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(71) Applicants: GUANGZHOU RIBOBIO CO., LTD.

[CN/CN]; 7 Suida Street, Huangpu District, Guangzhou, Guangdong 510530 (CN). ARGORNA PHARMACEUTICALS CO., LTD. [CN/CN]; 2nd and 4th Floor, Building A, 7 Suida Street, Huangpu District, Guangzhou, Guangdong 510530 (CN).

(72) Inventors: ZHANG, Bill Biliang; 7 Suida Street, Science

Park, Huangpu District, Guangzhou, Guangdong 510530 (CN). MA, Lin; 7 Suida Street, Science Park, Huangpu District, Guangzhou, Guangdong 510530 (CN). WEN, Jian; 7 Suida Street, Science Park, Huangpu District, Guangzhou, Guangdong 510530 (CN). ZHANG, Hong; 7 Suida Street, Science Park, Huangpu District, Guangzhou, Guangdong 510530 (CN). ZHONG, Huiling; 7 Suida Street, Science Park, Huangpu District, Guangzhou, Guangdong 510530 (CN).

(74) Agent: LIU, SHEN & ASSOCIATES; 10th Floor, Build-

ing 1, 10 Caihefang Road, Haidian District, Beijing 100080 (CN).

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(54) Title: VACCINES AND COMPOSITIONS BASED ON SARS-COV-2 S PROTEIN

(57) Abstract: This disclosure provides vaccines and compositions based on SARS-CoV-2 S protein, and specifically relates to recombinant SARS-CoV-2 spike protein (Sprotein) and mRNA and DNA coding thereof. This disclosure also relates to recombinant plasmid comprising DNA sequence encoding recombinant S protein. This disclosure further relates to composition comprising the recombinant S protein and/or mRNA mentioned above, mRNA-carrier particle such as lipid nanoparticle (LNP), and composition such as a vaccine composition.