Greece, Poland, Austria, Kazakhstan, Tajikistan, Malaysia, Thailand, South Korea, Lebanon, Iran and Argentina had expressed interest in procuring Carnivac-COV, Rosselkhoznadzor said in a statement.

In July 2021, US pharmaceutical company [Zoetis](#) donated over 11,000 doses of its experimental COVID-19 vaccine to nearly 70 zoos as well as conservatories, sanctuaries and academic institutions across the nation after eight gorillas were infected in the San Diego zoo. The

company's vaccine, which was developed in January 2021, has been authorized for experimental use on a case-by-case basis by the United States Department of Agriculture (USDA). Zoetis began working on an experimental animal vaccine after a dog became infected with COVID-19 in Hong Kong on February 2020.

The vaccine, which was initially tested in dogs and cats and later minks was found to be safe and has a reasonable expectation of efficacy, stated Zoetis.

The need for a COVID-19 vaccine for animals was felt when [Denmark](#) culled 17 million mink in 2020 after a study confirmed that a strain of the virus had passed from humans to mink. Later, mutated strains of the virus from the mink were detected in humans. The strain was suspected of being able to compromise the efficacy of vaccines, leading to Denmark government's order to cull the nation's entire mink population.

The infection had destroyed the fur industry in Denmark, worth \$800 million annually, as the government also proposed a ban on all mink breeding until 2022. In a bid to halt further spread of the mutated strain across nations, many Russian fur farms with businesses in Greece, Poland and Austria have purchased Carnivac-Cov.

In India, eight [Asiatic lions](#) at Hyderabad's Nehru Zoological Park tested positive for the novel coronavirus in May 2021 – the first known animal infection case in the country. Zoo caretakers noticed that the four male and four female big cats developed symptoms like dry cough, nasal discharge, and loss of appetite on April 24, 2021, and alerted the veterinary team. The big cats were treated for mild symptoms and soon recovered.

Soon after, in June 2021, two lions died of COVID-19 in a zoo near Chennai after displaying symptoms like coughing and loss of appetite. At least 10 other lions had also been infected in the same zoo, but soon recovered.

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