[00034] Figure 19 is a plot indicating the effect of OCA on mRNA expression of PKG1 in the control and test groups on days 7 and 28.

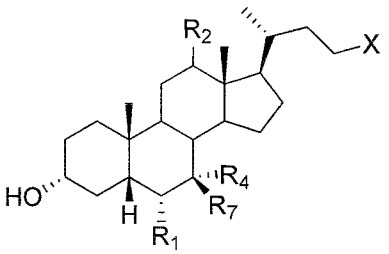
[00035] Figure 20 is a plot indicating the effect of OCA on mRNA expression of GCla3 in the control and test groups on days 7 and 28.

[00036] Figure 21 is a plot indicating the effect of OCA on mRNA expression of PDE5 in the control and test groups on days 7 and 28.

[00037] Figure 22 is a graph depicting univariate analysis of survival in untreated or treated rats over time (days).

SUMMARY

[00037a] In one aspect of the present disclosure, there is provided a use of a compound of formula A or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating, reducing the risk of, preventing, ameliorating or alleviating idiopathic pulmonary fibrosis in a subject,



(A),

wherein:

R_1 is hydrogen or unsubstituted C_1-C_6 alkyl;

R_2 is hydrogen or α-hydroxyl;

X is C(O)OH, $C(O)NH(CH_2)_mSO_3H$, $C(O)NH(CH_2)_nCO_2H$, or OSO_3H;

R_4 is hydroxyl or hydrogen;

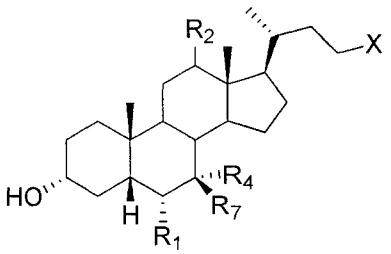
R_7 is hydroxyl or hydrogen;

m is an integer 1, 2, or 3; and

n is an integer 1, 2, or 3.

CLAIMS

1. Use of a compound of formula A or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating, reducing the risk of, preventing, ameliorating or alleviating idiopathic pulmonary fibrosis in a subject,



(A),

wherein:

R_1 is hydrogen or unsubstituted C_1-C_6 alkyl;

R_2 is hydrogen or α-hydroxyl;

X is C(O)OH, $C(O)NH(CH_2)_mSO_3H$, $C(O)NH(CH_2)_nCO_2H$, or OSO_3H;

R_4 is hydroxyl or hydrogen;

R_7 is hydroxyl or hydrogen;

m is an integer 1, 2, or 3; and

n is an integer 1, 2, or 3.

2. The use of claim 1, wherein R_1 is unsubstituted C_1-C_6 alkyl.

3. The use of claim 2, wherein R_1 is methyl, ethyl, or propyl.

4. The use of claim 3, wherein R_1 is ethyl.

5. The use of claim 1, wherein R_1 is selected from methyl, ethyl and propyl; R_4 is OH; R_7 is H; and R_2 is H.

6. The use of claim 1, wherein the compound is selected from

11. The use of claim 1, wherein the subject is a human.

12. The use of claim 1, wherein the compound is to be administered systemically, orally, intravenously, intramuscularly, intraperitoneally, or by inhalation.