

The invention concern the use of a virus for the preparation of a medicament for the vaccination or treatment of a neonatal or prenatal animal, including a human, wherein the virus is capable of infecting the cells of the neonatal or prenatal animal, including a human, but not capable of being replicated to infectious progeny virus in the neonatal or prenatal animal, including a human. The virus is preferably a Modified Vaccinia Virus Ankara. In particular, the invention concerns the vaccination of neonates against infections with viruses belonging the same virus group than the virus used for vaccination. Moreover, the invention concerns the vaccination of neonates against antigens selected from foreign antigens and tumour antigens, wherein the tumour antigen and/or the foreign antigen are different from the antigens associated with the virus.; The invention further concerns the use of viruses as defined above to increase the level of factors which activate dendritic cells or their precursor cells and/or to increase the number of dendritic cells or their precursor cells and/or to increase the production and/or cellular content of an interferon (IFN) or IL-12.