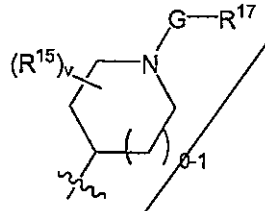
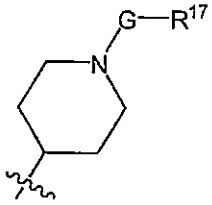
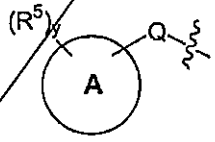
29. A compound according to any of claims 1-14 and 16-28, wherein the  moiety has the structure  , in which G is $-CH_2-$, $-CH(CH_3)-$, $-C(O)-$ or $-S(O)_2-$.

30. A compound according to any of claims 1-29, wherein the  moiety is *p*-(trifluoromethyl)phenyl, *p*-fluorophenyl or *p*-cyanophenyl.

31. A compound according to any of claims 1-16 and 18-30, wherein w is 0, x is 0 and v is 0.

32. A compound according to any of claims 1-15 and 18-31, wherein

each R^3 is independently selected from -(C_1-C_3 alkyl), -(C_1-C_3 haloalkyl) and -halogen;

w is 0 or 1;

each R^4 is independently selected from, -halogen, and two R^4 on the same carbon optionally combine to form oxo;

the ring system denoted by "A" is phenyl; and

each R^{15} is independently selected from -halogen, and two R^{15} on the same carbon optionally combine to form oxo.

33. A compound according to claim 1, wherein the compound is

5-(4-(4-cyanobenzyl)piperazine-1-carbonyl)-*N*-(1-(4-cyanobenzyl)piperidin-4-yl)picolinamide;

N-(1-(4-cyanobenzyl)piperidin-4-yl)-5-(4-(4-fluorobenzyl)piperazine-1-carbonyl)picolinamide;

N-(1-(4-cyanobenzyl)piperidin-4-yl)-5-(4-(4-(trifluoromethyl)benzyl)piperazine-1-carbonyl)picolinamide

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-fluorobenzyl)pyrrolidin-3-yl)picolinamide;

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(pyridin-4-ylmethyl)pyrrolidin-3-yl)picolinamide;

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-cyanobenzyl)pyrrolidin-3-yl)picolinamide;

N-(1-(4-chlorobenzyl)pyrrolidin-3-yl)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)picolinamide; or

5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-(trifluoromethyl)benzyl)pyrrolidin-3-yl)picolinamide.

34. A pharmaceutical composition comprising:

at least one pharmaceutically acceptable carrier, diluent or excipient; and

a compound according to any of claims 1-33 or a pharmaceutically acceptable salt or *N*-oxide thereof.

35. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in activating the AMPK pathway in a cell.

36. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in increasing fatty acid oxidation in a cell.

37. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in decreasing glycogen concentration in a cell.

38. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in increasing glucose uptake in a cell.

39. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in reducing triglyceride levels in a subject.

40. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in treating type II diabetes in a subject.

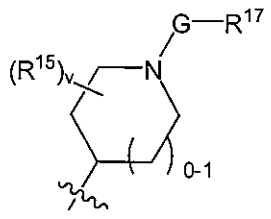
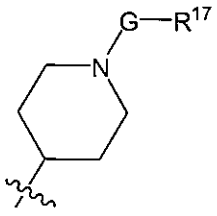
41. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in treating or preventing atherosclerosis or cardiovascular disease in a subject.

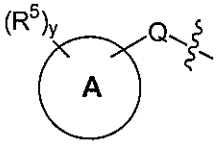
42. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in up-regulating ceramidase function in a cell.

43. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in decreasing ceramide concentration in a cell.

44. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in treating or preventing a disorder in which cell proliferation is deficient or desired in a subject.

45. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-33, or an effective amount of a composition according to claim 34 for use in treating or preventing a disease linked to elevated ceramide levels in a subject.

29. A compound according to any of claims 1-14 and 16-28, wherein the  moiety has the structure  , in which G is $-CH_2-$, $-CH(CH_3)-$, -C(O)- or $-S(O)_2-$.

30. A compound according to any of claims 1-29, wherein the  moiety is *p*-(trifluoromethyl)phenyl, *p*-fluorophenyl or *p*-cyanophenyl.

31. A compound according to any of claims 1-16 and 18-30, wherein w is 0, x is 0 and v is 0.

32. A compound according to claim 1, wherein the compound is

5-(4-(4-cyanobenzyl)piperazine-1-carbonyl)-*N*-(1-(4-cyanobenzyl)piperidin-4-yl)picolinamide;

N-(1-(4-cyanobenzyl)piperidin-4-yl)-5-(4-(4-fluorobenzyl)piperazine-1-carbonyl)picolinamide;

N-(1-(4-cyanobenzyl)piperidin-4-yl)-5-(4-(4-(trifluoromethyl)benzyl)piperazine-1-carbonyl)picolinamide

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-fluorobenzyl)pyrrolidin-3-yl)picolinamide;

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(pyridin-4-ylmethyl)pyrrolidin-3-yl)picolinamide;

(S)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-cyanobenzyl)pyrrolidin-3-yl)picolinamide;

N-(1-(4-chlorobenzyl)pyrrolidin-3-yl)-5-(4-(4-chlorophenyl)piperazine-1-carbonyl)picolinamide; or

5-(4-(4-chlorophenyl)piperazine-1-carbonyl)-*N*-(1-(4-(trifluoromethyl)benzyl)pyrrolidin-3-yl)picolinamide.

33. A pharmaceutical composition comprising:

at least one pharmaceutically acceptable carrier, diluent or excipient; and

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35. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in increasing fatty acid oxidation in a cell.

36. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in decreasing glycogen concentration in a cell.

37. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in increasing glucose uptake in a cell.

38. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in reducing triglyceride levels in a subject.

39. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in treating type II diabetes in a subject.

40. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in treating or preventing atherosclerosis or cardiovascular disease in a subject.

41. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in up-regulating ceramidase function in a cell.

42. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in decreasing ceramide concentration in a cell.

43. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in treating or preventing a disorder in which cell proliferation is deficient or desired in a subject.

44. A compound, pharmaceutically acceptable salt or *N*-oxide according to any of claims 1-32, or an effective amount of a composition according to claim 33 for use in treating or preventing a disease linked to elevated ceramide levels in a subject.