

Australia's CSIRO suggests nasal delivery of Oxford-AZ vaccine to improve efficacy

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The Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency, has published the peer-reviewed results of its independent preclinical evaluation of the University of Oxford-AstraZeneca (AZ) COVID-19 vaccine in an animal model, conducted in early 2020.

The study was conducted in partnership with the Coalition for Epidemic Preparedness Innovations (CEPI). Quality assured and quality-controlled data was shared last year with CEPI and the University of Oxford to support human clinical trials.

No blood clots or other adverse reactions to the vaccine were observed in ferrets during the study.

The preclinical study evaluated the efficacy of the vaccine when delivered in one or two doses, through either an intramuscular injection or by nasal drops.

The study found:

- The vaccine triggered a strong immune response in ferrets.
- A significant reduction in viral loads in nasal and oral samples from vaccinated ferrets, indicating the vaccine may be helpful in preventing ongoing transmission of the virus.
- Nasal delivery of the vaccine has the potential to further improve the efficacy of the vaccine.

The study took place at the Australian Centre for Disease Preparedness, CSIRO's high-containment biosecurity facility in Geelong.