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(54) Title: SYNERGISM OF IMMUNOGENICITY VIA COMBINED PARENTAL AND MUCOSAL IMMUNIZATION AGAINST COVID-19

(57) Abstract: The present invention discloses a system and method of generating robust immune response in mammals against SARS-CoV-2 antigen by administering two or more doses of same or different COVID-19 vaccines through same or different routes, wherein at least one vaccine is selected from a primary series of vaccines and at least one vaccine is selected from a secondary series of vaccines and wherein vaccines of primary and secondary series are administered through homologous or heterologous routes. The homologous route of administration comprises administering primary and secondary series of vaccines through same route. The heterologous route of administration comprises administering primary and secondary series vaccines through different routes. The system and method of the invention induces superior cross protection against SARS-CoV-2 variants including against Delta and Omicron variants.



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