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(12) **United States Patent**  
**Sweeney et al.**

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(54) **METHODS OF MODULATING CELL  
PROLIFERATION AND CYST FORMATION  
IN POLYCYSTIC KIDNEY AND LIVER  
DISEASES**

31/5375; A61K 31/201; A61K 31/202;  
A61K 31/20

See application file for complete search history.

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(51) **Int. Cl.**

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(52) **U.S. Cl.**

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(58) **Field of Classification Search**

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(57) **ABSTRACT**

The present invention provides a method for preferentially  
reducing the proliferation of cystic epithelial cells in the  
kidney or bile duct in a mammal in need thereof by admin-  
istering a 20-HETE synthesizing enzyme inhibitor or a  
20-HETE antagonist to the mammal in an amount sufficient  
to preferentially reduce the proliferation of cystic epithelial  
cells over normal epithelial cells such as tubule epithelial  
cells in the kidney or bile duct. The present invention also  
provides a method for preventing or treating autosomal  
dominant polycystic kidney disease (ADPKD), autosomal  
recessive polycystic kidney disease (ARPKD), ARPKD  
associated congenital hepatic fibrosis, ARPKD associated  
Caroli's disease, or cholangiocarcinoma in a mammal in  
need thereof by administering a 20-HETE synthesizing  
enzyme inhibitor or a 20-HETE antagonist to the mammal in  
an amount sufficient to prevent or treat the disease.

**10 Claims, 12 Drawing Sheets**  
**(5 of 12 Drawing Sheet(s) Filed in Color)**

