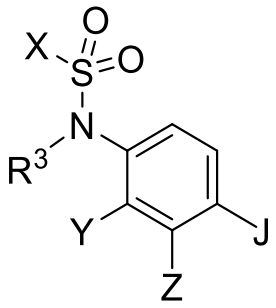
CLAIMS

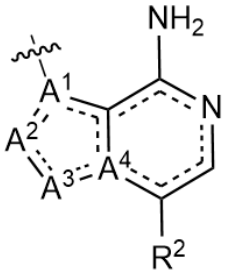
1. A compound of formula (I)



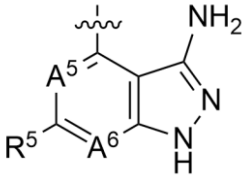
(I)

wherein

J is selected from the following moieties J1 and J2:



J1



J2

A^1 and A^4 are independently selected from N and C;

A^2 and A^3 are independently selected from N, NR^1, CH, O and S;

wherein at least one of A^1, A^2, A^3 and A^4 is selected from N, NR^1, O and S;

A^5 is CH or N;

A^6 is N or CR^2;

R^1 and R^3 are independently selected from H and an optionally substituted $C_{1\text{-}6}$-alkyl;

R^2 is selected from:

(i) H,

(ii) optionally substituted $C_{1\text{-}4}$alkylamido,

(iii) optionally substituted C_{1-4}alkylaryl,
(iv) optionally substituted C_{2-4}alkynyl,
(v) optionally substituted aryl,
(vi) optionally substituted 5- or 6-membered heterocyclyl
(vii) cyano;

X is selected from optionally substituted C_{1-6}alkyl, optionally substituted haloC_{1-6}alkyl, optionally substituted C_{2-6}alkynyl, optionally substituted cycloalkyl, optionally substituted halocycloalkyl, optionally substituted aryl, optionally substituted alkylaryl, optionally substituted C_{1-6}alkylcycloalkyl and optionally substituted amino;

Y and Z are independently selected from H, R^4 and $–OR^4$;

wherein one of Y and Z is H and the remaining one of Y and Z is selected from R^4 and $–OR^4$;

R^4 is selected from optionally substituted C_{1-6}alkyl, optionally substituted aryl, optionally substituted C_{1-6}alkylaryl, optionally substituted heterocyclyl, optionally substituted C_{1-6}alkylheterocyclyl, optionally substituted cycloalkyl, optionally substituted C_{1-6}alkylC_{3-10}cycloalkyl, optionally substituted C_{3-10}cycloalkylaryl, optionally substituted C_{3-10}cycloalkylheterocyclyl, optionally substituted C_{3-10}cycloalkylC_{3-10}cycloalkyl, optionally substituted 3-6 membered non-aromatic heterocyclyl-aryl, optionally substituted 3-6 membered non-aromatic heterocyclylC_{3-10}cycloalkyl and optionally substituted 3-6 membered non-aromatic heterocyclyl-3-10 membered heterocyclyl; and

R^5 is selected from H, optionally substituted C_{1-6}alkyl, optionally substituted C_{3-10}cycloalkyl and optionally substituted aryl;

or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof.

2. The compound of claim 1, or pharmaceutically acceptable salt, solvate, tautomer, stereoisomer and/or prodrug thereof,

wherein Y is $–OR^4$ and Z is H.

3. The compound of claim 1 or 2, or pharmaceutically acceptable salt, solvate, tautomer, stereoisomer and/or prodrug thereof,

wherein X is selected from C_{1-6}alkyl, C_{2-6}alkynyl, C_{3-6}cycloalkyl, aryl, $-(CH_2)_n$aryl, $-(CH_2)_n$cycloalkyl, and $-N(R^7)R^8$

n is 1 or 2,

wherein each alkyl and alkynyl is optionally substituted with one or more groups selected from halo, nitrile, -OR^6, -$N(R^7)R^8$;

R^6, R^7 and R^8 are independently selected from H, C_{1-6}alkyl and haloC_{1-6}alkyl, and

wherein each aryl and cycloalkyl is optionally substituted with one or more groups that are independently selected from halo, nitrile, C_{1-4}alkyl, C_{1-4}alkoxy, haloC_{1-4}alkyl and haloC_{1-4}alkoxy.

4. The compound of any one of claims 1-3, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein X is selected from C_{1-4}alkyl and C_{1-4}alkylhalo.

5. The compound of any one of claims 1-3, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein

R^4 is selected from C_{1-6}alkyl, aryl, cycloalkyl, heterocyclyl, C_{1-6}alkylC_{3-10}cycloalkyl, C_{1-6}alkylaryl and C_{1-6}alkylheterocyclyl,

wherein each alkyl is optionally substituted with one or more groups independently selected from halo, C_{1-4}alkoxy, hydroxy, nitrile, amino, C_{1-4}alkylamino, $(C_{1-4}alkyl)_2$amino, aryl, cycloalkyl and heterocyclyl;

wherein each aryl is optionally substituted with one or more groups independently selected from halo, hydroxy, nitrile, amino, C_{1-4}alkylamino and $(C_{1-4}alkyl)_2$amino, C_{1-4}alkyl, C_{1-4}alkoxy, haloC_{1-4}alkyl, haloC_{1-4}alkoxy, aryl, cycloalkyl and heterocyclyl;

wherein each cycloalkyl is optionally substituted with one or more groups independently selected from halo, hydroxy, nitrile, amino, C_{1-4}alkylamino and $(C_{1-4}alkyl)_2$amino, C_{1-4}alkyl, C_{1-4}alkoxy, haloC_{1-4}alkyl, haloC_{1-4}alkoxy, aryl, cycloalkyl and heterocyclyl; and

wherein each heterocyclyl is optionally substituted with one or more groups independently selected from halo, hydroxy, nitrile, amino, C_{1-4}alkylamino and $(C_{1-4}alkyl)_2$amino, C_{1-4}alkyl, C_{1-4}alkoxy, haloC_{1-4}alkyl, haloC_{1-4}alkoxy, cycloalkyl, heterocyclyl and aryl.

6. The compound of any one of claims 1-4, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein R^4 has partial structure (A):



(A)

wherein

R^d is selected from H, optionally substituted C_{1-4}alkyl, optionally substituted C_{1-4}alkoxy, optionally substituted C_{1-4}alkoxyC_{1-4}alkyl, optionally substituted C_{1-4}alkylhydroxy, optionally substituted C_{1-4}alkylnitrile, optionally substituted C_{1-4}alkylamino and optionally substituted $(C_{1-4}alkyl)_2$amino, optionally substituted cycloalkyl and optionally substituted C_{1-4}alkylcycloalkyl; and

R^e is selected from optionally substituted aryl, optionally substituted C_{1-5}alkylaryl, optionally substituted heterocyclyl, optionally substituted C_{1-5}alkylheterocyclyl, optionally substituted cycloalkyl, and optionally substituted C_{1-5}alkylC_{3-10}cycloalkyl.

7. The compound of claim 6, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein R^d is selected from optionally substituted C_{1-4}alkyl, and wherein the carbon atom to which R^d and R^e are attached is enriched in the (S) stereoisomer.

8. The compound of any one of claims 1-7, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein R^2 is a 5- or 6-membered heterocylyl selected from: pyrazolyl, pyridyl, tetrahydropyridyl, isozazolyl, pyrimidinyl, piperidinyl and tetrahydropyranyl,

and wherein the 5- or 6-membered heterocyclyl is optionally substituted with one or more group(s) selected from: halo, optionally substituted C_{1-6}alkyl, optionally substituted C_{3-8}cycloalkyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted C_{1-6}alkoxy, optionally substituted C_{1-6}alkyl-OH and optionally substituted C_{1-6}alkylhalo.

9. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein R^2 is a 5- or 6-membered heterocyclyl optionally substituted with one or two groups selected from: methyl, methoxy, methoxyethyl, trifluoromethyl, difluoromethyl, trifluoroethyl, isopropyl, tert-butyl, 2-hydroxyethyl, dimethylamino, cyclopentyl, oxitanyl, tetrahydrofuranyl, piperidinyl, N-methyl-piperidinyl, tetrahydropyranyl and N-methyl-piperazinyl-2-ethyl.

10. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein R^3 is H.

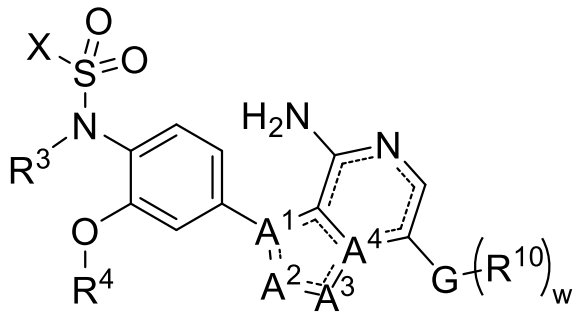
11. The compound of any one of claims 1-10, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein J is J1.

12. The compound of claim 11, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein A^1, A^2, A^3 and A^4 are selected from the following embodiments:

No.	A^1	A^2	A^3	A^4
1	C	CH	O	C
2	C	N	NMe	C
3	C	CH	N	N
4	C	N	N^{i}Pr	C
5	C	N	CH	N
6	C	N	S	C
7	C	CH	S	C
8	N	CH	N	C

13. The compound of any one of claims 1-10, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein J is J2.

14. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, provided by the following formula (IIA)



(IIA)

wherein

G is selected from:

(i) $C_{1\text{-}4}$alkylamido,

(ii) $C_{1\text{-}4}$alkylaryl,

(iii) $C_{2\text{-}4}$alkynyl,

(iv) aryl,

(v) 5- or 6-membered heterocyclyl

each R^{10} is independently selected from: halo, an optionally substituted C_{1-6}alkyl, an optionally substituted C_{3-8}cycloalkyl, an optionally substituted aryl, an optionally substituted heterocyclyl, an optionally substituted C_{1-4}alkoxy, an optionally substituted C_{1-4}alkyl-OH, an optionally substituted C_{1-4}alkylhalo, an optionally substituted C_{1-4}alkylheterocyclyl, an optionally substituted C_{1-4}alkylC_{3-8}cycloalkyl, an optionally substituted C_{1-4}alkylaryl; and

w is an integer from 0-3.

15. The compound of claim 1, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, wherein the compound is selected from:

Compound Number	**Chemical name**
1	N-(4-(4-amino-1-methyl-7-(pyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
2	N-(4-amino-3-(4-(ethylsulfonamido)-3-((4-fluorobenzyl)oxy)phenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-7-yl)acetamide
3	N-(4-(4-amino-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
4	N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
5	N-(4-(4-amino-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
6	N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
7	(S)-N-(4-(4-amino-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
8	(S)-N-(4-(4-amino-7-(1-methyl-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
9	(S)-N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
10	N-(4-(4-amino-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
11	N-(4-(4-amino-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)furo[3,2-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-2,2,2-trifluoroethane-1-sulfonamide
12	N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
13	N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
14	N-(4-(4-amino-1-methyl-7-(pyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide

15	(S)-N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
16	N-(4-(4-amino-1-methyl-7-(1-methyl-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
17	(S)-N-(4-(4-amino-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
18	(S)-N-(4-(4-amino-1-methyl-7-(pyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
19	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
20	(S)-N-(4-(4-amino-1-methyl-7-(1-methyl-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
21	(S)-N-(4-(4-amino-1-methyl-7-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
22	(S)-N-(4-(4-aminopyrazolo[1,5-a]pyrazin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
23	(S)-N-(4-(4-amino-1-methyl-7-(2-(trifluoromethyl)pyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
24	(S)-N-(4-(4-amino-1-methyl-7-(2-methylpyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
25	(S)-N-(4-(4-amino-1-methyl-7-(pyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
26	(S)-N-(4-(4-amino-1-methyl-7-(6-methylpyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
27	(S)-N-(4-(4-amino-7-(2-methoxypyridin-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
28	(S)-N-(4-(4-amino-7-(6-methoxypyridin-3-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
29	(S)-N-(4-(4-amino-7-(1-(2-methoxyethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
30	(S)-N-(4-(4-amino-7-(1-cyclopentyl-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
31	(S)-N-(4-(4-amino-7-(1-isopropyl-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
32	(S)-N-(4-(4-amino-1-methyl-7-(3-methylpyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
33	(S)-N-(4-(4-amino-7-(3,5-dimethylisoxazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
34	(S)-N-(4-(4-amino-7-benzyl-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
35	(S)-N-(4-(4-amino-7-(1-methyl-1H-pyrazol-4-yl)pyrazolo[1,5-a]pyrazin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
36	(S)-N-(4-(4-amino-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)pyrazolo[1,5-a]pyrazin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide

37	(S)-N-(4-(4-amino-7-(1-(2-hydroxyethyl)-1H-pyrazol-4-yl)pyrazolo[1,5-a]pyrazin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
38	(S)-N-(4-(4-amino-1-methyl-7-(1-(oxetan-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
39	(S)-N-(4-(4-amino-7-(pyridin-4-yl)pyrazolo[1,5-a]pyrazin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
40	(S)-N-(4-(4-amino-1-methyl-7-(pyrimidin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
41	N-(4-(4-amino-1-methyl-7-(1-(tetrahydrofuran-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
42	(S)-N-(4-(4-amino-1-methyl-7-(1-methylpiperidin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
43	(S)-N-(4-(4-amino-7-(3,6-dihydro-2H-pyran-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
44	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-2,2,2-trifluoroethane-1-sulfonamide
45	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)ethanesulfonamide
46	(S)-N-(4-(4-amino-1-methyl-7-(1-(1-methylpiperidin-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
47	(S)-N-(4-amino-3-(4-((difluoromethyl)sulfonamido)-3-(1-(4-fluorophenyl)ethoxy)phenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-7-yl)acetamide
48	(S)-N-(4-(4-amino-7-(2-(tert-butyl)pyridin-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
49	(S)-N-(4-(4-amino-7-(2-(dimethylamino)pyridin-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
50	(S)-N-(4-(4-amino-1-isopropyl-7-(pyridin-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
51	(S)-N-(4-(4-amino-1-isopropyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
52	(S)-N-(4-(4-amino-1-isopropyl-7-(1-methyl-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
53	(S)-N-(4-(4-amino-1-isopropyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
54	(S)-N-(4-(4-amino-1-methyl-7-(1,2,5,6-tetrahydropyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
55	(S)-N-(4-(4-amino-1-methyl-7-(1-methyl-1,2,5,6-tetrahydropyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
56	(S)-N-(4-(4-amino-1-methyl-7-(prop-1-yn-1-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
57	(S)-N-(4-(4-amino-7-(2-(difluoromethyl)pyridin-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide

58	(S)-N-(4-(4-amino-1-methyl-7-((tetrahydro-2H-pyran-4-yl)ethynyl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
59	(S)-N-(4-(4-amino-1-methyl-7-(1-(piperidin-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
60	(S)-N-(4-(4-amino-1-methyl-7-(1-(2-(4-methylpiperazin-1-yl)ethyl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
61	(S)-N-(4-(4-amino-1-methyl-7-(1-(1-(2,2,2-trifluoroethyl)piperidin-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
62	N-(4-(3-amino-1H-indazol-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
63	N-(4-(8-aminoimidazo[1,5-a]pyrazin-1-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
64	N-(4-(4-aminopyrazolo[1,5-a]pyrazin-3-yl)-2-((4-fluorobenzyl)oxy)phenyl)ethanesulfonamide
65	N-(4-(3-amino-1H-pyrazolo[4,3-c]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-2,2,2-trifluoroethane-1-sulfonamide
66	N-(4-(3-amino-1H-pyrazolo[3,4-b]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
67	N-(4-(3-amino-1H-pyrazolo[3,4-b]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-2,2,2-trifluoroethane-1-sulfonamide
68	N-(4-(3-amino-1H-pyrazolo[4,3-c]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
69	N-(4-(3-amino-1H-pyrazolo[3,4-d]pyrimidin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
70	N-(4-(3-amino-6-methyl-1H-pyrazolo[3,4-b]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
71	N-(4-(3-amino-6-phenyl-1H-pyrazolo[3,4-b]pyridin-4-yl)-2-((4-fluorobenzyl)oxy)phenyl)-1,1-difluoromethanesulfonamide
72	(S)-N-(4-(3-amino-1H-pyrazolo[3,4-b]pyridin-4-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
73	N-(4-(4-amino-1-methyl-7-(1-(8-methyl-8-azabicyclo[3.2.1]octan-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
74	N-(4-(4-amino-7-(1-(azepan-4-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
75	(S)-N-(4-(4-amino-7-(1-(2-(3,3-dimethylazetidin-1-yl)ethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
76	(S)-N-(4-(4-amino-7-(1-(1-isopropylazetidin-3-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
77	(S)-N-(4-(4-amino-1-methyl-7-(1-(1-(2,2,2-trifluoroethyl)azetidin-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide

78	(S)-N-(4-(7-(1-(2-azaspiro[3.3]heptan-6-yl)-1H-pyrazol-4-yl)-4-amino-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
79	(S)-N-(4-(4-amino-1-methyl-7-(piperidin-4-ylethynyl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
80	(S)-N-(4-(4-amino-1-methyl-7-((1-methylpiperidin-4-yl)ethynyl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
81	2-(4-(4-amino-3-(4-((difluoromethyl)sulfonamido)-3-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-7-yl)-1H-pyrazol-1-yl)-N-isopropyl-N-methylpropanamide
82	(S)-N-(4-(4-amino-1-methyl-7-(1-(2-(methylamino)ethyl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
83	(S)-N-(4-(4-amino-7-(5-cyano-1-methyl-1H-pyrrol-3-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
84	(S)-N-(4-(4-amino-7-(3-chlorophenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
85	(S)-N-(4-(4-amino-7-(2-chlorophenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
86	(S)-N-(4-(4-amino-1-methyl-7-phenyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
87	(S)-N-(4-(4-amino-7-(4-chlorophenyl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
88	N-(4-(4-amino-1-methyl-7-(1-(pyrrolidin-2-ylmethyl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
89	(S)-N-(4-(4-amino-7-(1-(1-(aminomethyl)cyclopropyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
90	(S)-N-(4-(4-amino-1-methyl-7-(4,5,6,7-tetrahydropyrazolo[1,5-a]pyrazin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
91	(S)-N-(4-(4-amino-1-methyl-7-(5-methyl-4,5,6,7-tetrahydropyrazolo[1,5-a]pyrazin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
92	(S)-N-(4-(4-amino-1-methyl-7-(1-(1-methylazetidin-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
93	N-(4-(4-amino-1-methyl-7-(1-(1-methylpyrrolidin-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
94	(S)-N-(4-(4-amino-7-(1-(azetidin-3-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
95	N-(4-(4-amino-1-methyl-7-(1-((3R,5R)-5-methylpiperidin-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
96	rac-(R)-N-(4-(4-amino-7-(1-(1-cyanocyclopropyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide

97	(S)-N-(4-(4-amino-7-(1-(1-hydroxy-2-methylpropan-2-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
98	(S)-N-(4-(4-amino-7-(1-(3-(cyanomethyl)oxetan-3-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
99	(S)-N-(4-(4-amino-1-methyl-7-(1-(2-methyl-2-azaspiro[3.3]heptan-6-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
100	(S)-N-(4-(4-amino-7-(1-(2-(dimethylamino)ethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
101	N-(4-(4-amino-7-(1-(1-(isopropyl(methyl)amino)propan-2-yl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
102	N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)-2-methoxyethoxy)phenyl)-1,1-difluoromethanesulfonamide
103	(S)-N-(4-(4-amino-1-methyl-7-(1-(1-(methyl-d3)piperidin-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
104	N-(4-(4-amino-1-methyl-7-(1-(1,6,6-trimethylpiperidin-3-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
105	(S)-N-(4-(4-amino-1-methyl-7-(2-(4-methylpiperazin-1-yl)pyrimidin-5-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
106	(S)-N-(4-(4-amino-7-(2-(dimethylamino)pyrimidin-5-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
107	(S)-N-(4-(4-amino-1-methyl-7-(6-(4-methylpiperazin-1-yl)pyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
108	(S)-N-(4-(4-amino-7-(2-aminopyrimidin-5-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
109	(S)-N-(4-(7-(1-(1-acetylpiperidin-4-yl)-1H-pyrazol-4-yl)-4-amino-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
110	(S)-N-(4-(4-amino-1-methyl-7-(2-morpholinopyrimidin-5-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
111	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)-2-methoxyethoxy)phenyl)-1,1-difluoromethanesulfonamide
112	(R)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)-2-methoxyethoxy)phenyl)-1,1-difluoromethanesulfonamide
113	N-(4-(4-amino-1-methyl-7-(1-(1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
114	(S)-N-(4-(4-amino-1-methyl-7-(2-(pyrrolidin-1-yl)pyrimidin-5-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide

115	(S)-N-(4-(4-amino-1-methyl-7-(6-morpholinopyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
116	(S)-N-(4-(4-amino-1-methyl-7-(1-(2,2,2-trifluoroethyl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
117	(S)-N-(4-(4-amino-1-methyl-7-(6-(trifluoromethyl)pyridin-3-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
118	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(2-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
119	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)methanesulfonamide
120	N-(4-{4-amino-7-[1-(3,3-difluorocyclopentyl)-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl}-2-[(1S)-1-(4-fluorophenyl)ethoxy]phenyl)-1,1-difluoromethanesulfonamide
121	(R)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
122	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(3-chlorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
123	(S)-N-(4-(4-amino-7-(1-(difluoromethyl)-1H-pyrazol-4-yl)-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
124	3-{4-[(dimethylsulfamoyl)amino]-3-[(1S)-1-(4-fluorophenyl)ethoxy]phenyl}-1-methyl-7-[1-(oxan-4-yl)-1H-pyrazol-4-yl]-1H-pyrazolo[4,3-c]pyridin-4-amine
125	(S)-N-(4-(4-amino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1-phenylmethanesulfonamide
126	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-methyl-1H-pyrrol-3-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
127	(S)-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1-phenylmethanesulfonamide
128	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-((1-(2,2,2-trifluoroethyl)piperidin-4-yl)ethynyl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
129	(S)-1,1-difluoro-N-(4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-methoxyphenyl)ethoxy)phenyl)methanesulfonamide
130	N-(2-((3-chlorobenzyl)oxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
131	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(3,3,3-trifluoropropyl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
132	N-(2-((4-chloro-3-fluorobenzyl)oxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide

133	(S)-N-(4-(4-amino-7-cyano-1-methyl-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
134	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(trifluoromethyl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
135	1,1-difluoro-N-(3-((3-fluorobenzyl)oxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
136	N-(2-((5-chloropyridin-2-yl)methoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
137	(S)-N-(2-(1-(4-chlorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
138	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(2-(methylimino)-1,2-dihydropyrimidin-5-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
139	1,1-difluoro-N-(2-(1-(4-fluorophenyl)-2-methoxyethoxy)-4-(4-imino-1-methyl-7-(1-(1-methylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
140	1,1-difluoro-N-(2-(1-(4-fluorophenyl)cyclopropoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
141	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-morpholino-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
142	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(1,1,1-trifluoropropan-2-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
143	1,1-difluoro-N-(4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(thiazol-2-ylmethoxy)phenyl)methanesulfonamide
144	1,1-difluoro-N-(4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-isopropoxyphenyl)methanesulfonamide
145	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(4-methyl-4-azaspiro[2.5]octan-7-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
146	(S)-N-(4-(7-(1-(4,4-difluorocyclohexyl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
147	N-(4-(7-(1-(1,2-dimethylazetidin-3-yl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
148	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(1-methyl-2-(trifluoromethyl)piperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
149	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(2-(trifluoromethyl)piperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide

150	N-(2-(cyclohexylmethoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
151	1,1-difluoro-N-(4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(oxazol-2-ylmethoxy)phenyl)methanesulfonamide
152	N-(4-(7-(1-(2,2-dimethyl-1-(methyl-d3)piperidin-4-yl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
153	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(8-(2,2,2-trifluoroethyl)-8-azabicyclo[3.2.1]octan-3-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
154	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-((R)-1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
155	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-((S)-1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
156	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(3-methyl-1-(1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
157	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(5-methyl-1-(1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
158	N-(4-(7-(1-(2-(difluoromethyl)-1-methylpiperidin-4-yl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
159	N-(2-((S)-1-(4-chlorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(1,2,2-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
160	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(7-(2-hydroxy-1-methyl-1H-benzo[d]imidazol-6-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
161	(S)-N-(4-(7-(1,3-dimethyl-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-5-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-(1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
162	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-(1,2,2,6,6-pentamethylpiperidin-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
163	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-((3aR,6aS)-octahydrocyclopenta[c]pyrrol-5-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
164	1,1-difluoro-N-(2-((S)-1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-((3aR,6aS)-2-methyloctahydrocyclopenta[c]pyrrol-5-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
165	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-methyl-2-oxoindolin-5-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide
166	(S)-1,1-difluoro-N-(2-(1-(4-fluorophenyl)ethoxy)-4-(4-imino-1-methyl-7-(1-methyl-1H-indazol-5-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)methanesulfonamide

167	N-(4-(7-(1-(2,2-dimethyl-1-(2,2,2-trifluoroethyl)piperidin-4-yl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
168	N-(4-(7-(1-(3-(dimethylamino)cyclopentyl)-1H-pyrazol-4-yl)-4-imino-1-methyl-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
169	N-(2-(benzo[d][1,3]dioxol-5-ylmethoxy)-4-(4-imino-1-methyl-7-(1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-4,5-dihydro-1H-pyrazolo[4,3-c]pyridin-3-yl)phenyl)-1,1-difluoromethanesulfonamide
170	N-(4-(4-amino-1-methyl-7-(1-((S*)-4-methyl-4-azaspiro[2.5]octan-7-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
171	N-(4-(4-amino-1-methyl-7-(1-((R*)-4-methyl-4-azaspiro[2.5]octan-7-yl)-1H-pyrazol-4-yl)-1H-pyrazolo[4,3-c]pyridin-3-yl)-2-((S)-1-(4-fluorophenyl)ethoxy)phenyl)-1,1-difluoromethanesulfonamide
172	N-(4-{4-amino-1-methyl-7-[1-(1,3,5-trimethylpiperidin-4-yl)-1H-pyrazol-4-yl]-1H-pyrazolo[4,3-c]pyridin-3-yl}-2-[(1S)-1-(4-fluorophenyl)ethoxy]phenyl)-1,1-difluoromethanesulfonamide
173	4-(4-{4-amino-3-[4-(difluoromethanesulfonamido)-3-[(1S)-1-(4-fluorophenyl)ethoxy]phenyl]-1-methyl-1H-pyrazolo[4,3-c]pyridin-7-yl}-1H-pyrazol-1-yl)cyclohexane-1-carboxylic acid

16. A medicament comprising a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof.

17. A pharmaceutical composition comprising a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, and a pharmaceutically acceptable excipient.

18. Use of a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, in the manufacture of a medicament for treating necroptosis.

19. Use of a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof, in the manufacture of a medicament for treating and/or preventing one or more disease(s), condition(s) and/or disorder(s) selected from:

- a disease, condition and/or disorder of the bones, joints, connective tissue and of cartilage;
- a muscular disease, condition and/or disorder;
- a disease, condition and/or disorder of the skin;

- a cardiovascular disease, condition and/or disorder;
- a circulatory disease, condition and/or disorder;
- a haematological and vascular disease, condition and/or disorder;
- a lung disease, condition and/or disorder;
- a disease, condition and/or disorder of the gastro-intestinal tract;
- a disease, condition and/or disorder of the liver;
- a disease, condition and/or disorder of the pancreas;
- a metabolic disease, condition and/or disorder;
- a disease, condition and/or disorder of the kidneys such as acute renal disorders (such as acute kidney injury (AKI), including ischaemic reperfusion injury (IRI)) or glomerulonephritis;
- a viral and/or bacterial infection;
- a severe intoxication by a chemical, toxin or drug;
- a degenerative disease associated with the Acquired Immune Deficiency Syndrome (AIDS);
- a disorder associated with aging;
- an inflammatory disease, condition and/or disorder;
- an auto-immune disease, condition and/or disorder;
- a dental disease, condition and/or disorder resulting in degradation of tissues;
- an ophthalmic disease, condition and/or disorder;
- a disease, condition and/or disorder of the audition tracts;
- an ischemic reperfusion injury;
- neuronal loss;

- a disease, condition and/or disorder associated with mitochondria;
- a cancer and/or metastasis; and
- a disease, condition and/or disorder of the central nervous system (CNS).

20. The use of claim 19, wherein:

- the disease, condition and/or disorder of the bones, joints, connective tissue and of cartilage is selected from the group consisting of osteoporosis, osteomyelitis including chronic recurrent multifocal osteomyelitis, arthritises including osteoarthritis, rheumatoid arthritis and psoriatic arthritis, avascular necrosis, progressive fibrodysplasia ossificans, rickets, and Cushing's syndrome;
- the muscular disease, condition and/or disorder is selected from the group consisting of muscular dystrophy, including Duchenne's muscular dystrophy, myotonic dystrophies, myopathies and myasthenias;
- the disease, condition and/or disorder of the skin is selected from the group consisting of dermatitis, eczema, psoriasis, aging and alterations of scarring;
- the cardiovascular disease, condition and/or disorder is selected from the group consisting of cardiac and/or vascular ischemia, myocardial infarction, ischemic cardiopathy, chronic or acute congestive heart failure, cardiac dysrythmia, atrial fibrillation, ventricular fibrillation, paroxystic tachycardia, congestive heart failure, hypertrophic cardiopathy, anoxia, hypoxia, and secondary effects due to therapies with anti-cancer agents;
- the circulatory disease, condition and/or disorder is selected from the group consisting of atherosclerosis, arterial scleroses and a peripheral vascular disease, a stroke including a cerebrovascular stroke, and an aneurism;
- the haematological and vascular disease, condition and/or disorder is selected from the group consisting of anemia, aplastic anemia, vascular amyloidosis, haemorrhages, drepanocytosis, red cell fragmentation syndrome, neutropenia, leukopenia, medullar aplasia, pantocytopenia, thrombocytopenia, haemophilia;
- the lung disease, condition and/or disorder is selected from the group consisting of pneumonia, asthma; and an obstructive chronic disease of the lungs including chronic obstructive pulmonary disease (COPD), chronic bronchitis and emphysema;
- the disease, condition and/or disorder of the gastro-intestinal tract is selected from an ulcer; and an inflammatory bowel disease (IBD), including Crohn’s disease, and ulcerative colitis;
- the disease, condition and/or disorder of the liver is selected from the group consisting of hepatitis particularly hepatitis of viral origin or having as causative agent other infectious

agents, auto-immune hepatitis, fulminating hepatitis, inflammatory hepatitis, certain hereditary metabolic disorders, Wilson's disease, cirrhoses, non-alcoholic fatty liver disease (NAFLD) including non-alcoholic hepatic steatosis and/or non-alcoholic steatohepatitis (NASH), a disease of the liver due to toxins and to drugs such as drug-induced liver injury, and ethanol (or alcohol)-induced liver disease;

- the disease, condition and/or disorder of the pancreas is selected from the group consisting of acute or chronic pancreatitis;
- the metabolic disease, condition and/or disorder is selected from the group consisting of diabetes, including diabetes mellitus, pre-diabetes and insipid diabetes; and thyroiditis;
- the disease, condition and/or disorder of the kidneys is selected from the group consisting of an acute renal disorder, and an acute kidney injury (AKI), including ischaemic reperfusion injury (IRI)) and glomerulonephritis;
- the viral and/or bacterial infection is septicemia;
- the disorder associated with aging is the syndrome of accelerated aging;
- the inflammatory disease, condition and/or disorder is selected from the group consisting of Terminal ileitis including Crohn's disease, rheumatoid polyarthritis, and TNF-induced systemic inflammatory syndrome;
- the auto-immune disease, condition and/or disorder is selected from the group consisting of erythematous lupus, including systemic lupus erythematosus, and cleavage-resistant RIPK1-induced autoinflammatory (CRIA) syndrome;
- the dental disease, condition and/or disorder resulting in degradation of tissues is periodontitis;
- the ophthalmic disease, condition and/or disorder is selected from diabetic retinopathy, glaucoma, macular degeneration, retinal degeneration, retinitis pigmentosa, a retinal hole or tear, retinal detachment, retinal ischemia, acute retinopathies associated with trauma, inflammatory degeneration, post-surgical complication, medicinal retinopathy, a cataract, and cone cell degeneration;
- the disease, condition and/or disorder of the audition tracts is selected from the group consisting of otosclerosis and deafness induced by antibiotics;
- the ischemic reperfusion injury is retinal ischaemic reperfusion injury;
- the neuronal loss is selected from the group consisting of Alzheimer’s disease and a neurodegenerative disease including amyotrophic lateral sclerosis (ALS; also referred to as motor neuron disease (MND) and Charcot disease);
- the disease, condition and/or disorder associated with mitochondria is a mitochondrial pathology selected from the group consisting of Friedrich's ataxia, congenital muscular dystrophy with structural mitochondrial abnormality, MELAS syndrome, MERFF

syndrome, Pearson's syndrome, MIDD (mitochondrial diabetes and deafness) syndrome, Wolfram's syndrome, and dystonia;

- the cancer and/or metastasis is selected from the group consisting of a cancer of the lung and bronchus, including non-small cell lung cancer (NSCLC), squamous lung cancer, brochioloalveolar carcinoma (BAC), adenocarcinoma of the lung, and small cell lung cancer (SCLC); prostate cancer, including androgen-dependent and androgen-independent prostate cancer; breast cancer, including metastatic breast cancer; pancreatic cancer; cancers of the colon and rectum; thyroid cancer; a cancer of the liver and intrahepatic bile duct; hepatocellular cancer; gastric cancer; endometrial cancer; melanoma; a cancer of the kidney, renal pelvis, urinary bladder, uterine corpus and uterine cervix; ovarian cancer, including progressive epithelial or primary peritoneal cancer; multiple myeloma; oesophageal cancer, including squamous cell carcinoma and adenocarcinoma of the oesophagus; acute myelogenous leukemia (AML); chronic myelogenous leukemia (CML), including accelerated CML and CML blast phase (CML-BP); lymphocytic leukemia; myeloid leukemia; acute lymphoblastic leukemia (ALL); chronic lymphocytic leukemia (CLL); Hodgkin's disease (HD); non- Hodgkin's lymphoma (NHL), including follicular lymphoma and mantle cell lymphoma; B-cell lymphoma, including diffuse large B-cell lymphoma (DLBCL); T-cell lymphoma; multiple myeloma (MM); amyloidosis; Waldenstrom's macroglobulinemia; myelodysplastic syndromes (MDS), including refractory anemia (RA), refractory anemia with ringed siderblasts (RARS), (refractory anemia with excess blasts (RAEB), and RAEB in transformation (RAEB-T); and myeloproliferative syndromes; cancers of the brain, including glioma/glioblastoma, anaplastic oligodendroglioma, and adult anaplastic astrocytoma; neuroendocrine cancers, including metastatic neuroendocrine tumors; a cancer of the head and neck, including squamous cell carcinoma of the head and neck, and nasopharyngeal cancer; a cancer of the oral cavity, pharynx and small intestine; bone cancer; soft tissue sarcoma; and villous colon adenoma; and
- the disease, condition and/or disorder of the central nervous system (CNS) is multiple sclerosis (MS).

21. A method of inhibiting mixed lineage kinase domain-like protein (MLKL), comprising contacting a cell with a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof.

22. A MLKL inhibitor comprising a compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, tautomer, N-oxide, stereoisomer and/or prodrug thereof.