

[0022] In another aspect, the present invention provides a pharmaceutical composition comprising a therapeutically effective amount of a compound of Formula I as disclosed herein, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier. Also disclosed are pharmaceutical compositions comprising a compound of the invention, and a pharmaceutical carrier. Such compositions can be administered in accordance with a method of the disclosure, typically as part of a therapeutic regimen for treatment or prevention of conditions and disorders related to Cystic Fibrosis Transmembrane Conductance Regulator activity. In a particular example, the pharmaceutical compositions may additionally comprise further therapeutically active ingredients suitable for use in combination with the compounds of the invention. In a more particular example, the further therapeutically active ingredient is an agent for the treatment of cystic fibrosis. In yet another aspect, the present invention provides a compound as disclosed herein or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as disclosed herein, for use in medicine. In yet another aspect, the present invention provides a compound as disclosed herein or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as disclosed herein, for use in the treatment of cystic fibrosis.

[0023] Moreover, the compounds of the disclosure, useful in the pharmaceutical compositions and treatment methods disclosed herein, are pharmaceutically acceptable as prepared and used.

[0024] Also disclosed is a method for treating, or preventing conditions and disorders related to Cystic Fibrosis Transmembrane Conductance Regulator activity in mammals. More particularly, the method is useful for treating or preventing conditions and disorders related to cystic fibrosis, Sjögren's syndrome, pancreatic insufficiency, chronic obstructive lung disease, or chronic obstructive airway disease. Accordingly, the compounds and compositions of the disclosure are useful as a medicament for treating or preventing Cystic Fibrosis Transmembrane Conductance Regulator modulated disease. In yet another aspect, the present invention provides use of a compound of Formula I as described herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating cystic fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof. In yet another aspect, the present invention provides a pharmaceutical composition comprising a

compound as disclosed herein, or a pharmaceutically acceptable salt thereof, and one or more correctors. In yet another aspect, the present invention provides use of a compound as disclosed herein or a pharmaceutically acceptable salt thereof, and one or more correctors, in the manufacture of a medicament for treating cystic fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof, and the corrector is to be administered to the subject in need thereof. In yet another aspect, the present invention provides a pharmaceutical composition comprising a compound as disclosed herein or a pharmaceutically acceptable salt thereof, and one or more additional therapeutic agents. In yet another aspect, the present invention provides use of a compound as disclosed herein or a pharmaceutically acceptable salt thereof, and one or more additional therapeutic agents in the manufacture of a medicament for treating cystic fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof and the additional therapeutic agent is to be administered to the subject. In yet another aspect, the present invention provides 3-amino-*N*-[(2*S*)-2-hydroxypropyl]-5-{[4-(trifluoromethoxy)phenyl]sulfonyl}pyridine-2-carboxamide or a pharmaceutically acceptable salt thereof.

[0025] The compounds, compositions comprising the compounds, methods for making the compounds, and methods for treating or preventing conditions and disorders by administering the compounds are further described herein.

[0026] In a particular example, the compounds of the disclosure are provided for use in the treatment of cystic fibrosis. In a particular example, the compounds of the disclosure are provided for use in the treatment of cystic fibrosis caused by class I, II, III, IV, and/or VI mutations.

[0027] The present disclosure also provides pharmaceutical compositions comprising a compound of the disclosure, and a suitable pharmaceutical carrier for use in medicine. In a particular example, the pharmaceutical composition is for use in the treatment of cystic fibrosis.

[0028] These and other objects of the invention are described in the following paragraphs. These objects should not be deemed to narrow the scope of the invention.

## DETAILED DESCRIPTION OF THE INVENTION

[0029] Described herein are compounds of Formula I

36. A compound of claim 1 or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition of claim 34, for use in medicine.
37. A compound of claim 1 or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition of claim 34, for use in the treatment of cystic fibrosis.
38. Use of a compound of Formula I according to claim 1, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating cystic fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.
39. A pharmaceutical composition comprising a compound of claim 1, or a pharmaceutically acceptable salt thereof, and one or more correctors.
40. Use of a compound of claim 1 or a pharmaceutically acceptable salt thereof, and one or more correctors, in the manufacture of a medicament for treating cystic fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof, and the corrector is to be administered to the subject in need thereof.
41. A pharmaceutical composition comprising a compound of claim 1 or a pharmaceutically acceptable salt thereof, and one or more additional therapeutic agents.
42. The pharmaceutical composition of claim 41 wherein the additional therapeutic agents are selected from the group consisting of CFTR modulators and CFTR amplifiers.
43. The pharmaceutical composition of claim 41 wherein the additional therapeutic agents are CFTR modulators.
44. Use of a compound of claim 1 or a pharmaceutically acceptable salt thereof, and one or more additional therapeutic agents in the manufacture of a medicament for treating cystic

fibrosis in a subject, wherein the compound or the pharmaceutically acceptable salt thereof and the additional therapeutic agent is to be administered to the subject.

45. The use of claim 44 wherein the additional therapeutic agents are selected from the group consisting of CFTR modulators and CFTR amplifiers.

46. The use of claim 44 the wherein the additional therapeutic agents are CFTR modulators.

47. 3-amino-*N*-[(2*S*)-2-hydroxypropyl]-5-{[4-(trifluoromethoxy)phenyl]sulfonyl}pyridine-2-carboxamide or a pharmaceutically acceptable salt thereof.