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Premas Biotech planning to initiate COVID-19 vaccine trials

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Triple-antigen COVID-19 vaccine candidate, PRAK-03202, produces neutralizing immune response in animal studies

Gurugram based Premas Biotech has said that its triple-antigen vaccine candidate for COVID-19 has induced neutralizing immune response in mice during the four-week test of its SARS-CoV-2 vaccine candidate. The company is in talks with the regulatory authorities concerned to plan and initiate next steps towards conducting human trials.

The study consisted of 50 mice, divided into 10 cohorts dosed with 5, 10 and 20 micrograms of PRAK-03202 vaccine candidate. The vaccine candidate was generally well tolerated and safe at all doses, with no adverse events reported.

The vaccine candidate was safe even at higher doses and generated a robust immune response against all three SARS-Cov2 antigens, Spike (S), Envelope (E) and Membrane (M). PRAK-03202 elicited neutralizing antibody titers levels in all doses, from 5 microgram to 20 microgram dose regimens. After three doses in mice, all groups cohorts showed binding antibody levels similar to convalescent patients' levels.

Prabuddha Kundu, Co-Founder and Managing Director at Premas Biotech, commented: "We are happy to report that the vaccine candidate study in mice has gone on well, and the results are positive and encouraging. We have engaged with the regulatory authorities in India and are working towards the next steps under their guidance."

Premas' vaccine candidate is triple-antigen (based on the three COVID-19 proteins S, M & E) which differentiates it from other candidates under development around the world. Earlier in May, Premas Biotech had announced that it was the first in the world to obtain transmission electronic microscopic (TEM) images of the recombinant virus like particle (VLP) of SARS-CoV-2 virus.

Dr Nupur Mehrotra, Co-founder & COO at Premas Biotech, said "Premas will seek to further characterize the immune response in the near term, while pursuing additional safety studies and later stage animal testing with the goal of an investigational new drug (IND) submission to follow."