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(54) **Method for increasing the bioavailability of inhaled compounds**

(57) The present invention relates to a compound comprising one or more PEG moieties having a molecular weight of more than 12 kDa, wherein said compound is a therapeutic agent active for treating a respiratory disease. The present invention also relates to the use of a PEGylated therapeutic agent for treating a respiratory disease. Another object of the invention is a method for enhancing the bioavailability of a therapeutic agent, for

enhancing the pulmonary residency of a therapeutic agent and/or for reducing the pulmonary clearance of a therapeutic agent, wherein said methods comprise the PEGylation of the therapeutic agent. In a preferred embodiment the respiratory disease is cystic fibrosis and the therapeutic agent dornase alpha or an anti-IL13 antibody.

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