



## RECOMBINANT MULTIVALENT INFLUENZA VIRUSES

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### The Invention

The present invention relates to a novel bivalent coronavirus/influenza virus vaccine (called CoroFlu). The vaccine comprises a coronavirus antigen (a secreted version of the spike (S) protein of SARS-CoV-2) expressed within an influenza virus backbone, and the preferred embodiment uses FluGen's M2 Single-Replication (M2SR) platform. M2SR lacks the M2 ion channel protein, and while it replicates to high titers in cell lines expressing M2, it is restricted to a single round of replication in host cells. The inventors may express the full-length spike protein or a truncated version based on the S1 or receptor-binding (RBD) domains of S. The bivalent vaccine will also express the normal influenza virus antigens, so in vaccinated individuals, the secreted S protein will elicit protective antibodies against SARS-CoV-2, and the influenza viral HA protein will elicit protective antibodies against influenza virus.

#### Tech Fields

- [Therapeutics & Vaccines : Vaccines](#)

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