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(54) Title: NUCLEIC ACID BASED COMBINATION VACCINES

(57) Abstract: The present invention is *inter alia* directed to pharmaceutical compositions comprising at least one nucleic acid encoding at least one antigenic peptide or protein from a Coronavirus, preferably a pandemic Coronavirus, and at least one nucleic acid encoding at least one antigenic peptide or protein from a further virus, e.g. an Influenza virus or an RSV virus. Pharmaceutical compositions provided herein are suitable for use in treatment or prophylaxis of an infection with at least one Coronavirus and at least one further virus infection, and may therefore be comprised in a combination vaccine. The nucleic acid sequences of the pharmaceutical compositions and combination vaccines are preferably in association with a polymeric carrier, a polycationic protein or peptide, or a lipid nanoparticle (LNP). The invention is also directed to first and second and further medical uses of the pharmaceutical compositions and combination vaccines, and to methods of treating or preventing a Coronavirus infection and a further virus infection.

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